

# PART 1 - GENERAL (GEN)

## GEN 0 INTRODUCTION

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### GEN 0.1 Preface

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#### 1 NAME OF THE PUBLISHING AUTHORITY

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The AIP of the Kingdom of Belgium (hereinafter "Belgium") and the Grand Duchy of Luxembourg (hereinafter "Luxembourg") is published by AIM Belgium under the authority of the Belgian and Luxembourg Civil Aviation Authority and Belgian Defence respectively.

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#### 2 APPLICABLE ICAO DOCUMENTS

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The AIP is prepared in accordance with the SARPS of *ICAO Annex 15*, *ICAO PANS-AIM (Doc 10066)* and *ICAO Doc 8126*. Charts contained in the AIP are produced in accordance with *ICAO Annex 4* and *ICAO Doc 8697*. Differences from ICAO SARPS and Procedures are given in subsection GEN 1.7.

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#### 3 AIP STRUCTURE AND ESTABLISHED REGULAR AMENDMENT INTERVAL

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##### 3.1 AIP Structure

The AIP forms part of the aeronautical information products, details of which are given in subsection GEN 3.1. The AIP is made up of three parts, General (GEN), En-route (ENR) and Aerodromes (AD), each divided into sections and subsections as applicable, containing various types of information subjects.

##### 3.1.1 Part 1 - General (GEN)

Part 1 consists of five sections containing information as briefly described hereafter.

- **GEN 0, Introduction:**  
Preface; Record of AIP amendments; Record of AIP supplements; Checklist of AIP pages; List of hand amendments to the AIP; Table of contents to Part 1.
- **GEN 1, National Regulations and Requirements:**  
Designated authorities; Entry, transit and departure of aircraft; Entry, transit and departure of passengers and crew; Entry, transit and departure of cargo; Aircraft instruments, equipment and flight documents; Summary of national regulations and international agreements/conventions; Differences from ICAO Standards, Recommended Practices and Procedures.
- **GEN 2, Tables and Codes:**  
Measuring system, aircraft markings, holidays; Abbreviations used in AIS publications; Chart symbols; Location indicators; List of radio navigation aids; Conversion of units of measurement; Sunrise/sunset.
- **GEN 3, Services:**  
Aeronautical information services; Aeronautical charts; Air traffic services; Communication services; Meteorological services; Search and rescue.
- **GEN 4, Charges for Aerodromes/Heliports and Air Navigation Services:**  
Aerodrome/heliport charges; Air navigation services charges.

##### 3.1.2 Part 2 - En-route (ENR)

Part 2 consists of seven sections containing information as briefly described hereafter.

- **ENR 0, Introduction:**  
Table of contents to Part 2.
- **ENR 1, General Rules and Procedures:**  
General rules; Visual flight rules; Instrument flight rules; ATS airspace classification and description; Holding, approach and departure procedures; ATS surveillance services and procedures; Altimeter setting procedures; Regional supplementary procedures; Air traffic flow management and airspace management; Flight planning; Addressing of flight plan messages; Interception of civil aircraft; Unlawful interference; Air traffic incidents.

- **ENR 2, Air Traffic Services Airspace:**  
FIR, UIR, TMA and CTA; Other regulated airspace.
- **ENR 3, ATS Routes:**  
Conventional navigation routes; Area navigation routes; Other routes; En-route holding.
- **ENR 4, Radio Navigation Aids/Systems:**  
Radio navigation aids – en-route; Special navigation systems; Global navigation satellite system (GNSS); Name-code designators for significant points; Aeronautical ground lights – en-route.
- **ENR 5, Navigation Warnings:**  
Prohibited, restricted and danger areas; military exercise and training areas and air defence identification zone (ADIZ); Other activities of a dangerous nature and other potential hazards; Air navigation obstacles; Aerial sporting and recreational activities; Bird migration and areas with sensitive fauna.
- **ENR 6, En-route Charts:**  
En-route charts and index charts.

### 3.1.3 Part 3 - Aerodromes (AD)

Part 3 consists of four sections containing information as briefly described hereafter.

- **AD 0, Introduction:**  
Table of contents to Part 3.
- **AD 1, Aerodromes/Heliports - Introduction:**  
Aerodrome/heliport availability and conditions of use; Rescue and fire fighting services and snow plan; Index to aerodromes and heliports; Grouping of aerodromes/heliports; Status of certification of aerodromes
- **AD 2, Aerodromes:**  
Detailed information about aerodromes, including helicopter landing areas, if located at the aerodromes.
- **AD 3, Heliports:**  
Detailed information about heliports not located at aerodromes.

## 3.2 Regular Amendment Interval

Regular amendments to the AIP are issued every four weeks according to the schedule published yearly in SUP.

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## 4 SERVICES TO CONTACT IN CASE OF DETECTED AIP ERRORS OR OMISSIONS

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In the compilation of the AIP, care has been taken to ensure that the information contained therein is accurate and complete. Any errors and omissions which may nevertheless be detected, as well as any correspondence concerning the aeronautical information products, should be referred to:

Post: AIM Belgium  
AIP Office  
Control Tower  
Tervuursesteenweg 303  
1820 Steenokkerzeel  
BELGIUM

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*Note: Any requests concerning aeronautical information within the responsibilities of Luxembourg will be forwarded to ANA AIM.*

## GEN 0.2 Record of AIP Amendments

| AIP AMENDMENT |                  |               |             |
|---------------|------------------|---------------|-------------|
| NR/Year       | Publication date | Date inserted | Inserted by |
| 001/2022      | 13-Jan-2022      | 27-Jan-2022   |             |
| 002/2022      | 10-Feb-2022      | 24-Feb-2022   |             |
| 003/2022      | 10-Mar-2022      | 24-Mar-2022   |             |
| 004/2022      | 07-Apr-2022      | 21-Apr-2022   |             |
| 005/2022      | 05-May-2022      | 19-May-2022   |             |
| 006/2022      | 02-Jun-2022      | 16-Jun-2022   |             |
| 007/2022      | 30-Jun-2022      | 14-Jul-2022   |             |
| 008/2022      | 28-Jul-2022      | 11-Aug-2022   |             |
| 009/2022      | 25-Aug-2022      | 08-Sep-2022   |             |
| 010/2022      | 22-Sep-2022      | 06-Oct-2022   |             |
| 011/2022      | 20-Oct-2022      | 03-Nov-2022   |             |
| 012/2022      | 17-Nov-2022      | 01-Dec-2022   |             |
| 013/2022      | 15-Dec-2022      | 29-Dec-2022   |             |
| 001/2023      | 12-Jan-2023      | 26-Jan-2023   |             |
| 002/2023      | 09-Feb-2023      | 23-Feb-2023   |             |
| 003/2023      | 09-Mar-2023      | 23-Mar-2023   |             |
| 004/2023      | 06-Apr-2023      | 20-Apr-2023   |             |
| 005/2023      | 04-May-2023      | 18-May-2023   |             |
| 006/2023      | 01-Jun-2023      | 15-Jun-2023   |             |
| 007/2023      | 29-Jun-2023      | 13-Jul-2023   |             |
| 008/2023      | 27-Jul-2023      | 10-Aug-2023   |             |
| 009/2023      | 24-Aug-2023      | 07-Sep-2023   |             |
| 010/2023      | 21-Sep-2023      | 05-Oct-2023   |             |
| 011/2023      | 19-Oct-2023      | 02-Nov-2023   |             |
| 012/2023      | 16-Nov-2023      | 30-Nov-2023   |             |
| 013/2023      | 14-Dec-2023      | 28-Dec-2023   |             |
| 001/2024      | 11-Jan-2024      | 25-Jan-2024   |             |
| 002/2024      | 08-Feb-2024      | 22-Feb-2024   |             |
| 003/2024      | 07-Mar-2024      | 21-Mar-2024   |             |
| 004/2024      | 04-Apr-2024      | 18-Apr-2024   |             |
| 005/2024      | 02-May-2024      | 16-May-2024   |             |

| AIRAC AMENDMENT |                  |                |             |
|-----------------|------------------|----------------|-------------|
| NR/Year         | Publication date | Effective date | Inserted by |
| 001/2022        | 16-Dec-2021      | 27-Jan-2022    |             |
| 002/2022        | 13-Jan-2022      | 24-Feb-2022    |             |
| 003/2022        | 10-Feb-2022      | 24-Mar-2022    |             |
| 004/2022        | 10-Mar-2022      | 21-Apr-2022    |             |
| 005/2022        | 07-Apr-2022      | 19-May-2022    |             |
| 006/2022        | 02-Jun-2022      | 14-Jul-2022    |             |
| 007/2022        | 30-Jun-2022      | 11-Aug-2022    |             |
| 008/2022        | 28-Jul-2022      | 08-Sep-2022    |             |

| AIRAC AMENDMENT |                  |                |             |
|-----------------|------------------|----------------|-------------|
| NR/Year         | Publication date | Effective date | Inserted by |
| 009/2022        | 25-Aug-2022      | 06-Oct-2022    |             |
| 010/2022        | 22-Sep-2022      | 03-Nov-2022    |             |
| 011/2022        | 20-Oct-2022      | 01-Dec-2022    |             |
| 012/2022        | 17-Nov-2022      | 29-Dec-2022    |             |
| 001/2023        | 15-Dec-2022      | 26-Jan-2023    |             |
| 002/2023        | 12-Jan-2023      | 23-Feb-2023    |             |
| 003/2023        | 09-Feb-2023      | 23-Mar-2023    |             |
| 004/2023        | 06-Apr-2023      | 18-May-2023    |             |
| 005/2023        | 04-May-2023      | 15-Jun-2023    |             |
| 006/2023        | 01-Jun-2023      | 13-Jul-2023    |             |
| 007/2023        | 29-Jun-2023      | 10-Aug-2023    |             |
| 008/2023        | 27-Jul-2023      | 07-Sep-2023    |             |
| 009/2023        | 24-Aug-2023      | 05-Oct-2023    |             |
| 010/2023        | 21-Sep-2023      | 02-Nov-2023    |             |
| 011/2023        | 19-Oct-2023      | 30-Nov-2023    |             |
| 012/2023        | 16-Nov-2023      | 28-Dec-2023    |             |
| 001/2024        | 14-Dec-2023      | 25-Jan-2024    |             |
| 002/2024        | 11-Jan-2024      | 22-Feb-2024    |             |
| 003/2024        | 08-Feb-2024      | 21-Mar-2024    |             |
| 004/2024        | 07-Mar-2024      | 18-Apr-2024    |             |
| 005/2024        | 04-Apr-2024      | 16-May-2024    |             |

## GEN 0.3 Record of AIP Supplements

| NR/Year  | Subject                                                                                                   | AIP section(s) affected | Period of validity                | Cancellation record |
|----------|-----------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------|---------------------|
| 001/2022 | Restrictions related to Belarus                                                                           | ENR                     | From 27 JAN 2022                  |                     |
| 008/2022 | EBBR - Unavailability of tracking / monitoring RPAS in CTR                                                | AD                      | From 24 FEB 2022                  |                     |
| 013/2022 | EBZH - Obstacles and Restrictions                                                                         | AD                      | From 24 FEB 2022                  |                     |
| 014/2022 | EBSP - Restrictions due to works                                                                          | AD                      | From 24 FEB 2022                  |                     |
| 016/2022 | EBEB - EVERGEM / Belzele                                                                                  | AD                      | From 24 FEB 2022                  |                     |
| 060/2022 | Restrictions related to the Russian Invasion of Ukraine                                                   | GEN / ENR               | From 08 SEP 2022                  |                     |
| 071/2022 | EBAW - Temporary Obstacles                                                                                | AD                      | From 29 DEC 2022 till 01 SEP 2024 |                     |
| 007/2023 | EBLG - Temporary Obstacle                                                                                 | AD                      | From 22 JAN 2023 till 31 DEC 2025 |                     |
| 014/2023 | Temporary Obstacles in the vicinity of ELLX                                                               | AD                      | From 23 MAR 2023                  |                     |
| 015/2023 | Temporary Obstacles in the vicinity of ELLX                                                               | AD                      | From 23 MAR 2023                  |                     |
| 019/2023 | Military Invasion of Ukraine by Russian Federation                                                        | ENR                     | From 20 APR 2023                  |                     |
| 022/2023 | Wind Measurement Mast - Wardin                                                                            | ENR                     | From 20 APR 2023 till 13 MAR 2025 |                     |
| 024/2023 | Temporary Obstacles at EBGT                                                                               | AD                      | From 18 MAY 2023 till 31 DEC 2024 |                     |
| 026/2023 | EBOS - Instrument Approach Charts                                                                         | AD                      | From 18 MAY 2023                  |                     |
| 028/2023 | EBLG - Temporary Obstacle                                                                                 | AD                      | From 18 MAY 2023                  |                     |
| 029/2023 | EBOS - Temporary Obstacle                                                                                 | AD                      | From 18 MAY 2023 till 30 MAR 2025 |                     |
| 030/2023 | EBOS - Temporary Obstacles                                                                                | AD                      | From 18 MAY 2023 till 30 JUN 2024 |                     |
| 032/2023 | Wind Measurement Mast - Saint-Ode                                                                         | ENR                     | From 18 MAY 2023                  |                     |
| 033/2023 | Wind Measurement Mast - Vaux-sur-Sûre                                                                     | ENR                     | From 18 MAY 2023                  |                     |
| 037/2023 | Wind Measurement Mast - Bastogne                                                                          | ENR                     | From 15 JUN 2023 till 06 MAR 2025 |                     |
| 039/2023 | Wind Measurement Mast - Nassogne                                                                          | ENR                     | From 15 JUN 2023                  |                     |
| 043/2023 | EBCI - Temporary Obstacles due to Construction Works - rue G. Lemaitre - Gosselies                        | AD                      | From 13 JUL 2023                  |                     |
| 044/2023 | Wind Measurement Mast - Quévy                                                                             | ENR                     | From 13 JUL 2023 till 30 JUN 2024 |                     |
| 051/2023 | Obstacle due to construction Works near EBBR - Auguste Renoir - Evere                                     | AD                      | From 10 AUG 2023 till 30 MAY 2024 |                     |
| 053/2023 | EBLG - Renewal Concrete TWY A between S3 and S5                                                           | AD                      | From 07 SEP 2023                  |                     |
| 058/2023 | Obstacles due to Construction Works near EBBR - THE CUBE - MACHELEN                                       | AD                      | From 05 OCT 2023 till 30 APR 2025 |                     |
| 059/2023 | EBAW - RNAV1/RNP1 SID RWY 11                                                                              | AD                      | From 05 OCT 2023 till 03 OCT 2024 |                     |
| 066/2023 | CBA 1T                                                                                                    | ENR                     | From 30 NOV 2023 till 28 NOV 2024 |                     |
| 068/2023 | EBBR - IAP RWY 25R increased OCA Due to Obstacles                                                         | AD                      | From 30 NOV 2023 till 28 FEB 2024 |                     |
| 069/2023 | AIP Publication Schedule 2024                                                                             | GEN                     | From 30 NOV 2023 till 31 DEC 2024 |                     |
| 070/2023 | EBEU - Restrictions due to Obstacle                                                                       | AD                      | From 30 NOV 2023                  |                     |
| 072/2023 | Steenokkerzeel ATCC: Limited FIS                                                                          | ENR                     | From 23 DEC 2023 till 03 OCT 2024 |                     |
| 073/2023 | EBLG - Increased OCA due to Obstacle                                                                      | AD                      | From 28 DEC 2023                  |                     |
| 076/2023 | EBCI - Mobile Crane                                                                                       | AD                      | From 28 DEC 2023                  |                     |
| 001/2024 | Additional Military Closing Days 2024                                                                     | GEN                     | From 01 JAN 2024 till 31 DEC 2024 |                     |
| 002/2024 | ELLX - Obstacle due to Construction Work                                                                  | AD                      | From 25 JAN 2024                  |                     |
| 004/2024 | EBBL - Temporary Obstacle                                                                                 | AD                      | From 25 JAN 2024 till 31 MAY 2024 |                     |
| 006/2024 | Obstacle due to Construction Works near EBBR - Airport Business Center - Leonardo da Vincilaan - Machelen | AD                      | From 22 FEB 2024 till 20 DEC 2025 |                     |

| NR/Year  | Subject                                                                   | AIP section(s) affected | Period of validity                | Cancellation record |
|----------|---------------------------------------------------------------------------|-------------------------|-----------------------------------|---------------------|
| 007/2024 | Glider Areas Ardennes 2024                                                | ENR                     | From 15 MAR 2024 till 15 OCT 2024 |                     |
| 008/2024 | EBFN - Temporary Obstacle                                                 | AD                      | From 22 FEB 2024 till 15 JUN 2024 |                     |
| 009/2024 | EBAW - Temporary Obstacle                                                 | AD                      | From 21 MAR 2024 till 17 JUL 2025 |                     |
| 011/2024 | ELLC - Construction Works near Helipad                                    | AD                      | From 21 MAR 2024                  |                     |
| 012/2024 | ELLX - Obstacle due to Construction Work near Motorway                    | AD                      | From 21 MAR 2024                  |                     |
| 013/2024 | EBAW - Temporary Obstacle                                                 | AD                      | From 01 APR 2024 till 01 DEC 2024 |                     |
| 014/2024 | EBBR - Moving Obstacle                                                    | AD                      | From 21 MAR 2024 till 11 JUL 2025 |                     |
| 015/2024 | EBOS - Temporary Obstacles                                                | AD                      | From 21 MAR 2024                  |                     |
| 016/2024 | Military Field Helistrip Marche-les-Dames Temporarily Closed              | AD                      | From 21 MAR 2024 till 05 SEP 2024 |                     |
| 017/2024 | EBBR - Obstacle due to Construction Works near EBBR - Parking Tower - P30 | AD                      | From 18 APR 2024 till 01 NOV 2025 |                     |
| 018/2024 | ELLX - Obstacles due to Construction Work                                 | AD                      | From 18 APR 2024                  |                     |
| 019/2024 | Wind Measurement Mast - Sankt Vith                                        | ENR                     | From 18 APR 2024                  |                     |
| 020/2024 | EBLG - Taxi Regulations                                                   | AD                      | From 18 APR 2024 till 31 AUG 2024 |                     |
| 021/2024 | EBOS - Changes to Declared Distances due to WIP                           | AD                      | From 16 MAY 2024                  |                     |
| 022/2024 | ELLK - Temporary Obstacles in the vicinity of Helipad                     | AD                      | From 16 MAY 2024                  |                     |
| 023/2024 | ELLK - Temporary Obstacles in the vicinity of Helipad                     | AD                      | From 16 MAY 2024                  |                     |
| 024/2024 | EBOS - Temporary Obstacle                                                 | AD                      | From 16 MAY 2024                  |                     |
| 025/2024 | International Sanicole Airshow 2024                                       | ENR                     | From 18 SEP 2024 till 22 SEP 2024 |                     |

## GEN 0.4 Checklist of AIP Pages

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### ENR

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| ENR 2.1-4   | 06-OCT-2022 | ENR 4.2-1  | 04-FEB-2016 | ENR 5.5-12      | 14-JUL-2022 |
| ENR 2.1-5   | 21-APR-2022 | ENR 4.2-2  | 04-FEB-2016 | ENR 5.5-13      | 18-MAY-2023 |
| ENR 2.1-6   | 21-APR-2022 | ENR 4.3-1  | 26-MAR-2020 | ENR 5.5-14      | 18-MAY-2023 |
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| ENR 6-ENRC.05b-1   | 16-JUN-2022 | AD 1.2-6               | 06-OCT-2022 | AD 2.EBAW-VAC.01-1  | 21-MAR-2024 |
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| ENR 6-INDEXT.02-1  | 21-MAR-2024 | AD 2.EBAW-2            | 05-OCT-2023 | AD 2.EBBR-13        | 22-FEB-2024 |
| ENR 6-INDEXT.02-2  | 21-MAR-2024 | AD 2.EBAW-3            | 30-NOV-2023 | AD 2.EBBR-14        | 22-FEB-2024 |
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| ENR 6-INDEXT.04a-2 | 18-APR-2024 | AD 2.EBAW-11           | 21-MAR-2024 | AD 2.EBBR-22        | 22-FEB-2024 |
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| ENR 6-INDEXT.04d-1 | 14-JUL-2022 | AD 2.EBAW-16           | 18-APR-2024 | AD 2.EBBR-27        | 22-FEB-2024 |
| ENR 6-INDEXT.04d-2 | 14-JUL-2022 | AD 2.EBAW-17           | 21-MAR-2024 | AD 2.EBBR-28        | 22-FEB-2024 |
| ENR 6-INDEXT.04e-1 | 16-JUN-2022 | AD 2.EBAW-18           | 21-MAR-2024 | AD 2.EBBR-29        | 22-FEB-2024 |
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| ENR 6-INDEXT.04f-1 | 23-MAR-2023 | AD 2.EBAW-20           | 21-MAR-2024 | AD 2.EBBR-31        | 22-FEB-2024 |
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|                    |             | AD 2.EBAW-STAR.02-1    | 22-FEB-2024 | AD 2.EBBR-48        | 22-FEB-2024 |
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| AD 2.EBBR-70           | 22-FEB-2024 | AD 2.EBBR-IAC.02-1  | 21-MAR-2024 | AD 2.EBCI-GMC.02-2  | 25-JAN-2024 |
| AD 2.EBBR-71           | 22-FEB-2024 | AD 2.EBBR-IAC.02-2  | 21-MAR-2024 | AD 2.EBCI-GMC.03-1  | 25-JAN-2024 |
| AD 2.EBBR-72           | 22-FEB-2024 | AD 2.EBBR-IAC.03-1  | 21-MAR-2024 | AD 2.EBCI-GMC.03-2  | 25-JAN-2024 |
| AD 2.EBBR-73           | 22-FEB-2024 | AD 2.EBBR-IAC.03-2  | 21-MAR-2024 | AD 2.EBCI-GMC.04-1  | 25-JAN-2024 |
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| AD 2.EBBR-ADC.03-1     | 03-NOV-2022 | AD 2.EBBR-IAC.07a-2 | 21-MAR-2024 | AD 2.EBCI-STAR.02-1 | 22-FEB-2024 |
| AD 2.EBBR-ADC.03-2     | 03-NOV-2022 | AD 2.EBBR-IAC.07b-1 | 21-MAR-2024 | AD 2.EBCI-STAR.02-2 | 22-FEB-2024 |
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| AD 2.EBBR-GMC.02a-2    | 16-MAY-2024 | AD 2.EBBR-IAC.09-1  | 21-MAR-2024 | AD 2.EBCI-SID.02-2  | 22-FEB-2024 |
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| AD 2.EBBR-GMC.02c-2    | 16-MAY-2024 | AD 2.EBBR-IAC.11-1  | 21-MAR-2024 | AD 2.EBCI-SID.04-2  | 22-FEB-2024 |
| AD 2.EBBR-GMC.02d-1    | 05-OCT-2023 | AD 2.EBBR-IAC.11-2  | 21-MAR-2024 | AD 2.EBCI-IAC.01-1  | 16-MAY-2024 |
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| AD 2.EBBR-GMC.03-1     | 03-NOV-2022 | AD 2.EBBR-IAC.11a-2 | 05-OCT-2023 | AD 2.EBCI-IAC.02-1  | 21-MAR-2024 |
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| AD 2.EBBR-GMC.04-1     | 21-MAR-2024 | AD 2.EBBR-IAC.12-2  | 21-MAR-2024 | AD 2.EBCI-IAC.03-1  | 21-MAR-2024 |
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| AD 2.EBBR-GMC.05-1     | 03-NOV-2022 | AD 2.EBBR-IAC.12a-2 | 05-OCT-2023 | AD 2.EBCI-IAC.04-1  | 21-MAR-2024 |
| AD 2.EBBR-GMC.05-2     | 03-NOV-2022 | AD 2.EBBR-IAC.13-1  | 21-MAR-2024 | AD 2.EBCI-IAC.04-2  | 21-MAR-2024 |
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| AD 2.EBBR-GMC.06a-2    | 18-APR-2024 | AD 2.EBBR-IAC.13a-1 | 05-OCT-2023 | AD 2.EBCI-IAC.04a-2 | 23-APR-2020 |
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| AD 2.EBBR-GMC.06b-2    | 16-MAY-2024 | AD 2.EBBR-IAC.14-1  | 21-MAR-2024 | AD 2.EBCI-IAC.05-2  | 21-MAR-2024 |
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| AD 2.EBBR-APDC.01-1    | 18-APR-2024 | AD 2.EBBR-IAC.14a-2 | 05-OCT-2023 | AD 2.EBCI-VAC.01-1  | 21-MAR-2024 |
| AD 2.EBBR-APDC.01-2    | 18-APR-2024 | AD 2.EBBR-VAC.01-1  | 21-MAR-2024 | AD 2.EBCI-VAC.01-2  | 21-MAR-2024 |
| AD 2.EBBR-APDC.02-1    | 21-MAR-2024 | AD 2.EBBR-VAC.01-2  | 21-MAR-2024 | AD 2.EBKT-1         | 18-APR-2024 |
| AD 2.EBBR-APDC.02-2    | 21-MAR-2024 | AD 2.EBCI-1         | 24-FEB-2022 | AD 2.EBKT-2         | 18-APR-2024 |
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| AD 2.EBBR-APDC.03-2    | 21-MAR-2024 | AD 2.EBCI-3         | 20-APR-2023 | AD 2.EBKT-4         | 18-APR-2024 |
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| AD 2.EBBR-APDC.04-2    | 21-MAR-2024 | AD 2.EBCI-5         | 28-DEC-2023 | AD 2.EBKT-6         | 18-MAY-2023 |
| AD 2.EBBR-AOC.01-1     | 21-MAR-2024 | AD 2.EBCI-6         | 28-DEC-2023 | AD 2.EBKT-7         | 18-APR-2024 |
| AD 2.EBBR-AOC.01-2     | 21-MAR-2024 | AD 2.EBCI-7         | 25-JAN-2024 | AD 2.EBKT-8         | 18-APR-2024 |
| AD 2.EBBR-AOC.02-1     | 21-MAR-2024 | AD 2.EBCI-8         | 25-JAN-2024 | AD 2.EBKT-9         | 18-APR-2024 |
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| AD 2.EBBR-PATC.02-1    | 04-FEB-2016 | AD 2.EBCI-14        | 25-JAN-2024 | AD 2.EBKT-15        | 18-APR-2024 |
| AD 2.EBBR-PATC.02-2    | 04-FEB-2016 | AD 2.EBCI-15        | 25-JAN-2024 | AD 2.EBKT-16        | 18-APR-2024 |
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| AD 2.EBBR-SID.01-1     | 22-FEB-2024 | AD 2.EBCI-20        | 21-APR-2022 | AD 2.EBKT-ADC.01-1  | 21-MAR-2024 |
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| AD 2.EBKT-IAC.01-1  | 21-MAR-2024 | AD 2.EBLG-PATC.02-2    | 17-AUG-2017 | AD 2.ELLX-31           | 25-JAN-2024 |
| AD 2.EBKT-IAC.01-2  | 21-MAR-2024 | AD 2.EBLG-PATC.03-1    | 17-AUG-2017 | AD 2.ELLX-32           | 25-JAN-2024 |
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| AD 2.EBKT-IAC.02-2  | 16-MAY-2024 | AD 2.EBLG-STAR.01-1    | 22-FEB-2024 | AD 2.ELLX-36           | 16-MAY-2024 |
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| AD 2.EBKT-VAC.01-2  | 21-MAR-2024 | AD 2.EBLG-STAR.02-1    | 16-MAY-2024 | AD 2.ELLX-ADC.01-2     | 16-MAY-2024 |
| AD 2.EBKT-VAC.02-1  | 21-MAR-2024 | AD 2.EBLG-STAR.02-2    | 16-MAY-2024 | AD 2.ELLX-ADC.02-1     | 16-MAY-2024 |
| AD 2.EBKT-VAC.02-2  | 21-MAR-2024 | AD 2.EBLG-STAR.03-1    | 22-FEB-2024 | AD 2.ELLX-ADC.02-2     | 16-MAY-2024 |
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| AD 2.EBLG-2         | 18-APR-2024 | AD 2.EBLG-STAR.04-1    | 22-FEB-2024 | AD 2.ELLX-GMC.01-2     | 16-MAY-2024 |
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| AD 2.EBLG-4         | 25-JAN-2024 | AD 2.EBLG-STAR.05-1    | 22-FEB-2024 | AD 2.ELLX-GMC.02-2     | 16-MAY-2024 |
| AD 2.EBLG-5         | 25-JAN-2024 | AD 2.EBLG-STAR.05-2    | 22-FEB-2024 | AD 2.ELLX-GMC.03-1     | 16-MAY-2024 |
| AD 2.EBLG-6         | 25-JAN-2024 | AD 2.EBLG-STAR.06-1    | 22-FEB-2024 | AD 2.ELLX-GMC.03-2     | 16-MAY-2024 |
| AD 2.EBLG-7         | 25-JAN-2024 | AD 2.EBLG-STAR.06-2    | 22-FEB-2024 | AD 2.ELLX-APDC.01-1    | 25-JAN-2024 |
| AD 2.EBLG-8         | 25-JAN-2024 | AD 2.EBLG-SID.01-1     | 22-FEB-2024 | AD 2.ELLX-APDC.01-2    | 25-JAN-2024 |
| AD 2.EBLG-9         | 25-JAN-2024 | AD 2.EBLG-SID.01-2     | 22-FEB-2024 | AD 2.ELLX-APDC.02-1    | 05-OCT-2023 |
| AD 2.EBLG-10        | 25-JAN-2024 | AD 2.EBLG-SID.02-1     | 22-FEB-2024 | AD 2.ELLX-APDC.02-2    | 05-OCT-2023 |
| AD 2.EBLG-11        | 25-JAN-2024 | AD 2.EBLG-SID.02-2     | 22-FEB-2024 | AD 2.ELLX-APDC.03-1    | 16-MAY-2024 |
| AD 2.EBLG-12        | 25-JAN-2024 | AD 2.EBLG-IAC.01-1     | 18-APR-2024 | AD 2.ELLX-APDC.03-2    | 16-MAY-2024 |
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| AD 2.EBLG-14        | 25-JAN-2024 | AD 2.EBLG-IAC.02-1     | 18-APR-2024 | AD 2.ELLX-AOC.01-2     | 15-JUN-2023 |
| AD 2.EBLG-15        | 16-MAY-2024 | AD 2.EBLG-IAC.02-2     | 18-APR-2024 | AD 2.ELLX-PATC.01-1    | 15-JUN-2023 |
| AD 2.EBLG-16        | 16-MAY-2024 | AD 2.EBLG-IAC.03-1     | 18-APR-2024 | AD 2.ELLX-PATC.01-2    | 15-JUN-2023 |
| AD 2.EBLG-17        | 22-FEB-2024 | AD 2.EBLG-IAC.03-2     | 18-APR-2024 | AD 2.ELLX-ATCSMAC.01-1 | 05-OCT-2023 |
| AD 2.EBLG-18        | 22-FEB-2024 | AD 2.EBLG-IAC.04-1     | 18-APR-2024 | AD 2.ELLX-ATCSMAC.01-2 | 05-OCT-2023 |
| AD 2.EBLG-19        | 22-FEB-2024 | AD 2.EBLG-IAC.04-2     | 18-APR-2024 | AD 2.ELLX-STAR.01-1    | 05-OCT-2023 |
| AD 2.EBLG-20        | 22-FEB-2024 | AD 2.EBLG-IAC.05-1     | 18-APR-2024 | AD 2.ELLX-STAR.01-2    | 05-OCT-2023 |
| AD 2.EBLG-21        | 25-JAN-2024 | AD 2.EBLG-IAC.05-2     | 18-APR-2024 | AD 2.ELLX-STAR.02-1    | 25-JAN-2024 |
| AD 2.EBLG-22        | 25-JAN-2024 | AD 2.EBLG-IAC.05a-1    | 30-NOV-2023 | AD 2.ELLX-STAR.02-2    | 25-JAN-2024 |
| AD 2.EBLG-23        | 25-JAN-2024 | AD 2.EBLG-IAC.05a-2    | 30-NOV-2023 | AD 2.ELLX-STAR.03-1    | 18-APR-2024 |
| AD 2.EBLG-24        | 25-JAN-2024 | AD 2.EBLG-IAC.06-1     | 18-APR-2024 | AD 2.ELLX-STAR.03-2    | 18-APR-2024 |
| AD 2.EBLG-25        | 25-JAN-2024 | AD 2.EBLG-IAC.06-2     | 18-APR-2024 | AD 2.ELLX-STAR.04-1    | 25-JAN-2024 |
| AD 2.EBLG-26        | 25-JAN-2024 | AD 2.EBLG-IAC.06a-1    | 30-NOV-2023 | AD 2.ELLX-STAR.04-2    | 25-JAN-2024 |
| AD 2.EBLG-27        | 16-MAY-2024 | AD 2.EBLG-IAC.06a-2    | 30-NOV-2023 | AD 2.ELLX-SID.01-1     | 05-OCT-2023 |
| AD 2.EBLG-28        | 16-MAY-2024 | AD 2.EBLG-IAC.07-1     | 18-APR-2024 | AD 2.ELLX-SID.01-2     | 05-OCT-2023 |
| AD 2.EBLG-29        | 16-MAY-2024 | AD 2.EBLG-IAC.07-2     | 18-APR-2024 | AD 2.ELLX-SID.02-1     | 05-OCT-2023 |
| AD 2.EBLG-30        | 16-MAY-2024 | AD 2.EBLG-IAC.07a-1    | 30-NOV-2023 | AD 2.ELLX-SID.02-2     | 05-OCT-2023 |
| AD 2.EBLG-31        | 18-APR-2024 | AD 2.EBLG-IAC.07a-2    | 30-NOV-2023 | AD 2.ELLX-SID.03-1     | 28-DEC-2023 |
| AD 2.EBLG-32        | 18-APR-2024 | AD 2.EBLG-IAC.08-1     | 18-APR-2024 | AD 2.ELLX-SID.03-2     | 28-DEC-2023 |
| AD 2.EBLG-33        | 25-JAN-2024 | AD 2.EBLG-IAC.08-2     | 18-APR-2024 | AD 2.ELLX-SID.04-1     | 18-APR-2024 |
| AD 2.EBLG-34        | 25-JAN-2024 | AD 2.EBLG-IAC.08a-1    | 30-NOV-2023 | AD 2.ELLX-SID.04-2     | 18-APR-2024 |
| AD 2.EBLG-35        | 16-MAY-2024 | AD 2.EBLG-IAC.08a-2    | 30-NOV-2023 | AD 2.ELLX-IAC.01a-1    | 18-APR-2024 |
| AD 2.EBLG-36        | 16-MAY-2024 | AD 2.EBLG-VAC.01-1     | 21-MAR-2024 | AD 2.ELLX-IAC.01a-2    | 18-APR-2024 |
| AD 2.EBLG-37        | 25-JAN-2024 | AD 2.EBLG-VAC.01-2     | 21-MAR-2024 | AD 2.ELLX-IAC.01b-1    | 18-APR-2024 |
| AD 2.EBLG-38        | 25-JAN-2024 | AD 2.ELLX-1            | 22-FEB-2024 | AD 2.ELLX-IAC.01b-2    | 18-APR-2024 |
| AD 2.EBLG-ADC.01-1  | 21-MAR-2024 | AD 2.ELLX-2            | 22-FEB-2024 | AD 2.ELLX-IAC.02a-1    | 18-APR-2024 |
| AD 2.EBLG-ADC.01-2  | 21-MAR-2024 | AD 2.ELLX-3            | 25-JAN-2024 | AD 2.ELLX-IAC.02a-2    | 18-APR-2024 |
| AD 2.EBLG-ADC.02-1  | 27-JAN-2022 | AD 2.ELLX-4            | 25-JAN-2024 | AD 2.ELLX-IAC.02b-1    | 18-APR-2024 |
| AD 2.EBLG-ADC.02-2  | 27-JAN-2022 | AD 2.ELLX-5            | 16-MAY-2024 | AD 2.ELLX-IAC.02b-2    | 18-APR-2024 |
| AD 2.EBLG-GMC.01-1  | 21-MAR-2024 | AD 2.ELLX-6            | 16-MAY-2024 | AD 2.ELLX-IAC.03-1     | 18-APR-2024 |
| AD 2.EBLG-GMC.01-2  | 21-MAR-2024 | AD 2.ELLX-7            | 16-MAY-2024 | AD 2.ELLX-IAC.03-2     | 18-APR-2024 |
| AD 2.EBLG-GMC.02a-1 | 21-MAR-2024 | AD 2.ELLX-8            | 16-MAY-2024 | AD 2.ELLX-IAC.04-1     | 18-APR-2024 |
| AD 2.EBLG-GMC.02a-2 | 21-MAR-2024 | AD 2.ELLX-9            | 16-MAY-2024 | AD 2.ELLX-IAC.04-2     | 18-APR-2024 |
| AD 2.EBLG-GMC.02b-1 | 21-MAR-2024 | AD 2.ELLX-10           | 16-MAY-2024 | AD 2.ELLX-IAC.05-1     | 18-APR-2024 |
| AD 2.EBLG-GMC.02b-2 | 21-MAR-2024 | AD 2.ELLX-11           | 30-NOV-2023 | AD 2.ELLX-IAC.05-2     | 18-APR-2024 |
| AD 2.EBLG-GMC.03a-1 | 25-JAN-2024 | AD 2.ELLX-12           | 30-NOV-2023 | AD 2.ELLX-IAC.05a-1    | 23-FEB-2023 |
| AD 2.EBLG-GMC.03a-2 | 25-JAN-2024 | AD 2.ELLX-13           | 05-OCT-2023 | AD 2.ELLX-IAC.05a-2    | 23-FEB-2023 |
| AD 2.EBLG-GMC.03b-1 | 25-JAN-2024 | AD 2.ELLX-14           | 05-OCT-2023 | AD 2.ELLX-IAC.06-1     | 18-APR-2024 |
| AD 2.EBLG-GMC.03b-2 | 25-JAN-2024 | AD 2.ELLX-15           | 25-JAN-2024 | AD 2.ELLX-IAC.06-2     | 18-APR-2024 |
| AD 2.EBLG-GMC.04-1  | 25-JAN-2024 | AD 2.ELLX-16           | 25-JAN-2024 | AD 2.ELLX-IAC.06a-1    | 23-FEB-2023 |
| AD 2.EBLG-GMC.04-2  | 25-JAN-2024 | AD 2.ELLX-17           | 25-JAN-2024 | AD 2.ELLX-IAC.06a-2    | 23-FEB-2023 |
| AD 2.EBLG-GMC.05-1  | 25-JAN-2024 | AD 2.ELLX-18           | 25-JAN-2024 | AD 2.ELLX-VAC.01-1     | 15-JUN-2023 |
| AD 2.EBLG-GMC.05-2  | 25-JAN-2024 | AD 2.ELLX-19           | 25-JAN-2024 | AD 2.ELLX-VAC.01-2     | 15-JUN-2023 |
| AD 2.EBLG-GMC.06-1  | 25-JAN-2024 | AD 2.ELLX-20           | 25-JAN-2024 | AD 2.ELLX-VAC.02-1     | 29-DEC-2022 |
| AD 2.EBLG-GMC.06-2  | 25-JAN-2024 | AD 2.ELLX-21           | 25-JAN-2024 | AD 2.ELLX-VAC.02-2     | 29-DEC-2022 |
| AD 2.EBLG-APDC.01-1 | 21-MAR-2024 | AD 2.ELLX-22           | 25-JAN-2024 | AD 2.EBOS-1            | 29-DEC-2022 |
| AD 2.EBLG-APDC.01-2 | 21-MAR-2024 | AD 2.ELLX-23           | 25-JAN-2024 | AD 2.EBOS-2            | 29-DEC-2022 |
| AD 2.EBLG-AOC.01-1  | 21-MAR-2024 | AD 2.ELLX-24           | 25-JAN-2024 | AD 2.EBOS-3            | 18-APR-2024 |
| AD 2.EBLG-AOC.01-2  | 21-MAR-2024 | AD 2.ELLX-25           | 25-JAN-2024 | AD 2.EBOS-4            | 18-APR-2024 |
| AD 2.EBLG-AOC.02-1  | 21-MAR-2024 | AD 2.ELLX-26           | 25-JAN-2024 | AD 2.EBOS-5            | 21-MAR-2024 |
| AD 2.EBLG-AOC.02-2  | 21-MAR-2024 | AD 2.ELLX-27           | 25-JAN-2024 | AD 2.EBOS-6            | 21-MAR-2024 |
| AD 2.EBLG-PATC.01-1 | 17-AUG-2017 | AD 2.ELLX-28           | 25-JAN-2024 | AD 2.EBOS-7            | 18-APR-2024 |
| AD 2.EBLG-PATC.01-2 | 17-AUG-2017 | AD 2.ELLX-29           | 25-JAN-2024 | AD 2.EBOS-8            | 18-APR-2024 |

|                     |             |                         |             |                         |             |
|---------------------|-------------|-------------------------|-------------|-------------------------|-------------|
| AD 2.EBOS-9         | 16-MAY-2024 | AD 2.MIL-EBBE-10        | 07-SEP-2023 | AD 2.MIL-EBBE-IAC.19-1  | 05-OCT-2023 |
| AD 2.EBOS-10        | 16-MAY-2024 | AD 2.MIL-EBBE-11        | 07-SEP-2023 | AD 2.MIL-EBBE-IAC.19-2  | 05-OCT-2023 |
| AD 2.EBOS-11        | 16-MAY-2024 | AD 2.MIL-EBBE-12        | 07-SEP-2023 | AD 2.MIL-EBBE-IAC.19a-1 | 05-OCT-2023 |
| AD 2.EBOS-12        | 16-MAY-2024 | AD 2.MIL-EBBE-13        | 07-SEP-2023 | AD 2.MIL-EBBE-IAC.19a-2 | 05-OCT-2023 |
| AD 2.EBOS-13        | 16-MAY-2024 | AD 2.MIL-EBBE-14        | 07-SEP-2023 | AD 2.MIL-EBBE-IAC.20-1  | 07-SEP-2023 |
| AD 2.EBOS-14        | 16-MAY-2024 | AD 2.MIL-EBBE-ADC.01-1  | 05-OCT-2023 | AD 2.MIL-EBBE-IAC.20-2  | 07-SEP-2023 |
| AD 2.EBOS-15        | 21-MAR-2024 | AD 2.MIL-EBBE-ADC.01-2  | 05-OCT-2023 | AD 2.MIL-EBBE-IAC.21-1  | 07-SEP-2023 |
| AD 2.EBOS-16        | 21-MAR-2024 | AD 2.MIL-EBBE-GMC.01-1  | 07-SEP-2023 | AD 2.MIL-EBBE-IAC.21-2  | 07-SEP-2023 |
| AD 2.EBOS-17        | 18-APR-2024 | AD 2.MIL-EBBE-GMC.01-2  | 07-SEP-2023 | AD 2.MIL-EBBE-VAC.01-1  | 07-SEP-2023 |
| AD 2.EBOS-18        | 18-APR-2024 | AD 2.MIL-EBBE-AOC.01-1  | 07-SEP-2023 | AD 2.MIL-EBBE-VAC.01-2  | 07-SEP-2023 |
| AD 2.EBOS-19        | 18-APR-2024 | AD 2.MIL-EBBE-AOC.01-2  | 07-SEP-2023 | AD 2.MIL-EBBE-VAC.02-1  | 07-SEP-2023 |
| AD 2.EBOS-20        | 18-APR-2024 | AD 2.MIL-EBBE-AOC.02-1  | 07-SEP-2023 | AD 2.MIL-EBBE-VAC.02-2  | 07-SEP-2023 |
| AD 2.EBOS-21        | 18-APR-2024 | AD 2.MIL-EBBE-AOC.02-2  | 07-SEP-2023 | AD 2.MIL-EBBE-VAC.03-1  | 07-SEP-2023 |
| AD 2.EBOS-22        | 18-APR-2024 | AD 2.MIL-EBBE-AOC.03-1  | 07-SEP-2023 | AD 2.MIL-EBBE-VAC.03-2  | 07-SEP-2023 |
| AD 2.EBOS-23        | 18-APR-2024 | AD 2.MIL-EBBE-AOC.03-2  | 07-SEP-2023 | AD 2.MIL-EBBE-VAC.04-1  | 07-SEP-2023 |
| AD 2.EBOS-24        | 18-APR-2024 | AD 2.MIL-EBBE-SID.01-1  | 07-SEP-2023 | AD 2.MIL-EBBE-VAC.04-2  | 07-SEP-2023 |
| AD 2.EBOS-ADC.01-1  | 16-MAY-2024 | AD 2.MIL-EBBE-SID.01-2  | 07-SEP-2023 | AD 2.MIL-EBBX-1         | 24-FEB-2022 |
| AD 2.EBOS-ADC.01-2  | 16-MAY-2024 | AD 2.MIL-EBBE-SID.02-1  | 07-SEP-2023 | AD 2.MIL-EBBX-2         | 24-FEB-2022 |
| AD 2.EBOS-ADC.02-1  | 18-APR-2024 | AD 2.MIL-EBBE-SID.02-2  | 07-SEP-2023 | AD 2.MIL-EBMB-1         | 06-OCT-2022 |
| AD 2.EBOS-ADC.02-2  | 18-APR-2024 | AD 2.MIL-EBBE-SID.03-1  | 22-FEB-2024 | AD 2.MIL-EBMB-2         | 06-OCT-2022 |
| AD 2.EBOS-ADC.03-1  | 18-APR-2024 | AD 2.MIL-EBBE-SID.03-2  | 22-FEB-2024 | AD 2.MIL-EBMB-3         | 24-FEB-2022 |
| AD 2.EBOS-ADC.03-2  | 18-APR-2024 | AD 2.MIL-EBBE-SID.04-1  | 22-FEB-2024 | AD 2.MIL-EBMB-4         | 24-FEB-2022 |
| AD 2.EBOS-ADC.04-1  | 18-APR-2024 | AD 2.MIL-EBBE-SID.04-2  | 22-FEB-2024 | AD 2.MIL-EBCV-1         | 30-NOV-2023 |
| AD 2.EBOS-ADC.04-2  | 18-APR-2024 | AD 2.MIL-EBBE-SID.05-1  | 22-FEB-2024 | AD 2.MIL-EBCV-2         | 30-NOV-2023 |
| AD 2.EBOS-APDC.01-1 | 18-APR-2024 | AD 2.MIL-EBBE-SID.05-2  | 22-FEB-2024 | AD 2.MIL-EBCV-3         | 25-JAN-2024 |
| AD 2.EBOS-APDC.01-2 | 18-APR-2024 | AD 2.MIL-EBBE-SID.06-1  | 22-FEB-2024 | AD 2.MIL-EBCV-4         | 25-JAN-2024 |
| AD 2.EBOS-AOC.01-1  | 21-MAR-2024 | AD 2.MIL-EBBE-SID.06-2  | 22-FEB-2024 | AD 2.MIL-EBCV-5         | 23-MAR-2023 |
| AD 2.EBOS-AOC.01-2  | 21-MAR-2024 | AD 2.MIL-EBBE-SID.07-1  | 30-NOV-2023 | AD 2.MIL-EBCV-6         | 23-MAR-2023 |
| AD 2.EBOS-PATC.01-1 | 04-FEB-2016 | AD 2.MIL-EBBE-SID.07-2  | 30-NOV-2023 | AD 2.MIL-EBCV-7         | 18-MAY-2023 |
| AD 2.EBOS-PATC.01-2 | 04-FEB-2016 | AD 2.MIL-EBBE-MISC.01-1 | 07-SEP-2023 | AD 2.MIL-EBCV-8         | 18-MAY-2023 |
| AD 2.EBOS-PATC.02-1 | 04-FEB-2016 | AD 2.MIL-EBBE-MISC.01-2 | 07-SEP-2023 | AD 2.MIL-EBCV-GMC.01-1  | 21-MAR-2024 |
| AD 2.EBOS-PATC.02-2 | 04-FEB-2016 | AD 2.MIL-EBBE-MISC.02-1 | 07-SEP-2023 | AD 2.MIL-EBCV-GMC.01-2  | 21-MAR-2024 |
| AD 2.EBOS-STAR.01-1 | 22-FEB-2024 | AD 2.MIL-EBBE-MISC.02-2 | 07-SEP-2023 | AD 2.MIL-EBCV-IAC.01-1  | 30-NOV-2023 |
| AD 2.EBOS-STAR.01-2 | 22-FEB-2024 | AD 2.MIL-EBBE-STAR.01-1 | 07-SEP-2023 | AD 2.MIL-EBCV-IAC.01-2  | 30-NOV-2023 |
| AD 2.EBOS-STAR.02-1 | 22-FEB-2024 | AD 2.MIL-EBBE-STAR.01-2 | 07-SEP-2023 | AD 2.MIL-EBCV-IAC.02-1  | 30-NOV-2023 |
| AD 2.EBOS-STAR.02-2 | 22-FEB-2024 | AD 2.MIL-EBBE-IAC.01-1  | 07-SEP-2023 | AD 2.MIL-EBCV-IAC.02-2  | 30-NOV-2023 |
| AD 2.EBOS-STAR.03-1 | 22-FEB-2024 | AD 2.MIL-EBBE-IAC.01-2  | 07-SEP-2023 | AD 2.MIL-EBCV-IAC.03-1  | 30-NOV-2023 |
| AD 2.EBOS-STAR.03-2 | 22-FEB-2024 | AD 2.MIL-EBBE-IAC.02-1  | 07-SEP-2023 | AD 2.MIL-EBCV-IAC.03-2  | 30-NOV-2023 |
| AD 2.EBOS-STAR.04-1 | 22-FEB-2024 | AD 2.MIL-EBBE-IAC.02-2  | 07-SEP-2023 | AD 2.MIL-EBCV-IAC.04-1  | 30-NOV-2023 |
| AD 2.EBOS-STAR.04-2 | 22-FEB-2024 | AD 2.MIL-EBBE-IAC.03-1  | 07-SEP-2023 | AD 2.MIL-EBCV-IAC.04-2  | 30-NOV-2023 |
| AD 2.EBOS-SID.01-1  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.03-2  | 07-SEP-2023 | AD 2.MIL-EBDT-1         | 18-APR-2024 |
| AD 2.EBOS-SID.01-2  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.04-1  | 07-SEP-2023 | AD 2.MIL-EBDT-2         | 18-APR-2024 |
| AD 2.EBOS-SID.02-1  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.04-2  | 07-SEP-2023 | AD 2.MIL-EBFS-1         | 24-FEB-2022 |
| AD 2.EBOS-SID.02-2  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.05-1  | 05-OCT-2023 | AD 2.MIL-EBFS-2         | 24-FEB-2022 |
| AD 2.EBOS-SID.03a-1 | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.05-2  | 05-OCT-2023 | AD 2.MIL-EBFS-3         | 06-OCT-2022 |
| AD 2.EBOS-SID.03a-2 | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.06-1  | 07-SEP-2023 | AD 2.MIL-EBFS-4         | 06-OCT-2022 |
| AD 2.EBOS-SID.03b-1 | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.06-2  | 07-SEP-2023 | AD 2.MIL-EBFS-5         | 07-SEP-2023 |
| AD 2.EBOS-SID.03b-2 | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.07-1  | 07-SEP-2023 | AD 2.MIL-EBFS-6         | 07-SEP-2023 |
| AD 2.EBOS-SID.04-1  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.07-2  | 07-SEP-2023 | AD 2.MIL-EBFS-7         | 07-SEP-2023 |
| AD 2.EBOS-SID.04-2  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.08-1  | 07-SEP-2023 | AD 2.MIL-EBFS-8         | 07-SEP-2023 |
| AD 2.EBOS-IAC.01-1  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.08-2  | 07-SEP-2023 | AD 2.MIL-EBFS-9         | 07-SEP-2023 |
| AD 2.EBOS-IAC.01-2  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.09-1  | 07-SEP-2023 | AD 2.MIL-EBFS-10        | 07-SEP-2023 |
| AD 2.EBOS-IAC.02-1  | 16-MAY-2024 | AD 2.MIL-EBBE-IAC.09-2  | 07-SEP-2023 | AD 2.MIL-EBFS-11        | 28-DEC-2023 |
| AD 2.EBOS-IAC.02-2  | 16-MAY-2024 | AD 2.MIL-EBBE-IAC.10-1  | 07-SEP-2023 | AD 2.MIL-EBFS-12        | 28-DEC-2023 |
| AD 2.EBOS-IAC.03-1  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.10-2  | 07-SEP-2023 | AD 2.MIL-EBFS-13        | 07-SEP-2023 |
| AD 2.EBOS-IAC.03-2  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.11-1  | 07-SEP-2023 | AD 2.MIL-EBFS-14        | 07-SEP-2023 |
| AD 2.EBOS-IAC.04-1  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.11-2  | 07-SEP-2023 | AD 2.MIL-EBFS-ADC.01-1  | 07-SEP-2023 |
| AD 2.EBOS-IAC.04-2  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.12-1  | 07-SEP-2023 | AD 2.MIL-EBFS-ADC.01-2  | 07-SEP-2023 |
| AD 2.EBOS-IAC.05-1  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.12-2  | 07-SEP-2023 | AD 2.MIL-EBFS-GMC.01-1  | 07-SEP-2023 |
| AD 2.EBOS-IAC.05-2  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.13-1  | 07-SEP-2023 | AD 2.MIL-EBFS-GMC.01-2  | 07-SEP-2023 |
| AD 2.EBOS-IAC.05a-1 | 23-APR-2020 | AD 2.MIL-EBBE-IAC.13-2  | 07-SEP-2023 | AD 2.MIL-EBFS-AOC.01-1  | 06-OCT-2022 |
| AD 2.EBOS-IAC.05a-2 | 23-APR-2020 | AD 2.MIL-EBBE-IAC.14-1  | 05-OCT-2023 | AD 2.MIL-EBFS-AOC.01-2  | 06-OCT-2022 |
| AD 2.EBOS-IAC.06-1  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.14-2  | 05-OCT-2023 | AD 2.MIL-EBFS-AOC.02-1  | 06-OCT-2022 |
| AD 2.EBOS-IAC.06-2  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.15-1  | 05-OCT-2023 | AD 2.MIL-EBFS-AOC.02-2  | 06-OCT-2022 |
| AD 2.EBOS-IAC.06a-1 | 23-APR-2020 | AD 2.MIL-EBBE-IAC.15-2  | 05-OCT-2023 | AD 2.MIL-EBFS-AOC.03-1  | 06-OCT-2022 |
| AD 2.EBOS-IAC.06a-2 | 23-APR-2020 | AD 2.MIL-EBBE-IAC.16-1  | 07-SEP-2023 | AD 2.MIL-EBFS-AOC.03-2  | 06-OCT-2022 |
| AD 2.EBOS-VAC.01-1  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.16-2  | 07-SEP-2023 | AD 2.MIL-EBFS-SID.01-1  | 07-SEP-2023 |
| AD 2.EBOS-VAC.01-2  | 21-MAR-2024 | AD 2.MIL-EBBE-IAC.16a-1 | 05-OCT-2023 | AD 2.MIL-EBFS-SID.01-2  | 07-SEP-2023 |
| AD 2.MIL-EBBE-1     | 30-NOV-2023 | AD 2.MIL-EBBE-IAC.16a-2 | 05-OCT-2023 | AD 2.MIL-EBFS-SID.02-1  | 07-SEP-2023 |
| AD 2.MIL-EBBE-2     | 30-NOV-2023 | AD 2.MIL-EBBE-IAC.17-1  | 07-SEP-2023 | AD 2.MIL-EBFS-SID.02-2  | 07-SEP-2023 |
| AD 2.MIL-EBBE-3     | 07-SEP-2023 | AD 2.MIL-EBBE-IAC.17-2  | 07-SEP-2023 | AD 2.MIL-EBFS-SID.03-1  | 07-SEP-2023 |
| AD 2.MIL-EBBE-4     | 07-SEP-2023 | AD 2.MIL-EBBE-IAC.17a-1 | 07-SEP-2023 | AD 2.MIL-EBFS-SID.03-2  | 07-SEP-2023 |
| AD 2.MIL-EBBE-5     | 07-SEP-2023 | AD 2.MIL-EBBE-IAC.17a-2 | 07-SEP-2023 | AD 2.MIL-EBFS-SID.04-1  | 07-SEP-2023 |
| AD 2.MIL-EBBE-6     | 07-SEP-2023 | AD 2.MIL-EBBE-IAC.18-1  | 02-NOV-2023 | AD 2.MIL-EBFS-SID.04-2  | 07-SEP-2023 |
| AD 2.MIL-EBBE-7     | 07-SEP-2023 | AD 2.MIL-EBBE-IAC.18-2  | 02-NOV-2023 | AD 2.MIL-EBFS-SID.05-1  | 07-SEP-2023 |
| AD 2.MIL-EBBE-8     | 07-SEP-2023 | AD 2.MIL-EBBE-IAC.18a-1 | 07-SEP-2023 | AD 2.MIL-EBFS-SID.05-2  | 07-SEP-2023 |
| AD 2.MIL-EBBE-9     | 07-SEP-2023 | AD 2.MIL-EBBE-IAC.18a-2 | 07-SEP-2023 | AD 2.MIL-EBFS-MISC.01-1 | 26-JAN-2023 |

|                         |             |                         |             |                         |             |
|-------------------------|-------------|-------------------------|-------------|-------------------------|-------------|
| AD 2.MIL-EBFS-MISC.01-2 | 26-JAN-2023 | AD 2.MIL-EBBL-AOC.02-1  | 07-SEP-2023 | AD 2.MIL-EBFN-6         | 19-MAY-2022 |
| AD 2.MIL-EBFS-MISC.02-1 | 26-JAN-2023 | AD 2.MIL-EBBL-AOC.02-2  | 07-SEP-2023 | AD 2.MIL-EBFN-7         | 24-MAR-2022 |
| AD 2.MIL-EBFS-MISC.02-2 | 26-JAN-2023 | AD 2.MIL-EBBL-AOC.03-1  | 07-SEP-2023 | AD 2.MIL-EBFN-8         | 24-MAR-2022 |
| AD 2.MIL-EBFS-IAC.01-1  | 25-JAN-2024 | AD 2.MIL-EBBL-AOC.03-2  | 07-SEP-2023 | AD 2.MIL-EBFN-9         | 24-FEB-2022 |
| AD 2.MIL-EBFS-IAC.01-2  | 25-JAN-2024 | AD 2.MIL-EBBL-SID.01-1  | 30-NOV-2023 | AD 2.MIL-EBFN-10        | 24-FEB-2022 |
| AD 2.MIL-EBFS-IAC.02-1  | 02-NOV-2023 | AD 2.MIL-EBBL-SID.01-2  | 30-NOV-2023 | AD 2.MIL-EBFN-ADC.01-1  | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.02-2  | 02-NOV-2023 | AD 2.MIL-EBBL-SID.02-1  | 30-NOV-2023 | AD 2.MIL-EBFN-ADC.01-2  | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.03-1  | 25-JAN-2024 | AD 2.MIL-EBBL-SID.02-2  | 30-NOV-2023 | AD 2.MIL-EBFN-GMC.01-1  | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.03-2  | 25-JAN-2024 | AD 2.MIL-EBBL-SID.03-1  | 02-NOV-2023 | AD 2.MIL-EBFN-GMC.01-2  | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.04-1  | 25-JAN-2024 | AD 2.MIL-EBBL-SID.03-2  | 02-NOV-2023 | AD 2.MIL-EBFN-AOC.01-1  | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.04-2  | 25-JAN-2024 | AD 2.MIL-EBBL-SID.04-1  | 21-MAR-2024 | AD 2.MIL-EBFN-AOC.01-2  | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.05-1  | 30-NOV-2023 | AD 2.MIL-EBBL-SID.04-2  | 21-MAR-2024 | AD 2.MIL-EBFN-AOC.02-1  | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.05-2  | 30-NOV-2023 | AD 2.MIL-EBBL-SID.05-1  | 30-NOV-2023 | AD 2.MIL-EBFN-AOC.02-2  | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.06-1  | 02-NOV-2023 | AD 2.MIL-EBBL-SID.05-2  | 30-NOV-2023 | AD 2.MIL-EBFN-SID.01-1  | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.06-2  | 02-NOV-2023 | AD 2.MIL-EBBL-SID.06-1  | 21-MAR-2024 | AD 2.MIL-EBFN-SID.01-2  | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.07-1  | 25-JAN-2024 | AD 2.MIL-EBBL-SID.06-2  | 21-MAR-2024 | AD 2.MIL-EBFN-SID.02-1  | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.07-2  | 25-JAN-2024 | AD 2.MIL-EBBL-SID.07-1  | 30-NOV-2023 | AD 2.MIL-EBFN-SID.02-2  | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.08-1  | 07-SEP-2023 | AD 2.MIL-EBBL-SID.07-2  | 30-NOV-2023 | AD 2.MIL-EBFN-MISC.01-1 | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.08-2  | 07-SEP-2023 | AD 2.MIL-EBBL-SID.08-1  | 21-MAR-2024 | AD 2.MIL-EBFN-MISC.01-2 | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.09-1  | 25-JAN-2024 | AD 2.MIL-EBBL-SID.08-2  | 21-MAR-2024 | AD 2.MIL-EBFN-MISC.02-1 | 06-OCT-2022 |
| AD 2.MIL-EBFS-IAC.09-2  | 25-JAN-2024 | AD 2.MIL-EBBL-SID.09-1  | 30-NOV-2023 | AD 2.MIL-EBFN-MISC.02-2 | 06-OCT-2022 |
| AD 2.MIL-EBFS-IAC.10-1  | 25-JAN-2024 | AD 2.MIL-EBBL-SID.09-2  | 30-NOV-2023 | AD 2.MIL-EBFN-IAC.01-1  | 05-OCT-2023 |
| AD 2.MIL-EBFS-IAC.10-2  | 25-JAN-2024 | AD 2.MIL-EBBL-SID.10-1  | 30-NOV-2023 | AD 2.MIL-EBFN-IAC.01-2  | 05-OCT-2023 |
| AD 2.MIL-EBFS-IAC.11-1  | 07-SEP-2023 | AD 2.MIL-EBBL-SID.10-2  | 30-NOV-2023 | AD 2.MIL-EBFN-IAC.02-1  | 05-OCT-2023 |
| AD 2.MIL-EBFS-IAC.11-2  | 07-SEP-2023 | AD 2.MIL-EBBL-SID.11-1  | 21-MAR-2024 | AD 2.MIL-EBFN-IAC.02-2  | 05-OCT-2023 |
| AD 2.MIL-EBFS-IAC.12-1  | 07-SEP-2023 | AD 2.MIL-EBBL-SID.11-2  | 21-MAR-2024 | AD 2.MIL-EBFN-IAC.03-1  | 05-OCT-2023 |
| AD 2.MIL-EBFS-IAC.12-2  | 07-SEP-2023 | AD 2.MIL-EBBL-MISC.01-1 | 21-MAR-2024 | AD 2.MIL-EBFN-IAC.03-2  | 05-OCT-2023 |
| AD 2.MIL-EBFS-IAC.13-1  | 25-JAN-2024 | AD 2.MIL-EBBL-MISC.01-2 | 21-MAR-2024 | AD 2.MIL-EBFN-VAC.01-1  | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.13-2  | 25-JAN-2024 | AD 2.MIL-EBBL-MISC.02-1 | 30-NOV-2023 | AD 2.MIL-EBFN-VAC.01-2  | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.14-1  | 02-NOV-2023 | AD 2.MIL-EBBL-MISC.02-2 | 30-NOV-2023 | AD 2.MIL-EBFN-VAC.02-1  | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.14-2  | 02-NOV-2023 | AD 2.MIL-EBBL-IAC.01-1  | 30-NOV-2023 | AD 2.MIL-EBFN-VAC.02-2  | 07-SEP-2023 |
| AD 2.MIL-EBFS-IAC.15-1  | 25-JAN-2024 | AD 2.MIL-EBBL-IAC.01-2  | 30-NOV-2023 | AD 2.MIL-EBSU-1         | 01-DEC-2022 |
| AD 2.MIL-EBFS-IAC.15-2  | 25-JAN-2024 | AD 2.MIL-EBBL-IAC.02-1  | 30-NOV-2023 | AD 2.MIL-EBSU-2         | 01-DEC-2022 |
| AD 2.MIL-EBFS-IAC.16-1  | 02-NOV-2023 | AD 2.MIL-EBBL-IAC.02-2  | 30-NOV-2023 | AD 2.MIL-EBSU-AOC.01-1  | 20-MAY-2021 |
| AD 2.MIL-EBFS-IAC.16-2  | 02-NOV-2023 | AD 2.MIL-EBBL-IAC.03-1  | 30-NOV-2023 | AD 2.MIL-EBSU-AOC.01-2  | 20-MAY-2021 |
| AD 2.MIL-EBFS-IAC.17-1  | 25-JAN-2024 | AD 2.MIL-EBBL-IAC.03-2  | 30-NOV-2023 | AD 2.MIL-EBUL-1         | 18-MAY-2023 |
| AD 2.MIL-EBFS-IAC.17-2  | 25-JAN-2024 | AD 2.MIL-EBBL-IAC.04-1  | 30-NOV-2023 | AD 2.MIL-EBUL-2         | 18-MAY-2023 |
| AD 2.MIL-EBFS-IAC.18-1  | 02-NOV-2023 | AD 2.MIL-EBBL-IAC.04-2  | 30-NOV-2023 | AD 2.MIL-EBWE-1         | 24-FEB-2022 |
| AD 2.MIL-EBFS-IAC.18-2  | 02-NOV-2023 | AD 2.MIL-EBBL-IAC.05-1  | 30-NOV-2023 | AD 2.MIL-EBWE-2         | 24-FEB-2022 |
| AD 2.MIL-EBFS-IAC.19-1  | 07-SEP-2023 | AD 2.MIL-EBBL-IAC.05-2  | 30-NOV-2023 | AD 2.PVT-EBAM-1         | 24-FEB-2022 |
| AD 2.MIL-EBFS-IAC.19-2  | 07-SEP-2023 | AD 2.MIL-EBBL-IAC.06-1  | 30-NOV-2023 | AD 2.PVT-EBAM-2         | 24-FEB-2022 |
| AD 2.MIL-EBFS-IAC.20-1  | 07-SEP-2023 | AD 2.MIL-EBBL-IAC.06-2  | 30-NOV-2023 | AD 2.PVT-EBKH-1         | 25-JAN-2024 |
| AD 2.MIL-EBFS-IAC.20-2  | 07-SEP-2023 | AD 2.MIL-EBBL-IAC.07-1  | 30-NOV-2023 | AD 2.PVT-EBKH-2         | 25-JAN-2024 |
| AD 2.MIL-EBFS-IAC.21-1  | 07-SEP-2023 | AD 2.MIL-EBBL-IAC.07-2  | 30-NOV-2023 | AD 2.PVT-EBKH-3         | 25-JAN-2024 |
| AD 2.MIL-EBFS-IAC.21-2  | 07-SEP-2023 | AD 2.MIL-EBBL-IAC.08-1  | 30-NOV-2023 | AD 2.PVT-EBKH-4         | 25-JAN-2024 |
| AD 2.MIL-EBFS-IAC.22-1  | 07-SEP-2023 | AD 2.MIL-EBBL-IAC.08-2  | 30-NOV-2023 | AD 2.PVT-EBKH-ADC.01-1  | 21-MAR-2024 |
| AD 2.MIL-EBFS-IAC.22-2  | 07-SEP-2023 | AD 2.MIL-EBBL-IAC.09-1  | 02-NOV-2023 | AD 2.PVT-EBKH-ADC.01-2  | 21-MAR-2024 |
| AD 2.MIL-EBFS-IAC.23-1  | 06-OCT-2022 | AD 2.MIL-EBBL-IAC.09-2  | 02-NOV-2023 | AD 2.PVT-EBKH-VAC.01-1  | 21-MAR-2024 |
| AD 2.MIL-EBFS-IAC.23-2  | 06-OCT-2022 | AD 2.MIL-EBBL-IAC.10-1  | 30-NOV-2023 | AD 2.PVT-EBKH-VAC.01-2  | 21-MAR-2024 |
| AD 2.MIL-EBFS-IAC.24-1  | 06-OCT-2022 | AD 2.MIL-EBBL-IAC.10-2  | 30-NOV-2023 | AD 2.PVT-EBBT-1         | 24-FEB-2022 |
| AD 2.MIL-EBFS-IAC.24-2  | 06-OCT-2022 | AD 2.MIL-EBBL-IAC.11-1  | 30-NOV-2023 | AD 2.PVT-EBBT-2         | 24-FEB-2022 |
| AD 2.MIL-EBFS-VAC.01-1  | 07-SEP-2023 | AD 2.MIL-EBBL-IAC.11-2  | 30-NOV-2023 | AD 2.PVT-EBBT-3         | 04-FEB-2016 |
| AD 2.MIL-EBFS-VAC.01-2  | 07-SEP-2023 | AD 2.MIL-EBBL-IAC.12-1  | 30-NOV-2023 | AD 2.PVT-EBBT-4         | 04-FEB-2016 |
| AD 2.MIL-EBFS-VAC.02-1  | 07-SEP-2023 | AD 2.MIL-EBBL-IAC.12-2  | 30-NOV-2023 | AD 2.PVT-EBCF-1         | 07-SEP-2023 |
| AD 2.MIL-EBFS-VAC.02-2  | 07-SEP-2023 | AD 2.MIL-EBBL-IAC.13-1  | 30-NOV-2023 | AD 2.PVT-EBCF-2         | 07-SEP-2023 |
| AD 2.MIL-EBFS-VAC.03-1  | 07-SEP-2023 | AD 2.MIL-EBBL-IAC.13-2  | 30-NOV-2023 | AD 2.PVT-EBCF-3         | 07-SEP-2023 |
| AD 2.MIL-EBFS-VAC.03-2  | 07-SEP-2023 | AD 2.MIL-EBBL-IAC.14-1  | 30-NOV-2023 | AD 2.PVT-EBCF-4         | 07-SEP-2023 |
| AD 2.MIL-EBFS-VAC.04-1  | 07-SEP-2023 | AD 2.MIL-EBBL-IAC.14-2  | 30-NOV-2023 | AD 2.PVT-EBZW-1         | 24-FEB-2022 |
| AD 2.MIL-EBFS-VAC.04-2  | 07-SEP-2023 | AD 2.MIL-EBBL-IAC.15-1  | 30-NOV-2023 | AD 2.PVT-EBZW-2         | 24-FEB-2022 |
| AD 2.MIL-EBBL-1         | 24-FEB-2022 | AD 2.MIL-EBBL-IAC.15-2  | 30-NOV-2023 | AD 2.PVT-EBZW-3         | 31-JAN-2019 |
| AD 2.MIL-EBBL-2         | 24-FEB-2022 | AD 2.MIL-EBBL-IAC.16-1  | 30-NOV-2023 | AD 2.PVT-EBZW-4         | 31-JAN-2019 |
| AD 2.MIL-EBBL-3         | 18-APR-2024 | AD 2.MIL-EBBL-IAC.16-2  | 30-NOV-2023 | AD 2.PVT-EBGG-1         | 21-APR-2022 |
| AD 2.MIL-EBBL-4         | 18-APR-2024 | AD 2.MIL-EBBL-IAC.17-1  | 30-NOV-2023 | AD 2.PVT-EBGG-2         | 21-APR-2022 |
| AD 2.MIL-EBBL-5         | 18-APR-2024 | AD 2.MIL-EBBL-IAC.17-2  | 30-NOV-2023 | AD 2.PVT-EBGG-3         | 04-FEB-2016 |
| AD 2.MIL-EBBL-6         | 18-APR-2024 | AD 2.MIL-EBBL-IAC.18-1  | 26-JAN-2023 | AD 2.PVT-EBGG-4         | 04-FEB-2016 |
| AD 2.MIL-EBBL-7         | 18-APR-2024 | AD 2.MIL-EBBL-IAC.18-2  | 26-JAN-2023 | AD 2.PVT-EBTN-1         | 24-FEB-2022 |
| AD 2.MIL-EBBL-8         | 18-APR-2024 | AD 2.MIL-EBBL-VAC.01-1  | 07-SEP-2023 | AD 2.PVT-EBTN-2         | 24-FEB-2022 |
| AD 2.MIL-EBBL-9         | 18-APR-2024 | AD 2.MIL-EBBL-VAC.01-2  | 07-SEP-2023 | AD 2.PVT-EBTN-3         | 05-OCT-2023 |
| AD 2.MIL-EBBL-10        | 18-APR-2024 | AD 2.MIL-EBBL-VAC.02-1  | 07-SEP-2023 | AD 2.PVT-EBTN-4         | 05-OCT-2023 |
| AD 2.MIL-EBBL-11        | 18-APR-2024 | AD 2.MIL-EBBL-VAC.02-2  | 07-SEP-2023 | AD 2.PVT-EBGB-1         | 24-FEB-2022 |
| AD 2.MIL-EBBL-12        | 18-APR-2024 | AD 2.MIL-EBBL-VAC.03-1  | 07-SEP-2023 | AD 2.PVT-EBGB-2         | 24-FEB-2022 |
| AD 2.MIL-EBBL-ADC.01-1  | 18-APR-2024 | AD 2.MIL-EBBL-VAC.03-2  | 07-SEP-2023 | AD 2.PVT-EBGB-3         | 19-JUL-2018 |
| AD 2.MIL-EBBL-ADC.01-2  | 18-APR-2024 | AD 2.MIL-EBFN-1         | 07-SEP-2023 | AD 2.PVT-EBGB-4         | 19-JUL-2018 |
| AD 2.MIL-EBBL-GMC.01-1  | 18-APR-2024 | AD 2.MIL-EBFN-2         | 07-SEP-2023 | AD 2.PVT-EBGB-VAC.01-1  | 21-MAR-2024 |
| AD 2.MIL-EBBL-GMC.01-2  | 18-APR-2024 | AD 2.MIL-EBFN-3         | 24-FEB-2022 | AD 2.PVT-EBGB-VAC.01-2  | 21-MAR-2024 |
| AD 2.MIL-EBBL-AOC.01-1  | 07-SEP-2023 | AD 2.MIL-EBFN-4         | 24-FEB-2022 | AD 2.PVT-EBZH-1         | 24-FEB-2022 |
| AD 2.MIL-EBBL-AOC.01-2  | 07-SEP-2023 | AD 2.MIL-EBFN-5         | 19-MAY-2022 | AD 2.PVT-EBZH-2         | 24-FEB-2022 |

|                        |             |                         |             |                 |             |
|------------------------|-------------|-------------------------|-------------|-----------------|-------------|
| AD 2.PVT-EBZH-3        | 04-FEB-2016 | AD 2.PERS-EBSM-2        | 16-JUL-2020 | AD 3.PVT-EBDV-1 | 29-DEC-2022 |
| AD 2.PVT-EBZH-4        | 04-FEB-2016 | AD 3.MIL-EBCT-1         | 23-APR-2020 | AD 3.PVT-EBDV-2 | 29-DEC-2022 |
| AD 2.PVT-EBHN-1        | 18-APR-2024 | AD 3.MIL-EBCT-2         | 23-APR-2020 | AD 3.PVT-EBEB-1 | 23-APR-2020 |
| AD 2.PVT-EBHN-2        | 18-APR-2024 | AD 3.MIL-EBCT-VAC.01-1  | 23-APR-2020 | AD 3.PVT-EBEB-2 | 23-APR-2020 |
| AD 2.PVT-EBHN-3        | 04-FEB-2016 | AD 3.MIL-EBCT-VAC.01-2  | 23-APR-2020 | AD 3.PVT-EBFR-1 | 14-JUL-2022 |
| AD 2.PVT-EBHN-4        | 04-FEB-2016 | AD 3.MIL-EBCT-VAC.02-1  | 23-APR-2020 | AD 3.PVT-EBFR-2 | 14-JUL-2022 |
| AD 2.PVT-EBEH-1        | 24-FEB-2022 | AD 3.MIL-EBCT-VAC.02-2  | 23-APR-2020 | AD 3.PVT-EBAG-1 | 23-APR-2020 |
| AD 2.PVT-EBEH-2        | 24-FEB-2022 | AD 3.HOSP-EBAL-1        | 23-APR-2020 | AD 3.PVT-EBAG-2 | 23-APR-2020 |
| AD 2.PVT-EBEH-3        | 31-JAN-2019 | AD 3.HOSP-EBAL-2        | 23-APR-2020 | AD 3.PVT-EBHL-1 | 31-DEC-2020 |
| AD 2.PVT-EBEH-4        | 31-JAN-2019 | AD 3.HOSP-EBMD-1        | 23-APR-2020 | AD 3.PVT-EBHL-2 | 31-DEC-2020 |
| AD 2.PVT-EBLE-1        | 20-APR-2023 | AD 3.HOSP-EBMD-2        | 23-APR-2020 | AD 3.PVT-EBHM-1 | 23-APR-2020 |
| AD 2.PVT-EBLE-2        | 20-APR-2023 | AD 3.HOSP-EBSJ-1        | 23-APR-2020 | AD 3.PVT-EBHM-2 | 23-APR-2020 |
| AD 2.PVT-EBMO-1        | 25-JAN-2024 | AD 3.HOSP-EBSJ-2        | 23-APR-2020 | AD 3.PVT-EBHO-1 | 03-DEC-2020 |
| AD 2.PVT-EBMO-2        | 25-JAN-2024 | AD 3.HOSP-EBSS-1        | 03-DEC-2020 | AD 3.PVT-EBHO-2 | 03-DEC-2020 |
| AD 2.PVT-EBMO-3        | 24-FEB-2022 | AD 3.HOSP-EBSS-2        | 03-DEC-2020 | AD 3.PVT-EBHT-1 | 23-APR-2020 |
| AD 2.PVT-EBMO-4        | 24-FEB-2022 | AD 3.HOSP-EBUC-1        | 23-APR-2020 | AD 3.PVT-EBHT-2 | 23-APR-2020 |
| AD 2.PVT-EBNM-1        | 22-FEB-2024 | AD 3.HOSP-EBUC-2        | 23-APR-2020 | AD 3.PVT-EBHF-1 | 05-OCT-2023 |
| AD 2.PVT-EBNM-2        | 22-FEB-2024 | AD 3.HOSP-EBEU-1        | 30-NOV-2023 | AD 3.PVT-EBHF-2 | 05-OCT-2023 |
| AD 2.PVT-EBNM-3        | 24-FEB-2022 | AD 3.HOSP-EBEU-2        | 30-NOV-2023 | AD 3.PVT-EBKD-1 | 24-FEB-2022 |
| AD 2.PVT-EBNM-4        | 24-FEB-2022 | AD 3.HOSP-EBEA-1        | 23-APR-2020 | AD 3.PVT-EBKD-2 | 24-FEB-2022 |
| AD 2.PVT-ELNT-1        | 16-MAY-2024 | AD 3.HOSP-EBEA-2        | 23-APR-2020 | AD 3.PVT-EBFI-1 | 04-NOV-2021 |
| AD 2.PVT-ELNT-2        | 16-MAY-2024 | AD 3.HOSP-ELEA-1        | 29-DEC-2022 | AD 3.PVT-EBFI-2 | 04-NOV-2021 |
| AD 2.PVT-EBSG-1        | 03-NOV-2022 | AD 3.HOSP-ELEA-2        | 29-DEC-2022 | AD 3.PVT-EBKW-1 | 23-APR-2020 |
| AD 2.PVT-EBSG-2        | 03-NOV-2022 | AD 3.HOSP-ELEA-ADC.01-1 | 29-DEC-2022 | AD 3.PVT-EBKW-2 | 23-APR-2020 |
| AD 2.PVT-EBSG-3        | 03-NOV-2022 | AD 3.HOSP-ELEA-ADC.01-2 | 29-DEC-2022 | AD 3.PVT-EBKR-1 | 21-APR-2022 |
| AD 2.PVT-EBSG-4        | 03-NOV-2022 | AD 3.HOSP-ELET-1        | 29-DEC-2022 | AD 3.PVT-EBKR-2 | 21-APR-2022 |
| AD 2.PVT-EBSH-1        | 24-FEB-2022 | AD 3.HOSP-ELET-2        | 29-DEC-2022 | AD 3.PVT-EBMS-1 | 13-AUG-2020 |
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| AD 2.PVT-EBSH-3        | 24-FEB-2022 | AD 3.HOSP-EBGT-2        | 02-NOV-2023 | AD 3.PVT-EBLT-1 | 23-APR-2020 |
| AD 2.PVT-EBSH-4        | 24-FEB-2022 | AD 3.HOSP-EBYP-1        | 16-MAY-2024 | AD 3.PVT-EBLT-2 | 23-APR-2020 |
| AD 2.PVT-EBST-1        | 30-NOV-2023 | AD 3.HOSP-EBYP-2        | 16-MAY-2024 | AD 3.PVT-EBRE-1 | 25-JAN-2024 |
| AD 2.PVT-EBST-2        | 30-NOV-2023 | AD 3.HOSP-EBKZ-1        | 23-APR-2020 | AD 3.PVT-EBRE-2 | 25-JAN-2024 |
| AD 2.PVT-EBST-3        | 30-NOV-2023 | AD 3.HOSP-EBKZ-2        | 23-APR-2020 | AD 3.PVT-EBLO-1 | 23-APR-2020 |
| AD 2.PVT-EBST-4        | 30-NOV-2023 | AD 3.HOSP-EBKG-1        | 23-APR-2020 | AD 3.PVT-EBLO-2 | 23-APR-2020 |
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| AD 2.PVT-EBSP-4        | 15-JUN-2023 | AD 3.HOSP-EBCH-1        | 23-APR-2020 | AD 3.PVT-EBMM-2 | 23-APR-2020 |
| AD 2.PVT-EBSP-VAC.01-1 | 21-MAR-2024 | AD 3.HOSP-EBCH-2        | 23-APR-2020 | AD 3.PVT-EBMH-1 | 15-JUL-2021 |
| AD 2.PVT-EBSP-VAC.01-2 | 21-MAR-2024 | AD 3.HOSP-EBLS-1        | 25-MAR-2021 | AD 3.PVT-EBMH-2 | 15-JUL-2021 |
| AD 2.PVT-EBTY-1        | 24-FEB-2022 | AD 3.HOSP-EBLS-2        | 25-MAR-2021 | AD 3.PVT-EBME-1 | 27-JAN-2022 |
| AD 2.PVT-EBTY-2        | 24-FEB-2022 | AD 3.HOSP-EBLX-1        | 23-APR-2020 | AD 3.PVT-EBME-2 | 27-JAN-2022 |
| AD 2.PVT-EBTY-3        | 02-JAN-2020 | AD 3.HOSP-EBLX-2        | 23-APR-2020 | AD 3.PVT-EBMN-1 | 23-APR-2020 |
| AD 2.PVT-EBTY-4        | 02-JAN-2020 | AD 3.HOSP-EBMC-1        | 23-FEB-2023 | AD 3.PVT-EBMN-2 | 23-APR-2020 |
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| AD 2.PVT-EBTX-1        | 24-FEB-2022 | AD 3.HOSP-EBGE-2        | 23-APR-2020 | AD 3.PVT-EBLM-1 | 23-APR-2020 |
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| AD 2.PVT-EBSL-2        | 18-APR-2024 | AD 3.HOSP-ELLK-1        | 29-DEC-2022 | AD 3.PVT-EBNK-2 | 23-APR-2020 |
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| AD 2.ULM-EBAR-2        | 20-APR-2023 | AD 3.HOSP-EBMT-1        | 23-APR-2020 | AD 3.PVT-EBOO-2 | 23-FEB-2023 |
| AD 2.ULM-EBML-1        | 13-AUG-2020 | AD 3.HOSP-EBMT-2        | 23-APR-2020 | AD 3.PVT-EBNH-1 | 31-DEC-2020 |
| AD 2.ULM-EBML-2        | 13-AUG-2020 | AD 3.HOSP-EBNB-1        | 23-APR-2020 | AD 3.PVT-EBNH-2 | 31-DEC-2020 |
| AD 2.ULM-EBIS-1        | 23-APR-2020 | AD 3.HOSP-EBNB-2        | 23-APR-2020 | AD 3.PVT-EBOB-1 | 18-MAY-2023 |
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| AD 2.ULM-EBMG-2        | 23-APR-2020 | AD 3.HOSP-EBVS-1        | 23-APR-2020 | AD 3.PVT-EBNP-2 | 23-MAR-2023 |
| AD 2.ULM-EBBY-1        | 27-JAN-2022 | AD 3.HOSP-EBVS-2        | 23-APR-2020 | AD 3.PVT-EBEN-1 | 03-DEC-2020 |
| AD 2.ULM-EBBY-2        | 27-JAN-2022 | AD 3.PVT-EBDR-1         | 23-MAR-2023 | AD 3.PVT-EBEN-2 | 03-DEC-2020 |
| AD 2.ULM-EBAV-1        | 05-OCT-2023 | AD 3.PVT-EBDR-2         | 23-MAR-2023 | AD 3.PVT-EBLY-1 | 23-APR-2020 |
| AD 2.ULM-EBAV-2        | 05-OCT-2023 | AD 3.PVT-EBJS-1         | 23-APR-2020 | AD 3.PVT-EBLY-2 | 23-APR-2020 |
| AD 2.ULM-EBBZ-1        | 23-APR-2020 | AD 3.PVT-EBJS-2         | 23-APR-2020 | AD 3.PVT-EBRO-1 | 23-APR-2020 |
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| AD 2.ULM-EBOR-1        | 25-FEB-2021 | AD 3.PVT-EBBM-2         | 23-APR-2020 | AD 3.PVT-EBNR-1 | 23-APR-2020 |
| AD 2.ULM-EBOR-2        | 25-FEB-2021 | AD 3.PVT-EBBV-1         | 23-APR-2020 | AD 3.PVT-EBNR-2 | 23-APR-2020 |
| AD 2.ULM-EBZU-1        | 16-MAY-2024 | AD 3.PVT-EBBV-2         | 23-APR-2020 | AD 3.PVT-EBRR-1 | 23-APR-2020 |
| AD 2.ULM-EBZU-2        | 16-MAY-2024 | AD 3.PVT-EBOK-1         | 23-APR-2020 | AD 3.PVT-EBRR-2 | 23-APR-2020 |
| AD 2.PERS-EBSM-1       | 16-JUL-2020 | AD 3.PVT-EBOK-2         | 23-APR-2020 | AD 3.PVT-EBRD-1 | 23-APR-2020 |

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| AD 3.PVT-EBSW-2  | 23-APR-2020 |
| AD 3.PVT-EBSF-1  | 06-OCT-2022 |
| AD 3.PVT-EBSF-2  | 06-OCT-2022 |
| AD 3.PVT-EBSB-1  | 30-NOV-2023 |
| AD 3.PVT-EBSB-2  | 30-NOV-2023 |
| AD 3.PVT-EBTK-1  | 30-NOV-2023 |
| AD 3.PVT-EBTK-2  | 30-NOV-2023 |
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| AD 3.PVT-EBWA-1  | 28-JAN-2021 |
| AD 3.PVT-EBWA-2  | 28-JAN-2021 |
| AD 3.PVT-EBWK-1  | 25-JAN-2024 |
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| AD 3.PVT-EBWH-2  | 03-DEC-2020 |
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| AD 3.PERS-EBPL-1 | 30-NOV-2023 |
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| AD 3.PERS-EBRL-2 | 27-JAN-2022 |
| AD 3.PERS-EBLV-1 | 18-JUN-2020 |
| AD 3.PERS-EBLV-2 | 18-JUN-2020 |
| AD 3.PERS-EBLJ-1 | 25-FEB-2021 |
| AD 3.PERS-EBLJ-2 | 25-FEB-2021 |
| AD 3.PERS-EBLH-1 | 08-OCT-2020 |
| AD 3.PERS-EBLH-2 | 08-OCT-2020 |
| AD 3.PERS-EBSV-1 | 10-AUG-2023 |
| AD 3.PERS-EBSV-2 | 10-AUG-2023 |
| AD 3.PERS-EBLD-1 | 18-JUN-2020 |
| AD 3.PERS-EBLD-2 | 18-JUN-2020 |
| AD 3.PERS-EBVU-1 | 23-MAR-2023 |
| AD 3.PERS-EBVU-2 | 23-MAR-2023 |
| AD 3.PERS-EBEM-1 | 13-JUL-2023 |
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## GEN 0.5 List of Hand Amendments to the AIP

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# GEN 1 NATIONAL REGULATIONS AND REQUIREMENTS

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## GEN 1.1 Designated Authorities

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The addresses of the designated authorities concerned with facilitation of international air navigation are as follows:

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### 1 AVIATION AUTHORITY

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#### 1.1 In Belgium

##### 1.1.1 Civil

Post: Civil Aviation Authority  
Atrium - 6th floor  
Rue du Progrès / Vooruitgangstraat 56  
1210 Brussels  
BELGIUM

TEL: +32 (0) 2 277 43 11

Email: [civilair@mobilifgov.be](mailto:civilair@mobilifgov.be)

URL: [www.mobilif.belgium.be](http://www.mobilif.belgium.be)

##### 1.1.2 Military

Post: Defence  
Air Component - COMOPSAIR  
Air Operations Support (A 3.2)  
Kwartier Koningin Elisabeth / Quartier Reine Elisabeth  
Bldg 1  
Eversestraat / Rue d'Evere 1  
1140 Brussels  
BELGIUM

TEL: +32 (0) 2 441 66 42

Email: [comopsair-a3-air-ctrl-ops@mil.be](mailto:comopsair-a3-air-ctrl-ops@mil.be)

#### 1.2 In Luxembourg

Post: Direction de l'Aviation Civile  
BP 283  
L-2012 Luxembourg  
LUXEMBOURG

TEL: +352 24 77 49 00

FAX: +352 24 77 49 45

Email: [civilair@av.etat.lu](mailto:civilair@av.etat.lu)

URL: [www.dac.gouvernement.lu](http://www.dac.gouvernement.lu)

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### 2 METEOROLOGY

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#### 2.1 In Belgium

##### 2.1.1 Civil

Post: skeyes  
Tervuursesteenweg 303  
1820 Steenokkerzeel  
BELGIUM

TEL: +32 (0) 2 206 20 01

FAX: +32 (0) 2 206 20 35

AFS: EBVAYMYX

Email: [meteo@skeyes.be](mailto:meteo@skeyes.be)  
URL: [ops.skeyes.be](http://ops.skeyes.be)

### 2.1.2 Military

Post: Defence  
Air Component - COMOPSAIR  
Meteo Wing  
Base Charles Roman  
1320 Beauvechain  
BELGIUM  
TEL: +32 (0) 2 442 54 24  
TEL: +32 (0) 2 442 54 34  
Email: [meteow-bgmt@mil.be](mailto:meteow-bgmt@mil.be)

## 2.2 In Luxembourg

Post: Administration de la navigation aérienne  
MET Department  
BP 273  
L-2012 Luxembourg  
LUXEMBOURG  
TEL: +352 47 98 27 00 1  
FAX: +352 47 98 27 09 1  
AFS: ELLXYMYX  
Email: [info@meteo.public.lu](mailto:info@meteo.public.lu)  
URL: [www.ana.gouvernement.lu](http://www.ana.gouvernement.lu) (ANA site)  
URL: [www.meteolux.lu](http://www.meteolux.lu) (MET site)

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## 3 CUSTOMS

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### 3.1 In Belgium

Post: Administration Centrale des Douanes et Accises / Centrale Administratie der Douane en Accijnzen  
Boulevard Roi Albert II / Koning Albert II-laan 33/37  
1030 Brussels  
BELGIUM  
TEL: +32 (0) 2 576 30 19  
FAX: +32 (0) 2 579 52 79  
Email: [info.douane@minfin.fed.be](mailto:info.douane@minfin.fed.be)  
URL: [www.customs.fgov.be](http://www.customs.fgov.be)

### 3.2 In Luxembourg

#### 3.2.1 Passengers

Post: Administration des douanes et accises  
Brigade Surveillance Passagers Findel  
BP 61  
L-6905 Niederanven  
LUXEMBOURG  
TEL: +352 24 64 88 00  
FAX: +352 24 64 88 99  
Email: [idf.gsp@do.public.lu](mailto:idf.gsp@do.public.lu)  
URL: [www.douanes.public.lu](http://www.douanes.public.lu)

#### 3.2.2 Cargo

Post: Administration des douanes at accises  
Brigade Contrôle Fret Findel  
BP 61  
L-6905 Niederanven  
LUXEMBOURG  
TEL: +352 24 56 90 77  
FAX: +352 26 94 55 32



Email: [idf.gaff@do.public.lu](mailto:idf.gaff@do.public.lu)

URL: [www.douanes.public.lu](http://www.douanes.public.lu)

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## 4 IMMIGRATION

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### 4.1 In Belgium

Post: Federale Politie / Police Fédérale  
Immigratie en grenscontrole / Immigration et contrôle frontière  
F. Toussaintstraat / Rue F. Toussaint 47  
1050 Brussels  
BELGIUM

TEL: +32 (0) 2 642 63 21

URL: [www.polfed-fedpol.be](http://www.polfed-fedpol.be)

### 4.2 In Luxembourg

Post: Police Grand-Ducale  
Service de Contrôle à l'Aéroport  
BP 1007  
L-2957 Luxembourg  
LUXEMBOURG

TEL: +352 621 375 701

Email: [upa.sca@police.etat.lu](mailto:upa.sca@police.etat.lu)

URL: [www.police.public.lu](http://www.police.public.lu)

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## 5 HEALTH

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### 5.1 In Belgium

Post: FOD Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu /  
SPF Santé public, Sécurité de la Chaîne alimentaire et Environnement  
Eurostation II  
Victor Hortaplein / Place Victor Horta 40/10  
1060 Brussels  
BELGIUM

TEL: +32 (0) 2 524 97 97

URL: [www.health.belgium.be](http://www.health.belgium.be)

### 5.2 In Luxembourg

Post: Ministère de la Santé  
Division de l'Inspection Sanitaire  
20, rue de Bitbourg  
L-1273 Luxembourg  
LUXEMBOURG

TEL: +352 24 78 56 50

FAX: +352 48 03 23

Email: [inspecteur-sanitaire@ms.etat.lu](mailto:inspecteur-sanitaire@ms.etat.lu)

URL: [www.sante.public.lu](http://www.sante.public.lu)

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## 6 EN-ROUTE CHARGES

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Post: EUROCONTROL  
Central Route Charges Office  
Raketstraat / Rue de la Fusée 96  
1130 Brussels  
BELGIUM

TEL: +32 (0) 2 729 38 38

FAX: +32 (0) 2 729 90 93

Email: [r3.crco@eurocontrol.int](mailto:r3.crco@eurocontrol.int)

URL: [www.eurocontrol.int/crco](http://www.eurocontrol.int/crco)

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## 7 AERODROME CHARGES

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### 7.1 EBAW and EBOS

Post: Ministerie van de Vlaamse Gemeenschap  
Departement Mobiliteit en Openbare Werken  
Afdeling Openbare Werken  
Koning Albert II-laan 20/2  
1000 Brussels  
BELGIUM

TEL: +32 (0) 2 553 78 11

FAX: +32 (0) 2 553 78 65

### 7.2 EBBR

Post: Brussels Airport Company  
Auguste Reyerslaan 80  
1030 Brussels  
BELGIUM

TEL: +32 (0) 2 753 42 00

AFS: EBBRYDYX

### 7.3 EBCI and EBLG

Post: Service Public de Wallonie  
DGO - O/METCA-MET - D323  
Boulevard du Nord 8  
5000 Namur  
BELGIUM

TEL: +32 (0) 81 77 20 00

FAX: +32 (0) 81 77 38 66

### 7.4 EBKT

Post: WIVWB  
Luchthavenstraat 1 bus 1  
8560 Wevelgem  
BELGIUM

TEL: +32 (0) 56 36 20 45

FAX: +32 (0) 56 35 40 59

AFS: EBKTZPZX

Email: [airport.kortrijk@skynet.be](mailto:airport.kortrijk@skynet.be)

### 7.5 ELLX

Post: Société de l'Aéroport de Luxembourg SA  
Airport Charges  
BP 635  
L-2016 Luxembourg  
LUXEMBOURG

TEL: +352 24 64 1

Email: [airportcharges@lux-airport.lu](mailto:airportcharges@lux-airport.lu)

URL: <https://www.lux-airport.lu>

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## 8 AGRICULTURAL QUARANTINE

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### 8.1 In Belgium

#### 8.1.1 Brussels-Capital Region

Post: Ministère de la Région de Bruxelles-Capitale / Ministerie van het Brussels Hoofdstedelijk Gewest  
Administration de l'Economie et de l'Emploi / Bestuur Economie en Werkgelegenheid  
Boulevard du Jardin botanique / Kruidtuinlaan 20  
1035 Brussels  
BELGIUM

TEL: +32 (0) 2 800 34 52  
FAX: +32 (0) 2 800 38 04  
Email: [info.eco@mrbc.irisnet.be](mailto:info.eco@mrbc.irisnet.be)  
URL: [www.brussels.irisnet.be](http://www.brussels.irisnet.be)

### 8.1.2 Flemish Region

Post: Ministerie van de Vlaamse Gemeenschap  
Landbouw en Visserij  
Koning Albert II-laan 35/40  
1030 Brussels  
BELGIUM  
TEL: +32 (0) 2 552 77 69  
FAX: +32 (0) 2 552 77 41  
Email: [communicatie@lv.vlaanderen.be](mailto:communicatie@lv.vlaanderen.be)  
URL: [lv.vlaanderen.be](http://lv.vlaanderen.be)

### 8.1.3 Walloon Region

Post: Service Public de Wallonie  
Direction Générale Agriculture, Ressources naturelles et Environnement  
Avenue Prince de Liège 15  
5100 Namur  
BELGIUM  
TEL: +32 (0) 81 64 94 11  
Email: [agriculture.dgarne@spw.wallonie.be](mailto:agriculture.dgarne@spw.wallonie.be)  
URL: [agriculture.wallonie.be](http://agriculture.wallonie.be)

## 8.2 In Luxembourg

### 8.2.1 Animals

Post: Administration Luxembourgeoise Vétérinaire et Alimentaire  
BP 1403  
L-1014 Luxembourg  
LUXEMBOURG  
TEL: +352 24 78 25 39  
FAX: +352 40 75 45  
Email: [info@alva.etat.lu](mailto:info@alva.etat.lu)  
URL: [www.agriculture.public.lu](http://www.agriculture.public.lu)

### 8.2.2 Plants

Post: Administration des Services Techniques de l'Agriculture  
BP 1904  
L-1019 Luxembourg  
LUXEMBOURG  
TEL: +352 45 71 72 275 or 277  
FAX: +352 45 71 72 182  
Email: [import-contrôle@asta.etat.lu](mailto:import-contrôle@asta.etat.lu)  
URL: [www.agriculture.public.lu](http://www.agriculture.public.lu)

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## 9 AIRCRAFT ACCIDENTS INVESTIGATION

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### 9.1 In Belgium

#### 9.1.1 Civil

Post: Air Accident Investigation Unit (Belgium)  
Atrium - 6th floor  
Rue du Progrès/Vooruitgangstraat 56  
1210 Brussel  
BELGIUM  
TEL: +32 (0) 2 277 44 33 or +32 (0) 476 76 18 65  
Email: [aaiube@mobiliteit.fgov.be](mailto:aaiube@mobiliteit.fgov.be)

### 9.1.2 Military

Post: Defence  
Air Component  
Aviation Safety Directorate  
Base Charles Roman  
1320 Beauvechain  
BELGIUM  
TEL: +32 (0) 2 442 54 49  
Email: [asd-avn-safety@mil.be](mailto:asd-avn-safety@mil.be)

### 9.2 In Luxembourg

Post: Administration des Enquêtes Techniques  
BP 1388  
L-1013 Luxembourg  
LUXEMBOURG  
TEL: +352 24 78 44 03  
FAX: +352 24 79 44 04  
Email: [info@aet.etat.lu](mailto:info@aet.etat.lu)  
URL: [www.aet.gouvernement.lu](http://www.aet.gouvernement.lu)

## GEN 1.2 Entry, Transit and Departure of Aircraft

### 1 IN BELGIUM

#### 1.1 Civil

##### 1.1.1 General

Aircraft registered in a member state of ICAO and aircraft registered in foreign states with which reciprocal agreements concerning aircraft and aircrews have been concluded, may be navigated in Belgium, subject to the observance of the applicable rules, conditions and limitations set forth in this document and in the legislation described in [GEN 1.6. § 1](#).

##### 1.1.2 Noise certification

Take-off and landing on Belgian aerodromes of civil subsonic jet aeroplanes is forbidden unless granted noise certification to the standards specified in Part II, Chapter 3, Volume 1 of *ICAO Annex 16*.

This prohibition applies only to civil subsonic jet aeroplanes with a by-pass ratio of less than two and with a MTOW of 34000KG or more, or with a certified maximum internal accommodation for the aeroplane type in question consisting of more than 19 passenger seats, excluding any seats for crew only.

This prohibition does not apply to:

- take-off and landing performed by aircraft carrying members of the Belgian Royal Family, the Belgian government, the regional and community governments and foreign Royal Families and heads of state or leaders of foreign governments, presidents and commissioners of the European Union, on official missions;
- take-off and landing performed with regard to missions in case of disasters or for the purpose of medical assistance
- take-off and landing concerning military missions;
- take-off and landing performed in exceptional conditions such as:
  - flights on which there is immediate danger to the life or health of persons, as well as animals;
  - flights diverted for meteorological reasons.

Exceptionally and on explicit justified request, the Minister of Transport may authorize a take-off or landing of a non-compliant aircraft. The operator of a flight seeking an exemption shall obtain prior permission from the CAA (see [GEN-1.1](#)).

Between 2200 and 0500 (2100 and 0400), flights of re-certificated civil subsonic jet aircraft are only authorized in clean configuration (landing gear and wing flaps retracted).

##### 1.1.3 Crossing of the External Borders of the Schengen Area

Title II, Chapter I, Article 5 of *Regulation 2016.399 of the European Parliament and of the European Council* imposes restrictions on the crossing of the external borders of the Schengen Area. They may be crossed only at the official border crossing points notified by the EU Member States to the European Commission.

The Schengen Area, within which no restrictions to air travel apply, currently consists of 29 countries:

|               |           |            |             |                 |
|---------------|-----------|------------|-------------|-----------------|
| Austria       | Belgium   | Bulgaria   | Croatia     | Czech Republic  |
| Denmark       | Estonia   | Finland    | France      | Germany         |
| Greece        | Hungary   | Iceland    | Italy       | Latvia          |
| Liechtenstein | Lithuania | Luxembourg | Malta       | the Netherlands |
| Norway        | Poland    | Portugal   | Romania     | Slovakia        |
| Slovenia      | Spain     | Sweden     | Switzerland |                 |

Flights arriving from any other country should only use the official border crossing points when landing in Belgium. Likewise, flights departing to any country outside the Schengen Area shall take-off only from the official border crossing points.

The official border crossing points are EBAW, EBBR, EBCI, EBKT, EBLG and EBOS. Incoming persons may travel freely in the Schengen Area after the border check at the official border crossing point.

When travelling by air in Belgium, entering or leaving the Schengen Area from any other aerodrome than the official border crossing points mentioned above, is illegal. Active surveillance will be carried out by the Belgian Federal Police and violations will be subject to law enforcement measures.

Further information can be obtained from:

Post: Federal Police  
Aviation Police – Operations  
Ruiterslaan 2  
1040 Etterbeek  
BELGIUM

TEL: +32 (0) 2 554 48 27

FAX: +32 (0) 2 642 60 60  
Email: [DGA.LPA.Ops@police.belgium.eu](mailto:DGA.LPA.Ops@police.belgium.eu)

#### 1.1.4 Submission of the General Declaration to Belgian Air Border Guards

Additionally, according to the *Schengen Border Code Regulation EU 2016/399* a General Declaration is a mandatory immigration document for general aviation flights leaving or entering the countries of the Schengen Treaty.

Belgian border guards of the Federal Police require a General Declaration in advance, prior to take-off, by means of a submitted General Declaration (inbound and outbound).

A Federal Police website [www.generaldeclaration.be](http://www.generaldeclaration.be) allows to create and submit automatically and secured the General Declaration to the competent Border Guards.

Further information can be obtained from:

Federal Police – Aviation Police  
Belgian General Aviation Information Bureau

Email: [DGA.LPA.GenDecCenter@police.belgium.eu](mailto:DGA.LPA.GenDecCenter@police.belgium.eu)

TEL: +32 (0) 56 36 07 98 (0500-2000)

TEL: +32 (0) 59 34 00 05 (2000-0500)

## 1.2 Military

*Note: These regulations concern only DIPLOMATIC CLEARANCES. The underneath mentioned planned authorizations can absolutely not replace the normal ATC clearance, which must always be obtained following the national rules in force.*

### 1.2.1 General

Overflight of Belgium by foreign military and governmental aircraft is subject to the approval of the Minister of Defence. No military and governmental aircraft of another State shall fly over the territory of Belgium or land thereon without prior authorisation, and in accordance with the terms thereof.

Standing diplomatic clearances can be obtained on an annual basis. The request for standing diplomatic clearance has to be introduced via the Ministry of Foreign Affairs. The standing diplomatic clearances, and the terms thereof, are notified to the requesting countries via diplomatic channel.

### 1.2.2 Designated Authorities

Within the Ministry of Defence, the designated authorities concerned with diplomatic clearances are as follows:

The MTCC (Movement Transport Coordination Center), as part of ACOS Ops & Trg, is stationed at Evere. The MTCC, Cell Diplomatic Clearance, is responsible for the overall regulation of the diplomatic clearances, and administer the standing diplomatic clearances for foreign countries' military aircraft.

The ADNC, as part of CRC, is stationed at Beauvechain and provides, under delegation of the MTCC, Cell Diplomatic Clearance, occasional diplomatic clearances for foreign countries' military and governmental aircraft.

### 1.2.3 Procedures

The standing diplomatic clearances numbers, and the terms thereof, are notified to the concerned countries via diplomatic channel.

The terms of those standing clearances depends of the bilateral or multilateral agreements. Those terms are:

- The reference numbers of the standing diplomatic clearances;
- The aircraft that are covered by the standing clearances;
- The airfields that can be used with the standing clearances;
- The notification delays that must be respected;
- The addresses to which the notification must be sent.

#### 1.2.3.1 Reference of Clearances and Type of Flight

For all nations:

- Transport of VIP;
- Transport of passengers and general cargo.

Additionally, for EU and NATO members:

- Transport of dangerous cargo, arms and ammunitions;
- Overflight and landing of military fighter and helicopter aircraft.

#### 1.2.3.2 Type of Aircraft

For all nations:

- All military and governmental transport aircraft.

Additionally, for EU and NATO members:

- Chartered military aircraft (commercial transport aircraft on military missions);
- All military fighter aircraft;
- All military helicopter aircraft.

### 1.2.3.3 **Suitable Airfields**

For all nations:

- Airfields open to civil air traffic;
- EBMB (for VIP flights).

Additionally, for EU and NATO members:

- Military airfields.

Operational clearance must always be obtained from the appropriate airfield authority.

### 1.2.3.4 **Requests**

All flights, except those who are covered by a standing diplomatic clearance, are subject to an occasional diplomatic clearance request. This request has to be sent at least 5 (five) working days in advance using the European Union Diplomatic Clearance (DIC) form and its validity frame is -24 HR until +72 HR from the scheduled overflight time of the entry point.

The Diplomatic Clearance (DIC) form may be downloaded in WORD format from the following address:

URL: [https://ops.skeyes.be/html/belgocontrol\\_static/eaip/eAIP\\_Product/Forms/EU\\_Diplomatic\\_Clearance\\_DIC\\_form.doc](https://ops.skeyes.be/html/belgocontrol_static/eaip/eAIP_Product/Forms/EU_Diplomatic_Clearance_DIC_form.doc)

An example of a filled out form may be found from the following address:

URL: [https://ops.skeyes.be/html/belgocontrol\\_static/eaip/eAIP\\_Product/Forms/EU\\_Diplomatic\\_Clearance\\_DIC\\_form\\_example.pdf](https://ops.skeyes.be/html/belgocontrol_static/eaip/eAIP_Product/Forms/EU_Diplomatic_Clearance_DIC_form_example.pdf)

### 1.2.3.5 **Notification**

For all nations:

- Reference of clearance has to be inserted in the ICAO flight plan;
- Each notification has a validity frame of -24 HR until +72 HR from the scheduled overflight time of the entry point;
- VIP flights with planned landing in Belgium have to be notified at least one working day prior landing, with use of the European Union Diplomatic Clearance form.

Additionally, for EU and NATO members, they shall follow the rules, according to the information found on:

URL: <https://dic.eda.europa.eu/belgium>

All missions which are not covered by items in §1.2.3.5 are automatically subject to a requests, according to §1.2.3.4.

### 1.2.3.6 **Addresses**

Requests for standing diplomatic clearances, occasional requests and notifications, have to be sent through diplomatic channel to FPS Foreign Affairs, Foreign Trade and Development Cooperation, International Transport Directorate.

For EU and NATO members who have agreed on a simplified communication procedure, notifications and occasional requests may be sent directly to the Belgian Air Defence Notification Center.

Email: [CRC-11SQN-ADNC@mil.be](mailto:CRC-11SQN-ADNC@mil.be)

TEL: +32 (0) 2 443 86 59

## 1.2.4 **Flights of Foreign Military Aircraft over Belgian Territory**

All foreign MIL flights within the Brussels FIR/UIR may be conducted according GAT or OAT rules, depending upon operational requirements of the mission. OAT flights are only possible during the Steenokkerzeel ATCC operating hours (see GEN 3.3) and, other than transit flights, are forbidden on SAT, SUN and national HOL. COMOPSAIR can grant exceptions to this rule.

Aircraft flying according GAT shall establish radio contact with Brussels ACC/APP/FIC on frequencies stated in [ENR 2.1, § 3](#).

Aircraft flying according OAT shall establish radio contact with Steenokkerzeel ATCC, call sign 'Belga Radar', on frequencies stated in [ENR 2.1, § 3](#).

Foreign OAT flights requesting

- airspace for Tactical Air Ops or other than Tactical Air Ops shall follow the booking procedures as described in [ENR 5.2, § 1.3](#)
- the use of danger areas or restricted areas shall follow the reservation specifications as described in [ENR 5.1, § 5](#)
- the use of Helicopter Training Areas (HTA) or Low Flying Areas (LFA) shall follow the booking procedures as described in [ENR 5.2, § 2.2](#) and [ENR 5.2, § 3.2](#)

Combined OAT missions with BEL and foreign military aircraft shall follow the domestic booking procedures.

EUROAT rules are applicable as described in [ENR 1.1, § 2.1.2.2](#).

OAT and GAT flight plans shall be submitted according to the rules laid down in ENR 1.10.

The use of tactical call signs within the Belgian airspace is prohibited for non-Belgian military aircraft. QRA missions (training and real) are exempted from this rule. Other exception requests for the use of tactical call signs within the Belgian airspace need prior approval and can be sent, at least 5 working days in advance, to:

Post: Defence  
Air Component - COMOPSAIR  
Air Operations Support (A 3.2)  
Kwartier Koningin Elisabeth  
Bldg 1  
Eversestraat / Rue d'Evere 1  
1140 Brussels  
BELGIUM  
TEL: +32 (0) 2 441 66 42  
Email: [comopsair-a3-air-ctrl-ops@mil.be](mailto:comopsair-a3-air-ctrl-ops@mil.be)

## 1.2.5 Landing of Military Aircraft at EBBR

### 1.2.5.1 Conventional and Jet Transport Aircraft

Aircraft of the 15W: No restrictions.

Liaison aircraft: must file an IFR FPL and be able to select the appropriate radio frequencies stated in ENR 2.1, § 3.

### 1.2.5.2 Jet Fighter Aircraft

Jet fighter aircraft will only be allowed to land at EBBR in exceptional circumstances. When a jet fighter aircraft is authorised to land, the same prescription as in above will apply. The authorisation to land at EBBR must be obtained via COMOPSAIR Air Operations Support.

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## 2 IN LUXEMBOURG

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### 2.1 Submission of the General Declaration to Luxembourg Air Border Guards

According to the Schengen Border Code *Regulation EU 2016/399*, a General Declaration is a mandatory immigration document for general aviation flights leaving or entering the countries of the Schengen Treaty.

Border guards from the Luxembourg Airport Police require a General Declaration in advance, prior to take-off, by means of a submitted General Declaration (inbound and outbound).

The required General Declaration Form can be downloaded via the following link: URL: <https://police.public.lu/fr/votre-police/services-et-unites/upa.html>.

For all aircraft being subject to mandatory handling at the Business Aviation Center (see ELLX AD 2.20, § 6.1 and ELLX AD 2.20, § 6.2) the completed form must be sent to following email recipients:

- Border guards: [upa.gendec@police.etat.lu](mailto:upa.gendec@police.etat.lu)
- Business Aviation Center: [bac@lux-airport.lu](mailto:bac@lux-airport.lu)

For aircraft which are exempted from handling (see ELLX AD 2.20, § 6.3) the General Declaration Form must only be sent to the competent border guards: [upa.gendec@police.etat.lu](mailto:upa.gendec@police.etat.lu).

Further information can be obtained from:

Unité de la Police de l'Aéroport  
Luxembourg Airport

Email: [upa.gendec@police.etat.lu](mailto:upa.gendec@police.etat.lu)  
TEL: +352 24 41 85 04 0

### 2.2 Other

See relevant services, GEN 1.1.



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## **GEN 1.3 Entry, Transit and Departure of Passengers and Crew**

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See relevant services, [GEN 1.1](#).

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## GEN 1.4 Entry, Transit and Departure of Cargo

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See relevant services, [GEN 1.1](#).

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# GEN 1.5 Aircraft Instruments, Equipment and Flight Documents

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## 1 NAVIGATION EQUIPMENT

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### 1.1 RNAV Equipment

Aircraft, other than state aircraft, operating on the ATS routes above FL 095 within the Brussels FIR/UIR shall be equipped with, as a minimum, RNAV equipment meeting RNP 5 in accordance with the requirements set out in *ICAO Doc 7030, Regional Supplementary Procedures* (EUR SUPPS, chapter 4).

### 1.2 RNP Approach Equipment

To execute an RNP approach the use of GNSS equipment is mandatory. In case of an RNP approach to the LPV minimum, the equipment must additionally make use of the European SBAS EGNOS. These LPV approaches can be retrieved from the FMS database using the SBAS channel number as published on the relevant RNP approach chart.

In case of RNP approach, the pilot should check RAIM availability using GNSS RAIM NOTAM or other means. In case of RNP approach to LPV minimum, the pilot should check EGNOS availability using EGNOS NOTAM for the relevant airport.

The use of guidance relying on EGNOS signals is authorized for a RNP approach leading to LNAV/VNAV and LPV minima.

Barometric VNAV guidance during approach is not temperature compensated. A temperature limitation is reflected on the RNP approach chart. Operating at uncompensated altitudes will not provide expected obstacle clearance below published minimum temperatures.

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## 2 8.33KHZ CHANNEL SPACING CAPABLE RADIO EQUIPMENT

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### 2.1 8.33KHZ Voice Channel Spacing Above FL 195

The carriage of 8.33KHZ channel spacing radio equipment is mandatory throughout the ICAO EUR Region for flights above FL 195.

State aircraft operating within Brussels FIR/UIR are permanently exempted from the above carriage requirement, provided that they are able to communicate on UHF. In addition, all state aircraft flying OAT within the Brussels UIR, are exempted from the above-mentioned carriage requirement.

Except for UHF equipped state aircraft, non-equipped aircraft planning to enter any FIR/UIR above FL 195 in the EUR Region where no exemption has been published (refer to the AIP of the state covering the FIR/UIR concerned), must flight plan to operate below FL 195 throughout the entire EUR Region.

*Note: Above FL245 in the Brussels UIR, UHF coverage is assured. Below FL245, regular 25KHZ assignments will be used. State aircraft planning to cross the Brussels UIR boundary above FL 195 shall comply with the 8.33KHZ regulations of neighbouring states and check the UHF coverage provided.*

### 2.2 8.33KHZ Voice Channel Spacing Below FL 195

All radios operating in the 117.975-137MHZ band (the 'VHF-band' allocated to aviation) shall have the 8.33KHZ channel spacing capability. An operator shall not operate an aircraft in airspace where carriage of radio is required unless the aircraft radio equipment has the 8.33KHZ channel spacing capability.

State aircraft which are permanently exempted from the requirement of having radio equipment with the 8.33KHZ channel spacing capability shall be able to communicate on UHF or on the remaining VHF 25 KHZ frequencies, where available.

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## 3 EUR RVSM IN BRUSSELS UIR

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Only RVSM approved aircraft and non-RVSM approved state aircraft will be permitted to operate within the EUR RVSM airspace.

Guidance material on the airworthiness, continued airworthiness and the operational practices and procedures for the EUR RVSM airspace is provided in the *Joint Aviation Authorities (JAA) Temporary Guidance Leaflet (TGL) Number 6, Revision 1*, and the *ICAO EUR Regional Supplementary Procedures* (EUR SUPPS, chapter 4).

*Note 1: RVSM approved aircraft are those aircraft for which the operator has obtained an RVSM approval, either from the state in which the operator is based, or from the state in which the aircraft is registered.*

*Note 2: Details on RVSM airspace within Brussels UIR can be found in ENR 2.1.*

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## 4 SSR TRANSPONDER

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### 4.1 Elementary Surveillance (ELS)

The carriage and operation of a Mode S transponder, compliant with *European Aviation Safety Agency (EASA) CS-ACNS, Book 1, Subpart D, Surveillance (SUR), Section 2 - Mode S elementary surveillance*, is mandatory in the Brussels FIR/UIR, as follows:

- For IFR flight as GAT;
- For VFR flights, conducted in airspace where the carriage and operation of SSR transponders is mandatory

### 4.2 Enhanced Surveillance (EHS)

The carriage and operation of a Mode S transponder, compliant with *European Aviation Safety Agency (EASA) CS-ACNS, Book 1, Subpart D, Surveillance (SUR) Section 3 - Mode S enhanced surveillance*, is mandatory in the Brussels FIR/UIR for fixed wing aircraft flying in accordance with IFR as GAT, when the aircraft has a MTOW greater than 5 700 KG and/or a maximum cruising true airspeed in excess of 250 KT.

State aircraft are exempted of this requirement when flying as GAT within the Brussels FIR/UIR, carriage and operation of a Mode S ELS-capable transponder is sufficient.

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## 5 ACAS Resolution advisory (RA) (SERA.11014)

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ACAS II shall be used during flight except as provided in the minimum equipment list specified in *Commission Regulations (EU) 965/2012, 800/2013 and 379/2014* in a mode that enables RA indications to be produced for the flight crew when undue proximity to another aircraft is detected unless inhibition of RA indication mode (using TA indication only or equivalent) is called for by an abnormal procedure or due to performance-limiting conditions.

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# GEN 1.6 Summary of National Regulations and International Agreements / Conventions

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## 1 IN BELGIUM

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The following national regulations apply:

- Act of 27 June 1937 on revision of the Act of 16 November 1919 on the regulation of air navigation;
- Royal Decree of 15 March 1954 regulating air navigation;
- Ministerial Decree of 31 July 1980 regulating civil flight engineer licences;
- Ministerial Decree of 27 October 1982 regulating civil free balloon pilot licences;
- Royal Decree of 11 July 2003 laying down the conditions to be met by pilots of the Belgian Armed Forces to obtain civil airplane pilot licences and ratings;
- Royal Decree of 25 April 2007 laying down the conditions to be met by helicopter pilots of the Belgian Armed Forces to obtain civil helicopter pilot licences and ratings;
- Ministerial Decree of 15 April 1997 laying down the conditions to be met by holders of military flight engineer certificates to obtain civil flight engineer licences and ratings;
- Royal Decree of 25 May 1999 laying down the particular conditions for the admission of ultra-light motorised aircraft to air traffic;
- Ministerial Decree of 8 May 2009 laying down the conditions for the physical and mental fitness of flight crew members of civil aircraft;
- Royal Decree of 8 April 2003 on certifying staff according to the JAR-66 standard;
- Royal Decree of 25 April 2007 laying down the conditions to be met by helicopter pilots of the Belgian Armed Forces to obtain civil airplane pilot licences and ratings;
- Royal Decree of 9 May 2008 regulating air traffic controller licences;
- Royal Decree of 13 July 2008 on the issue of "initial safety training" certificates for cabin crew members;  
Ministerial Decree of 14 July 2008 laying down the conditions for the physical and mental fitness of air traffic controllers;
- Royal Decree of 19 March 2014 regulating the knowledge of languages in civil aviation;
- Royal Decree of 12 July 2013 organising the verification of the physical and mental fitness conditions for flight and cabin crew members of civil aircraft, as well as for air traffic controllers;
- Royal Decree of 25 October 2013 implementing Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council;
- Royal Decree of 11 June 1954 prohibiting the overflight of certain parts of the territory of the Kingdom;
- Royal Decree of 14 April 1958 prohibiting the overflight of certain parts of the territory of the Kingdom;
- Ministerial Decree of 29 May 2013 regulating helicopter landings and take-offs outside aerodromes;
- Ministerial Decree of 12 July 1988 regulating the issue and keeping of the aircraft journey log;
- Royal Decree of 19 December 2014 on the rules of the air and the operational provisions relating to air navigation services and procedures;
- Ministerial Decree of 9 July 1957 determining the position lights to be displayed by certain aircraft;
- Ministerial Decree of 13 February 1970 on the regulation laying down the technical measures to be taken for the operation in commercial air transport of aircraft with a maximum total weight authorised of 5.700 kg or more;
- Ministerial Decree of 16 April 1971 laying down the conditions for the approval of technical services for the construction of aircraft and the manufacture of aircraft components;
- Royal Decree of 5 June 1980 laying down, with regard to noise emissions, the conditions for the issue and renewal of the certificate of airworthiness and the conditions of operation of subsonic airplanes;
- Ministerial Decree of 2 August 1990 determining the maintenance work to which aircraft must be subject, the procedures for submitting an application for the renewal of the certificate of airworthiness and the documents to be produced in order to establish the continued airworthiness of aircraft;
- Ministerial Decree of 12 September 1991 laying down technical measures for the operation of aircraft used in commercial air transport with a maximum total weight authorised of less than 5.700 kg;
- Ministerial Decree of 29 May 1996 on the approval of aircraft maintenance technical services according to the common reference standards JAR 145;
- Royal Decree of 17 September 2000 on the limitation of the operation of airplanes covered by Annex 16 to the Convention on International Civil Aviation, Volume 1, Part II, Chapter 2, second edition (1988);
- Royal Decree of 25 June 2001 determining the conditions for adding the words "in accordance with the requirements of Jar-Ops 1" or "in accordance with the requirements of Jar-Ops 3" on the Air Operator's Certificate;
- Royal Decree of 11 July 2003 regulating air navigation passes for aircraft registered or recorded in Belgium;
- Royal Decree of 9 January 2005 laying down the conditions for the technical operation of general aviation airplanes;
- Royal Decree of 18 November 2005 regulating the air transport of dangerous goods;

- Royal Decree of 16 March 2009 laying down the conditions for granting access to the air traffic for certain aircraft without a certificate of airworthiness;  
Ministerial Decree of 28 May 2014 laying down the conditions for the temporary permit to fly of certain gyroplanes;
- Royal Decree of 10 June 2014 laying down the particular conditions for the admission of paramotors to air traffic;
- Royal Decree of 24 September 2017 laying down the technical conditions for the admission to air traffic of historical aircraft and aircraft without type certificate holder;
- Act of 6 June 1990 on airlines;
- Royal Decree of 16 November 1990 implementing the Act of 6 June 1990 on airlines;
- Ministerial Decree of 3 August 1994 laying down the conditions for issuing operating licences to air carriers;
- Royal Decree of 18 August 2010 on the designation of Community air carriers and the granting of traffic rights for the operation of scheduled air services between Belgium and non-Community countries;
- Ministerial Decree of 23 January 1998 determining the classification of aircraft into acoustic categories;
- Royal Decree of 6 November 2010 regulating the access to the groundhandling market at Brussels National Airport;
- Royal Decree of 23 June 2003 on slot coordination at Brussels National Airport;
- Royal Decree of 25 September 2003 establishing rules and procedures concerning the introduction of operating restrictions at Brussels National Airport;
- Ministerial Decree of 3 May 2004 on noise pollution management at Brussels National Airport;
- Royal Decree of 27 May 2004 on the transformation of Brussels International Airport Company (B.I.A.C.) into a public limited company under private law and on airport facilities;
- Royal Decree of 21 June 2004 granting the operating licence for Brussels National Airport to the public limited company BIAC;
- Ministerial Decree of 19 November 2014 on the approval of the maintenance programme for rolling stock and essential stock, as well as on conditions for the roadworthiness testing of rolling stock at Brussels National Airport;
- Ministerial Decree of 19 November 2014 on the approval of groundhandling service providers at Brussels National Airport;
- Royal Decree of 15 March 2002 establishing a mediation service for Brussels National Airport;
- Act of 31 July 2017 establishing an appeal procedure against a decision concerning the selection procedure for limited categories of ground handling services at Brussels National Airport;
- Act of 31 July 2017 confirming the imposition of action plans and the implementation of security measures at Brussels Airport Company;
- Decree of the Regent of 10 January 1950 fixing the control and surveillance taxes relating to the inspection of radio-electric installations on board aircraft;
- Royal Decree of 14 February 2001 fixing the charges to which the use of public services relevant for air navigation is subject;
- Royal Decree of 20 July 1971 on the establishment of a national civil aviation security committee and local airport security committees;
- Royal Decree of 3 May 1991 regulating civil aviation security;
- Ministerial Decree of 6 May 1991 regulating the terms and conditions under which airlines themselves take security measures that are not imposed by Belgian aviation authorities for passenger flights;
- Royal Decree of 23 August 2004 regulating the conditions for the training and certification of aviation inspectorate members;
- Royal Decree of 4 May 1999 regulating the conditions for the training and certification of the inspectors and deputy chief inspectors of the airport inspectorate;
- Royal Decree of 4 May 1999 regulating the conditions for the training and certification of the auxiliary staff and staff of the airport inspectorate;
- Ministerial Decree of 11 April 2000 regulating the conditions of carriage on board civil aircraft of "inadmissible passengers and persons to be removed";
- Royal Decree of 2 December 2001 on critical infrastructure in the air transport sub-sector;
- Royal Decree of 2 December 2018 granting warrants for aviation inspectorate inspectors;
- Royal Decree of 28 April 2016 determining rules for the drafting, implementation and maintenance of a national civil aviation security programme and a national quality control programme;
- Royal Decree of 18 June 2017 regulating the granting of the warrant for airport inspectorate inspectors with security qualification;
- Royal Decree of 17 January 2019 granting warrants for aviation inspectorate inspectors;
- Royal Decree of 14 February 2006 on the establishment of a National Supervisory Authority (NSA) for air navigation services;
- Royal Decree of 20 November 2006 on the certification of air navigation service providers and the designation of air traffic and meteorological service providers;
- Act of 29 April 2013 giving assent to the Treaty relating to the establishment of the Functional Airspace Block "Europe Central" between the Federal Republic of Germany, the Kingdom of Belgium, the French Republic, the Grand Duchy of Luxembourg, the Kingdom of the Netherlands and the Swiss Confederation, done at Brussels on 2 December 2010;
- Treaty of 2 December 2010 relating to the establishment of the Functional Airspace Block "Europe Central" between the Federal Republic of Germany, the Kingdom of Belgium, the French Republic, the Grand Duchy of Luxembourg, the Kingdom of the Netherlands and the Swiss Confederation;



- Ministerial Decree of 4 October 2013 on the designation of customs aerodromes as defined in Article 45 of the Royal Decree of 15 March 1954 regulating air navigation;
- Royal Decree of 9 December 1998 regulating the investigations on civil aviation accidents and incidents;
- Royal Decree of 22 April 2005 on occurrence reporting in civil aviation;
- Royal Decree of 16 December 2005 on the safety of third-country aircraft using Belgian airports;
- Royal Decree of 11 December 2006 on the obligation of air carriers to communicate passenger data;
- Royal Decree of 12 November 2008 fixing the minimum insurance cover with regard to the liability towards passengers for the non-commercial operation of aircraft with a maximum take-off weight of 2.700 kg or less;
- Royal Decree of 25 April 2014 approving the third management contract between the State and Belgocontrol;  
Royal Decree of 13 November 2009 on administrative fines applicable in the event of infringement of aviation regulations;
- Air transport. - EASA. - Designation;
- Royal Decree of 19 December 2014 laying down the cost funding arrangements for the provision of terminal air navigation services at Belgian airports in 2015;
- Royal Decree of 26 December 2015 laying down the cost funding arrangements for the provision of terminal air navigation services at Belgian airports in 2016;
- Royal Decree of 25 December 2016 laying down the cost funding arrangements for the provision of terminal air navigation services at Belgian airports in 2017;
- Royal Decree of 7 December 2017 laying down the cost funding arrangements for the provision of terminal air navigation services at Belgian airports in 2018;
- Royal Decree of 7 December 2018 laying down the cost funding arrangements for the provision of terminal air navigation services at Belgian airports in 2019;
- Royal Decree of 20 December 2019 laying down the cost funding arrangements for the provision of terminal air navigation services at Belgian airports in 2020;
- Royal Decree of 10 April 2016 on the use of remotely piloted aircraft in Belgian airspace;
- Ministerial Decree of 30 November 2016 delegating authority to the Director General of the Belgian Civil Aviation Authority under the Royal Decree of 10 April 2016 on the use of remotely piloted aircraft in Belgian airspace.

The following international regulations and conventions apply:

- Convention on international civil aviation signed at Chicago, on 7 december 1944;
- Convention of October 12, 1929 on the Liability of the Air Carrier towards Passengers and Shippers (Warsaw Convention);
- International Convention of May 29, 1933 relating to the precautionary seizure of aircraft;
- Convention of 7 October 1952 on Damage Caused to Third Parties on the Surface by Foreign Aircraft (Rome Convention);
- Convention of September 18, 1961, complementary to the Warsaw Convention - Carriage performed by a person other than the contractual carrier (Guadalajara Convention);
- Convention of 28 May 1999 for the unification of certain rules relating to international transport by air (Montreal Convention);
- Convention of September 14, 1963 on Offenses and Certain Other Acts Committed on Board Aircraft (Tokyo Convention);
- Convention of 16 December 1970 relating to the unlawful seizure of aircraft (Hague Convention);
- Convention of September 23, 1971 for the Suppression of Unlawful Acts against Civil Aviation (Montreal Convention);
- Regulation (EU) 2018/1139 of the European Parliament and of the council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91;
- Commission Regulation (EU) No 748/2012 of 3 August 2012 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations;
- Commission Regulation (EU) 2015/640 of 23 April 2015 on additional airworthiness specifications for a given type of operations and amending Regulation (EU) No 965/2012;
- Commission Regulation (EU) No 1321/2014 of 26 November 2014 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks;
- Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council;
- Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council;
- Commission Regulation (EU) 2018/395 of 13 March 2018 laying down detailed rules for the operation of balloons as well as for the flight crew licensing for balloons pursuant to Regulation (EU) 2018/1139 of the European Parliament and of the Council;

- Commission Implementing Regulation (EU) 2018/1976 of 14 December 2018 laying down detailed rules for the operation of sailplanes as well as for the flight crew licensing for sailplanes pursuant to Regulation (EU) 2018/1139 of the European Parliament and of the Council;
- Commission Regulation (EU) No 452/2014 of 29 April 2014 laying down technical requirements and administrative procedures related to air operations of third country operators pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council;
- Commission Implementing Regulation (EU) 2017/373 of 1 March 2017 laying down common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight, repealing Regulation (EC) No 482/2008, Implementing Regulations (EU) No 1034/2011, (EU) No 1035/2011 and (EU) 2016/1377 and amending Regulation (EU) No 677/2011;
- Commission Implementing Regulation (EU) No 1079/2012, Commission Implementing Regulation (EU) No 1207/2011, Commission Implementing Regulation (EU) No 1206/2011, Commission Regulation (EU) No 73/2010, Commission Regulation (EC) No 262/2009, Commission Regulation (EC) No 29/2009, Commission Regulation (EC) No 633/2007, Commission Regulation (EC) No 1033/2006, Commission Regulation (EC) No 1032/2006;
- Commission Regulation (EU) 2015/340 of 20 February 2015 laying down technical requirements and administrative procedures relating to air traffic controllers' licences and certificates pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council, amending Commission Implementing Regulation (EU) No 923/2012 and repealing Commission Regulation (EU) No 805/2011;
- Commission Regulation (EU) No 1332/2011 of 16 September 2011 - Airspace Usage Requirements and Operating Procedures for Airborne Collision Avoidance;
- Commission Implementing Regulation (EU) 2018/1048 of 18 July 2018 laying down airspace usage requirements and operating procedures concerning performance-based navigation;
- Commission Implementing Regulation (EU) No 923/2012 of 26 September 2012 laying down the common rules of the air and operational provisions regarding services and procedures in air navigation and amending Implementing Regulation (EU) No 1035/2011 and Regulations (EC) No 1265/2007, (EC) No 1794/2006, (EC) No 730/2006, (EC) No 1033/2006 and (EU) No 255/2010;
- Commission Regulation (EU) No 139/2014 of 12 February 2014 laying down requirements and administrative procedures related to aerodromes pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council;
- Commission Implementing Regulation (EU) 2019/947 of 24 May 2019 on the rules and procedures for the operation of unmanned aircraft;
- Commission Implementing Regulation (EU) 2019/945 of 12 March 2019 on unmanned aircraft systems and on third-country operators of unmanned aircraft systems;
- Commission Regulation (EC) No 104/2004 of 22 January 2004 laying down rules on the organisation and composition of the Board of Appeal of the European Aviation Safety Agency;
- Commission Implementing Regulation (EU) 2019/2153 of 16 December 2019 on the fees and charges levied by the European Union Aviation Safety Agency, and repealing Regulation (EU) No 319/2014;
- Commission Implementing Regulation (EU) No 646/2012 of 16 July 2012 laying down detailed rules on fines and periodic penalty payments pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council;
- Commission Implementing Regulation (EU) No 628/2013 of 28 June 2013 on working methods of the European Aviation Safety Agency for conducting standardisation inspections and for monitoring the application of the rules of Regulation (EC) No 216/2008 of the European Parliament and of the Council and repealing Commission Regulation (EC) No 736/2006;
- Commission Implementing Regulation (EU) 2019/317 of 11 February 2019 laying down a performance and charging scheme in the single European sky and repealing Implementing Regulations (EU) No 390/2013 and (EU) No 391/2013.

These documents can be consulted via the website of the CAA:

URL: <https://mobilit.belgium.be/nl/luchtvaart/wetgeving-en-regelgeving> (Dutch)

URL: <https://mobilit.belgium.be/fr/aviation/legislation-et-reglementation> (French)

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## 2 IN LUXEMBOURG

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A list containing all national regulations and international agreements / conventions concerning air navigation in Luxembourg may be downloaded from the following address:

URL: [https://ops.skeyes.be/html/belgocontrol\\_static/eaip/eAIP\\_Product/Documents/Releve\\_Legislation\\_Aviation-Legislation\\_nationale\\_05\\_04\\_2019.pdf](https://ops.skeyes.be/html/belgocontrol_static/eaip/eAIP_Product/Documents/Releve_Legislation_Aviation-Legislation_nationale_05_04_2019.pdf)

Further information on the national regulations and the international agreements / conventions concerning air navigation in Luxembourg can be found on the website of Legilux:

URL: [www.legilux.public.lu](http://www.legilux.public.lu)

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### 3 EUROPEAN REGULATIONS

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European regulations can be consulted on the website of EASA:

URL: <https://www.easa.europa.eu/regulations#regulations-atmans---air-traffic-managemantair-navigations-services>

*Note: The above link also allows to directly access related Acceptable Means of Compliance and Guidance Material in support of EASA rules incl. the comprehensive EASA Access Rules. Single European Sky Regulations are indicated through a further link within that homepage. For any queries linked with this webpage please use: <https://www.easa.europa.eu/contact-us>.*

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## GEN 1.7 Differences from ICAO Standards, Recommended Practices and Procedures

| Number                                                                                       | Annex               | Edition           | Differences                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |                |                   |                     |                     |     |      |                                           |                                                                                              |     |      |                                           |                                                                            |     |      |                                           |
|----------------------------------------------------------------------------------------------|---------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------|-------------------|---------------------|---------------------|-----|------|-------------------------------------------|----------------------------------------------------------------------------------------------|-----|------|-------------------------------------------|----------------------------------------------------------------------------|-----|------|-------------------------------------------|
| 1                                                                                            | Personnel Licensing | 11                | NIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                |                   |                     |                     |     |      |                                           |                                                                                              |     |      |                                           |                                                                            |     |      |                                           |
| 2                                                                                            | Rules of the Air    | 10                | <p><b>Chapter 3, § 3.2.2 (Belgium and Luxembourg)</b><br/>An aircraft that is aware that the manoeuvrability of another aircraft is impaired shall give way to that aircraft.</p> <p><b>Chapter 3, § 3.2.2.4 (Belgium and Luxembourg)</b><br/>Sailplanes overtaking: a sailplane overtaking another sailplane may alter its course to the right or to the left.</p> <p><b>Chapter 3, § 3.2.3.2 (b) (Belgium and Luxembourg)</b><br/>Unless stationary and otherwise adequately illuminated, all aircraft on the movement area of an aerodrome shall display lights intended to indicate the extremities of their structure, as far as practicable.</p> <p><b>Chapter 3, § 3.2.5 (c) and (d) (Belgium and Luxembourg)</b><br/>(c) except for balloons, make all turns to the left, when approaching for a landing and after taking off, unless otherwise indicated, or instructed by ATC;<br/>(d) except for balloons, land and take off into the wind unless safety, the runway configuration or air traffic considerations determine that a different direction is preferable.</p> <p><b>Chapter 3, § 3.3.1.2 (Belgium and Luxembourg)</b><br/>VFR flights across international borders but remaining within the Schengen Area do not need a flight plan as far as the Brussels FIR is concerned. A pilot is required to file a flight plan when planning any flight at night if leaving the vicinity of an aerodrome.</p> <p><b>Chapter 3, § 3.8 and Appendix 2 (Belgium and Luxembourg)</b><br/>The words "in distress" are not included in EU law, thus enlarging the scope of escort missions to any type of flight requesting such service. Furthermore the provisions contained in Appendix 2 Parts 1.1 to 1.3 inclusive, as well as those found in Attachment A, are not contained in EU law.</p> <p><b>Chapter 4, § 4.3 (Luxembourg only)</b><br/>VFR flights at night may be authorised under the following conditions:</p> <ol style="list-style-type: none"> <li>1. They are operated exclusively in controlled airspace except for flights who have been granted exemptions for special operations;</li> <li>2. A complete flight plan shall be filed;</li> <li>3. Except when necessary for take-off or landing, or except when specifically authorised by the CAA, VFR flights at night shall be operated at a level which is at least 1 000 FT above the highest obstacle located within 8 KM of the estimated position of the aircraft;</li> <li>4. Visibility and distance from cloud minima in visual meteorological conditions at night are the following:</li> </ol> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Altitude band</th> <th style="width: 16.5%;">Airspace class</th> <th style="width: 16.5%;">Flight visibility</th> <th style="width: 34%;">Distance from cloud</th> </tr> </thead> <tbody> <tr> <td>At and above FL 100</td> <td>C D</td> <td>8 KM</td> <td>1500 M horizontally<br/>1000 FT vertically</td> </tr> <tr> <td>Below FL 100 and above 3000 FT AMSL, or above 1000 FT above terrain, whichever is the higher</td> <td>C D</td> <td>5 KM</td> <td>1500 M horizontally<br/>1000 FT vertically</td> </tr> <tr> <td>At and below 3000FT AMSL, or 1000FT above terrain, whichever is the higher</td> <td>C D</td> <td>5 KM</td> <td>1500 M horizontally<br/>1000 FT vertically</td> </tr> </tbody> </table> <p>However:</p> <ol style="list-style-type: none"> <li>1. the ceiling shall not be less than 1 500 FT</li> <li>2. in airspace classes C and D, at and below 3 000 FT AMSL or 1 000 FT above terrain, whichever is the higher, the pilot shall maintain continuous sight of the surface</li> </ol> | Altitude band | Airspace class | Flight visibility | Distance from cloud | At and above FL 100 | C D | 8 KM | 1500 M horizontally<br>1000 FT vertically | Below FL 100 and above 3000 FT AMSL, or above 1000 FT above terrain, whichever is the higher | C D | 5 KM | 1500 M horizontally<br>1000 FT vertically | At and below 3000FT AMSL, or 1000FT above terrain, whichever is the higher | C D | 5 KM | 1500 M horizontally<br>1000 FT vertically |
| Altitude band                                                                                | Airspace class      | Flight visibility | Distance from cloud                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                |                   |                     |                     |     |      |                                           |                                                                                              |     |      |                                           |                                                                            |     |      |                                           |
| At and above FL 100                                                                          | C D                 | 8 KM              | 1500 M horizontally<br>1000 FT vertically                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |                |                   |                     |                     |     |      |                                           |                                                                                              |     |      |                                           |                                                                            |     |      |                                           |
| Below FL 100 and above 3000 FT AMSL, or above 1000 FT above terrain, whichever is the higher | C D                 | 5 KM              | 1500 M horizontally<br>1000 FT vertically                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |                |                   |                     |                     |     |      |                                           |                                                                                              |     |      |                                           |                                                                            |     |      |                                           |
| At and below 3000FT AMSL, or 1000FT above terrain, whichever is the higher                   | C D                 | 5 KM              | 1500 M horizontally<br>1000 FT vertically                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |                |                   |                     |                     |     |      |                                           |                                                                                              |     |      |                                           |                                                                            |     |      |                                           |

| Number | Annex                                                        | Edition | Differences                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------|--------------------------------------------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |                                                              |         | <p><b>Chapter 4, § 4.6 (Belgium and Luxembourg)</b></p> <p>Except when necessary for take-off or landing, or except by permission from the CAA, a VFR flight shall not be flown:</p> <ul style="list-style-type: none"> <li>a. over the congested areas of cities, towns or settlements, or over an open-air assembly of persons at a height less than 300 M (1000FT) above the highest obstacle within a radius of 600M from the aircraft;</li> <li>b. elsewhere than as specified in (a), at a height less than 150M (500FT) above the ground or water, or 150 M (500FT) above the highest obstacle within a radius of 150M (500FT) from the aircraft.</li> </ul> |
| 3      | Meteorology                                                  | 19      | NIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 4      | Aeronautical Charts                                          | 11      | NIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5      | Units of Measurement to be Used in Air and Ground Operations | 5       | NIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 6      | Operation of Aircraft                                        |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|        | Part I: International Commercial Air Transport - Aeroplanes  | 10      | NIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|        | Part II: International General Aviation - Aeroplanes         | 9       | NIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|        | Part III: International Operations - Helicopters             | 8       | NIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 7      | Aircraft Nationality and Registration Marks                  | 6       | NIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 8      | Airworthiness of Aircraft                                    | 11      | NIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 9      | Facilitation                                                 | 14      | NIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Number                                                      | Annex                                                                                                                                               | Edition | Differences                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10                                                          | Aeronautical Telecommunications                                                                                                                     |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                             | Volume 1: <ul style="list-style-type: none"> <li>Part 1: Equipment and System</li> <li>Part 2: Radio Frequencies</li> </ul>                         | 6       | NIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                             | Volume 2: Communication Procedures including those with PANS status                                                                                 | 7       | <p><b>Chapter 5 § 5.2.1.4.1 (Belgium and Luxembourg)</b></p> <p>(a) Transmission of numbers</p> <p>(1) All numbers used in the transmission of aircraft call sign, headings, runway, wind direction and speed shall be transmitted by pronouncing each digit separately.</p> <p>(i) Flight levels shall be transmitted by pronouncing each digit separately except for the case of flight levels in whole hundreds.</p> <p>(ii) The altimeter setting shall be transmitted by pronouncing each digit separately except for the case of a setting of 1 000 hPa which shall be transmitted as "ONE THOUSAND".</p> <p>(iii) All numbers used in the transmission of transponder codes shall be transmitted by pronouncing each digit separately except that, when the transponder codes contain whole thousands only, the information shall be transmitted by pronouncing the digit in the number of thousands followed by the word "THOUSAND".</p> <p>(2) All numbers used in transmission of other information than those described in point (a)(1) shall be transmitted by pronouncing each digit separately, except that all numbers containing whole hundreds and whole thousands shall be transmitted by pronouncing each digit in the number of hundreds or thousands followed by the word "HUNDRED" or "THOUSAND", as appropriate. Combinations of thousands and whole hundreds shall be transmitted by pronouncing each digit in the number of thousands followed by the word "THOUSAND", followed by the number of hundreds, followed by the word "HUNDRED".</p> <p>(3) In cases where there is a need to clarify the number transmitted as whole thousands and/or whole hundreds, the number shall be transmitted by pronouncing each digit separately.</p> <p>(4) When providing information regarding relative bearing to an object or to conflicting traffic in terms of the 12-hour clock, the information shall be given pronouncing the digits together such as "TEN O'CLOCK" or "ELEVEN O'CLOCK".</p> <p>(5) Numbers containing a decimal point shall be transmitted as prescribed in point (a)(1) with the decimal point in appropriate sequence indicated by the word "DECIMAL".</p> <p>(6) All six digits of the numerical designator shall be used to identify the transmitting channel in Very High Frequency (VHF) radiotelephony communications except in the case of both the fifth and sixth digits being zeros, in which case only the first four digits shall be used.</p> <p><b>Chapter 5 § 5.2.1.7.3.2.3 (additional provision) (Belgium and Luxembourg)</b></p> <p>For transfers of communication within one ATS unit, the call sign of the ATS unit may be omitted.</p> |
|                                                             | Volume 3: <ul style="list-style-type: none"> <li>Part 1: Digital Data Communication Systems</li> <li>Part 2: Voice Communication Systems</li> </ul> | 2       | NIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                             | Volume IV: Surveillance Radar and Collision Avoidance Systems                                                                                       | 5       | NIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Volume V: Aeronautical Radio Frequency Spectrum Utilization | 3                                                                                                                                                   | NIL     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| Number | Annex                | Edition | Differences                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| 11     | Air Traffic Services | 14      | <p><b>Chapter 2, § 2.6 and Appendix 4 (Belgium only)</b><br/>Pilots shall maintain continuous air-ground voice communication watch and establish two-way communication, as necessary, on the appropriate communication channel in class G RMZ.<br/>The Director General of the CAA may exempt aircraft types, which for technical or safety reasons exceed the 250KT speed limit.</p> <p><b>Chapter 2, 2.6.1 (Luxembourg only)</b><br/>The CAA may exempt aircraft types, which for technical or safety reasons exceed the 250 KT speed limit.</p> <p><b>Chapter 2, 2.6.3 (Luxembourg only)</b><br/>The CAA may exempt aircraft types, which for technical or safety reasons exceed the 250 KT speed limit.</p> <p><b>Chapter 2, 2.13.5 (Luxembourg only)</b><br/>Annex 11 Appendix 3, 2.1.1. (e) requires that the word “visual” is used in the plain language designator when the route has been established for VFR, whereas the EU rule extends it to IFR in VMC as well. (same difference is replicated in paragraph 5.3 Annex 11 Appendix 3). Annex 11 Appendix 3 paragraph 6 (MLS/RNAV) is not transposed. Annex 11 Appendix 3 paragraph 7:7.2 is not transposed. Annex 11 Appendix 3 paragraph 8 is not transposed.</p> <p><b>Chapter 2, 2.15.3 (Luxembourg only)</b><br/>Annex 11 Appendix 2, paragraph 1.1 the terms “preferably VHF or higher frequency aids” are not transposed. Paragraph 4.2, 5.7 and 5.8 are not transposed.</p> <p><b>Chapter 2, 2.19.1 (Luxembourg only)</b><br/>The EU regulation refers to “air operations” instead of “activities”, therefore restricting the scope of the requirement. The EU regulation does not specify with whom the co-ordination should be affected by omitting to specify the “appropriate air traffic services authorities”.</p> <p><b>Chapter 2, 2.19.4 (Luxembourg only)</b><br/>Art. 3c of Regulation (EU) 2017/373: Art. 3c(2) refers to Art. 3c(1), which is the transposition of paragraph 2.19.1 of Annex 11, therefore the same difference applies.</p> <p><b>Chapter 2, § 2.26.5 (Belgium and Luxembourg)</b><br/>Time checks shall be given at least to the nearest minute.</p> <p><b>Chapter 3 and Appendix 4 (Belgium only)</b><br/>When requested by the pilot of an aircraft and agreed by the pilot of the other aircraft and if so prescribed by the appropriate ATS unit in airspace classes D and E, a flight may be cleared subject to maintaining own separation in respect of a specific portion of the flight below FL 100 during climb or descent, during day under VMC.</p> <p><b>Chapter 3, 3.3.4 (Luxembourg only)</b><br/>When requested by the pilot of an aircraft and agreed by the pilot of the other aircraft and if so prescribed by the CAA, a flight, in airspace classes D and E, may be cleared subject to maintaining own separation in respect of a specific portion of the flight below 3 050 M (10 000 FT) during climb or descent, during day in VMC.</p> <p><b>Chapter 3, § 3.7.3.1 (Belgium and Luxembourg)</b><br/>The flight crew shall read back to the air traffic controller safety-related parts of ATC clearances and instructions which are transmitted by voice. The following items shall always be read back:</p> <ol style="list-style-type: none"> <li>a. ATC route clearances;</li> <li>b. clearances and instructions to enter, land on, take off from, hold short of, cross, taxi and backtrack on any runway; and</li> <li>c. runway-in-use, altimeter settings, SSR codes, newly assigned communication channels, level instructions, heading and speed instructions; and</li> <li>d. transition levels, whether issued by the controller or contained in ATIS broadcasts.</li> </ol> <p><b>Chapter 3, § 3.7.3.1.1 (Belgium and Luxembourg)</b><br/>Other clearances or instructions, including conditional clearances and taxi instructions, shall be read back or acknowledged in a manner to clearly indicate that they have been understood and will be complied with.</p> |



| Number | Annex                                                       | Edition | Differences                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|        |                                                             |         | <p><b>Chapter 3 (additional provision) (Belgium and Luxembourg)</b><br/>                     Special VFR flights may be authorised to operate within a control zone, subject to an ATC clearance.<br/>                     Except when permitted by the CAA for helicopters in special cases such as, but not limited to, medical flights, search and rescue operations and fire-fighting, the following additional conditions shall be applied:</p> <ul style="list-style-type: none"> <li>a. such flights may be conducted during day only, unless otherwise permitted by the CAA;</li> <li>b. by the pilot:                             <ul style="list-style-type: none"> <li>1. clear of cloud and with the surface in sight;</li> <li>2. the flight visibility is not less the 1 500M or, for helicopters, not less than 800M;</li> <li>3. fly at a speed of 140KT IAS or less to give adequate opportunity to observe other traffic and any obstacles in time to avoid a collision, and</li> </ul> </li> <li>c. an air traffic control unit will not issue a Special VFR clearance to aircraft to take off or land at an aerodrome within a control zone, or enter the aerodrome traffic zone or aerodrome traffic circuit when the reported meteorological conditions at that aerodrome are below the following minima:                             <ul style="list-style-type: none"> <li>1. the ground visibility is less than 1500 M or, for helicopters, less than 800 M;</li> <li>2. the ceiling is less than 180M (600FT).</li> </ul> </li> </ul> <p><b>Chapter 4, 4.3.7 (Luxembourg only)</b><br/>                     The braking action will not be provided through ATIS.</p> <p><b>Chapter 4, 4.3.8 (Luxembourg only)</b><br/>                     The braking action will not be provided through ATIS.</p> <p><b>Chapter 4, 4.3.9 (Luxembourg only)</b><br/>                     The braking action will not be provided through ATIS.</p> <p><b>Chapter 6, 6.1.2.1 (Luxembourg only)</b><br/>                     The EU Regulation allows flexibility in the available radio coverage subject to approval by the competent authority.</p> |
| 12     | Search and Rescue                                           | 8       | NIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 13     | Aircraft Accident Investigation                             | 11      | NIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 14     | Aerodromes<br><br>Volume 1: Aerodrome Design and Operations | 8       | <p>Note: Differences below are only applicable to the aerodromes certified according to the European regulation. The aerodromes are listed in <a href="#">AD 1.5 Status of Certification of Aerodromes</a>.</p> <p><b>Chapter 1, §1.4.1 (Belgium only)</b><br/>                     European regulation applies only to aerodromes open to public use, which serve commercial air transport, having a paved instrument runway of 800 M or more. These aerodromes are certified under European regulation, with a possible exemption for aerodromes below 10 000 commercial passengers per year and 850 freight movements per year.<br/>                     Aerodromes not covered by European regulations are certified when they accommodate more than 10 000 commercial passengers over 3 consecutive years.<br/>                     All aerodromes out of the scope of European Union regulation are subject to runway homologation by the Competent Authority.<br/>                     See <a href="#">AD 1.5 Status of Certification of Aerodromes</a>.</p> <p><b>Chapter 3, §3.8.1 (Belgium only)</b><br/>                     The provision of radio altimeter operating area is optional for CAT I runways.</p> <p><b>Chapter 3, §3.9.12 (Belgium only)</b><br/>                     Regulation requires a suitable strength for taxiways and not the strength of the runway they serve.</p> <p><b>Chapter 3, §3.13.6 (Belgium only)</b><br/>                     The regulation offers the possibility to reduce the clearance distance for height limited objects if the stand is restricted for aircraft with specific characteristics.</p> <p><b>Chapter 4, §4.2.16 (Belgium only)</b><br/>                     For code letter F aerodromes, the width of the inner approach surface and the length of the inner edge of the balked landing surface are increased to 140M, irrespective of the type of avionics.</p>                                                                                                                                                                                                                             |

| Number | Annex | Edition | Differences                                                                                                                                                                                                                                                                                                                                                                           |
|--------|-------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |       |         | <p><b>Chapter 5, §5.2.10.5, §5.2.10.6, §5.2.10.7 (Belgium only)</b><br/>Only pattern A2 and B2 are used.</p>                                                                                                                                                                                                                                                                          |
|        |       |         | <p><b>Chapter 5, §5.2.13.1 (Belgium only)</b><br/>Markings may not be provided where appropriate procedures are in place.</p>                                                                                                                                                                                                                                                         |
|        |       |         | <p><b>Chapter 5, §5.3.5.36 (Belgium only)</b><br/>The regulation does not foresee that the approach slope should be appropriate for the aeroplanes.</p>                                                                                                                                                                                                                               |
|        |       |         | <p><b>Chapter 5, §5.3.5.44 (Belgium only)</b><br/>The regulation foresees one more case where an object or an extension to an existing object may penetrate the obstacle protection surface, that is, when after a safety assessment, it is determined that the object would not adversely affect the safety or significantly affect the regularity of operations of helicopters.</p> |
|        |       |         | <p><b>Chapter 5, §5.3.20.1 (Belgium only)</b><br/>Stop bars are provided when the runway is intended to be used with an RVR less than 550M.</p>                                                                                                                                                                                                                                       |
|        |       |         | <p><b>Chapter 5, §5.3.22.1 (Belgium only)</b><br/>The regulation describes only the purpose of the de-icing/anti-icing facility exit lights and does not require the provision of the lights.</p>                                                                                                                                                                                     |
|        |       |         | <p><b>Chapter 5, §5.3.24.1 (Belgium only)</b><br/>The provision of floodlighting on de-icing/anti-icing facilities is not mandatory.</p>                                                                                                                                                                                                                                              |
|        |       |         | <p><b>Chapter 5, §5.3.28.1 (Belgium only)</b><br/>Road-holding position lights are provided when the runway is to be used with RVR below 550M.</p>                                                                                                                                                                                                                                    |
|        |       |         | <p><b>Chapter 5, §5.4.3.5 (Belgium only)</b><br/>Intersection take-off signs are mandatory.</p>                                                                                                                                                                                                                                                                                       |
|        |       |         | <p><b>Chapter 8, §8.1.10 (Belgium only)</b><br/>Essential security lighting and essential equipment and facilities for the aerodrome responding emergency services, are not covered by the regulation.</p>                                                                                                                                                                            |
|        |       |         | <p><b>Chapter 9, §9.1.7 (Belgium only)</b><br/>The regulation allows the possibility for a mobile command post not to be available.</p>                                                                                                                                                                                                                                               |
|        |       |         | <p><b>Chapter 9, §9.1.11 (Belgium only)</b><br/>The regulation allows the possibility for communication systems not to be provided.</p>                                                                                                                                                                                                                                               |
|        |       |         | <p><b>Chapter 9, §9.1.13 (Belgium only)</b><br/>The regulation does not foresee the possibility of "modular tests in the first year and a full emergency exercise at intervals not exceeding 3 years".</p>                                                                                                                                                                            |
|        |       |         | <p><b>Chapter 9, §9.2.4 (Belgium only)</b><br/>The regulation uses the principles contained in 9.2.5 and 9.2.6 for establishing the level of protection for an aerodrome; however the regulation allows the reduction of the required level of protection based on the number of movements of the largest aeroplane at the aerodrome.</p>                                             |
|        |       |         | <p><b>Chapter 9, §9.2.16 (Belgium only)</b><br/>The regulation does not require supplementary water supplies to be available.</p>                                                                                                                                                                                                                                                     |
|        |       |         | <p><b>Chapter 9, §9.2.29 (Belgium only)</b><br/>The regulation does not include a certain response times to any other part of the movement area. The response times are calculated and included in the aerodrome emergency plan.</p>                                                                                                                                                  |
|        |       |         | <p><b>Chapter 9, §9.2.31 (Belgium only)</b><br/>The regulation foresees the arrival of vehicles, other from the first responding vehicle, by taking into account the time that the first vehicle should respond plus one minute.</p>                                                                                                                                                  |
|        |       |         | <p><b>Chapter 9, §9.2.32 (Belgium only)</b><br/>The regulation foresees the arrival of vehicles, other from the first responding vehicle, by taking into account the time that the first vehicle should respond plus one minute.</p>                                                                                                                                                  |
|        |       |         | <p><b>Chapter 9, §9.9.4 (Belgium only)</b><br/>In addition to the cases foreseen in the relevant specification, the regulation allows the presence of equipment/installations also after a safety assessment regarding safety and regularity.</p>                                                                                                                                     |

| Number | Annex                                        | Edition | Differences                                                                                                                                                                                                                                                                          |
|--------|----------------------------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |                                              |         | <b>Chapter 10, §10.5.8 (Belgium only)</b><br>The regulation applies for taxiway operations under 550M RVR.                                                                                                                                                                           |
|        |                                              |         | <b>Chapter 10, §10.5.9 (Belgium only)</b><br>The regulation applies for taxiway operations under 550M RVR.                                                                                                                                                                           |
|        | Volume 2: Heliports                          | 4       | NIL                                                                                                                                                                                                                                                                                  |
| 15     | Aeronautical Information Services            | 16      | <b>Chapter 6, 6.3.2.3 (Luxembourg only)</b><br>Not all the additional cases introduced with amendments 40 and 41 of Annex 15, for NOTAM origination are covered.                                                                                                                     |
|        |                                              |         | <b>Chapter 6, 6.3.2.4 (Luxembourg only)</b><br>A NOTAM is also required to be originated and issued in case of unavailability of a runway due to runway marking works or, if the equipment used for those works can be removed, a time lag required for making the runway available. |
| 16     | Environmental Protection                     |         |                                                                                                                                                                                                                                                                                      |
|        | Volume 1: Aircraft Noise                     | 8       | NIL                                                                                                                                                                                                                                                                                  |
|        | Volume 2: Aircraft Engine Emissions          | 4       | NIL                                                                                                                                                                                                                                                                                  |
| 17     | Security                                     | 10      | NIL                                                                                                                                                                                                                                                                                  |
| 18     | The Safe Transport of Dangerous Goods by Air | 4       | NIL                                                                                                                                                                                                                                                                                  |
| 19     | Safety Management                            | 1       | NIL                                                                                                                                                                                                                                                                                  |

(\*) References marked with an asterisk are differences from Recommendations.

| Number | Document                                                                   | Edition | Differences                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------|----------------------------------------------------------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4444   | Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM) | 16      | <b>Chapter 6, § 6.3.2.3</b><br>In Belgium, standard clearances for departing aircraft do not contain the cleared level. They will contain the initial level, except when this element is included in the SID description.                                                                                                                                                                                                                                 |
|        |                                                                            |         | <b>Chapter 6, § 6.3.2.4</b><br>In Belgium, when a departing aircraft on a SID is cleared to climb to a level higher than the initially cleared level or the level(s) specified in the SID, the aircraft shall follow the published vertical profile of the SID, unless such restrictions are explicitly cancelled by ATC.<br>The phraseologies specified in § 6.3.2.4 are not used in Belgium.                                                            |
|        |                                                                            |         | <b>Chapter 6, § 6.3.2.5</b><br>In Belgium, clearances will refer to the initial or intermediate level instead of the cleared level.                                                                                                                                                                                                                                                                                                                       |
|        |                                                                            |         | <b>Chapter 6, § 6.5.2.3</b><br>In Belgium, standard clearances for arriving aircraft do not contain the cleared level. They will contain the initial level, except when this element is included in the STAR description.                                                                                                                                                                                                                                 |
|        |                                                                            |         | <b>Chapter 6, § 6.5.2.4</b><br>In Belgium, when an arriving aircraft on a STAR is cleared to descend to a level lower than the level or level(s) specified in the STAR, the aircraft shall follow the published vertical profile of the STAR, unless such restrictions are explicitly cancelled by ATC. Published minimum levels based on terrain clearance shall always be applied.<br>The phraseologies specified in § 6.5.2.4 are not used in Belgium. |
|        |                                                                            |         | <b>Chapter 8, § 8.5.4.1</b><br>Where an aircraft's Mode C displayed level differs from the cleared flight level by 90 M (300 FT) or more, the controller will inform the pilot accordingly and the pilot shall be requested to check the pressure setting and confirm the aircraft's level.                                                                                                                                                               |

| Number | Document                                                                   | Edition | Differences                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| 4444   | Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM) |         | <p><b>Chapter 12, § 12.3.1.2, level changes, reports and rates</b><br/>In the Brussels FIR, above FL 245, the words “TO” and “FOR” shall not be used in connection with assignment/reporting of levels.</p> <p><b>Chapter 12, § 12.3.1.2, items (z) to (kk)</b><br/>In Belgium, following additional phraseologies are used:</p> <ul style="list-style-type: none"> <li>• clearance to cancel level restriction(s) of the vertical profile of a SID during climb: “CLIMB TO (level) [LEVEL RESTRICTION(S) (SID designator) CANCELLED (or) LEVEL RESTRICTION(S) (SID designator) AT (point) CANCELLED]”;</li> <li>• clearance to cancel level restriction(s) of the vertical profile of a STAR during descend: “DESCEND TO (level) [LEVEL RESTRICTION(S) (STAR designator) CANCELLED (or) LEVEL RESTRICTION(S) (STAR designator) AT (point) CANCELLED]”.</li> </ul> <p>In Belgium, the phraseologies for the following circumstances are not used:</p> <ul style="list-style-type: none"> <li>• clearance to climb on a SID which has published level and/or speed restrictions, where the pilot is to climb to the cleared level and comply with published level restrictions, follow the lateral profile of the SID; and comply with published speed restrictions or ATC issued speed control instructions as applicable;</li> <li>• clearance to cancel level restriction(s) of the vertical profile of a SID during climb;</li> <li>• clearance to cancel specific level restriction(s) of the vertical profile of a SID during climb;</li> <li>• clearance to cancel speed restrictions of a SID during climb;</li> <li>• clearance to cancel specific speed restrictions of a SID during climb;</li> <li>• clearance to climb and to cancel speed and level restrictions of a SID;</li> <li>• clearance to descend on a STAR which has published level and/or speed restrictions, where the pilot is to descend to the cleared level and comply with published level restrictions, follow the lateral profile of the STAR and comply with published speed restrictions or ATC issued speed control instructions;</li> <li>• clearance to cancel level restrictions of a STAR during descent;</li> <li>• clearance to cancel specific level restrictions of a STAR during descent;</li> <li>• clearance to cancel speed restrictions of a STAR during descent;</li> <li>• clearance to cancel specific speed restrictions of a STAR during descent;</li> <li>• clearance to descend and to cancel speed and level restrictions of a STAR.</li> </ul> <p><b>Chapter 12, § 12.3.2.2, item (b) (3)</b><br/>In Belgium, the phraseology “FLIGHT PLANNED ROUTE” is used.</p> <p><b>Chapter 12, § 12.3.3.1, item (f)</b><br/>In Belgium, the phraseology “CLEARED VIA (designation)” is used.</p> <p><b>Chapter 12, § 12.3.3.1, item (g) and (h)</b><br/>In Belgium, the phraseology for clearance to proceed direct with advance notice of a future instruction to rejoin the SID is not used.</p> <p><b>Chapter 12, § 12.3.3.2, item (a)</b><br/>In Belgium, the phraseology “CLEARED (or PROCEED) VIA (designation)” is used.</p> <p><b>Chapter 12, § 12.3.3.2, item (b)</b><br/>In Belgium, the phraseology “CLEARED TO (clearance limit) VIA (designation)” is used.</p> <p><b>Chapter 12, § 12.3.3.2, item (c)</b><br/>In Belgium, the phraseology “CLEARED (or PROCEED) VIA (details of the route to be followed)” is used.</p> <p><b>Chapter 12, § 12.3.3.2, item (d) and (e)</b><br/>In Belgium, the phraseology for clearance to proceed direct with advance notice of a future instruction to rejoin the STAR is not used.</p> <p><b>Chapter 12, § 12.4.1.6, item (k)</b><br/>In Belgium, the phraseology “RESUME PUBLISHED SPEED” is not used.</p> <p><b>Appendix 2, item 8, page A2-3, M if MIL</b><br/>In addition to MIL operations, operators of customs or police aircraft shall insert letter “M” in item 8 of the ICAO flight plan form.</p> |

# GEN 2 TABLES AND CODES

## GEN 2.1 Measuring System, Aircraft Markings, Holidays

### 1 UNITS OF MEASUREMENT

The table of units of measurement shown below are used by aeronautical stations within Brussels FIR/UIR for air and ground operations:

| For measurement of                                                                             | Units used                                                       |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| Distance used in navigation, position reporting, etc (generally in excess of 2 nautical miles) | Nautical miles (NM) and tenths                                   |
| Relatively short distances such as those relating to aerodromes (e.g. runway lengths)          | Metres (M)                                                       |
| Altitudes, elevations and height                                                               | Feet (FT)                                                        |
| Horizontal speed, including wind speed                                                         | Knots (KT)                                                       |
| Vertical speed                                                                                 | Feet per minute (FPM)                                            |
| Wind direction for landing and take-off                                                        | Degrees magnetic (°)                                             |
| Wind direction, except for landing and take-off                                                | Degrees true (°)                                                 |
| Visibility, including RVR                                                                      | Kilometres or metres (KM or M)                                   |
| Visibility, including RVR (MIL)                                                                | Kilometres or metres (KM or M) or nautical miles (NM) and tenths |
| Altimeter setting                                                                              | Hectopascal (HPA)                                                |
| Temperature                                                                                    | Degrees Celsius (°)                                              |
| Weight                                                                                         | Metric tonnes (T) or kilogrammes (KG)                            |
| Weight (MIL)                                                                                   | Pounds or kilogrammes (KG)                                       |
| Time                                                                                           | Hours and minutes, beginning at midnight UTC                     |

### 2 TEMPORAL REFERENCE SYSTEM

Co-ordinated Universal Time (UTC) and the Gregorian calendar are used by air navigation services and in publications issued by the AIS. Reporting of time is expressed to the nearest minute, e.g. 12:40:35 is reported as 1241.

Due to the application of daylight saving time, the relation between UTC and local time is different during summer and the winter period. The summer period starts every year on the last SUN of MAR at 0100 UTC and ends on the last SUN of OCT at 0100 UTC.

During the winter period, local time is UTC + 1 HR. During the summer period, local time is UTC + 2 HR.

In the AIP and in AIC, UTC times applicable during the summer period will be added between brackets when different from those applicable during the winter period.

SUP will mention UTC times as applicable during their period of validity. If the period of validity overlaps the transition from summer to winter period or vice versa, the system used in the AIP will be applied.

NOTAM will mention UTC times as applicable during their period of validity. If item D or E of a NOTAM contains time information and the period of validity overlaps the transition between summer and winter period, a separate NOTAM will be published for each time period.

### 3 HORIZONTAL REFERENCE SYSTEM

All published geographical co-ordinates indicating latitude and longitude are expressed in terms of the World Geodetic System of 1984 (WGS-84) geodetic reference datum.

An asterisk (\*) will be used to identify those published geographical co-ordinates which have been transformed in to WGS-84 co-ordinates but whose accuracy of original field work does not meet the requirements in *ICAO Annex 11, Chapter 2* and *ICAO Annex 14, Volumes I and II, Chapter 2*.

## 4 VERTICAL REFERENCE DATUM

### 4.1 Designation of the Reference System

Mean sea level datum (MSL) is used as the vertical reference system.

In addition to elevation values referenced to MSL, geoid undulation (referenced to the WGS-84 ellipsoid) is published for specific surveyed ground positions.

### 4.2 Description of the Geoid Model

MSL values refer to the Earth Gravitational Model 2008 (EGM-2008). Values of geoid undulations are computed on a 1'x1' grid (equiangular spacing in terms of WGS-84 geodetic coordinates). At any point, this model provides trough interpolation the geoid undulation above the ellipsoid WGS-84. The accuracy of this model has been reported as to the order of 10 CM.

### 4.3 Transformation between The Geoid Model and EGM-96

MSL values can be transformed to and from EGM-96 using the conversion grid in the following PDF: [https://ops.skeyes.be/html/belgocontrol\\_static/eaip/eAIP\\_Product/Documents/Conversion EGM-96.pdf](https://ops.skeyes.be/html/belgocontrol_static/eaip/eAIP_Product/Documents/Conversion%20EGM-96.pdf)

The conversion grid covers the Brussels FIR, using rows and columns delimited by the geographical coordinates shown in the margin, expressed in degrees and minutes. By determining the applicable cell in the grid, MSL values and geoid undulation can be transformed between EGM-2008 and EGM-96 for each given position expressed in metres, using following formulas:

**MSL value [EGM-96] = MSL value [EGM-2008] - value shown in grid**

**Undulation [EGM-96] = undulation [EGM-2008] + value shown in grid**

## 5 AIRCRAFT NATIONALITY AND REGISTRATION MARKS

The nationality mark for civil aircraft registered in Belgium is the letter combination "OO" and for civil aircraft registered in Luxembourg, the letter combination "LX". The nationality mark is followed by a hyphen and a registration mark consisting of:

- three letters and/or numbers or a combination of those for Belgium (e.g. OO-SDN / OO-112 / OO-A02),
- three letters for Luxembourg (e.g. LX-LAA).

## 6 PUBLIC HOLIDAYS

|                          |             |                                       |
|--------------------------|-------------|---------------------------------------|
| New Year's Day           | 01 JAN      | Belgium and Luxembourg                |
| Easter Monday            | -           | Belgium and Luxembourg                |
| King's Birthday          | 15 APR      | Belgian Defence                       |
| Labour Day               | 01 MAY      | Belgium and Luxembourg                |
| Europe Day               | 09 MAY      | Luxembourg                            |
| Ascension Day            | -           | Belgium and Luxembourg                |
| Day after Ascension Day  | -           | Belgian Defence                       |
| Whit Monday              | -           | Belgium and Luxembourg                |
| National Holiday         | 23 JUN      | Luxembourg                            |
| National Holiday         | 21 JUL      | Belgium                               |
| Assumption Day           | 15 AUG      | Belgium and Luxembourg                |
| All Saints Day           | 01 NOV      | Belgium and Luxembourg                |
| All Souls Day            | 02 NOV      | Belgium <sup>(*)</sup>                |
| Armistice Day            | 11 NOV      | Belgium                               |
| Dynasty Day              | 15 NOV      | Belgium <sup>(*)</sup>                |
| Christmas Day            | 25 DEC      | Belgium and Luxembourg                |
| Boxing Day               | 26 DEC      | Belgium <sup>(*)</sup> and Luxembourg |
| Holiday period           | 27 - 31 DEC | Belgian Defence                       |
| (*) Public services only |             |                                       |

Note: Dates of Easter Monday, Ascension Day, day after Ascension Day, Whit Monday and any additional military closing days will be announced by SUP.

## GEN 2.2 Abbreviations Used in AIS Publications

Abbreviations marked by an asterisk (\*) are either different from or not contained in *ICAO Doc 8400*.

| <b>A</b> |                                                                                                                                                                                 |          |                                                                                                                |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------|
| A        | Amber                                                                                                                                                                           | AGA      | Aerodromes, air routes and ground aids                                                                         |
| *A       | Ampere                                                                                                                                                                          | AGL      | Above ground level                                                                                             |
| AAA      | (or AAB, AAC, etc. in sequence) Amended meteorological message (message type designator)                                                                                        | AGN      | Again                                                                                                          |
| A/A      | Air-to-air                                                                                                                                                                      | AIC      | Aeronautical information circular                                                                              |
| AAD      | Assigned altitude deviation                                                                                                                                                     | AIDC     | Air traffic services interfacility data communication                                                          |
| AAIM     | Aircraft autonomous integrity monitoring                                                                                                                                        | *AIM     | ATFM information message                                                                                       |
| AAL      | Above aerodrome level                                                                                                                                                           | AIM      | Aeronautical Information Management                                                                            |
| AAR      | Air to air refuelling                                                                                                                                                           | AIP      | Aeronautical information publication                                                                           |
| ABI      | Advance boundary information                                                                                                                                                    | AIRAC    | Aeronautical information regulation and control                                                                |
| ABM      | Abeam                                                                                                                                                                           | AIREP    | Air-report                                                                                                     |
| ABN      | Aerodrome beacon                                                                                                                                                                | AIRMET   | Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations |
| ABT      | About                                                                                                                                                                           |          |                                                                                                                |
| ABV      | Above                                                                                                                                                                           | *AIRPROX | Aircraft proximity                                                                                             |
| AC       | Alto cumulus                                                                                                                                                                    | AIS      | Aeronautical Information Services                                                                              |
| ACARS    | Aircraft communication addressing and reporting system                                                                                                                          | ALA      | Lighting area                                                                                                  |
| ACAS     | Airborne collision avoidance system                                                                                                                                             | ALERFA   | Alert phase                                                                                                    |
| ACC      | Area control centre or area control                                                                                                                                             | *ALO     | Air Liaison Officer                                                                                            |
| ACCID    | Notification of an aircraft accident                                                                                                                                            | ALR      | Alerting (message type designator)                                                                             |
| *A-CDM   | Airport collaborative decision making                                                                                                                                           | ALRS     | Alerting service                                                                                               |
| ACFT     | Aircraft                                                                                                                                                                        | ALS      | Approach lighting system                                                                                       |
| *ACID    | Aircraft identification                                                                                                                                                         | ALT      | Altitude                                                                                                       |
| ACK      | Acknowledge                                                                                                                                                                     | ALTN     | Alternate or alternating (light alternates in colour)                                                          |
| ACL      | Altimeter check location                                                                                                                                                        | ALTN     | Alternate (aerodrome)                                                                                          |
| *ACL     | ATC clearances and instructions                                                                                                                                                 | AMA      | Area minimum altitude                                                                                          |
| *ACM     | ATC Communications Management                                                                                                                                                   | *AMC     | Airspace Management Cell                                                                                       |
| ACN      | Aircraft classification number                                                                                                                                                  | *AMC     | ATC microphone check                                                                                           |
| ACP      | Acceptance (message type designator)                                                                                                                                            | AMD      | Amend or amended (used to indicate amended meteorological message; message type designator)                    |
| ACPT     | Accept or accepted                                                                                                                                                              | AMDT     | Amendment (AIP amendment)                                                                                      |
| ACT      | Active or activated or activity                                                                                                                                                 | *AMHS    | ATS message handling system                                                                                    |
| *ACU     | Air control unit                                                                                                                                                                | *AMO     | Aerodrome Meteorological Office                                                                                |
| AD       | Aerodrome                                                                                                                                                                       | AMS      | Aeronautical mobile service                                                                                    |
| ADA      | Advisory area                                                                                                                                                                   | AMSL     | Above mean sea level                                                                                           |
| ADC      | Aerodrome chart                                                                                                                                                                 | AMSS     | Aeronautical mobile satellite service                                                                          |
| *ADC     | Air defence controller                                                                                                                                                          | *ANA     | Administration de la navigation aérienne                                                                       |
| ADDN     | Addition or additional                                                                                                                                                          | ANC      | Aeronautical chart - 1:500000 (followed by name/title)                                                         |
| *ADEP    | Airport of departure                                                                                                                                                            | ANCS     | Aeronautical navigation chart - small scale (followed by name/title and scale)                                 |
| *ADES    | Airport of destination                                                                                                                                                          | *ANM     | ATFM notification message                                                                                      |
| ADF      | Automatic direction-finding equipment                                                                                                                                           | ANS      | Answer                                                                                                         |
| ADIZ     | Air defence identification zone                                                                                                                                                 | AO       | Aircraft Operator                                                                                              |
| ADJ      | Adjacent                                                                                                                                                                        | AOC      | Aerodrome obstacle chart (followed by type and name/title)                                                     |
| *ADNC    | Air Defence Notification Cell                                                                                                                                                   | AP       | Airport                                                                                                        |
| ADO      | Aerodrome office (specify service)                                                                                                                                              | APAPI    | Abbreviated precision approach path indicator                                                                  |
| *ADP     | Automatic data processing                                                                                                                                                       | APCH     | Approach                                                                                                       |
| ADR      | Advisory route                                                                                                                                                                  | APDC     | Aircraft parking/docking chart (followed by name/title)                                                        |
| ADS      | The address [when this abbreviation is used to request a repetition, the question mark (IMI) precedes the abbreviation, e.g. IMI ADS] (to be used in AFS as a procedure signal) | APN      | Apron                                                                                                          |
| ADS-B    | Automatic dependent surveillance - broadcast                                                                                                                                    | *APOC    | Airport operations centre                                                                                      |
| ADS-C    | Automatic dependent surveillance - contract                                                                                                                                     | APP      | Approach control office or approach control or approach control service                                        |
| ADSU     | Automatic dependent surveillance unit                                                                                                                                           | APR      | April                                                                                                          |
| ADVS     | Advisory service                                                                                                                                                                | APRX     | Approximate or approximately                                                                                   |
| ADZ      | Advise                                                                                                                                                                          | APSG     | After passing                                                                                                  |
| AES      | Aircraft earth station                                                                                                                                                          | APU      | Auxiliary power unit                                                                                           |
| AFIL     | Flight plan filed in the air                                                                                                                                                    | APV      | Approach procedure with vertical guidance                                                                      |
| AFIS     | Aerodrome flight information service                                                                                                                                            | *AR      | Authorization required                                                                                         |
| *AFIZ    | Aerodrome flight information zone                                                                                                                                               | ARC      | Area chart                                                                                                     |
| AFM      | Yes or affirm or affirmative or that is correct                                                                                                                                 | *ARES    | Airspace reservation                                                                                           |
| AFS      | Aeronautical fixed service                                                                                                                                                      | ARNG     | Arrange                                                                                                        |
| AFT      | After . . . (time or place)                                                                                                                                                     | ARO      | Air traffic services reporting office                                                                          |
| AFTN     | Aeronautical fixed telecommunication network                                                                                                                                    | ARP      | Aerodrome reference point                                                                                      |
| A/G      | Air-to-ground                                                                                                                                                                   | ARP      | Air-report (message type designator)                                                                           |
|          |                                                                                                                                                                                 | ARQ      | Automatic error correction                                                                                     |
|          |                                                                                                                                                                                 | ARR      | Arrival (message type designator)                                                                              |
|          |                                                                                                                                                                                 | ARR      | Arrive or arrival                                                                                              |
|          |                                                                                                                                                                                 | ARS      | Special air-report (message type designator)                                                                   |
|          |                                                                                                                                                                                 | ARST     | Arresting [specify (part of) aircraft arresting equipment]                                                     |

|          |                                                                                                                                                                                                 |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AS       | Altostratus                                                                                                                                                                                     |
| ASAP     | As soon as possible                                                                                                                                                                             |
| ASC      | Ascend to or ascending to                                                                                                                                                                       |
| ASDA     | Accelerate-stop distance available                                                                                                                                                              |
| ASE      | Altimetry system error                                                                                                                                                                          |
| ASHTAM   | Special series of NOTAM notifying, by means of a specific format, change in activity of a volcano, a volcanic eruption and/or volcanic ash cloud that is of significance to aircraft operations |
| *A-SMGCS | Advanced surface movement guidance and control system                                                                                                                                           |
| ASPH     | Asphalt                                                                                                                                                                                         |
| *ASR     | Aerodrome surveillance radar                                                                                                                                                                    |
| AT       | At (followed by time at which weather change is forecast to occur)                                                                                                                              |
| ATA      | Actual time of arrival                                                                                                                                                                          |
| ATC      | Air traffic control (in general)                                                                                                                                                                |
| *ATCC    | Air traffic control centre (military abbreviation)                                                                                                                                              |
| ATCSMAC  | Air traffic control surveillance minimum altitude chart (followed by name/title)                                                                                                                |
| ATD      | Actual time of departure                                                                                                                                                                        |
| *ATFCM   | Air traffic flow and capacity management                                                                                                                                                        |
| ATFM     | Air traffic flow management                                                                                                                                                                     |
| ATIS     | Automatic terminal information service                                                                                                                                                          |
| ATM      | Air traffic management                                                                                                                                                                          |
| ATN      | Aeronautical telecommunication network                                                                                                                                                          |
| ATP      | At . . . (time or place)                                                                                                                                                                        |
| ATS      | Air traffic services                                                                                                                                                                            |
| ATTN     | Attention                                                                                                                                                                                       |
| AT-VASIS | Abbreviated T visual approach slope indicator system                                                                                                                                            |
| ATZ      | Aerodrome traffic zone                                                                                                                                                                          |
| AUG      | August                                                                                                                                                                                          |
| *AUP     | Airspace Use Plan                                                                                                                                                                               |
| AUTH     | Authorized or authorization                                                                                                                                                                     |
| AUTO     | Automatic                                                                                                                                                                                       |
| AUW      | All up weight                                                                                                                                                                                   |
| AUX      | Auxiliary                                                                                                                                                                                       |
| AVBL     | Available or availability                                                                                                                                                                       |
| AVG      | Average                                                                                                                                                                                         |
| AVGAS    | Aviation gasoline                                                                                                                                                                               |
| AWOS     | Automatic Weather Observation System                                                                                                                                                            |
| AWTA     | Advise at what time able                                                                                                                                                                        |
| AWY      | Airway                                                                                                                                                                                          |
| AZM      | Azimuth                                                                                                                                                                                         |

**B**

|           |                                                                   |
|-----------|-------------------------------------------------------------------|
| B         | Blue                                                              |
| BA        | Braking action                                                    |
| BARO-VNAV | Barometric vertical navigation                                    |
| BASE      | Cloud base                                                        |
| BCFG      | Fog patches                                                       |
| BCN       | Beacon (aeronautical ground light)                                |
| BCST      | Broadcast                                                         |
| BDRY      | Boundary                                                          |
| BECMG     | Becoming                                                          |
| BFR       | Before                                                            |
| BKN       | Broken                                                            |
| BL        | Blowing (followed by DU = dust, SA = sand or SN = snow)           |
| BLDG      | Building                                                          |
| BLO       | Below clouds                                                      |
| BLW       | Below . . .                                                       |
| BOMB      | Bombing                                                           |
| BR        | Mist                                                              |
| BRF       | Short (used to indicate the type of approach desired or required) |
| BRG       | Bearing                                                           |
| BRKG      | Braking                                                           |
| BS        | Commercial broadcasting station                                   |
| BTL       | Between layers                                                    |
| BTN       | Between                                                           |
| BUFR      | Binary universal form for the representation of mete-             |

|        |                                                |
|--------|------------------------------------------------|
| *BVLOS | orological data<br>Beyond visual line of sight |
|--------|------------------------------------------------|

**C**

|            |                                                                                                                                             |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| C          | Centre (runway identification)                                                                                                              |
| C          | Degrees Celsius (centigrade)                                                                                                                |
| CA         | Course to an altitude                                                                                                                       |
| CAA        | Civil Aviation Authority or Civil Aviation Administration                                                                                   |
| *CANAC     | Computer Assisted National Air traffic control Centre                                                                                       |
| *CAS       | Close Air Support                                                                                                                           |
| CAT        | Category                                                                                                                                    |
| CAT        | Clear air turbulence                                                                                                                        |
| CAVOK      | Visibility, cloud and present weather better than prescribed values or conditions                                                           |
| CB         | Cumulonimbus                                                                                                                                |
| *CBA       | Cross-border area                                                                                                                           |
| CC         | Cirrocumulus                                                                                                                                |
| CCA        | (or CCB, CCC, etc. in sequence) Corrected meteorological message (message type designator)                                                  |
| CCO        | Continuous climb operations                                                                                                                 |
| *CCTV      | Closed circuit television                                                                                                                   |
| CD         | Candela                                                                                                                                     |
| CDN        | Co-ordination (message type designator)                                                                                                     |
| CDO        | Continuous descent operations                                                                                                               |
| CDR        | Conditional route                                                                                                                           |
| *CENOR     | Central and Northern region (an organisation of NATO nations that developed specifications for aeronautical charts for the use of MIL crew) |
| *CEU       | Central executive unit                                                                                                                      |
| CF         | Change frequency to . . .                                                                                                                   |
| CF         | Course to a fix                                                                                                                             |
| *CFIT      | Controlled flight into terrain                                                                                                              |
| CFM        | Confirm or I confirm (to be used in AFS as a procedure signal)                                                                              |
| CGL        | Circling guidance light(s)                                                                                                                  |
| CH         | Channel                                                                                                                                     |
| CHEM       | Chemical                                                                                                                                    |
| CHG        | Modification (message type designator)                                                                                                      |
| CI         | Cirrus                                                                                                                                      |
| CIDIN      | Common ICAO data interchange network                                                                                                        |
| CIV        | Civil                                                                                                                                       |
| CK         | Check                                                                                                                                       |
| CL         | Centre line                                                                                                                                 |
| CLA        | Clear type of ice formation                                                                                                                 |
| CLBR       | Calibration                                                                                                                                 |
| CLD        | Cloud                                                                                                                                       |
| CLG        | Calling                                                                                                                                     |
| CLIMB-OUT  | Climb-out area                                                                                                                              |
| CLR        | Clear(s) or cleared to . . . or clearance                                                                                                   |
| CLRD       | Runway(s) cleared                                                                                                                           |
| CLSD       | Close or closed or closing                                                                                                                  |
| CM         | Centimetre                                                                                                                                  |
| CMB        | Climb to or climbing to                                                                                                                     |
| CMPL       | Completion or completed or complete                                                                                                         |
| CNL        | Cancel or cancelled                                                                                                                         |
| CNL        | Flight plan cancellation (message type designator)                                                                                          |
| CNS        | Communications, navigation and surveillance                                                                                                 |
| COM        | Communications                                                                                                                              |
| *COMAO     | Composite Air Operations                                                                                                                    |
| *COMOPSAIR | Commando Air Operations                                                                                                                     |
| CONC       | Concrete                                                                                                                                    |
| COND       | Condition                                                                                                                                   |
| CONS       | Continuous                                                                                                                                  |
| CONST      | Construction or constructed                                                                                                                 |
| CONT       | Continue(s) or continued                                                                                                                    |
| COOR       | Coordinate or coordination                                                                                                                  |
| COORD      | Coordinates                                                                                                                                 |
| COP        | Change-over point                                                                                                                           |
| COR        | Correct or correction or corrected (used to indicate corrected meteorological message; message type designator)                             |
| COT        | At the coast                                                                                                                                |



|        |                                               |          |                                                                                                                          |
|--------|-----------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------|
| COV    | Cover or covered or covering                  | DP       | Dew point temperature                                                                                                    |
| CPDLC  | Controller-pilot data link communications     | *DPM     | Motorized deltaplane                                                                                                     |
| CPL    | Current flight plan (message type designator) | DPT      | Depth                                                                                                                    |
| *CPSRA | Critical part of the security restricted area | DR       | Dead reckoning                                                                                                           |
| CRC    | Cyclic redundancy check                       | DR       | Low drifting (followed by DU = dust, SA = sand or SN = snow)                                                             |
| *CRC   | Control and reporting centre                  | DRG      | During                                                                                                                   |
| CRM    | Collision risk model                          | DS       | Duststorm                                                                                                                |
| *CRNA  | Centre en Route de la Navigation Aérienne     | DSB      | Double sideband                                                                                                          |
| CRP    | Compulsory reporting point                    | DTAM     | Descend to and maintain                                                                                                  |
| CRZ    | Cruise                                        | DTG      | Date-time group                                                                                                          |
| CS     | Call sign                                     | DTHR     | Displaced runway threshold                                                                                               |
| CS     | Cirrostratus                                  | DTRT     | Deteriorate or deteriorating                                                                                             |
| *CSAR  | Combat search and rescue                      | DTW      | Dual tandem wheels                                                                                                       |
| CTA    | Control area                                  | DU       | Dust                                                                                                                     |
| CTAM   | Climb to and maintain                         | DUC      | Dense upper cloud                                                                                                        |
| CTC    | Contact                                       | DUPE     | This is a duplicate message (signal for use in the teletypewriter service only; to be used in AFS as a procedure signal) |
| CTL    | Control                                       | DUR      | Duration                                                                                                                 |
| CTN    | Caution                                       | D-VOLMET | Data link VOLMET                                                                                                         |
| *CTOT  | Calculated take-off time                      | DVOR     | Doppler VOR                                                                                                              |
| CTR    | Control zone                                  | DW       | Dual wheels                                                                                                              |
| CU     | Cumulus                                       | DZ       | Drizzle                                                                                                                  |
| CUF    | Cumuliform                                    |          |                                                                                                                          |
| CUST   | Customs                                       |          |                                                                                                                          |
| CVR    | Cockpit voice recorder                        |          |                                                                                                                          |
| CW     | Continuous wave                               |          |                                                                                                                          |
| CWY    | Clearway                                      |          |                                                                                                                          |

**D**

|          |                                                                                                      |
|----------|------------------------------------------------------------------------------------------------------|
| D        | Downward (tendency in RVR during previous 10 minutes)                                                |
| D        | Danger area (followed by identification)                                                             |
| DA       | Decision altitude                                                                                    |
| *DAT     | Significant data related to data link capability                                                     |
| D-ATIS   | Data link automatic terminal information service                                                     |
| *dB      | Decibel                                                                                              |
| DCD      | Double channel duplex                                                                                |
| DCKG     | Docking                                                                                              |
| *DCL     | Data link clearance delivery service                                                                 |
| DCP      | Datum crossing point                                                                                 |
| DCPC     | Direct controller-pilot communications                                                               |
| DCS      | Double channel simplex                                                                               |
| DCT      | Direct (in relation to flight plan clearances and type of approach)                                  |
| DE       | From (used to precede the call sign of the calling station; to be used in AFS as a procedure signal) |
| DEC      | December                                                                                             |
| DEG      | Degrees                                                                                              |
| DEP      | Depart or departure                                                                                  |
| DEP      | Departure (message type designator)                                                                  |
| DEPO     | Deposition                                                                                           |
| DER      | Departure end of the runway                                                                          |
| DES      | Descend to or descending to                                                                          |
| DEST     | Destination                                                                                          |
| DETRESFA | Distress phase                                                                                       |
| DEV      | Deviation or deviating                                                                               |
| DF       | Direction finding                                                                                    |
| DFDR     | Digital flight data recorder                                                                         |
| *D-FIS   | Data link flight information service                                                                 |
| DFTI     | Distance from touchdown indicator                                                                    |
| *DGS     | Docking guidance system                                                                              |
| DH       | Decision height                                                                                      |
| DIF      | Diffuse                                                                                              |
| DIST     | Distance                                                                                             |
| DIV      | Divert or diverting                                                                                  |
| DLA      | Delay or delayed                                                                                     |
| DLA      | Delay (message type designator)                                                                      |
| DLIC     | Data link initiation capability                                                                      |
| DLY      | Daily                                                                                                |
| DME      | Distance measuring equipment                                                                         |
| DNG      | Danger or dangerous                                                                                  |
| *DOC     | Designated operational coverage                                                                      |
| DOF      | Date of flight                                                                                       |
| DOM      | Domestic                                                                                             |

**E**

|           |                                                                                                    |
|-----------|----------------------------------------------------------------------------------------------------|
| E         | East or eastern longitude                                                                          |
| *eAIP     | Electronic aeronautical information publication                                                    |
| EAT       | Expected approach time                                                                             |
| *EAUP     | European airspace use plan                                                                         |
| *EAW      | Early access weekend routes                                                                        |
| EB        | Eastbound                                                                                          |
| *ECAC     | European Civil Aviation Conference                                                                 |
| EDA       | Elevation differential area                                                                        |
| EDTO      | Extended diversion time operations                                                                 |
| EEE       | Error (signal for use in the teletypewriter service only; to be used in AFS as a procedure signal) |
| EET       | Estimated elapsed time                                                                             |
| EFC       | Expect further clearance                                                                           |
| EFIS      | Electronic flight instrument system                                                                |
| EGNOS     | European geostationary navigation overlay service                                                  |
| EHF       | Extremely high frequency (30 000 to 300 000 MHz)                                                   |
| *EHS      | Enhanced surveillance                                                                              |
| ELBA      | Emergency location beacon - aircraft                                                               |
| ELEV      | Elevation                                                                                          |
| ELR       | Extra long range                                                                                   |
| *ELS      | Elementary surveillance                                                                            |
| ELT       | Emergency locator transmitter                                                                      |
| EM        | Emission                                                                                           |
| EMBD      | Embedded in a layer (to indicate cumulonimbus embedded in layers of other clouds)                  |
| EMERG     | Emergency                                                                                          |
| *En       | English                                                                                            |
| END       | Stop-end (related to RVR)                                                                          |
| ENE       | East-north-east                                                                                    |
| ENG       | Engine                                                                                             |
| ENR       | En-route                                                                                           |
| ENRC      | En-route chart (followed by name/title)                                                            |
| EOBT      | Estimated off block time                                                                           |
| EQPT      | Equipment                                                                                          |
| EQS       | Equatorial latitudes southern hemisphere                                                           |
| *ESA      | Emergency safety altitude                                                                          |
| ESE       | East-south-east                                                                                    |
| EST       | Estimate or estimated or estimate (message type designator)                                        |
| *EST      | Estimated (preceded by time-group)                                                                 |
| ETA       | Estimated time of arrival or estimating arrival                                                    |
| ETD       | Estimated time of departure or estimating departure                                                |
| ETO       | Estimated time over significant point                                                              |
| *ETOT     | Estimated take-off time                                                                            |
| EUR RODEX | European regional OPMET data exchange                                                              |
| *EUROAT   | Eurocontrol harmonised rules for operational air traffic                                           |

|       |                                        |
|-------|----------------------------------------|
| *EUUP | European updated airspace use plan     |
| EV    | Every                                  |
| EVS   | Enhanced vision system                 |
| EXC   | Except                                 |
| *excl | Excluded                               |
| EXER  | Exercises or exercising or to exercise |
| EXP   | Expect or expected or expecting        |
| EXTD  | Extend or extending or extended        |

|      |                            |
|------|----------------------------|
| FSS  | Flight service station     |
| FST  | First                      |
| FT   | Feet (dimensional unit)    |
| FTE  | Flight technical error     |
| FTP  | Fictitious threshold point |
| FTT  | Flight technical tolerance |
| FU   | Smoke                      |
| FZ   | Freezing                   |
| FZDZ | Freezing drizzle           |
| FZFG | Freezing fog               |
| FZRA | Freezing rain              |

**F**

|        |                                                                                                                       |
|--------|-----------------------------------------------------------------------------------------------------------------------|
| F      | Fixed                                                                                                                 |
| FA     | Course from a fix to an altitude                                                                                      |
| *FAB   | Functional airspace block                                                                                             |
| FAC    | Facilities                                                                                                            |
| FAF    | Final approach fix                                                                                                    |
| FAL    | Facilitation of international air transport                                                                           |
| *FANS  | Future air navigation system                                                                                          |
| FAP    | Final approach point                                                                                                  |
| FAS    | Final approach segment                                                                                                |
| *FASID | Facilities and Services Implementation Document                                                                       |
| FATO   | Final approach and take-off area                                                                                      |
| FAX    | Facsimile transmission                                                                                                |
| FBL    | Light (used to indicate the intensity of weather phenomena, interference or static reports, e.g. FBL RA = light rain) |
| *FBZ   | Flight planning buffer zone                                                                                           |
| FC     | Funnel cloud (tornado or water spout)                                                                                 |
| FCST   | Forecast                                                                                                              |
| FCT    | Friction coefficient                                                                                                  |
| FDPS   | Flight data processing system                                                                                         |
| FEB    | February                                                                                                              |
| FEW    | Few                                                                                                                   |
| FG     | Fog                                                                                                                   |
| FIC    | Flight information centre                                                                                             |
| FIR    | Flight information region                                                                                             |
| FIS    | Flight information service                                                                                            |
| FISA   | Automated flight information service                                                                                  |
| FL     | Flight level                                                                                                          |
| FLD    | Field                                                                                                                 |
| FLG    | Flashing                                                                                                              |
| *FLIP  | Flight information publication                                                                                        |
| FLR    | Flares                                                                                                                |
| FLT    | Flight                                                                                                                |
| FLTCK  | Flight check                                                                                                          |
| FLUC   | Fluctuating or fluctuation or fluctuated                                                                              |
| FLW    | Follow(s) or following                                                                                                |
| FLY    | Fly or flying                                                                                                         |
| FM     | Course from a fix to manual termination (used in navigation database coding)                                          |
| FM     | From                                                                                                                  |
| FM     | From (followed by time weather change is forecast to begin)                                                           |
| FMC    | Flight management computer                                                                                            |
| *FMP   | Flow management position                                                                                              |
| FMS    | Flight management system                                                                                              |
| FMU    | Flow management unit                                                                                                  |
| FNA    | Final approach                                                                                                        |
| *FOD   | Foreign object damage                                                                                                 |
| FPAP   | Flight path alignment point                                                                                           |
| FPL    | Flight plan                                                                                                           |
| FPM    | Feet per minute                                                                                                       |
| FPR    | Flight plan route                                                                                                     |
| *FPS   | Federal Public Service                                                                                                |
| FR     | Fuel remaining                                                                                                        |
| *Fr    | French                                                                                                                |
| *FRA   | Free route airspace                                                                                                   |
| FREQ   | Frequency                                                                                                             |
| FRI    | Friday                                                                                                                |
| FRNG   | Firing                                                                                                                |
| FRONT  | Front (relating to weather)                                                                                           |
| FROST  | Frost (used in aerodrome warnings)                                                                                    |
| FRQ    | Frequent                                                                                                              |
| FSL    | Full stop landing                                                                                                     |

**G**

|         |                                                                                                                            |
|---------|----------------------------------------------------------------------------------------------------------------------------|
| *G      | Gram                                                                                                                       |
| G       | Green                                                                                                                      |
| G       | Variations from the mean wind speed (gusts) (used in METAR/SPECI and TAF)                                                  |
| GA      | General Aviation                                                                                                           |
| GA      | Go ahead, resume sending (to be used in AFS as a procedure signal)                                                         |
| G/A     | Ground-to-air                                                                                                              |
| G/A/G   | Ground-to-air and air-to-ground                                                                                            |
| GAGAN   | GPS and geostationary earth orbit augmented navigation                                                                     |
| GAIN    | Airspeed or headwind gain                                                                                                  |
| GAMET   | Area forecast for low-level flights                                                                                        |
| GARP    | GBAS azimuth reference point                                                                                               |
| *GAT    | General air traffic                                                                                                        |
| GBAS    | Ground-based augmentation system                                                                                           |
| GCA     | Ground controlled approach system or ground controlled approach                                                            |
| *Ge     | German                                                                                                                     |
| GEN     | General                                                                                                                    |
| GEO     | Geographic or true                                                                                                         |
| GES     | Ground earth station                                                                                                       |
| GLD     | Glider                                                                                                                     |
| GLONASS | Global orbiting navigation satellite system                                                                                |
| GLS     | GBAS landing system                                                                                                        |
| GMC     | Ground movement chart (followed by name/title)                                                                             |
| GND     | Ground                                                                                                                     |
| GNDCK   | Ground check                                                                                                               |
| GNSS    | Global navigation satellite system                                                                                         |
| GOV     | Government                                                                                                                 |
| GP      | Glide path                                                                                                                 |
| GPA     | Glide path angle                                                                                                           |
| GPIP    | Glide path intercept point                                                                                                 |
| GPS     | Global positioning system                                                                                                  |
| GPU     | Ground power unit                                                                                                          |
| GPWS    | Ground proximity warning system                                                                                            |
| GR      | Hail                                                                                                                       |
| GRAS    | Ground-based regional augmentation system                                                                                  |
| GRASS   | Grass landing area                                                                                                         |
| GRIB    | Processed meteorological data in the form of grid point values expressed in binary form (aeronautical meteorological code) |
| GRVL    | Gravel                                                                                                                     |
| GS      | Ground speed                                                                                                               |
| GS      | Small hail and/or snow pellets                                                                                             |
| *GSM    | Global System for Mobile Communications                                                                                    |
| GUND    | Geoid undulation                                                                                                           |

**H**

|      |                                                              |
|------|--------------------------------------------------------------|
| H    | High pressure area or the centre of high pressure            |
| H... | Significant wave height (followed by figures in METAR/SPECI) |
| H24  | Continuous day and night service                             |
| HA   | Holding/racetrack to an altitude                             |
| *HAA | Height above aerodrome elevation                             |
| HAPI | Helicopter approach path indicator                           |
| *HAT | Height above touch-down                                      |
| HBN  | Hazard beacon                                                |

|       |                                                                                       |
|-------|---------------------------------------------------------------------------------------|
| HCH   | Helicopter crossing height                                                            |
| HDF   | High frequency direction-finding station                                              |
| HDG   | Heading                                                                               |
| HEL   | Helicopter                                                                            |
| *HEMS | Helicopter emergency medical service                                                  |
| HF    | High frequency (3000 to 30000 KHZ)                                                    |
| HF    | Holding/racetack to a fix                                                             |
| *HFDL | High frequency data link                                                              |
| HGT   | Height or height above                                                                |
| HJ    | Sunrise to sunset                                                                     |
| HLDG  | Holding                                                                               |
| HLP   | Heliprot                                                                              |
| HLS   | Helicopter landing site                                                               |
| HM    | Holding/racetack to a manual termination                                              |
| HN    | Sunset to sunrise                                                                     |
| HNH   | High latitudes northern hemisphere                                                    |
| HO    | Service available to meet operational requirements                                    |
| HOL   | Holiday                                                                               |
| HOSP  | Hospital aircraft                                                                     |
| HPA   | Hectopascal                                                                           |
| *HPMA | High performance military aircraft                                                    |
| HR    | Hours                                                                                 |
| HRP   | Heliprot reference point                                                              |
| HS    | Service available during hours of scheduled operations                                |
| HS    | High latitudes southern hemisphere                                                    |
| *HT   | High tension                                                                          |
| *HTA  | Helicopter training area                                                              |
| HUD   | Head-up display                                                                       |
| HUM   | Humanitarian                                                                          |
| HURCN | Hurricane                                                                             |
| HVDF  | High and very high frequency direction-finding stations (at the same location)        |
| HVY   | Heavy                                                                                 |
| HVY   | Heavy (used to indicate the intensity of weather phenomena, e.g. HVY RA = heavy rain) |
| HX    | No specific working hours                                                             |
| HYR   | Higher                                                                                |
| HZ    | Haze                                                                                  |
| HZ    | Hertz (cycles per second)                                                             |

**I**

|        |                                                                              |
|--------|------------------------------------------------------------------------------|
| IAC    | Instrument approach chart (followed by name/title)                           |
| IAF    | Initial approach fix                                                         |
| IAO    | In and out of clouds                                                         |
| IAP    | Instrument approach procedure                                                |
| IAR    | Intersection of air routes                                                   |
| IAS    | Indicated airspeed                                                           |
| *IATA  | International Air Transport Association                                      |
| IBN    | Identification beacon                                                        |
| ICAO   | International Civil Aviation Organization                                    |
| ICE    | Icing                                                                        |
| *ICF   | Initial contact frequency                                                    |
| ID     | Identifier or identify                                                       |
| IDENT  | Identification                                                               |
| IF     | Intermediate approach fix                                                    |
| IFF    | Identification friend/foe                                                    |
| *IFPS  | Integrated Initial Flight Plan Processing System                             |
| *IFPU  | Integrated Initial Flight Plan Processing Unit                               |
| IFR    | Instrument flight rules                                                      |
| IGA    | International general aviation                                               |
| ILS    | Instrument landing system                                                    |
| IM     | Inner marker                                                                 |
| IMC    | Instrument meteorological conditions                                         |
| IMG    | Immigration                                                                  |
| IMI    | Interrogation sign (question mark) (to be used in AFS as a procedure signal) |
| IMPR   | Improve or improving                                                         |
| IMT    | Immediate or immediately                                                     |
| INA    | Initial approach                                                             |
| INBD   | Inbound                                                                      |
| INC    | In cloud                                                                     |
| INCORP | Incorporated                                                                 |

|         |                                           |
|---------|-------------------------------------------|
| INCERFA | Uncertainty phase                         |
| *incl   | Included                                  |
| INFO    | Information                               |
| INOP    | Inoperative                               |
| INP     | If not possible                           |
| INPR    | In progress                               |
| INS     | Inertial navigation system                |
| INSTL   | Install or installed or installation      |
| INSTR   | Instrument                                |
| INT     | Intersection                              |
| INTL    | International                             |
| INTRG   | Interrogator                              |
| INTRP   | Interrupt or interruption or interrupted  |
| INTSF   | Intensify or intensifying                 |
| INTST   | Intensity                                 |
| IR      | Ice on runway                             |
| *IRM    | Institut Royal Météorologique de Belgique |
| IRS     | Inertial reference system                 |
| *IRU    | Inertial reference unit                   |
| ISA     | International standard atmosphere         |
| ISB     | Independent sideband                      |
| ISOL    | Isolated                                  |

**J**

|      |                            |
|------|----------------------------|
| *JAA | Joint Aviation Authorities |
| JAN  | January                    |
| JTST | Jet stream                 |
| JUL  | July                       |
| JUN  | June                       |

**K**

|      |                                     |
|------|-------------------------------------|
| KG   | Kilograms                           |
| KHZ  | Kilohertz                           |
| KIAS | Knots indicated airspeed            |
| KM   | Kilometres                          |
| KMH  | Kilometres per hour                 |
| *KMI | Koninklijk Meteorologisch Instituut |
| KPA  | Kilopascal                          |
| KT   | Knots                               |
| *kVA | Kilovolt-ampere                     |
| KW   | Kilowatts                           |

**L**

|       |                                                           |
|-------|-----------------------------------------------------------|
| L     | Left (runway identification)                              |
| L     | Litre                                                     |
| L     | Locator (see LM, LO)                                      |
| L     | Low pressure area or the centre of low pressure           |
| LAM   | Logical acknowledgement (message type designator)         |
| LAN   | Inland                                                    |
| *LARA | Local and sub-Regional Airspace Management Support System |
| LAT   | Latitude                                                  |
| *LB   | Pounds                                                    |
| LCA   | Local or locally or location or located                   |
| *LCN  | Load classification number                                |
| *LCTA | Lower control area                                        |
| LDA   | Landing distance available                                |
| LDAH  | Landing distance available, helicopter                    |
| LDG   | Landing                                                   |
| LDI   | Landing direction indicator                               |
| *LED  | Light-emitting diode                                      |
| LEN   | Length                                                    |
| LF    | Low frequency (30 to 300 KHZ)                             |
| *LFA  | Low flying area                                           |
| LGT   | Light or lighting                                         |
| LGTD  | Lighted                                                   |
| LIH   | Light intensity high                                      |
| LIL   | Light intensity low                                       |

|       |                                                                                                           |         |                                                                                                                             |
|-------|-----------------------------------------------------------------------------------------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------|
| LIM   | Light intensity medium                                                                                    | MHDF    | Medium and high frequency direction-finding stations (at the same location)                                                 |
| LINE  | Line (used in SIGMET)                                                                                     | MHVDF   | Medium, high and very high frequency direction-finding stations (at the same location)                                      |
| *LLFC | Low level forecast chart                                                                                  | MHZ     | Megahertz                                                                                                                   |
| LM    | Locator, middle                                                                                           | MID     | Mid-point (related to RVR)                                                                                                  |
| LMT   | Local mean time                                                                                           | MIFG    | Shallow fog                                                                                                                 |
| LNAV  | Lateral navigation                                                                                        | MIL     | Military                                                                                                                    |
| LNG   | Long (used to indicate the type of approach desired or required)                                          | *MILFAG | Military Low Flying Area Golf                                                                                               |
| LO    | Locator, outer                                                                                            | MIN     | Minutes                                                                                                                     |
| LOC   | Localizer                                                                                                 | *MIPS   | Military instrument procedure standardization                                                                               |
| *LOM  | Compass locator at OM                                                                                     | MIS     | Missing . . . (transmission identification; to be used in AFS as a procedure signal)                                        |
| LONG  | Longitude                                                                                                 | *MJ     | Megajoule                                                                                                                   |
| LORAN | Long range air navigation system                                                                          | MKR     | Marker radio beacon                                                                                                         |
| LOSS  | Airspeed or headwind loss                                                                                 | MLS     | Microwave landing system                                                                                                    |
| LPV   | Localizer performance with vertical guidance                                                              | *MLW    | Maximum landing weight                                                                                                      |
| LR    | The last message received by me was . . . (to be used in AFS as a procedure signal)                       | MM      | Middle marker                                                                                                               |
| LRG   | Long range                                                                                                | *MM     | millimetre                                                                                                                  |
| LS    | The last message sent by me was . . . or Last message was . . . (to be used in AFS as a procedure signal) | MNH     | Middle latitudes northern hemisphere                                                                                        |
| *LSA  | Light sport aircraft                                                                                      | MNM     | Minimum                                                                                                                     |
| *LT   | Left turn                                                                                                 | MNPS    | Minimum navigation performance specifications                                                                               |
| LTA   | Lower control area                                                                                        | MNT     | Monitor or monitoring or monitored                                                                                          |
| LTD   | Limited                                                                                                   | MNTN    | Maintain                                                                                                                    |
| LTP   | Landing threshold point                                                                                   | MOA     | Military operating area                                                                                                     |
| *Lu   | Luxembourgish                                                                                             | MOC     | Minimum obstacle clearance (required)                                                                                       |
| LV    | Light and variable (relating to wind)                                                                     | MOCA    | Minimum obstacle clearance altitude                                                                                         |
| LVE   | Leave or leaving                                                                                          | MOD     | Moderate (used to indicate the intensity of weather phenomena, interference or static reports, e.g. MOD RA = moderate rain) |
| LVL   | Level                                                                                                     | MON     | Above mountains                                                                                                             |
| *LVO  | Low Visibility Operations                                                                                 | MON     | Monday                                                                                                                      |
| LVP   | Low visibility procedures                                                                                 | MOPS    | Minimum operational performance standards                                                                                   |
| *LWEP | Live weapons emergency procedure                                                                          | *MOPSC  | Maximum operational passenger seating configuration                                                                         |
| LYR   | Layer or layered                                                                                          | MOV     | Move or moving or movement                                                                                                  |

**M**

|            |                                                                                         |
|------------|-----------------------------------------------------------------------------------------|
| M          | Metres (preceded by figures)                                                            |
| M          | Mach number (followed by figures)                                                       |
| M          | Indicator for minimum value of runway visual range (used in the METAR/SPECI code forms) |
| MAA        | Maximum authorized altitude                                                             |
| MAG        | Magnetic                                                                                |
| MAHF       | Missed approach holding fix                                                             |
| MAINT      | Maintenance                                                                             |
| *MAN       | Manual                                                                                  |
| MAP        | Aeronautical maps and charts                                                            |
| MAPT       | Missed approach point                                                                   |
| MAR        | At sea                                                                                  |
| MAR        | March                                                                                   |
| *MARSA     | Military authority assumes responsibility for separation of aircraft                    |
| MATF       | Missed approach turning fix                                                             |
| MATZ       | Military aerodrome traffic zone                                                         |
| MAX        | Maximum                                                                                 |
| MAY        | May                                                                                     |
| MBST       | Microburst                                                                              |
| MCA        | Minimum crossing altitude                                                               |
| MCTR       | Military control zone                                                                   |
| MCW        | Modulated continuous wave                                                               |
| MDA        | Minimum descent altitude                                                                |
| MDF        | Medium frequency direction-finding station                                              |
| MDH        | Minimum descent height                                                                  |
| MEA        | Minimum en-route altitude                                                               |
| MEDEVAC    | Medical evacuation flight                                                               |
| MEHT       | Minimum eye height over threshold (for visual approach slope indicator systems)         |
| MET        | Meteorological or meteorology                                                           |
| METAR      | Aviation routine weather report (in aeronautical meteorological code)                   |
| MET REPORT | Local routine meteorological report (in abbreviated plain language)                     |
| MF         | Medium frequency (300 to 3000 KHZ)                                                      |
| MHA        | Minimum holding altitude                                                                |

|       |                                                                                                                                                             |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MPH   | Statute miles per hour                                                                                                                                      |
| *MPM  | Metres per minute                                                                                                                                           |
| MPS   | Metres per second                                                                                                                                           |
| MRA   | Minimum reception altitude                                                                                                                                  |
| MRG   | Medium range                                                                                                                                                |
| MRP   | ATS/MET reporting point                                                                                                                                     |
| MS    | Minus                                                                                                                                                       |
| MSA   | Minimum sector altitude                                                                                                                                     |
| MSAS  | Multi-functional transport satellite (MTSAT) satellite-based augmentation system                                                                            |
| MSAW  | Minimum safe altitude warning                                                                                                                               |
| *MSC  | Mission Support Centre                                                                                                                                      |
| MSG   | Message                                                                                                                                                     |
| MSH   | Middle latitudes southern hemisphere                                                                                                                        |
| MSL   | Mean sea level                                                                                                                                              |
| MSR   | Message . . . (transmission identification) has been misrouted (signal for use in the teletypewriter service only; to be used in AFS as a procedure signal) |
| MSSR  | Monopulse secondary surveillance radar                                                                                                                      |
| MT    | Mountain                                                                                                                                                    |
| MTOM  | Maximum take-off mass                                                                                                                                       |
| *MTOW | Maximum authorized take-off weight                                                                                                                          |
| MTU   | Metric units                                                                                                                                                |
| MTW   | Mountain waves                                                                                                                                              |
| *MVA  | Minimum vectoring altitude                                                                                                                                  |
| MVDF  | Medium and very high frequency direction-finding stations (at the same location)                                                                            |
| MWO   | Meteorological watch office                                                                                                                                 |
| MX    | Mixed type of ice formation (white and clear)                                                                                                               |

**N**

|      |                                                          |
|------|----------------------------------------------------------|
| *N   | Newton                                                   |
| N    | No distinct tendency (in RVR during previous 10 minutes) |
| N    | North or northern latitude                               |
| NADP | Noise abatement departure procedure                      |
| NASC | National AIS system centre                               |

|        |                                                                     |        |                                                                    |
|--------|---------------------------------------------------------------------|--------|--------------------------------------------------------------------|
| NAT    | North Atlantic                                                      | OIS    | Obstacle identification surface                                    |
| *NATO  | North Atlantic Treaty Organisation                                  | OK     | We agree / it is correct (to be used in AFS as a procedure signal) |
| NAV    | Navigation                                                          | OLDI   | On-line data interchange                                           |
| NAVAID | Navigation aid                                                      | OM     | Outer marker                                                       |
| NB     | Northbound                                                          | *OMGWS | Outer main gear wheel span                                         |
| NBFR   | Not before                                                          | OPA    | Opaque, white type of ice formation                                |
| NC     | No change                                                           | OPC    | Control indicated is operational control                           |
| NCD    | No cloud detected (used in automated METAR/SPECI)                   | OPMET  | Operational meteorological (information)                           |
| NDB    | Non-directional radio beacon                                        | OPN    | Open or opening or opened                                          |
| NDV    | No directional variations available (used in automated METAR/SPECI) | OPR    | Operator or operate or operative or operating or operational       |
| NE     | North-east                                                          | OPS    | Operations                                                         |
| NEB    | North-eastbound                                                     | O/R    | On request                                                         |
| NEG    | No or negative or permission not granted or that is not correct     | *ORCAM | Originating region code assignment method                          |
| NGT    | Night                                                               | ORD    | Order                                                              |
| NIL    | None or I have nothing to send to you                               | *ORP   | Operational readiness platform                                     |
| *NI    | Dutch                                                               | *ORRP  | On request reporting point                                         |
| NM     | Nautical miles                                                      | OSV    | Ocean station vessel                                               |
| NML    | Normal                                                              | OTP    | On top                                                             |
| NN     | No name, unnamed                                                    | OTS    | Organized track system                                             |
| NNE    | North-north-east                                                    | OUBD   | Outbound                                                           |
| NNW    | North-north-west                                                    | OVC    | Overcast                                                           |
| NO     | No (negative; to be used in AFS as a procedure signal)              | *OVH   | Overhead                                                           |

---

**P**

|        |                                                                                                                                                                                                                                                                                  |      |                                                                                                               |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------------------------|
| NOF    | International NOTAM office                                                                                                                                                                                                                                                       | P    | Indicator for maximum value of wind speed or runway visual range (used in the METAR/SPECI and TAF code forms) |
| NONSTD | Non-standard                                                                                                                                                                                                                                                                     | P    | Prohibited area (followed by identification)                                                                  |
| NOSIG  | No significant change (used in trend-type landing forecasts)                                                                                                                                                                                                                     | PA   | Precision approach                                                                                            |
| NOTAM  | A notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations | PALS | Precision approach lighting system (specify category)                                                         |
| NOTAMC | Cancelling NOTAM                                                                                                                                                                                                                                                                 | PANS | Procedures for air navigation services                                                                        |
| NOTAMN | New NOTAM                                                                                                                                                                                                                                                                        | PAPI | Precision approach path indicator                                                                             |
| NOTAMR | Replacing NOTAM                                                                                                                                                                                                                                                                  | PAR  | Precision approach radar                                                                                      |
| NOV    | November                                                                                                                                                                                                                                                                         | PARL | Parallel                                                                                                      |
| NOZ    | Normal operation zone                                                                                                                                                                                                                                                            | PATC | Precision approach terrain chart (followed by name/title)                                                     |
| NPA    | Non precision approach                                                                                                                                                                                                                                                           | PAX  | Passenger(s)                                                                                                  |
| NR     | Number                                                                                                                                                                                                                                                                           | PBC  | Performance-based communication                                                                               |
| NRH    | No reply heard                                                                                                                                                                                                                                                                   | PBN  | Performance-based navigation                                                                                  |
| NS     | Nimbostratus                                                                                                                                                                                                                                                                     | PBS  | Performance-based surveillance                                                                                |
| NSC    | Nil significant cloud                                                                                                                                                                                                                                                            | PCD  | Proceed or proceeding                                                                                         |
| NSE    | Navigation system error                                                                                                                                                                                                                                                          | PCL  | Pilot-controlled lighting                                                                                     |
| NSW    | Nil significant weather                                                                                                                                                                                                                                                          | PCN  | Pavement classification number                                                                                |
| NTL    | National                                                                                                                                                                                                                                                                         | PCT  | Per cent                                                                                                      |
| NTZ    | No transgression zone                                                                                                                                                                                                                                                            | PDC  | Pre-departure clearance                                                                                       |
| *NVA   | Night Vision Aid                                                                                                                                                                                                                                                                 | PDG  | Procedure design gradient                                                                                     |
| *NVG   | Night Vision Goggles                                                                                                                                                                                                                                                             | PER  | Performance                                                                                                   |
| NW     | North-west                                                                                                                                                                                                                                                                       | PERM | Permanent                                                                                                     |
| NWB    | North-westbound                                                                                                                                                                                                                                                                  | *PFO | Permanent flying order                                                                                        |
| NXT    | Next                                                                                                                                                                                                                                                                             | PIB  | Pre-flight information bulletin                                                                               |

---

**O**

|      |                                                     |      |                                    |
|------|-----------------------------------------------------|------|------------------------------------|
| OAC  | Oceanic area control centre                         | PL   | Ice pellets                        |
| OAS  | Obstacle assessment surface                         | *PL  | Plain language                     |
| *OAT | Operational air traffic                             | PLA  | Practice low approach              |
| OBS  | Observe or observed or observation                  | PLVL | Present level                      |
| OBSC | Obscure or obscured or obscuring                    | PN   | Prior notice required              |
| OBST | Obstacle                                            | PNR  | Point of no return                 |
| OCA  | Obstacle clearance altitude                         | PO   | Dust/sand whirls (dust devils)     |
| OCA  | Oceanic control area                                | POB  | Persons on board                   |
| OCC  | Occulting (light)                                   | *POC | Point of contact                   |
| OCH  | Obstacle clearance height                           | POSS | Possible                           |
| OCNL | Occasional or occasionally                          | PPI  | Plan position indicator            |
| OCS  | Obstacle clearance surface                          | PPR  | Prior permission required          |
| OCT  | October                                             | PPSN | Present position                   |
| OFZ  | Obstacle free zone                                  | PRFG | Aerodrome partially covered by fog |
| OGN  | Originate (to be used in AFS as a procedure signal) | PRI  | Primary                            |
| OHD  | Overhead                                            | PRKG | Parking                            |
|      |                                                     | *PRM | Persons with reduced mobility      |
|      |                                                     | PROB | Probability                        |
|      |                                                     | PROC | Procedure                          |

|      |                                |
|------|--------------------------------|
| PROP | Propeller                      |
| PROV | Provisional                    |
| PRP  | Point-in-space reference point |
| PS   | Plus                           |
| PSG  | Passing                        |
| *PSI | Pounds per square inch         |
| PSN  | Position                       |
| PSP  | Pierced steel plank            |
| PSR  | Primary surveillance radar     |
| PSYS | Pressure system(s)             |
| PTN  | Procedure turn                 |
| PTS  | Polar track structure          |
| PWR  | Power                          |

|        |                                                                     |
|--------|---------------------------------------------------------------------|
| *RCAM  | Runway condition assessment matrix                                  |
| RCC    | Rescue co-ordination centre                                         |
| RCF    | Radiocommunication failure (message type designator)                |
| RCH    | Reach or reaching                                                   |
| RCL    | Runway centre line                                                  |
| RCLL   | Runway centre line light(s)                                         |
| RCLR   | Recleared                                                           |
| RCP    | Required communication performance                                  |
| *RCR   | Runway condition report                                             |
| RDH    | Reference datum height (for ILS)                                    |
| RDL    | Radial                                                              |
| RDO    | Radio                                                               |
| RDOACT | Radioactive                                                         |
| RE     | Recent (used to qualify weather phenomena, e.g. RERA = recent rain) |

**Q**

|      |                                                                                                                                                                                                                                                                                                                                                                    |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| *QC  | Quota count                                                                                                                                                                                                                                                                                                                                                        |
| QDL  | Do you intend to ask me for a series of bearings? or I intend to ask you for a series of bearings (to be used in radiotelegraphy as a Q Code)                                                                                                                                                                                                                      |
| QDM  | Magnetic heading (zero wind)                                                                                                                                                                                                                                                                                                                                       |
| QDR  | Magnetic bearing                                                                                                                                                                                                                                                                                                                                                   |
| QFE  | Atmospheric pressure at aerodrome elevation (or at runway threshold)                                                                                                                                                                                                                                                                                               |
| QFU  | Magnetic orientation of runway                                                                                                                                                                                                                                                                                                                                     |
| QGE  | What is my distance to your station? or Your distance to my station is (distance figures and units) (to be used in radiotelegraphy as a Q Code)                                                                                                                                                                                                                    |
| QJH  | Shall I run my test tape/a test sentence? or Run your test tape/a test sentence (to be used in AFS as a Q Code)                                                                                                                                                                                                                                                    |
| QNH  | Altimeter sub-scale setting to obtain elevation when on the ground                                                                                                                                                                                                                                                                                                 |
| *QRA | Quick reaction alert                                                                                                                                                                                                                                                                                                                                               |
| QSP  | Will you relay to . . . free of charge? or I will relay to . . . free of charge (to be used in AFS as a Q Code)                                                                                                                                                                                                                                                    |
| QTA  | Shall I cancel telegram number . . . ? or Cancel telegram number . . . (to be used in AFS as a Q Code)                                                                                                                                                                                                                                                             |
| QTE  | True bearing                                                                                                                                                                                                                                                                                                                                                       |
| QTF  | Will you give me the position of my station according to the bearings taken by the D/F stations which you control? or The position of your station according to the bearings taken by the D/F stations that I control was . . . latitude . . . longitude (or other indication of position), class . . . at . . . hours (to be used in radiotelegraphy as a Q Code) |
| QUAD | Quadrant                                                                                                                                                                                                                                                                                                                                                           |
| QUJ  | Will you indicate the TRUE track to reach you? or The TRUE track to reach me is . . . degrees at . . . hours (to be used in radiotelegraphy as a Q Code)                                                                                                                                                                                                           |

|        |                                                                                          |
|--------|------------------------------------------------------------------------------------------|
| REC    | Receive or receiver                                                                      |
| REDL   | Runway edge light(s)                                                                     |
| REF    | Reference to . . . or refer to . . .                                                     |
| REG    | Registration                                                                             |
| *REJ   | Rejected                                                                                 |
| RENL   | Runway end light(s)                                                                      |
| REP    | Report or reporting or reporting point                                                   |
| REQ    | Request or requested                                                                     |
| RE RTE | Re-route                                                                                 |
| RESA   | Runway end safety area                                                                   |
| *RETIL | Rapid exit taxiway indicator lighting                                                    |
| RF     | Constant radius arc to a fix                                                             |
| RFFS   | Rescue and fire fighting services                                                        |
| *RFP   | Replacement flight plan (related to ATFM)                                                |
| RG     | Range (lights)                                                                           |
| RHC    | Right-hand circuit                                                                       |
| RIF    | Reclearance in flight                                                                    |
| RIME   | Rime (used in aerodrome warnings)                                                        |
| *RIS   | Radar information service                                                                |
| RL     | Report leaving                                                                           |
| RLA    | Relay to                                                                                 |
| RLCE   | Request level change en route                                                            |
| RLLS   | Runway lead-in lighting system                                                           |
| RLNA   | Request level not available                                                              |
| *RMIB  | Royal meteorological institute of Belgium                                                |
| RMK    | Remark                                                                                   |
| *RMZ   | Radio mandatory zone                                                                     |
| RNAV   | Area navigation                                                                          |
| RNG    | Radio range                                                                              |
| RNP    | Required navigation performance                                                          |
| ROBEX  | Regional OPMET bulletin exchange (scheme)                                                |
| ROC    | Rate of climb                                                                            |
| ROD    | Rate of descent                                                                          |
| RON    | Receiving only                                                                           |
| *RPA   | Remotely piloted aircraft                                                                |
| *RPAS  | Remotely piloted aircraft system                                                         |
| RPDS   | Reference path data selector                                                             |
| RPI    | Radar position indicator                                                                 |
| RPL    | Repetitive flight plan                                                                   |
| RPLC   | Replace or replaced                                                                      |
| RPS    | Radar position symbol                                                                    |
| RPT    | Repeat / I repeat (to be used in AFS as a procedure signal)                              |
| RQ     | Indication of a request (to be used in AFS as a procedure signal)                        |
| RQMNTS | Requirements                                                                             |
| RQP    | Request flight plan (message type designator)                                            |
| RQS    | Request supplementary flight plan (message type designator)                              |
| RR     | Report reaching                                                                          |
| RRA    | (or RRB, RRC, etc. in sequence) Delayed meteorological message (message type designator) |
| *RSA   | Restricted airspace                                                                      |
| RSC    | Rescue sub-centre                                                                        |
| RSCD   | Runway surface condition                                                                 |
| RSP    | Responder beacon                                                                         |
| RSP    | Required surveillance performance                                                        |
| RSR    | En-route surveillance radar                                                              |
| RSS    | Root sum square                                                                          |

**R**

|      |                                                                                |
|------|--------------------------------------------------------------------------------|
| R    | Right (runway identification)                                                  |
| R    | Rate of turn                                                                   |
| R    | Red                                                                            |
| R    | Radial from VOR (followed by three figures)                                    |
| R    | Restricted area (followed by identification)                                   |
| R    | Runway (used in the METAR/SPECI code forms)                                    |
| R    | Received (acknowledgement of receipt; to be used in AFS as a procedure signal) |
| RA   | Rain                                                                           |
| RA   | Resolution advisory                                                            |
| RAC  | Rules of the air and air traffic services                                      |
| *RAD | Route availability document                                                    |
| RAG  | Ragged                                                                         |
| RAG  | Runway arresting gear                                                          |
| RAI  | Runway alignment indicator                                                     |
| RAIM | Receiver autonomous integrity monitoring                                       |
| RASC | Regional AIS system centre                                                     |
| RASS | Remote altimeter setting source                                                |
| RB   | Rescue boat                                                                    |
| RCA  | Reach cruising altitude                                                        |

|        |                                                                                    |         |  |                                                                                                                                                                                                                    |
|--------|------------------------------------------------------------------------------------|---------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| *RT    | Right turn                                                                         |         |  | Aéronautique                                                                                                                                                                                                       |
| RTD    | Delayed (used to indicate delayed meteorological message; message type designator) | SIWL    |  | Single isolated wheel load                                                                                                                                                                                         |
|        |                                                                                    | SKED    |  | Schedule or scheduled                                                                                                                                                                                              |
| RTE    | Route                                                                              | SLP     |  | Speed limiting point                                                                                                                                                                                               |
| RTF    | Radiotelephone                                                                     | SLW     |  | Slow                                                                                                                                                                                                               |
| RTG    | Radiotelegraph                                                                     | SMC     |  | Surface movement control                                                                                                                                                                                           |
| RTHL   | Runway threshold light(s)                                                          | SMR     |  | Surface movement radar                                                                                                                                                                                             |
| RTN    | Return or returned or returning                                                    | SN      |  | Snow                                                                                                                                                                                                               |
| RTODAH | Rejected take-off distance available, helicopter                                   | SNOCLO  |  | Indicator for the aerodrome being closed due to snow on the runway                                                                                                                                                 |
| RTS    | Return to service                                                                  |         |  |                                                                                                                                                                                                                    |
| RTT    | Radioteletypewriter                                                                | SNOWTAM |  | A special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format |
| RTZL   | Runway touchdown zone light(s)                                                     |         |  |                                                                                                                                                                                                                    |
| RUT    | Standard regional route transmitting frequencies                                   | SOC     |  | Start of climb                                                                                                                                                                                                     |
| RV     | Rescue vessel                                                                      | *SOF    |  | Supervisor of flights                                                                                                                                                                                              |
| RVA    | Radar vectoring area                                                               | SPECI   |  | Aviation selected special weather report (in aeronautical meteorological code)                                                                                                                                     |
| RVR    | Runway visual range                                                                |         |  |                                                                                                                                                                                                                    |
| *RVSM  | Reduced vertical separation minimum                                                | SPECIAL |  | Special meteorological report (in abbreviated plain language)                                                                                                                                                      |
| RWY    | Runway                                                                             |         |  |                                                                                                                                                                                                                    |
| *RWYCC | Runway Condition Code                                                              |         |  |                                                                                                                                                                                                                    |

**S**

|          |                                                                                                                                                                              |         |  |                                                               |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--|---------------------------------------------------------------|
| S        | South or southern latitude                                                                                                                                                   | SPI     |  | Special position indicator                                    |
| S        | State of the sea (followed by figures in METAR/SPECI)                                                                                                                        | SPL     |  | Supplementary flight plan (message type designator)           |
|          |                                                                                                                                                                              | SPOC    |  | SAR point of contact                                          |
| SA       | Sand                                                                                                                                                                         | SPOT    |  | Spot wind                                                     |
| SALS     | Simple approach lighting system                                                                                                                                              | SQ      |  | Squall                                                        |
| *SAM     | Slot allocation message                                                                                                                                                      | SQL     |  | Squall line                                                   |
| SAN      | Sanitary                                                                                                                                                                     | SR      |  | Sunrise                                                       |
| SAR      | Search and rescue                                                                                                                                                            | SRA     |  | Surveillance radar approach                                   |
| SARPS    | Standards and Recommended Practices (ICAO)                                                                                                                                   | SRE     |  | Surveillance radar element of precision approach radar system |
| SAT      | Saturday                                                                                                                                                                     | SRG     |  | Short range                                                   |
| SATCOM   | Satellite communication (used only when referring generally to both voice and data satellite communication or only data satellite communication)                             | SRR     |  | Search and rescue region                                      |
|          |                                                                                                                                                                              | SRY     |  | Secondary                                                     |
| SATVOICE | Satellite voice communication                                                                                                                                                | SS      |  | Sandstorm                                                     |
| SB       | Southbound                                                                                                                                                                   | SS      |  | Sunset                                                        |
| SBAS     | Satellite-based augmentation system                                                                                                                                          | SSB     |  | Single sideband                                               |
| SC       | Stratocumulus                                                                                                                                                                | SSE     |  | South-south-east                                              |
| SCT      | Scattered                                                                                                                                                                    | SSR     |  | Secondary surveillance radar                                  |
| SD       | Standard deviation                                                                                                                                                           | SST     |  | Supersonic transport                                          |
| SDBY     | Stand by                                                                                                                                                                     | SSW     |  | South-south-west                                              |
| SDF      | Step down fix                                                                                                                                                                | ST      |  | Stratus                                                       |
| SE       | South-east                                                                                                                                                                   | STA     |  | Straight-in approach                                          |
| SEA      | Sea (used in connection with sea-surface temperature and state of the sea)                                                                                                   | *STANAG |  | Standardization agreement (NATO)                              |
|          |                                                                                                                                                                              | STAR    |  | Standard instrument arrival                                   |
| SEB      | South-eastbound                                                                                                                                                              | STD     |  | Standard                                                      |
| SEC      | Seconds                                                                                                                                                                      | STF     |  | Stratiform                                                    |
| SECN     | Section                                                                                                                                                                      | STN     |  | Station                                                       |
| SECT     | Sector                                                                                                                                                                       | STNR    |  | Stationary                                                    |
| SELCAL   | Selective calling system                                                                                                                                                     | STOL    |  | Short take-off and landing                                    |
| SEP      | September                                                                                                                                                                    | STS     |  | Status                                                        |
| SER      | Service or servicing or served                                                                                                                                               | STWL    |  | Stopway light(s)                                              |
| SEV      | Severe (used e.g. to qualify icing and turbulence reports)                                                                                                                   | SUBJ    |  | Subject to                                                    |
|          |                                                                                                                                                                              | SUN     |  | Sunday                                                        |
| SFC      | Surface                                                                                                                                                                      | SUP     |  | Supplement (AIP supplement)                                   |
| SFO      | Simulated flame out                                                                                                                                                          | SUPPS   |  | Regional supplementary procedures                             |
| SG       | Snow grains                                                                                                                                                                  | SVC     |  | Service (message type only)                                   |
| SGL      | Signal                                                                                                                                                                       | SVCBL   |  | Serviceable                                                   |
| SH       | Showers (followed by RA = rain, SN = snow, PL = ice pellets, GR = hail, GS = small hail and/or snow pellets or combinations thereof, e.g. SHRASN = showers of rain and snow) | SW      |  | South-west                                                    |
|          |                                                                                                                                                                              | SWB     |  | South-westbound                                               |
| SHF      | Super high frequency (3000 to 30000 MHz)                                                                                                                                     | *SWC-LL |  | Significant weather chart - low level                         |
| SI       | International system of units                                                                                                                                                | SWX     |  | Space weather                                                 |
| SID      | Standard instrument departure                                                                                                                                                | SWXC    |  | Space weather centre                                          |
| SIF      | Selective identification feature                                                                                                                                             | SWY     |  | Stopway                                                       |
| SIG      | Significant                                                                                                                                                                  | *SYNOP  |  | Synopsis                                                      |
| SIGMET   | Information concerning en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations                                              |         |  |                                                               |
|          |                                                                                                                                                                              |         |  |                                                               |
| *SIGWX   | Significant weather                                                                                                                                                          |         |  |                                                               |
| SIMUL    | Simultaneous or simultaneously                                                                                                                                               |         |  |                                                               |
| *SITA    | Société Internationale des Télécommunications                                                                                                                                |         |  |                                                               |

**T**

|  |  |    |  |                                                                  |
|--|--|----|--|------------------------------------------------------------------|
|  |  | T  |  | Temperature                                                      |
|  |  | T  |  | True (preceded by a bearing to indicate reference to True North) |
|  |  | *T |  | Metric tons                                                      |
|  |  | TA |  | Traffic advisory                                                 |
|  |  | TA |  | Transition altitude                                              |

|         |                                                                                                                                                                                          |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TAA     | Terminal arrival altitude                                                                                                                                                                |
| TACAN   | UHF tactical air navigation aid                                                                                                                                                          |
| TAF     | Aerodrome forecast                                                                                                                                                                       |
| TA/H    | Turn at an altitude/height                                                                                                                                                               |
| TAIL    | Tail wind                                                                                                                                                                                |
| TAR     | Terminal area surveillance radar                                                                                                                                                         |
| TAS     | True airspeed                                                                                                                                                                            |
| TAX     | Taxiing or taxi                                                                                                                                                                          |
| TC      | Tropical cyclone                                                                                                                                                                         |
| TCAC    | Tropical cyclone advisory centre                                                                                                                                                         |
| TCAS RA | Traffic alert and collision avoidance system resolution advisory                                                                                                                         |
| TCH     | Threshold crossing height                                                                                                                                                                |
| *TCN    | Terminal change notice                                                                                                                                                                   |
| TCU     | Towering cumulus                                                                                                                                                                         |
| TDO     | Tornado                                                                                                                                                                                  |
| TDZ     | Touchdown zone                                                                                                                                                                           |
| TECR    | Technical reason                                                                                                                                                                         |
| TEL     | Telephone                                                                                                                                                                                |
| TEMPO   | Temporary or temporarily                                                                                                                                                                 |
| TF      | Track to fix                                                                                                                                                                             |
| TFC     | Traffic                                                                                                                                                                                  |
| TGL     | Touch-and-go landing                                                                                                                                                                     |
| *TGL    | Temporary Guidance Leaflet                                                                                                                                                               |
| TGS     | Taxiing guidance system                                                                                                                                                                  |
| THR     | Threshold                                                                                                                                                                                |
| THRU    | Through                                                                                                                                                                                  |
| THU     | Thursday                                                                                                                                                                                 |
| TIBA    | Traffic information broadcast by aircraft                                                                                                                                                |
| TIL     | Until                                                                                                                                                                                    |
| TIP     | Until past . . . (place)                                                                                                                                                                 |
| TKOF    | Take-off                                                                                                                                                                                 |
| TL      | Till (followed by time by which weather change is forecast to end)                                                                                                                       |
| TLOF    | Touchdown and lift-off area                                                                                                                                                              |
| TMA     | Terminal control area                                                                                                                                                                    |
| *TMZ    | Transponder mandatory zone                                                                                                                                                               |
| TN      | Indicator for minimum temperature (used in the TAF code form)                                                                                                                            |
| TNA     | Turn altitude                                                                                                                                                                            |
| *TNC    | Terminal navigation charge                                                                                                                                                               |
| TNH     | Turn height                                                                                                                                                                              |
| TO      | To . . . (place)                                                                                                                                                                         |
| *TOBT   | Target off block time                                                                                                                                                                    |
| TOC     | Top of climb                                                                                                                                                                             |
| TODA    | Take-off distance available                                                                                                                                                              |
| TODAH   | Take-off distance available, helicopter                                                                                                                                                  |
| TOP     | Cloud top                                                                                                                                                                                |
| TORA    | Take-off run available                                                                                                                                                                   |
| TOX     | Toxic                                                                                                                                                                                    |
| TP      | Turning point                                                                                                                                                                            |
| TR      | Track                                                                                                                                                                                    |
| TRA     | Temporary reserved airspace                                                                                                                                                              |
| TRANS   | Transmits or transmitter                                                                                                                                                                 |
| TREND   | Trend forecast                                                                                                                                                                           |
| TRG     | Training                                                                                                                                                                                 |
| TRL     | Transition level                                                                                                                                                                         |
| TROP    | Tropopause                                                                                                                                                                               |
| TS      | Thunderstorm (in aerodrome reports and forecasts, TS used alone means thunder heard but no precipitation at the aerodrome)                                                               |
| TS      | Thunderstorm (followed by RA = rain, SN = snow, PL = ice pellets, GR = hail, GS = small hail and/or snow pellets or combinations thereof, e.g. TSRASN = thunderstorm with rain and snow) |
| *TSA    | Temporary segregated area                                                                                                                                                                |
| *TSAT   | Target start-up approval time                                                                                                                                                            |
| TSUNAMI | Tsunami (used in aerodrome warnings)                                                                                                                                                     |
| TT      | Teletypewriter                                                                                                                                                                           |
| *TTOT   | Target take-off time                                                                                                                                                                     |
| TUE     | Tuesday                                                                                                                                                                                  |
| TURB    | Turbulence                                                                                                                                                                               |
| T-VASIS | T visual approach slope indicator system                                                                                                                                                 |
| TVOR    | Terminal VOR                                                                                                                                                                             |
| TWR     | Aerodrome control tower or aerodrome control                                                                                                                                             |

|       |                                                                                                                                                                         |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TWY   | Taxiway                                                                                                                                                                 |
| TX... | Maximum temperature (followed by figures in TAF)                                                                                                                        |
| TXL   | Taxilane                                                                                                                                                                |
| TXT   | Text [when the abbreviation is used to request a repetition, the question mark (IMI) precedes the abbreviation, e.g. IMI TXT] (to be used in AFS as a procedure signal) |
| TYP   | Type of aircraft                                                                                                                                                        |
| TYPH  | Typhoon                                                                                                                                                                 |

**U**

|       |                                                            |
|-------|------------------------------------------------------------|
| U     | Upward (tendency in RVR during previous 10 minutes)        |
| UA    | Unmanned aircraft                                          |
| UAB   | Until advised by . . .                                     |
| UAC   | Upper area control centre                                  |
| UAR   | Upper air route                                            |
| UAS   | Unmanned aircraft system                                   |
| *UAT  | Universal access receiver                                  |
| UDF   | Ultra high frequency direction-finding station             |
| UFN   | Until further notice                                       |
| UHDT  | Unable higher due traffic                                  |
| UHF   | Ultra high frequency (300 to 3000 MHz)                     |
| UIC   | Upper information centre                                   |
| UIR   | Upper flight information region                            |
| ULM   | Ultra light motorized aircraft                             |
| ULR   | Ultra long range                                           |
| UNA   | Unable                                                     |
| UNAP  | Unable to approve                                          |
| UNL   | Unlimited                                                  |
| UNREL | Unreliable                                                 |
| UP    | Unidentified precipitation (used in automated METAR/SPECI) |
| *UPS  | Uninterrupted power supply                                 |
| U/S   | Unserviceable                                              |
| *USAF | United States Air Force                                    |
| UTA   | Upper control area                                         |
| UTC   | Coordinated Universal Time                                 |
| *UUP  | Updated Airspace Use Plan                                  |
| *UWT  | Upper winds and temperature                                |

**V**

|       |                                                                                                                                                                                                       |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| V     | Indicator for variations from the mean wind direction (used in the METAR/SPECI code forms)                                                                                                            |
| VA    | Heading to an altitude                                                                                                                                                                                |
| VA    | Volcanic ash                                                                                                                                                                                          |
| VAAC  | Volcanic ash advisory centre                                                                                                                                                                          |
| VAC   | Visual approach chart (followed by name/title)                                                                                                                                                        |
| VAL   | In valleys                                                                                                                                                                                            |
| VAN   | Runway control van                                                                                                                                                                                    |
| VAR   | Magnetic variation                                                                                                                                                                                    |
| VAR   | Visual-aural radio range                                                                                                                                                                              |
| VASIS | Visual approach slope indicator system                                                                                                                                                                |
| *VAT  | Value-added tax                                                                                                                                                                                       |
| VC    | Vicinity of the aerodrome (followed by FG = fog, FC = funnel clouds, SH = showers, PO = dust/sand whirls, BLDU = blowing dust, BLSA = blowing sand or BLSN = blowing snow, e.g. VC FG = vicinity fog) |
| VCY   | Vicinity                                                                                                                                                                                              |
| VDF   | Very high frequency direction-finding station                                                                                                                                                         |
| *VDL  | Very high frequency data link                                                                                                                                                                         |
| *VDP  | Visual descent point                                                                                                                                                                                  |
| VER   | Vertical                                                                                                                                                                                              |
| VFR   | Visual flight rules                                                                                                                                                                                   |
| VHF   | Very high frequency (30 to 300 MHz)                                                                                                                                                                   |
| VI    | Heading to an intercept                                                                                                                                                                               |
| VIP   | Very important person                                                                                                                                                                                 |
| VIS   | Visibility                                                                                                                                                                                            |
| *VLA  | Very light aircraft                                                                                                                                                                                   |
| VLF   | Very low frequency (3 to 30 KHZ)                                                                                                                                                                      |
| *VLOS | Visual line of sight                                                                                                                                                                                  |



|        |                                                                  |    |                                                         |
|--------|------------------------------------------------------------------|----|---------------------------------------------------------|
| VLR    | Very long range                                                  | YR | Your                                                    |
| VM     | Heading to a manual termination                                  |    |                                                         |
| VMC    | Visual meteorological conditions                                 |    |                                                         |
| VNAV   | Vertical navigation                                              |    |                                                         |
| VOL    | Volume (followed by I, II...)                                    |    |                                                         |
| VOLMET | Meteorological information for aircraft in flight                | Z  | Coordinated Universal Time (in meteorological messages) |
| VOR    | VHF omnidirectional radio range                                  |    |                                                         |
| VORTAC | VOR and TACAN combination                                        |    |                                                         |
| VOT    | VOR airborne equipment test facility                             |    |                                                         |
| VPA    | Vertical path angle                                              |    |                                                         |
| VPT    | Visual manoeuvre with prescribed track                           |    |                                                         |
| VRB    | Variable                                                         |    |                                                         |
| VSA    | By visual reference to the ground                                |    |                                                         |
| VSP    | Vertical speed                                                   |    |                                                         |
| *VSS   | Visual segment surface                                           |    |                                                         |
| VTF    | Vector to final                                                  |    |                                                         |
| VTOL   | Vertical take-off and landing                                    |    |                                                         |
| VV     | Vertical visibility (used in the METAR/SPECI and TAF code forms) |    |                                                         |

---

**W**

|        |                                                                            |
|--------|----------------------------------------------------------------------------|
| W      | West or western longitude                                                  |
| W      | White                                                                      |
| W      | Indicator for sea-surface temperature (used in the METAR/SPECI code forms) |
| WAAS   | Wide area augmentation system                                              |
| WAC    | World Aeronautical Chart - ICAO 1:1 000 000 (followed by name/title)       |
| WAFC   | World area forecast centre                                                 |
| WB     | Westbound                                                                  |
| WBAR   | Wing bar lights                                                            |
| WDI    | Wind direction indicator                                                   |
| WDSPR  | Widespread                                                                 |
| WED    | Wednesday                                                                  |
| WEF    | With effect from or effective from                                         |
| WGS-84 | World Geodetic System - 1984                                               |
| WI     | Within                                                                     |
| WID    | Width or wide                                                              |
| WIE    | With immediate effect or effective immediately                             |
| WILCO  | Will comply                                                                |
| WIND   | Wind                                                                       |
| WIP    | Work in progress                                                           |
| WKN    | Weaken or weakening                                                        |
| WNW    | West-north-west                                                            |
| WO     | Without                                                                    |
| *WPR   | Way-point reporting                                                        |
| WPT    | Way-point                                                                  |
| WRNG   | Warning                                                                    |
| WS     | Wind shear                                                                 |
| WSPD   | Wind speed                                                                 |
| WSW    | West-south-west                                                            |
| WT     | Weight                                                                     |
| *WTC   | Wake turbulence category                                                   |
| WTSPT  | Waterspout                                                                 |
| WWW    | Worldwide web                                                              |
| WX     | Weather                                                                    |
| WXR    | Weather radar                                                              |

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**X**

|      |                                        |
|------|----------------------------------------|
| X    | Cross                                  |
| XBAR | Crossbar (of approach lighting system) |
| XNG  | Crossing                               |
| XS   | Atmospherics                           |

---

**Y**

|     |                                                            |
|-----|------------------------------------------------------------|
| Y   | Yellow                                                     |
| YCZ | Yellow caution zone (runway lighting)                      |
| YES | Yes (affirmative; to be used in AFS as a procedure signal) |

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# GEN 2.3 Chart Symbols

| Aerodromes |                                                                              |
|------------|------------------------------------------------------------------------------|
|            | Civil aerodrome                                                              |
|            | Military aerodrome                                                           |
|            | Joint civil and military aerodrome                                           |
|            | Private aerodrome                                                            |
|            | Military aerodrome with civilian concession                                  |
|            | Military reserve aerodrome                                                   |
|            | Aerodrome for ULM use only                                                   |
|            | Heliport                                                                     |
|            | Hospital heliport                                                            |
|            | Aerodrome on which the procedure is based                                    |
|            | Aerodrome affecting traffic on the aerodrome on which the procedure is based |

| Air Traffic Services |                                            |
|----------------------|--------------------------------------------|
|                      | Flight information region                  |
|                      | Control zone                               |
|                      | Control area                               |
|                      | Aerodrome traffic zone                     |
|                      | Final approach fix                         |
|                      | Route segment with track and distance      |
|                      | Route compressed (not to scale)            |
|                      | Additional procedure track                 |
|                      | Upper and lower limit                      |
|                      | "At or above" altitude/level (on SID/STAR) |
|                      | "At or below" altitude/level (on SID/STAR) |
|                      | Mandatory altitude/level (on SID/STAR)     |
|                      | Recommended altitude/level (on SID/STAR)   |

| Miscellaneous |                                                                 |
|---------------|-----------------------------------------------------------------|
|               | International boundary                                          |
|               | Prominent transmission line                                     |
|               | Area minimum altitude (AMA), expressed in 100 FT (e.g. 2300 FT) |

| Radio Navigation Aids |                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------|
|                       | Basic radio navigation aid symbol                                                                                            |
|                       | Non-directional beacon (NDB)                                                                                                 |
|                       | VHF omnidirectional radio range (VOR)                                                                                        |
|                       | Distance measuring equipment (DME)                                                                                           |
|                       | Collocated VOR and DME (VOR/DME)                                                                                             |
|                       | UHF tactical air navigation aid (TACAN)                                                                                      |
|                       | Collocated VOR and TACAN (VORTAC)                                                                                            |
|                       | Compass rose, oriented to the magnetic north. Used in combination with the symbols for VOR, VOR/DME, TACAN and VORTAC        |
|                       | Radio marker beacon                                                                                                          |
|                       | Profile view symbols (from left to right): marker beacon, navigation aid, marker beacon and navigation aid combined, DME fix |
|                       | ILS course (plan view)                                                                                                       |
|                       | ILS course (profile view)                                                                                                    |
|                       | DME distance                                                                                                                 |
|                       | VOR radial                                                                                                                   |

| Obstacles |                                                                      |
|-----------|----------------------------------------------------------------------|
|           | Obstacle                                                             |
|           | Obstacle, lighted                                                    |
|           | Group of obstacles                                                   |
|           | Group of obstacles, lighted                                          |
|           | Exceptionally high obstacle (≥1000 FT AGL)                           |
|           | Exceptionally high obstacle, lighted                                 |
|           | Wind turbine                                                         |
|           | Wind turbine, lighted                                                |
|           | Area of wind turbines                                                |
|           | Obstacle with elevation (in italic) and height (between parentheses) |

| Airspace Restrictions |                                                                                                                               |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------|
|                       | Restricted airspace (P, R or D area); military exercise or training area; area for aerial sporting or recreational activities |

| Symbols Used on Aerodrome Charts |                                                   |
|----------------------------------|---------------------------------------------------|
|                                  | Runway                                            |
|                                  | Stopway                                           |
|                                  | Clearway                                          |
|                                  | Taxiways and parking area                         |
|                                  | Helicopter alighting area on an aerodrome         |
|                                  | Aerodrome reference point                         |
|                                  | RVR observation site                              |
|                                  | Anemometer                                        |
|                                  | Wind direction indicator (unlighted / lighted)    |
|                                  | Landing direction indicator (unlighted / lighted) |
|                                  | Point light                                       |
|                                  | Barrette                                          |
|                                  | Obstacle light                                    |
|                                  | PAPI                                              |
|                                  | Runway-holding position (pattern A)               |
|                                  | Runway-holding position (pattern B)               |
|                                  | Intermediate holding position                     |
|                                  | Stop bar                                          |
|                                  | No entry                                          |

| Topography |                                      |
|------------|--------------------------------------|
|            | Spot elevation (in feet)             |
|            | Highest elevation on chart (in feet) |
|            | Elevation contours (in feet)         |
|            | Swamp                                |













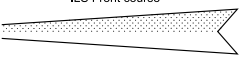





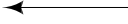




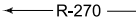

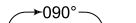
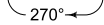
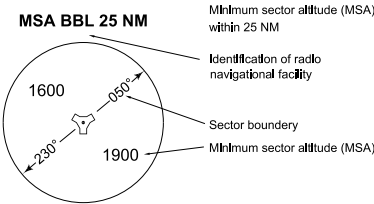
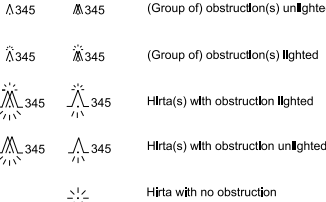
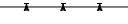




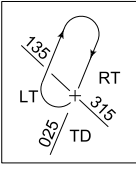
| Symbols Used on Aerodrome Obstacle Charts |                                    |
|-------------------------------------------|------------------------------------|
|                                           | Tree or shrub                      |
|                                           | Pole, tower, spire, antenna, etc.  |
|                                           | Building or large structure        |
|                                           | Terrain penetrating obstacle plane |

| Culture |                           |
|---------|---------------------------|
|         | City or large town        |
|         | Town or village           |
|         | Building                  |
|         | Dual motorway             |
|         | Road                      |
|         | Road bridge               |
|         | Road tunnel               |
|         | Railroad (single track)   |
|         | Railroad (multiple track) |
|         | Railroad bridge           |
|         | Railroad tunnel           |
|         | Railroad station          |
|         | Fence                     |
|         | Church                    |
|         | Nuclear power station     |

| Aerial Activities |                              |
|-------------------|------------------------------|
|                   | Glider activity              |
|                   | Parachuting                  |
|                   | Delta gliding / paragliding  |
|                   | Manned free balloon activity |

| Reporting and Fly-by / Flyover Functionality |                   |                   |                    |                    |
|----------------------------------------------|-------------------|-------------------|--------------------|--------------------|
|                                              | On request fly-by | Compulsory fly-by | On request flyover | Compulsory flyover |
| Intersection / VFR reporting point           |                   |                   |                    |                    |
| VORTAC                                       |                   |                   |                    |                    |
| TACAN                                        |                   |                   |                    |                    |
| VOR                                          |                   |                   |                    |                    |
| VOR/DME                                      |                   |                   |                    |                    |
| NDB                                          |                   |                   |                    |                    |
| Waypoint                                     |                   |                   |                    |                    |

### MILITARY CHART SYMBOLS

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>  VOR<br/>  DME<br/>  VOR/DME<br/>  TACAN<br/>  VORTAC<br/>  NDB<br/>  LOM (Compass Locator at OM)<br/>  MM<br/>  OM<br/>  Compulsory reporting point (CRP)<br/>  On request reporting point (ORRP)<br/>  Final approach fix<br/>  ILS Front course<br/>  ILS Back course<br/>  ILS Glide slope<br/>  1900 Glide slope intercept altitude<br/>  Initial approach fix (IAF)<br/>  Penetration track<br/>  Procedure track<br/>  Procedure turn<br/>  Missed approach<br/>  Missed approach point (MAPt)<br/>  DME Mileage<br/>  R-270 Radial<br/>  Transition route<br/>  International boundary<br/>  Standard holding pattern<br/> </p> | <p>  <b>MSA BBL 25 NM</b><br/>                 Minimum sector altitude (MSA) within 25 NM<br/>                 Identification of radio navigational facility<br/>                 Sector boundary<br/>                 Minimum sector altitude (MSA)<br/>                 1600<br/>                 1900<br/>                 090°<br/>                 230°             </p> <p>  <br/>                 (Group of) obstruction(s) unlighted<br/>                 (Group of) obstruction(s) lighted<br/>                 Hirta(s) with obstruction lighted<br/>                 Hirta(s) with obstruction unlighted<br/>                 Hirta with no obstruction             </p> <p>  Power transmission line             </p> <p>  <b>EB-D07c</b><br/>                 FL240<br/>                 AMSL<br/>                 D: Danger area<br/>                 P: Prohibited area<br/>                 R: Restricted area             </p> <p>  <b>TMA EBLG</b><br/>                 FL055<br/>                 2500' AMSL<br/>                 TMA or TRA             </p> <p>  3°W<br/>                 Variation (var)             </p> <p>  Distance not to scale             </p> <p>  <b>ENTRY DIAGRAM</b><br/>                 LT Left turn<br/>                 TD Tear drop<br/>                 RT Right turn             </p> |
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



















CHANGES: FL in 3 digits

BEL DEFENCE, AIR COMPONENT 21-APR-2022 - THIS

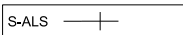


**CHART SYMBOLS**

V

**MILITARY CHART SYMBOLS**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p> Procedure distance In NM (SID)</p> <p> Aerodrome Reference Point (ARP)</p> <p> Changeover point</p> <p> Net / Safe barrier</p> <p> Displaced threshold</p> <p> Helicopter landing area</p> <p> INS position</p> <p> Cable, bi-directional</p> <p> Cable, uni-directional</p> <p> TWY identification</p> <p> Runway - hard surface</p> <p> Runway with overrun (less strength than RWY)</p> <p> Runway other than hard surface</p> <p> Taxiways and parking areas</p> <p> Closed taxiway or runway</p> | <p>4500 Recommended level</p> <p><u>6000</u> Minimum level</p> <p><u>FL060</u> Maximum level</p> <p><u>7500</u> Mandatory level</p> <p>GS 3.0° Glide Slope<br/>TCH 50 Threshold crossing height</p> <p> PAPI glide slope</p> <p><b>V</b> Visual Descent Point (VDP)</p> <p> RNAV Fly-Over<br/>Compulsory reporting</p> <p> RNAV Fly-By<br/>Compulsory reporting</p> <p> RNAV Fly-Over<br/>Reporting on request</p> <p> RNAV Fly-By<br/>Reporting on request</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**MILITARY APPROACH LIGHTING SYSTEMS**

|                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p> S-ALS</p>  | <p>Simple Approach Lighting System with (min) 1 crossbar and a row of a single light source or barrette on the extended centre line of the runway.</p>                                                                                                                                                                                                                                                                                 |
| <p> CAT ..</p> | <p>Precision Approach Lighting System Category I with (min) 4 crossbars and a row of a single light source or a barrette in the first 300 m on the extended centre line, a row of 2 light sources or barrette between 300 - 600 m on the extended centre line and 3 or more light sources or a barrette after 600 m on the extended centre line with Rail / Sequenced Flashing Lights.</p>                                             |
| <p> CAT ..</p> | <p>Precision Approach Lighting System Category II and III with (min) 4 crossbars and 3 rows of barrettes or a single light source and barrettes plus 2 side rows of lights in the first 300 m on the extended centre line, a row of 2 light sources or a barrette between 300 - 600 m on the extended centre line and 3 light sources or a barrette after 600 m on the extended centre line with Rail / Sequenced Flashing Lights.</p> |

CHANGES: FL in 3 digits

BEL DEFENCE, AIR COMPONENT 21-APR-2022 - THIS

**CHART SYMBOLS**

## GEN 2.4 Location Indicators

The locations marked with an asterisk (\*) cannot be used in the address component of AFS messages.

| DECODE      |                                            |
|-------------|--------------------------------------------|
| Identifiser | Name                                       |
| *EBAD       | ROESELARE / AZ Delta                       |
| *EBAF       | AFFLIGEM                                   |
| *EBAG       | GRACE-HOLLOGNE / Agusta Aerospace Services |
| *EBAL       | AALST / Onze-Lieve-Vrouwziekenhuis         |
| *EBAM       | AMOUGIES                                   |
| *EBAR       | ARLON / Sterpenich                         |
| *EBAS       | SCHILDE / 's Gravenwezel                   |
| *EBAV       | HANNUT / Averno-le-Bauduin                 |
| EBAW        | ANTWERPEN / Deurne                         |
| EBBB        | BRUSSELS (COM Centre)                      |
| EBBE        | BEAUVECHAIN (MIL)                          |
| EBBL        | KLEINE-BROGEL (MIL)                        |
| *EBBM       | BRAKEL / Michelbeke                        |
| *EBBN       | BÜLLINGEN                                  |
| EBBR        | BRUSSELS / Brussels-National               |
| *EBBS       | BRUSSELS Civilair                          |
| *EBBT       | BRASSCHAAT                                 |
| EBBU        | BRUSSELS (ACC/FIC)                         |
| *EBBV       | BRECHT / Vochten                           |
| *EBBX       | BERTRIX / Jehonville (MIL)                 |
| *EBBY       | GENAPPE / Baisy-Thy                        |
| *EBBZ       | PONT-À-CELLES / Buzet                      |
| *EBCF       | CERFONTAINE                                |
| *EBCH       | LIEGE / Clinique Montlegia CHC             |
| EBCI        | CHARLEROI / Brussels South                 |
| *EBCT       | CASTEAU / SHAPE (MIL)                      |
| *EBCV       | CHIÈVRES (MIL)                             |
| *EBDR       | ANTWERPEN / Commandant Fourcalt            |
| *EBDT       | DIEST / Schaffen (MIL)                     |
| *EBDV       | DIKSMUIDE / Leke                           |
| *EBDY       | NIVELLES / Dynali                          |
| *EBDZ       | DEINZE / De Groote                         |
| *EBEA       | EEKLO / AZ Alma                            |
| *EBEB       | EVERGEM / Belzele                          |
| *EBEH       | HYDROBASE DE L'EAU D'HEURE                 |
| *EBEM       | SINT-JORIS-WINGE                           |
| *EBEN       | RANST / Engels                             |
| *EBEU       | EDEGEM / UZA                               |
| *EBFI       | KNOKKE / Fort Isabella                     |
| EBFN        | KOKSIJDE (MIL)                             |
| *EBFR       | FRANCORCHAMPS                              |
| EBFS        | FLORENNES (MIL)                            |

| DECODE      |                                                 |
|-------------|-------------------------------------------------|
| Identifiser | Name                                            |
| *EBGA       | LEUVEN / UZ Gasthuisberg                        |
| *EBGB       | GRIMBERGEN / Lint                               |
| *EBGE       | LOVERVAL / Gerpines                             |
| *EBGG       | GERAARDSBERGEN / Overboelare                    |
| EBGL        | GLONS (MIL)                                     |
| *EBGT       | GENT / UZ Gent                                  |
| *EBGU       | NEVELE                                          |
| *EBHF       | KALLO / De Perel                                |
| *EBHL       | HALEN                                           |
| *EBHM       | HASSELT / Maasland                              |
| *EBHN       | HOEVENEN                                        |
| *EBHO       | HOLSBEK                                         |
| *EBHT       | HOUTHALEN                                       |
| *EBIS       | ATH / Isières                                   |
| *EBJS       | ATH / Ghislenghien                              |
| *EBKD       | HOLSBEK / Kortrijk-Dutsel                       |
| *EBKG       | KORTRIJK / AZ Groeninge                         |
| *EBKH       | BALEN / Keiheuvel                               |
| *EBKR       | KRUISEM / Sons                                  |
| EBKT        | KORTRIJK / Wevelgem                             |
| *EBKW       | KNOKKE-HEIST / Westkapelle                      |
| *EBKZ       | KNOKKE / AZ Zeno                                |
| EBLB        | ELSENBORN (MIL)                                 |
| *EBLC       | LIÈGE / Citadelle                               |
| *EBLD       | RANST / De Vijver                               |
| *EBLE       | LEOPOLDSBURG / Beverlo                          |
| EBLG        | LIÈGE / Liège                                   |
| *EBLH       | LOTENHULLE                                      |
| *EBLJ       | LOKEREN / Janssens                              |
| *EBLM       | MEULEBEKE                                       |
| *EBLO       | LOCHRISTI                                       |
| *EBLR       | WAASMUNSTER / Raemdonck                         |
| *EBLS       | LIÈGE / Sart Tilman                             |
| *EBLT       | LINT                                            |
| *EBLU       | LUMMEN                                          |
| *EBLV       | KORTEMARK                                       |
| *EBLX       | LIERNEUX / Centre Hospitalier Spécial l'Accueil |
| *EBLY       | RANST / Lymar                                   |
| EBMB        | BRUSSELS / Melsbroek (MIL)                      |
| *EBMC       | LODELINSART / Marie-Curie                       |
| *EBMD       | ANTWERPEN / AZ Middelheim                       |
| *EBME       | MEERBEK                                         |
| *EBMG       | DOISCHE / Matagne-la-Petite                     |
| *EBMH       | MALDEGEM / Huysman                              |

| DECODE     |                               |
|------------|-------------------------------|
| Identifïer | Name                          |
| EBMI       | STEENOKKERZEEL (ATCC) (MIL)   |
| *EBMK      | MAARKEDAL / Nukerke           |
| *EBML      | ASSESE / Maillen              |
| *EBMM      | MAASMECHELEN                  |
| *EBMN      | MEETKERKE / Nachtegalee       |
| *EBMO      | MOORSELE                      |
| *EBMS      | LIERNEUX / Bra                |
| *EBMT      | MONTIGNY-LE-TILLEUL           |
| *EBNB      | NAMUR / Bouge                 |
| *EBNG      | NAMUR / CHU UCL Godinne       |
| *EBNH      | OOSTENDE                      |
| *EBNK      | NOKERE / Suys                 |
| *EBNM      | NAMUR / Suarlée               |
| *EBNP      | PELT / Tilburgs               |
| *EBNR      | ROESELARE / Nuytten           |
| *EBOB      | OUD-HEVERLEE / Blanden        |
| *EBOK      | BRUSSELS / Groot-Bijgaarden   |
| *EBOO      | OOSTDIJCKBANK                 |
| *EBOR      | VRESSE-SUR-SEMOIS / Orchimont |
| EBOS       | OOSTENDE-BRUGGE / Oostende    |
| *EBPL      | GESVES                        |
| *EBPP      | DEINZE / Piens                |
| *EBPW      | PECQ / Warcoing               |
| *EBRD      | ROOSDAAL                      |
| *EBRE      | LO-RENINGE                    |
| *EBRL      | KAMPENHOUT                    |
| *EBRO      | RANST / Van Den Bosch         |
| *EBRR      | ROESELARE / Rumbeke           |
| *EBRU      | BEKKEVOORT                    |
| *EBSB      | SPIERE-HELKIJN                |
| *EBSC      | MERCHTEM                      |
| *EBSF      | SPA / Francorchamps           |
| *EBSG      | SAINT-GHISLAIN                |
| *EBSH      | SAINT-HUBERT / Saint-Hubert   |
| *EBSJ      | BRUGGE / AZ Sint-Jan          |
| *EBSL      | ZUTENDAAL                     |
| *EBSM      | VERREBROEK                    |
| EBSP       | SPA / La Sauvenière           |
| *EBSS      | BRUGGE / Sint-Lucas           |
| *EBST      | SINT-TRUIDEN / Brustem        |
| *EBSU      | SAINT-HUBERT (MIL)            |
| *EBSV      | OTTERGEM / Erpe-Mere          |
| *EBSW      | SINT-PIETERS-LEEUV            |
| EBSZ       | SEMMERZAKE (MIL)              |
| *EBTK      | TIELEN / Kasterlee            |
| *EBTN      | GOETSENHOVEN                  |
| *EBTX      | VERVIERS / Theux              |
| *EBTY      | TOURNAI / Maubray             |

| DECODE     |                                                       |
|------------|-------------------------------------------------------|
| Identifïer | Name                                                  |
| *EBUC      | BRUSSELS / UCL                                        |
| *EBUL      | URSEL (MIL)                                           |
| *EBUM      | BRUSSELS (IRM/KMI)                                    |
| EBUR       | BRUSSELS (UIR)                                        |
| EBVA       | SKEYES                                                |
| *EBVE      | VEURNE                                                |
| *EBVN      | VLIMMEREN                                             |
| *EBVS      | VEURNE / Sint-Augustinus                              |
| *EBVU      | ROTSelaar                                             |
| *EBWA      | WAASMUNSTER                                           |
| *EBWE      | WEELDE (MIL)                                          |
| *EBWH      | WINGENE / Hemelrijk                                   |
| *EBWI      | WINGENE                                               |
| *EBWK      | WERVIK                                                |
| *EBWM      | BEAUVECHAIN (MET) (MIL)                               |
| *EBWS      | WINGENE / Scherrens                                   |
| *EBWV      | ICHTEGEM                                              |
| *EBWZ      | WINGENE / Zwevezele                                   |
| *EBYC      | GREMBERGEN / Dendermonde                              |
| *EBYP      | IEPER / Jan Yperman                                   |
| *EBZA      | ZEDELGEM/Aartrijke                                    |
| *EBZE      | ZELE                                                  |
| *EBZH      | HASSELT / Kiewit                                      |
| *EBZM      | ZOMERGEM                                              |
| *EBZO      | ZONNEBEKE / Zandvoorde                                |
| *EBZR      | ZOERSEL / Oostmalle                                   |
| *EBZU      | ZUIENKERKE                                            |
| *EBZW      | GENK / Zwartberg                                      |
| *ELEA      | ESCH-SUR-ALZETTE / Centre Hospitalier Emile Mayrisch  |
| *ELET      | ETTELBRUCK / Centre Hospitalier du Nord CHdN          |
| *ELLC      | LUXEMBOURG / Centre Hospitalier de Luxembourg (CHL)   |
| *ELLK      | LUXEMBOURG / Hôpital Kirchberg                        |
| ELLX       | LUXEMBOURG / Luxembourg                               |
| *ELLZ      | LUXEMBOURG / ZITHAKLINIK S.A. Hôpitaux Robert Schuman |
| *ELNT      | NOERTRANGE                                            |
| *ELUS      | USELDANGE                                             |

| ENCODE                             |            |
|------------------------------------|------------|
| Name                               | Identifïer |
| AALST / Onze-Lieve-Vrouwziekenhuis | *EBAL      |
| AFFLIGEM                           | *EBAF      |
| AMOUGIES                           | *EBAM      |
| ANTWERPEN / AZ Middelheim          | *EBMD      |
| ANTWERPEN / Commandant Fourcault   | *EBDR      |
| ANTWERPEN / Deurne                 | EBAW       |



| ENCODE                                               |            |
|------------------------------------------------------|------------|
| Name                                                 | Identifier |
| ARLON / Sterpenich                                   | *EBAR      |
| ASSESE / Maillen                                     | *EBML      |
| ATH / Ghislenghien                                   | *EBJS      |
| ATH / Isières                                        | *EBIS      |
| BALEN / Keiheuvel                                    | *EBKH      |
| BEAUVECHAIN (MIL)                                    | EBBE       |
| BEAUVECHAIN (MET) (MIL)                              | *EBWM      |
| BEKKEVOORT                                           | *EBRU      |
| BERTRIX / Jehonville (MIL)                           | *EBBX      |
| BRAKEL / Michelbeke                                  | *EBBM      |
| BRASSCHAAT                                           | *EBBT      |
| BRECHT / Vochten                                     | *EBBV      |
| BRUGGE / AZ Sint-Jan                                 | *EBSJ      |
| BRUGGE / Sint-Lucas                                  | *EBSS      |
| BRUSSELS (ACC/FIC)                                   | EBBU       |
| BRUSSELS (COM Centre)                                | EBBB       |
| BRUSSELS (IRM/KMI)                                   | *EBUM      |
| BRUSSELS (UIR)                                       | EBUR       |
| BRUSSELS / Brussels-National                         | EBBR       |
| BRUSSELS / Groot-Bijgaarden                          | *EBOK      |
| BRUSSELS / Melsbroek (MIL)                           | EBMB       |
| BRUSSELS / UCL                                       | *EBUC      |
| BRUSSELS Civilair                                    | *EBBS      |
| BÜLLINGEN                                            | *EBBN      |
| CERFONTAINE                                          | *EBCF      |
| CHARLEROI / Brussels South                           | EBCI       |
| CHIÈVRES (MIL)                                       | *EBCV      |
| DEINZE / De Groote                                   | *EBDZ      |
| DEINZE / Piens                                       | *EBPP      |
| DIEST / Schaffen (MIL)                               | *EBDT      |
| DIKSMUIDE / Leke                                     | *EBDV      |
| DOISCHE / Matagne-la-Petite                          | *EBMG      |
| EDEGEM / UZA                                         | *EBEU      |
| EKLO / AZ Alma                                       | *EBEA      |
| ESCH-SUR-ALZETTE / Centre Hospitalier Emile Mayrisch | *ELEA      |
| ETTELBRUCK / Centre Hospitalier du Nord CHdN         | *ELET      |
| ELSENBORN (MIL)                                      | *EBLB      |
| EVERGEM / Belzele                                    | *EBEB      |
| FLORENNES (MIL)                                      | EBFS       |
| FRANCORCHAMPS                                        | *EBFR      |
| GENAPPE / Baisy-Thy                                  | *EBBY      |
| GENK / Zwartberg                                     | *EBZW      |
| GENT / UZ Gent                                       | *EBGT      |
| GERAARDSBERGEN / Overboelare                         | *EBGG      |

| ENCODE                                          |            |
|-------------------------------------------------|------------|
| Name                                            | Identifier |
| GESVES                                          | *EBPL      |
| GLONS (MIL)                                     | EBGL       |
| GOETSENHOVEN                                    | *EBTN      |
| GRACE-HOLLOGNE / Agusta Aerospace Services      | *EBAG      |
| GREMBERGEN / Dendermonde                        | *EBYC      |
| GRIMBERGEN / Lint                               | *EBGB      |
| HALEN                                           | *EBHL      |
| HANNUT / Avenas-le-Bauduin                      | *EBAV      |
| HASSELT / Kiewit                                | *EBZH      |
| HASSELT / Maasland                              | *EBHM      |
| HOEVENEN                                        | *EBHN      |
| HOLSBEEK                                        | *EBHO      |
| HOLSBEEK / Kortrijk-Dutsel                      | *EBKD      |
| HOUTHALEN                                       | *EBHT      |
| HYDROBASE DE L'EAU D'HEURE                      | *EBEH      |
| ICHTEGEM                                        | *EBWV      |
| IEPER / Jan Yperman                             | *EBYP      |
| KALLO / De Perel                                | *EBHF      |
| KAMPENHOUT                                      | *EBRL      |
| KLEINE-BROGEL (MIL)                             | EBBL       |
| KNOKKE / AZ Zeno                                | *EBKZ      |
| KNOKKE / Fort Isabella                          | *EBFI      |
| KNOKKE-HEIST / Westkapelle                      | *EBKW      |
| KOKSIJDE (MIL)                                  | EBFN       |
| KORTEMARK                                       | *EBLV      |
| KORTRIJK / AZ Groeninge                         | *EBKG      |
| KORTRIJK / Wevelgem                             | EBKT       |
| KRUISEM / Sons                                  | *EBKR      |
| LEOPOLDSBURG / Beverlo                          | *EBLE      |
| LEUVEN / UZ Gasthuisberg                        | *EBGA      |
| LIÈGE / Citadelle                               | *EBLC      |
| LIEGE / Clinique Montlegia CHC                  | *EBCH      |
| LIÈGE / Liège                                   | EBLG       |
| LIÈGE / Sart Tilman                             | *EBLS      |
| LIERNEUX / Bra                                  | *EBMS      |
| LIERNEUX / Centre Hospitalier Spécial l'Accueil | *EBLX      |
| LINT                                            | *EBLT      |
| LO-RENINGE                                      | *EBRE      |
| LOCHRISTI                                       | *EBLO      |
| LODELINSART / Marie-Curie                       | *EBMC      |
| LOKEREN / Janssens                              | *EBLJ      |
| LOTENHULLE                                      | *EBLH      |
| LOVERVAL / Gerpinnes                            | *EBGE      |
| LUMMEN                                          | *EBLU      |

| ENCODE                                                |            |
|-------------------------------------------------------|------------|
| Name                                                  | Identifier |
| LUXEMBOURG / Centre Hospitalier de Luxembourg (CHL)   | *ELLC      |
| LUXEMBOURG / ZITHAKLINIK S.A. Hôpitaux Robert Schuman | *ELLZ      |
| LUXEMBOURG / Hôpital Kirchberg                        | *ELLK      |
| LUXEMBOURG / Luxembourg                               | ELLX       |
| MAARKEDAL / Nukerke                                   | *EBMK      |
| MAASMECHELEN                                          | *EBMM      |
| MALDEGEM / Huysman                                    | *EBMH      |
| MEERBEEK                                              | *EBME      |
| MEETKERKE / Nachtegalee                               | *EBMN      |
| MERCHTEM                                              | *EBSC      |
| MEULEBEKE                                             | *EBLM      |
| MONTIGNY-LE-TILLEUL                                   | *EBMT      |
| MOORSELE                                              | *EBMO      |
| NAMUR / Bouge                                         | *EBNB      |
| NAMUR / CHU UCL Godinne                               | *EBNG      |
| NAMUR / Suarlée                                       | *EBNM      |
| NEVELE                                                | *EBGU      |
| NIVELLES / Dynali                                     | *EBDY      |
| NOERTRANGE                                            | *ELNT      |
| NOKERE / Suys                                         | *EBNK      |
| OOSTDIJCKBANK                                         | *EBOO      |
| OOSTENDE                                              | *EBNH      |
| OOSTENDE-BRUGGE / Oostende                            | EBOS       |
| OTTERGEM / Erpe-Mere                                  | *EBSV      |
| OUD-HERVERLEE/ Blanden                                | *EBOB      |
| PECQ / Warcoing                                       | *EBPW      |
| PELT / Tilburgs                                       | *EBNP      |
| PONT-À-CELLES / Buzet                                 | *EBBZ      |
| RANST / De Vijver                                     | *EBLD      |
| RANST / Engels                                        | *EBEN      |
| RANST / Lymar                                         | *EBLY      |
| RANST / Van Den Bosch                                 | *EBRO      |
| ROESELARE / AZ Delta                                  | *EBAD      |
| ROESELARE / Nuytten                                   | *EBNR      |
| ROESELARE / Rumbeke                                   | *EBRR      |
| ROOSDAAL                                              | *EBRD      |
| ROTSELAAR                                             | *EBVU      |
| SAINT-GHISLAIN                                        | *EBSG      |
| SAINT-HUBERT (MIL)                                    | *EBSU      |
| SAINT-HUBERT / Saint-Hubert                           | *EBSH      |
| SCHILDE / 's Gravenwezel                              | *EBAS      |
| SEMMERZAKE (MIL)                                      | EBSZ       |
| CASTEAU / SHAPE (MIL)                                 | *EBCT      |

| ENCODE                        |            |
|-------------------------------|------------|
| Name                          | Identifier |
| SINT-JORIS-WINGE              | *EBEM      |
| SINT-PIETERS-LEEUEW           | *EBSW      |
| SINT-TRUIDEN / Brustem        | *EBST      |
| SKEYES                        | EBVA       |
| SPA / Francorchamps           | EBSF       |
| SPA / La Sauvenière           | EBSP       |
| SPIERE-HELKIJN                | *EBSB      |
| STEENOKKERZEEL (ATCC) (MIL)   | EBMI       |
| TIELEN / Kasterlee            | *EBTK      |
| TOURNAI / Maubray             | *EBTY      |
| URSEL (MIL)                   | *EBUL      |
| USELDANGE                     | *ELUS      |
| VERREBROEK                    | *EBSM      |
| VERVIERS / Theux              | *EBTX      |
| VEURNE                        | *EBVE      |
| VEURNE / Sint-Augustinus      | *EBVS      |
| VLIMMEREN                     | *EBVN      |
| VRESSE-SUR-SEMOIS / Orchimont | *EBOR      |
| WAASMUNSTER                   | *EBWA      |
| WAASMUNSTER / Raemdonck       | *EBLR      |
| WEELDE (MIL)                  | *EBWE      |
| WEELDE (MIL)                  | *EBWE      |
| WERVIK                        | *EBWK      |
| WINGENE                       | *EBWI      |
| WINGENE / Hemelrijk           | *EBWH      |
| WINGENE / Zwevezele           | *EBWZ      |
| ZEDELGEM/Aartrijke            | *EBZA      |
| ZELE                          | *EBZE      |
| ZOERSEL / Oostmalle           | *EBZR      |
| ZOMERGEM                      | *EBZM      |
| ZONNEBEKE / Zandvoorde        | *EBZO      |
| ZUIENKERKE                    | *EBZU      |
| ZUTENDAAL                     | *EBSL      |

## GEN 2.5 List of Radio Navigation Aids

| ID    | Station name  | Facility     | Purpose (AD/ENR) | Station name  | Facility     | ID    | Purpose (AD/ENR) |
|-------|---------------|--------------|------------------|---------------|--------------|-------|------------------|
| AFI   | Affligem      | DVOR/DME     | AE               | Affligem      | DVOR/DME     | AFI   | AE               |
| ANT   | Antwerpen     | DVOR/DME     | AE               | Antwerpen     | DVOR/DME     | ANT   | AE               |
| BBE   | Beauvechain   | TACAN        | AE               | Antwerpen     | NDB          | ONW   | AE               |
| BBL   | Kleine-Brogel | TACAN        | AE               | Antwerpen     | ILS          | IAD   | A                |
| BFS   | Florennes     | TACAN        | AE               | Beauvechain   | TACAN        | BBE   | AE               |
| BUB   | Brussels      | DVOR/DME     | AE               | Beauvechain   | ILS          | I-BBE | A                |
| BUN   | Bruno         | DVOR/DME     | AE               | Beauvechain   | ILS          | I-BEV | A                |
| CIV   | Chièvres      | DVOR/TACAN   | AE               | Bruno         | DVOR/DME     | BUN   | AE               |
| COA   | Costa         | DVOR/DME     | AE               | Brussels      | DVOR/DME     | BUB   | AE               |
| DD    | Oostende      | L            | A                | Brussels      | ILS          | IBL   | A                |
| DIK   | Diekirch      | DVOR/DME     | AE               | Brussels      | ILS          | IBM   | A                |
| FLO   | Flora         | DVOR/DME     | AE               | Brussels      | ILS          | IBR   | A                |
| GSY   | Gosly         | DVOR/DME     | AE               | Brussels      | ILS          | IBX   | A                |
| HUL   | Huldenberg    | DVOR/DME     | AE               | Charleroi     | NDB          | ONC   | AE               |
| IAD   | Antwerpen     | ILS          | A                | Charleroi     | ILS          | IGC   | A                |
| I-BBE | Beauvechain   | ILS          | A                | Chièvres      | DVOR/TACAN   | CIV   | AE               |
| I-BBL | Kleine-Brogel | ILS          | A                | Chièvres      | ILS          | ICV   | A                |
| I-BEV | Beauvechain   | ILS          | A                | Costa         | DVOR/DME     | COA   | AE               |
| I-BFS | Florennes     | ILS          | A                | Diekirch      | DVOR/DME     | DIK   | AE               |
| IBI   | Liège         | ILS          | A                | Flora         | DVOR/DME     | FLO   | AE               |
| IBL   | Brussels      | ILS          | A                | Florennes     | TACAN        | BFS   | AE               |
| IBM   | Brussels      | ILS          | A                | Florennes     | ILS          | I-BFS | A                |
| IBR   | Brussels      | ILS          | A                | Florennes     | ILS          | I-FLR | A                |
| IBX   | Brussels      | ILS          | A                | Gosly         | DVOR/DME     | GSY   | AE               |
| ICV   | Chièvres      | ILS          | A                | Huldenberg    | DVOR/DME     | HUL   | AE               |
| I-FLR | Florennes     | ILS          | A                | Kleine-Brogel | TACAN        | BBL   | AE               |
| IGC   | Charleroi     | ILS          | A                | Kleine-Brogel | ILS          | I-BBL | A                |
| IHH   | Liège         | ILS          | A                | Kleine-Brogel | ILS          | I-KNB | A                |
| I-KNB | Kleine-Brogel | ILS          | A                | Koksy         | VORTAC/TACAN | KOK   | AE               |
| ILE   | Luxembourg    | ILS          | A                | Liège         | NDB          | ONL   | AE               |
| ILG   | Liège         | ILS          | A                | Liège         | ILS          | IHH   | A                |
| ILW   | Luxembourg    | ILS          | A                | Liège         | ILS          | ILG   | A                |
| IMI   | Oostende      | ILS          | A                | Liège         | ILS          | IBI   | A                |
| IOS   | Oostende      | ILS          | A                | Liège         | DME          | LIE   | AE               |
| KOK   | Koksy         | VORTAC/TACAN | AE               | Luxembourg    | DVOR/DME     | LUX   | AE               |
| LIE   | Liège         | DME          | AE               | Luxembourg    | ILS          | ILE   | A                |
| LNO   | Olno          | DVOR/DME     | AE               | Luxembourg    | ILS          | ILW   | A                |
| LUX   | Luxembourg    | DVOR/DME     | AE               | Mackel        | NDB          | MAK   | AE               |
| MAK   | Mackel        | NDB          | AE               | Maastricht    | VOR/DME      | MAS   | AE               |
| MAS   | Maastricht    | VOR/DME      | AE               | Nicky         | DVOR/DME     | NIK   | AE               |
| NIK   | Nicky         | DVOR/DME     | AE               | Olno          | DVOR/DME     | LNO   | AE               |
| ONC   | Charleroi     | NDB          | AE               | Oostende      | NDB          | ONO   | AE               |
| ONL   | Liège         | NDB          | AE               | Oostende      | L            | DD    | A                |
| ONO   | Oostende      | NDB          | AE               | Oostende      | L            | OO    | A                |
| ONW   | Antwerpen     | NDB          | AE               | Oostende      | ILS          | IMI   | A                |
| OO    | Oostende      | L            | A                | Oostende      | ILS          | IOS   | A                |
| SLV   | Spa           | NDB          | A                | Spa           | NDB          | SLV   | A                |
| SPI   | Sprimont      | DVOR/DME     | AE               | Sprimont      | DVOR/DME     | SPI   | AE               |

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## GEN 2.6 Conversion of units of measurement

| NM to KM<br>(1 NM = 1.852 KM) |         | KM to NM<br>(1 KM = 0.54 NM) |        | FT to M<br>(1 FT = 0.3048 M) |          | M to FT<br>(1 M = 3.281 FT) |          |
|-------------------------------|---------|------------------------------|--------|------------------------------|----------|-----------------------------|----------|
| NM                            | KM      | KM                           | NM     | FT                           | M        | M                           | FT       |
| 0.1                           | 0.185   | 0.1                          | 0.05   | 1                            | 0.305    | 1                           | 3.28     |
| 0.2                           | 0.370   | 0.2                          | 0.11   | 2                            | 0.610    | 2                           | 6.56     |
| 0.3                           | 0.556   | 0.3                          | 0.16   | 3                            | 0.914    | 3                           | 9.84     |
| 0.4                           | 0.741   | 0.4                          | 0.22   | 4                            | 1.219    | 4                           | 13.12    |
| 0.5                           | 0.926   | 0.5                          | 0.27   | 5                            | 1.524    | 5                           | 16.40    |
| 0.6                           | 1.111   | 0.6                          | 0.32   | 6                            | 1.829    | 6                           | 19.69    |
| 0.7                           | 1.296   | 0.7                          | 0.38   | 7                            | 2.134    | 7                           | 22.97    |
| 0.8                           | 1.482   | 0.8                          | 0.43   | 8                            | 2.438    | 8                           | 26.25    |
| 0.9                           | 1.667   | 0.9                          | 0.49   | 9                            | 2.743    | 9                           | 29.53    |
| 1                             | 1.852   | 1                            | 0.54   | 10                           | 3.048    | 10                          | 32.81    |
| 2                             | 3.704   | 2                            | 1.08   | 20                           | 6.096    | 20                          | 65.62    |
| 3                             | 5.556   | 3                            | 1.62   | 30                           | 9.144    | 30                          | 98.43    |
| 4                             | 7.408   | 4                            | 2.16   | 40                           | 12.192   | 40                          | 131.23   |
| 5                             | 9.260   | 5                            | 2.70   | 50                           | 15.240   | 50                          | 164.04   |
| 6                             | 11.112  | 6                            | 3.24   | 60                           | 18.288   | 60                          | 196.85   |
| 7                             | 12.964  | 7                            | 3.78   | 70                           | 21.336   | 70                          | 229.66   |
| 8                             | 14.816  | 8                            | 4.32   | 80                           | 24.384   | 80                          | 262.47   |
| 9                             | 16.668  | 9                            | 4.86   | 90                           | 27.432   | 90                          | 295.28   |
| 10                            | 18.520  | 10                           | 5.40   | 100                          | 30.480   | 100                         | 328.08   |
| 20                            | 37.040  | 20                           | 10.80  | 200                          | 60.960   | 200                         | 656.17   |
| 30                            | 55.560  | 30                           | 16.20  | 300                          | 91.440   | 300                         | 984.25   |
| 40                            | 74.080  | 40                           | 21.60  | 400                          | 121.920  | 400                         | 1312.34  |
| 50                            | 92.600  | 50                           | 27.00  | 500                          | 152.400  | 500                         | 1640.42  |
| 60                            | 111.120 | 60                           | 32.40  | 600                          | 182.880  | 600                         | 1968.50  |
| 70                            | 129.640 | 70                           | 37.80  | 700                          | 213.360  | 700                         | 2296.59  |
| 80                            | 148.160 | 80                           | 43.20  | 800                          | 243.840  | 800                         | 2624.67  |
| 90                            | 166.680 | 90                           | 48.60  | 900                          | 274.320  | 900                         | 2952.76  |
| 100                           | 185.200 | 100                          | 54.00  | 1000                         | 304.800  | 1000                        | 3280.84  |
| 200                           | 370.400 | 200                          | 107.99 | 2000                         | 609.600  | 2000                        | 6561.68  |
| 300                           | 555.600 | 300                          | 161.99 | 3000                         | 914.400  | 3000                        | 9842.52  |
| 400                           | 740.800 | 400                          | 215.98 | 4000                         | 1219.200 | 4000                        | 13123.36 |
| 500                           | 926.000 | 500                          | 269.98 | 5000                         | 1524.000 | 5000                        | 16404.20 |

| From decimal minutes of an arc to seconds of an arc |     |      |      |      |      |      |      |
|-----------------------------------------------------|-----|------|------|------|------|------|------|
| MIN                                                 | SEC | MIN  | SEC  | MIN  | SEC  | MIN  | SEC  |
| 0.01                                                | 0.6 | 0.26 | 15.6 | 0.51 | 30.6 | 0.76 | 45.6 |
| 0.02                                                | 1.2 | 0.27 | 16.2 | 0.52 | 31.2 | 0.77 | 46.2 |
| 0.03                                                | 1.8 | 0.28 | 16.8 | 0.53 | 31.8 | 0.78 | 46.8 |
| 0.04                                                | 2.4 | 0.29 | 17.4 | 0.54 | 32.4 | 0.79 | 47.4 |
| 0.05                                                | 3.0 | 0.30 | 18.0 | 0.55 | 33.0 | 0.80 | 48.0 |
| 0.06                                                | 3.6 | 0.31 | 18.6 | 0.56 | 33.6 | 0.81 | 48.6 |
| 0.07                                                | 4.2 | 0.32 | 19.2 | 0.57 | 34.2 | 0.82 | 49.2 |
| 0.08                                                | 4.8 | 0.33 | 19.8 | 0.58 | 34.8 | 0.83 | 49.8 |
| 0.09                                                | 5.4 | 0.34 | 20.4 | 0.59 | 35.4 | 0.84 | 50.4 |
| 0.10                                                | 6.0 | 0.35 | 21.0 | 0.60 | 36.0 | 0.85 | 51.0 |
| 0.11                                                | 6.6 | 0.36 | 21.6 | 0.61 | 36.6 | 0.86 | 51.6 |
| 0.12                                                | 7.2 | 0.37 | 22.2 | 0.62 | 37.2 | 0.87 | 52.2 |
| 0.13                                                | 7.8 | 0.38 | 22.8 | 0.63 | 37.8 | 0.88 | 52.8 |

| From decimal minutes of an arc to seconds of an arc |      |      |      |      |      |      |      |
|-----------------------------------------------------|------|------|------|------|------|------|------|
| MIN                                                 | SEC  | MIN  | SEC  | MIN  | SEC  | MIN  | SEC  |
| 0.14                                                | 8.4  | 0.39 | 23.4 | 0.64 | 38.4 | 0.89 | 53.4 |
| 0.15                                                | 9.0  | 0.40 | 24.0 | 0.65 | 39.0 | 0.90 | 54.0 |
| 0.16                                                | 9.6  | 0.41 | 24.6 | 0.66 | 39.6 | 0.91 | 54.6 |
| 0.17                                                | 10.2 | 0.42 | 25.2 | 0.67 | 40.2 | 0.92 | 55.2 |
| 0.18                                                | 10.8 | 0.43 | 25.8 | 0.68 | 40.8 | 0.93 | 55.8 |
| 0.19                                                | 11.4 | 0.44 | 26.4 | 0.69 | 41.4 | 0.94 | 56.4 |
| 0.20                                                | 12.0 | 0.45 | 27.0 | 0.70 | 42.0 | 0.95 | 57.0 |
| 0.21                                                | 12.6 | 0.46 | 27.6 | 0.71 | 42.6 | 0.96 | 57.6 |
| 0.22                                                | 13.2 | 0.47 | 28.2 | 0.72 | 43.2 | 0.97 | 58.2 |
| 0.23                                                | 13.8 | 0.48 | 28.8 | 0.73 | 43.8 | 0.98 | 58.8 |
| 0.24                                                | 14.4 | 0.49 | 29.4 | 0.74 | 44.4 | 0.99 | 59.4 |
| 0.25                                                | 15.0 | 0.50 | 30.0 | 0.75 | 45.0 |      |      |

| From seconds of an arc to decimal minutes of an arc |      |     |      |     |      |     |      |
|-----------------------------------------------------|------|-----|------|-----|------|-----|------|
| SEC                                                 | MIN  | SEC | MIN  | SEC | MIN  | SEC | MIN  |
| 1                                                   | 0.02 | 16  | 0.27 | 31  | 0.52 | 46  | 0.77 |
| 2                                                   | 0.03 | 17  | 0.28 | 32  | 0.53 | 47  | 0.78 |
| 3                                                   | 0.05 | 18  | 0.30 | 33  | 0.55 | 48  | 0.80 |
| 4                                                   | 0.07 | 19  | 0.32 | 34  | 0.57 | 49  | 0.82 |
| 5                                                   | 0.08 | 20  | 0.33 | 35  | 0.58 | 50  | 0.83 |
| 6                                                   | 0.10 | 21  | 0.35 | 36  | 0.60 | 51  | 0.85 |
| 7                                                   | 0.12 | 22  | 0.37 | 37  | 0.62 | 52  | 0.87 |
| 8                                                   | 0.13 | 23  | 0.38 | 38  | 0.63 | 53  | 0.88 |
| 9                                                   | 0.15 | 24  | 0.40 | 39  | 0.65 | 54  | 0.90 |
| 10                                                  | 0.17 | 25  | 0.42 | 40  | 0.67 | 55  | 0.92 |
| 11                                                  | 0.18 | 26  | 0.43 | 41  | 0.68 | 56  | 0.93 |
| 12                                                  | 0.20 | 27  | 0.45 | 42  | 0.70 | 57  | 0.95 |
| 13                                                  | 0.22 | 28  | 0.47 | 43  | 0.72 | 58  | 0.97 |
| 14                                                  | 0.23 | 29  | 0.48 | 44  | 0.73 | 59  | 0.98 |
| 15                                                  | 0.25 | 30  | 0.50 | 45  | 0.75 |     |      |

## GEN 2.7 Sunrise / Sunset

### 1 BELGIUM

Tables according to the ephemerides of BRUSSELS (IRM/KMI); EBUM, 504752N 0042129E. SR/SS and twilight data for each calendar day can also be consulted on the website of the Royal Observatory of Belgium (<https://www.astro.oma.be>).

| JAN 2024 |               |      |      |             | FEB 2024 |               |      |      |             |
|----------|---------------|------|------|-------------|----------|---------------|------|------|-------------|
| Day      | Twilight from | SR   | SS   | Twilight to | Day      | Twilight from | SR   | SS   | Twilight to |
| 1        | 0706          | 0745 | 1547 | 1626        | 5        | 0638          | 0713 | 1640 | 1716        |
| 6        | 0705          | 0744 | 1553 | 1631        | 10       | 0630          | 0705 | 1649 | 1724        |
| 11       | 0703          | 0742 | 1559 | 1638        | 15       | 0622          | 0656 | 1658 | 1732        |
| 16       | 0700          | 0738 | 1607 | 1644        | 20       | 0613          | 0646 | 1707 | 1741        |
| 21       | 0656          | 0733 | 1615 | 1652        | 25       | 0603          | 0636 | 1716 | 1749        |
| 26       | 0651          | 0728 | 1623 | 1659        |          |               |      |      |             |
| 31       | 0645          | 0721 | 1632 | 1707        |          |               |      |      |             |

| MAR 2024 |               |      |      |             | APR 2024 |               |      |      |             |
|----------|---------------|------|------|-------------|----------|---------------|------|------|-------------|
| Day      | Twilight from | SR   | SS   | Twilight to | Day      | Twilight from | SR   | SS   | Twilight to |
| 1        | 0553          | 0626 | 1724 | 1757        | 5        | 0435          | 0509 | 1822 | 1856        |
| 6        | 0543          | 0615 | 1733 | 1806        | 10       | 0424          | 0458 | 1830 | 1905        |
| 11       | 0532          | 0604 | 1741 | 1814        | 15       | 0413          | 0447 | 1839 | 1914        |
| 16       | 0521          | 0553 | 1750 | 1822        | 20       | 0402          | 0437 | 1847 | 1922        |
| 21       | 0509          | 0542 | 1758 | 1831        | 25       | 0351          | 0427 | 1855 | 1931        |
| 26       | 0458          | 0531 | 1806 | 1839        | 30       | 0340          | 0418 | 1903 | 1940        |
| 31       | 0447          | 0520 | 1814 | 1848        |          |               |      |      |             |

| MAY 2024 |               |      |      |             | JUN 2024 |               |      |      |             |
|----------|---------------|------|------|-------------|----------|---------------|------|------|-------------|
| Day      | Twilight from | SR   | SS   | Twilight to | Day      | Twilight from | SR   | SS   | Twilight to |
| 5        | 0331          | 0409 | 1911 | 1949        | 4        | 0248          | 0332 | 1950 | 2035        |
| 10       | 0321          | 0401 | 1918 | 1958        | 9        | 0244          | 0330 | 1954 | 2040        |
| 15       | 0313          | 0353 | 1926 | 2006        | 14       | 0243          | 0329 | 1957 | 2043        |
| 20       | 0305          | 0346 | 1933 | 2015        | 19       | 0243          | 0329 | 1959 | 2046        |
| 25       | 0258          | 0341 | 1939 | 2022        | 24       | 0244          | 0330 | 2000 | 2046        |
| 30       | 0252          | 0336 | 1945 | 2029        | 29       | 0247          | 0332 | 2000 | 2045        |

| JUL 2024 |               |      |      |             | AUG 2024 |               |      |      |             |
|----------|---------------|------|------|-------------|----------|---------------|------|------|-------------|
| Day      | Twilight from | SR   | SS   | Twilight to | Day      | Twilight from | SR   | SS   | Twilight to |
| 4        | 0251          | 0336 | 1958 | 2043        | 3        | 0333          | 0413 | 1924 | 2003        |
| 9        | 0256          | 0340 | 1955 | 2039        | 8        | 0342          | 0420 | 1915 | 1953        |
| 14       | 0302          | 0346 | 1951 | 2034        | 13       | 0350          | 0428 | 1906 | 1943        |
| 19       | 0309          | 0352 | 1945 | 2028        | 18       | 0359          | 0435 | 1856 | 1932        |
| 24       | 0317          | 0358 | 1939 | 2020        | 23       | 0408          | 0443 | 1846 | 1921        |
| 29       | 0325          | 0405 | 1932 | 2012        | 28       | 0416          | 0451 | 1836 | 1910        |

| SEP 2024 |               |      |      |             | OCT 2024 |               |      |      |             |
|----------|---------------|------|------|-------------|----------|---------------|------|------|-------------|
| Day      | Twilight from | SR   | SS   | Twilight to | Day      | Twilight from | SR   | SS   | Twilight to |
| 2        | 0424          | 0458 | 1825 | 1859        | 2        | 0512          | 0545 | 1717 | 1750        |
| 7        | 0432          | 0506 | 1814 | 1847        | 7        | 0520          | 0553 | 1706 | 1739        |
| 12       | 0441          | 0514 | 1802 | 1836        | 12       | 0528          | 0601 | 1656 | 1729        |
| 17       | 0449          | 0522 | 1751 | 1824        | 17       | 0536          | 0609 | 1645 | 1719        |
| 22       | 0457          | 0529 | 1740 | 1813        | 22       | 0544          | 0618 | 1635 | 1709        |
| 27       | 0504          | 0537 | 1729 | 1801        | 27       | 0552          | 0626 | 1626 | 1700        |

| NOV 2024 |               |      |      |             | DEC 2024 |               |      |      |             |
|----------|---------------|------|------|-------------|----------|---------------|------|------|-------------|
| Day      | Twilight from | SR   | SS   | Twilight to | Day      | Twilight from | SR   | SS   | Twilight to |
| 1        | 0600          | 0635 | 1617 | 1651        | 1        | 0645          | 0723 | 1540 | 1618        |
| 6        | 0608          | 0644 | 1608 | 1643        | 6        | 0651          | 0730 | 1538 | 1616        |
| 11       | 0616          | 0652 | 1601 | 1636        | 11       | 0656          | 0735 | 1537 | 1616        |
| 16       | 0624          | 0700 | 1554 | 1630        | 16       | 0700          | 0739 | 1537 | 1617        |
| 21       | 0631          | 0708 | 1548 | 1625        | 21       | 0703          | 0742 | 1539 | 1619        |
| 26       | 0638          | 0716 | 1543 | 1621        | 26       | 0705          | 0744 | 1542 | 1622        |
|          |               |      |      |             | 31       | 0706          | 0745 | 1547 | 1626        |

## 2 LUXEMBOURG

Tables according to the ephemerides of LUXEMBOURG: ELLX, 493758N 0061359E.

| JAN 2024 |               |      |      |             | FEB 2024 |               |      |      |             |
|----------|---------------|------|------|-------------|----------|---------------|------|------|-------------|
| Day      | Twilight from | SR   | SS   | Twilight to | Day      | Twilight from | SR   | SS   | Twilight to |
| 1        | 0654          | 0734 | 1543 | 1623        | 5        | 0628          | 0704 | 1635 | 1710        |
| 6        | 0654          | 0733 | 1549 | 1628        | 10       | 0621          | 0656 | 1643 | 1718        |
| 11       | 0652          | 0731 | 1555 | 1634        | 15       | 0613          | 0647 | 1652 | 1726        |
| 16       | 0649          | 0728 | 1602 | 1640        | 20       | 0604          | 0638 | 1700 | 1734        |
| 21       | 0646          | 0723 | 1610 | 1647        | 25       | 0555          | 0629 | 1709 | 1742        |
| 26       | 0641          | 0718 | 1618 | 1655        |          |               |      |      |             |
| 31       | 0635          | 0711 | 1626 | 1702        |          |               |      |      |             |

| MAR 2024 |               |      |      |             | APR 2024 |               |      |      |             |
|----------|---------------|------|------|-------------|----------|---------------|------|------|-------------|
| Day      | Twilight from | SR   | SS   | Twilight to | Day      | Twilight from | SR   | SS   | Twilight to |
| 1        | 0545          | 0619 | 1717 | 1750        | 5        | 0430          | 0504 | 1812 | 1846        |
| 6        | 0535          | 0608 | 1725 | 1758        | 10       | 0419          | 0454 | 1820 | 1855        |
| 11       | 0525          | 0558 | 1733 | 1806        | 15       | 0408          | 0444 | 1827 | 1903        |
| 16       | 0514          | 0547 | 1741 | 1814        | 20       | 0358          | 0434 | 1835 | 1911        |
| 21       | 0503          | 0536 | 1749 | 1822        | 25       | 0347          | 0424 | 1843 | 1920        |
| 26       | 0452          | 0526 | 1757 | 1830        | 30       | 0338          | 0415 | 1850 | 1928        |
| 31       | 0441          | 0515 | 1804 | 1838        |          |               |      |      |             |



| MAY 2024 |               |      |      |             | JUN 2024 |               |      |      |             |
|----------|---------------|------|------|-------------|----------|---------------|------|------|-------------|
| Day      | Twilight from | SR   | SS   | Twilight to | Day      | Twilight from | SR   | SS   | Twilight to |
| 5        | 0328          | 0407 | 1858 | 1937        | 4        | 0248          | 0332 | 1935 | 2020        |
| 10       | 0319          | 0359 | 1905 | 1945        | 9        | 0245          | 0330 | 1939 | 2024        |
| 15       | 0311          | 0352 | 1912 | 1953        | 14       | 0243          | 0329 | 1942 | 2028        |
| 20       | 0304          | 0345 | 1919 | 2001        | 19       | 0243          | 0329 | 1944 | 2030        |
| 25       | 0257          | 0340 | 1925 | 2008        | 24       | 0245          | 0330 | 1945 | 2030        |
| 30       | 0252          | 0336 | 1930 | 2014        | 29       | 0247          | 0333 | 1944 | 2030        |

| JUL 2024 |               |      |      |             | AUG 2024 |               |      |      |             |
|----------|---------------|------|------|-------------|----------|---------------|------|------|-------------|
| Day      | Twilight from | SR   | SS   | Twilight to | Day      | Twilight from | SR   | SS   | Twilight to |
| 4        | 0251          | 0336 | 1943 | 2028        | 3        | 0331          | 0411 | 1911 | 1950        |
| 9        | 0256          | 0340 | 1940 | 2024        | 8        | 0339          | 0418 | 1903 | 1941        |
| 14       | 0302          | 0345 | 1936 | 2019        | 13       | 0347          | 0425 | 1854 | 1931        |
| 19       | 0309          | 0351 | 1931 | 2013        | 18       | 0355          | 0432 | 1845 | 1921        |
| 24       | 0316          | 0357 | 1925 | 2006        | 23       | 0404          | 0439 | 1835 | 1910        |
| 29       | 0323          | 0404 | 1918 | 1959        | 28       | 0411          | 0447 | 1825 | 1900        |

| SEP 2024 |               |      |      |             | OCT 2024 |               |      |      |             |
|----------|---------------|------|------|-------------|----------|---------------|------|------|-------------|
| Day      | Twilight from | SR   | SS   | Twilight to | Day      | Twilight from | SR   | SS   | Twilight to |
| 2        | 0419          | 0454 | 1814 | 1849        | 2        | 0505          | 0538 | 1709 | 1743        |
| 7        | 0427          | 0501 | 1803 | 1838        | 7        | 0513          | 0546 | 1659 | 1732        |
| 12       | 0435          | 0509 | 1753 | 1826        | 12       | 0520          | 0554 | 1648 | 1722        |
| 17       | 0442          | 0516 | 1742 | 1815        | 17       | 0528          | 0602 | 1638 | 1712        |
| 22       | 0450          | 0523 | 1731 | 1804        | 22       | 0535          | 0610 | 1629 | 1703        |
| 27       | 0457          | 0531 | 1720 | 1753        | 27       | 0543          | 0618 | 1619 | 1654        |

| NOV 2024 |               |      |      |             | DEC 2024 |               |      |      |             |
|----------|---------------|------|------|-------------|----------|---------------|------|------|-------------|
| Day      | Twilight from | SR   | SS   | Twilight to | Day      | Twilight from | SR   | SS   | Twilight to |
| 1        | 0551          | 0626 | 1611 | 1646        | 1        | 0634          | 0712 | 1536 | 1615        |
| 6        | 0558          | 0634 | 1603 | 1638        | 6        | 0639          | 0719 | 1534 | 1613        |
| 11       | 0606          | 0642 | 1555 | 1632        | 11       | 0644          | 0724 | 1533 | 1613        |
| 16       | 0613          | 0650 | 1549 | 1626        | 16       | 0648          | 0728 | 1534 | 1613        |
| 21       | 0621          | 0658 | 1543 | 1621        | 21       | 0651          | 0731 | 1536 | 1615        |
| 26       | 0627          | 0706 | 1539 | 1617        | 26       | 0653          | 0733 | 1539 | 1618        |
|          |               |      |      |             | 31       | 0654          | 0734 | 1543 | 1623        |

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# GEN 3 SERVICES

## GEN 3.1 Aeronautical Information Services

### 1 RESPONSIBLE SERVICES

AIM Belgium, skeyes, Belgian Defence and ANA are the responsible authorities to ensure the flow of information necessary for the safety, regularity and efficiency of international and national air navigation within the areas indicated below.

*Note: AIM Belgium is a service provided by skeyes in cooperation with Belgian Defence.*

The service is provided in accordance with the provisions contained in ICAO Annex 15 and ICAO PANS-AIM (Doc 10066).

#### 1.1 AIP Office (AIM Belgium)

Post: AIM Belgium  
AIP Office  
Control Tower  
Tervuursesteenweg 303  
1820 Steenokkerzeel  
BELGIUM  
AFS: EBVAYOYX  
Email: [ajp\\_production@skeyes.be](mailto:ajp_production@skeyes.be)

#### 1.2 Brussels NOF (skeyes)

Post: skeyes AIM  
International NOTAM Office  
Control Tower  
Tervuursesteenweg 303  
1820 Steenokkerzeel  
BELGIUM  
TEL: +32 (0) 2 206 25 30  
FAX: +32 (0) 2 206 25 29  
AFS: EBBRYNYN  
Email: [notam@skeyes.be](mailto:notam@skeyes.be)  
URL: [ops.skeyes.be](http://ops.skeyes.be)

#### 1.3 Steenokkerzeel NOF (Belgian Defence)

Post: Belgian Air Component  
Air Traffic Control Centre  
Sqn ATC / Flight AIM / NOF  
Tervuursesteenweg 303  
1820 Steenokkerzeel  
BELGIUM  
TEL: +32 (0) 2 442 23 75  
AFS: EBMIZGZF  
Email: [atcc-atc-flaim-nof@mil.be](mailto:atcc-atc-flaim-nof@mil.be)

#### 1.4 AIS Luxembourg (ANA)

Post: Administration de la navigation aérienne  
OPS Department  
BP 273  
L-2012 Luxembourg  
LUXEMBOURG  
TEL: +352 47 98 23 01 0  
FAX: +352 47 98 23 09 0  
AFS: ELLXZPZX  
Email: [AIM@airport.etat.lu](mailto:AIM@airport.etat.lu)

URL: [www.ana.gouvernement.lu](http://www.ana.gouvernement.lu)

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## 2 AREA OF RESPONSIBILITY

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### 2.1 AIM Belgium

AIM Belgium is responsible for the provision of the AIP (including AIP amendments and AIP supplements) and the AIC for Belgium and Luxembourg.

### 2.2 Skeyes

Skeyes is responsible for the origination and issuance of NOTAM in the Brussels FIR and for the provision of pre-flight information services in relation to route stages originating at the civil aerodromes and heliports in Belgium.

### 2.3 Belgian Defence

Belgian Defence is responsible for the origination and issuance of military NOTAM in the Brussels FIR and for the provision of pre-flight information services in relation to route stages originating at the military aerodromes and heliports in Belgium.

### 2.4 ANA

ANA is responsible for the collection of information for the entire territory of Luxembourg and its dissemination to AIM Belgium and skeyes for publication.

ANA is responsible for the provision of pre-flight information services in relation to route stages originating at the aerodromes and heliports in Luxembourg as well as the publication of SNOWTAM.

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## 3 AERONAUTICAL PUBLICATIONS

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The aeronautical information is provided in the form of the following aeronautical information products:

- Aeronautical Information Publication (AIP)
- AIP Amendments (AMDT)
- AIP Supplements (SUP)
- Aeronautical Information Circulars (AIC)
- NOTAM
- Aeronautical charts

### 3.1 Aeronautical Information Publication (AIP)

The AIP is the basic aviation document intended primarily to satisfy international requirements for the exchange of permanent aeronautical information and long duration temporary changes essential for air navigation.

The AIP is available in an electronic form that allows for printing on paper (eAIP), for use in international and domestic operations, whether the flight is a commercial or a private one. The text is in English only.

The eAIP is published on the operational website of skeyes ([ops.skeyes.be](http://ops.skeyes.be)).

### 3.2 AIP Amendments

Amendments to the eAIP are made by issuing a replacement eAIP. Each eAIP is allocated a separate serial number, which is consecutive and based on the calendar year. The year, indicated by four digits, is a part of the serial number.

A new eAIP is issued for each AIRAC effective date.

Each eAIP contains:

- The AIP including the AIRAC AIP amendment becoming effective on the eAIP effective date, if any;
- The AIP including the regular AIP amendment inserted on the eAIP effective date;
- A preview of the published AIRAC AIP amendments that are not yet effective, if any.

Amendment changes in the AIP are identified by a light blue (regular AIP amendment) or pink (AIRAC AIP amendment) background, whereby removed text is barred with a horizontal line. Each amendment is also available in an electronic form that allows for printing on paper.

AIRAC AIP amendments, issued in accordance with the AIRAC System (see also §4 below) and identified by the acronym "AIRAC", incorporate operationally significant permanent changes into the AIP on the indicated AIRAC effective date. Regular AIP amendments, issued in accordance with the established regular interval, incorporate other permanent changes into the AIP.

Each regular and AIRAC AIP amendment is allocated a separate serial number, which is consecutive and based on the calendar year. The year, indicated by four digits, is a part of the serial number of the amendment.

The publication schedule of the AIP amendments is published yearly in an AIP supplement.

### 3.3 AIP Supplements

Temporary changes of long duration (three months and longer) and information of short duration that consists of extensive text and/or graphics, supplementing the permanent information contained in the AIP, are published as AIP supplements.

AIP supplements are separated by information subject (GEN, ENR, AD) and are published in one package with the AIP. Each AIP supplement is allocated a separate serial number, which is consecutive and based on the calendar year. The year, indicated by four digits, is a part of the serial number of the AIP supplement.

An AIP supplement is kept in the AIP as long as all or some of its information remain valid. The period of validity of the information contained in the AIP supplement will normally be given in the AIP supplement itself. Alternatively, NOTAM may be used to indicate changes to the period of validity or cancellation of the AIP supplement.

The checklist of AIP supplements currently in force is published as part of the AIP (see [GEN 0.3](#)).

### 3.4 Aeronautical Information Circulars (AIC)

AIC contain information on the long-term forecast of any major change in legislation, regulations, procedures or facilities; information of a purely explanatory or advisory nature liable to affect flight safety and information or notification of an explanatory or advisory nature concerning technical, legislative or purely administrative matters.

AIC are published in one package with the AIP

Each AIC is allocated a separate serial number, which is consecutive and based on the calendar year. The year, indicated by four digits, is a part of the serial number of the AIC. A checklist of AIC currently in force is contained in the eAIP and a checklist is also issued as an AIC at least once per year.

### 3.5 NOTAM and Pre-flight Information Bulletins (PIB)

#### 3.5.1 NOTAM

NOTAM contain information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential for personnel concerned with flight operations. The text of each NOTAM contains the information in the order shown in the ICAO NOTAM format and is composed of the significations / uniform abbreviated phraseology assigned to the ICAO NOTAM code, complemented by ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, figures and plain language.

NOTAM are originated and issued for the Brussels FIR/UIR and are distributed in three series identified by the letters A, B, M and S:

- *Series A:* General international distribution.
- *Series B:* International distribution limited to Denmark, France, Germany, the Netherlands, Switzerland and the United Kingdom.
- *Series M:* Military NOTAM.
- *Series S (SNOWTAM):* Information concerning snow, slush, ice or standing water associated with snow, slush and ice in the movement areas. SNOWTAM are prepared in accordance with Appendix 4 of ICAO PANS-AIM.

*Note:* NOTAM series A, B and S are originated and issued by Brussels NOF. NOTAM series M are originated and issued by Steenokkerzeel NOF.

Each NOTAM will be allocated a series identified by a letter (A, B, M or S) and a four-digit number followed by a stroke and a two-digit number for the year (e.g. A0023/10). Each series starts on 1 JAN with number 0001.

*Note:* A checklist of valid NOTAM is issued monthly as a NOTAM.

#### 3.5.2 Pre-flight Information Bulletins (PIB)

PIB, which contain a recapitulation of current NOTAM and other information of urgent character for the operator / flight crews are available on the Belgian aerodromes, at ELLX and from the operational website of skeyes. The extent of the information contained in the PIB is listed in [§ 5](#).

### 3.6 Aeronautical Charts

Aeronautical charts are made available as specified in [GEN 3.2](#).

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## 4 AIRAC SYSTEM

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In order to control and regulate the operationally significant changes requiring amendments to charts, route-manuals etc., such changes – whenever possible – will be issued on predetermined dates according to the AIRAC system as an AIRAC AIP amendment.

The table below indicates the AIRAC effective dates for the coming years. AIRAC information will be issued so that the information will be available online at the latest 28 days before the effective date. At AIRAC effective dates, a trigger NOTAM

will be issued, giving a brief description of the contents and reference number of the AIRAC AIP amendment that becomes effective on that date. The trigger NOTAM remains in force as a reminder in the PIB for fifteen days after the effective date.

To provide additional advanced notification to professional users, each AIRAC AIP amendment will be posted in electronic format on the Eurocontrol AIS AGORA forum. This forum can be found on the following address:

URL: [www.eurocontrol.int/online-tool/aeronautical-information-forum](http://www.eurocontrol.int/online-tool/aeronautical-information-forum)

If no information was submitted for publication at the AIRAC date, a NIL notification will be issued by NOTAM not later than one AIRAC cycle before the AIRAC effective date concerned.

The publication schedule of the AIRAC AIP amendments will be published yearly in an AIP supplement.

| 2020   | 2021   | 2022   | 2023   | 2024   |
|--------|--------|--------|--------|--------|
| 02 JAN | 28 JAN | 27 JAN | 26 JAN | 25 JAN |
| 30 JAN | 25 FEB | 24 FEB | 23 FEB | 22 FEB |
| 27 FEB | 25 MAR | 24 MAR | 23 MAR | 21 MAR |
| 26 MAR | 22 APR | 21 APR | 20 APR | 18 APR |
| 23 APR | 20 MAY | 19 MAY | 18 MAY | 16 MAY |
| 21 MAY | 17 JUN | 16 JUN | 15 JUN | 13 JUN |
| 18 JUN | 15 JUL | 14 JUL | 13 JUL | 11 JUL |
| 16 JUL | 12 AUG | 11 AUG | 10 AUG | 08 AUG |
| 13 AUG | 09 SEP | 08 SEP | 07 SEP | 05 SEP |
| 10 SEP | 07 OCT | 06 OCT | 05 OCT | 03 OCT |
| 08 OCT | 04 NOV | 03 NOV | 02 NOV | 31 OCT |
| 05 NOV | 02 DEC | 01 DEC | 30 NOV | 28 NOV |
| 03 DEC | 30 DEC | 29 DEC | 28 DEC | 26 DEC |
| 31 DEC |        |        |        |        |

| 2025   | 2026   | 2027   | 2028   | 2029   |
|--------|--------|--------|--------|--------|
| 23 JAN | 22 JAN | 21 JAN | 20 JAN | 18 JAN |
| 20 FEB | 19 FEB | 18 FEB | 17 FEB | 15 FEB |
| 20 MAR | 19 MAR | 18 MAR | 16 MAR | 15 MAR |
| 17 APR | 16 APR | 15 APR | 13 APR | 12 APR |
| 15 MAY | 14 MAY | 13 MAY | 11 MAY | 10 MAY |
| 12 JUN | 11 JUN | 10 JUN | 08 JUN | 07 JUN |
| 10 JUL | 09 JUL | 08 JUL | 06 JUL | 05 JUL |
| 07 AUG | 06 AUG | 05 AUG | 03 AUG | 02 AUG |
| 04 SEP | 03 SEP | 02 SEP | 31 AUG | 30 AUG |
| 02 OCT | 01 OCT | 30 SEP | 28 SEP | 27 SEP |
| 30 OCT | 29 OCT | 28 OCT | 26 OCT | 25 OCT |
| 27 NOV | 26 NOV | 25 NOV | 23 NOV | 22 NOV |
| 25 DEC | 24 DEC | 23 DEC | 21 DEC | 20 DEC |

## 5 PRE-FLIGHT INFORMATION SERVICE AT AERODROMES / HELIPORTS

### 5.1 In Belgium

Pre-flight information is available at aerodromes as detailed below.

## 5.1.1 Civil Aerodromes

| AD   | TYPE          | BRIEFING COVERAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EBAW | Documentation | Belgium, Luxembourg, France, Germany, the Netherlands, United Kingdom and Spain via self-briefing terminals. Denmark, Switzerland paper copy AVBL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|      | PIB           | Worldwide coverage via self-briefing terminals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| EBBR | Documentation | Belgium, Luxembourg, France, Germany, the Netherlands, United Kingdom and Spain via self-briefing terminals<br><u>O/R to EBBR NOF:</u><br><b>Europe:</b> full coverage<br><b>Africa:</b> Algeria, ASECNA, Cape Verde, Egypt, Ghana, Kenya, Libya, Morocco, Nigeria, Democratic Republic of Congo, South Africa and Tunisia<br><b>Asia:</b> Bahrain, China, Hong Kong, India, Iran, Israel, Japan, Jordan, Korea, Kuwait, Lebanon, Oman, Saudi Arabia, Singapore, Syria, United Arab Emirates and Uzbekistan<br><b>North America:</b> Canada and the United States<br><b>South America and the Caribbean:</b> Cuba and Eastern Caribbean States |
|      | PIB           | Worldwide coverage via self-briefing terminals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| EBCI | Documentation | Belgium, Luxembourg, France, Germany, the Netherlands, United Kingdom and Spain via self-briefing terminals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|      | PIB           | Worldwide coverage via self-briefing terminals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| EBLG | Documentation | Belgium, Luxembourg, France, Germany, the Netherlands, United Kingdom and Spain via self-briefing terminals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|      | PIB           | Worldwide coverage via self-briefing terminals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| EBOS | Documentation | Belgium, Luxembourg, France, Germany, the Netherlands, United Kingdom and Spain via self-briefing terminals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|      | PIB           | Worldwide coverage via self-briefing terminals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

PIB are also delivered by FAX or via e-mail after request to Brussels NOF. Self-briefing is possible via the operational website of skeyes ([ops.skeyes.be](http://ops.skeyes.be)).

*Note: PIB via self-briefing terminals or via internet include only NOTAM not older than 250 days and "PERM" NOTAM not older than 90 days from their start of validity.*

### 5.1.2 Military Aerodromes

| AD   | TYPE                | BRIEFING COVERAGE                                                                                                                                                                                                                                                                                            |
|------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EBBE | Documentation (CIV) | Belgium, Luxembourg, France, Germany, the Netherlands and the United Kingdom.                                                                                                                                                                                                                                |
|      | Documentation (MIL) | Belgium, Luxembourg, France, Germany, the Netherlands and the United Kingdom.                                                                                                                                                                                                                                |
|      | PIB                 | Information at AIS office on request. <i>(coverage: see ATM instruction 5).</i>                                                                                                                                                                                                                              |
| EBFS | Documentation (CIV) | Belgium, Luxembourg, France, Germany and the United Kingdom.                                                                                                                                                                                                                                                 |
|      | Documentation (MIL) | Belgium, Luxembourg, France, Germany, Italy, Spain and the United Kingdom.                                                                                                                                                                                                                                   |
|      | PIB                 | Information at AIS office on request. <i>(coverage: see ATM instruction 5).</i>                                                                                                                                                                                                                              |
| EBBL | Documentation (CIV) | Belgium, Luxembourg, Denmark, France, Germany, Greece, the Netherlands, Norway, Slovakia, Turkey and the U.K.                                                                                                                                                                                                |
|      | Documentation (MIL) | Belgium, Luxembourg, the Czech Republic, Denmark, France, Germany, Greece, Italy, the Netherlands, Portugal, Spain and the U.K.                                                                                                                                                                              |
|      | PIB                 | Information at AIS office on request. <i>(coverage: see ATM instruction 5).</i>                                                                                                                                                                                                                              |
| EBFN | Documentation (CIV) | Belgium, Luxembourg, France, Germany, the Netherlands and the United Kingdom.                                                                                                                                                                                                                                |
|      | Documentation (MIL) | Belgium, Luxembourg, France, Germany, the Netherlands and the United Kingdom.                                                                                                                                                                                                                                |
|      | PIB                 | Information at AIS office on request. <i>(coverage: see ATM instruction 5).</i>                                                                                                                                                                                                                              |
| EBMB | Documentation (CIV) | Austria, Belgium, Luxembourg, China, the Czech Republic, Denmark, Egypt, Estonia, France, Germany, Greenland and the Faroe Islands, Kazakhstan, Latvia, Lithuania, Morocco, Moldova, the Netherlands, Norway, Poland, Russia, Serbia and Montenegro, Slovakia, Slovenia, Switzerland and the United Kingdom. |
|      | Documentation (MIL) | Belgium, Luxembourg, France, Germany, Italy, the Netherlands, Spain and the United Kingdom.                                                                                                                                                                                                                  |
|      | PIB                 | Information at AIS office on request. <i>(coverage: see ATM instruction 5).</i>                                                                                                                                                                                                                              |

### 5.2 In Luxembourg

Pre-flight information is available as detailed below.

| AD   | TYPE          | BRIEFING COVERAGE                              |
|------|---------------|------------------------------------------------|
| ELLX | Documentation | ECAC Member States                             |
|      | PIB           | Worldwide coverage. AVBL H24 at the ARO Office |

PIB are also delivered by FAX or via e-mail after request to Luxembourg ARO. Self-briefing is possible via the operational website of skeyes ([ops.skeyes.be](http://ops.skeyes.be)).

*Note: PIB via internet include only NOTAM not older than 250 days and "PERM" NOTAM not older than 90 days from their start of validity.*

## 6 ELECTRONIC TERRAIN AND OBSTACLE DATA

An area 1 electronic obstacle data set is available for Belgium as specified in [ENR 5.4](#).

A digital terrain model is available for Belgium from the Belgian National Geographical Institute. For details see:

URL: <https://www.geo.be/catalog/details/49c7af1e-0f35-11ed-ac71-186571a04de2?!=en>

## 7 EAD

Belgium and Luxembourg are fully migrated to the European AIS Database (EAD). The EAD may be consulted at the following address (free registration required):

URL: [www.ead.eurocontrol.int](http://www.ead.eurocontrol.int)



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## GEN 3.2 Aeronautical Charts

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### 1 RESPONSIBLE SERVICE

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The aeronautical charts are produced by AIM Belgium (see [GEN 3.1. AIP Office](#)).

The civil charts are prepared in accordance with the provisions contained in *ICAO Annex 4*. The military aeronautical charts are prepared in accordance with the provisions contained in *ICAO Annex 4* or in accordance with the provisions of CENOR.

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### 2 MAINTENANCE OF CHARTS

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The aeronautical charts are kept up to date by AIP amendments. The BEMIL FLIP charts are kept up to date by replacement. If incorrect information detected on published charts is of operational significance, it is corrected by NOTAM.

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### 3 PURCHASE ARRANGEMENTS

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The civil charts and selected military charts are included in the AIP.

Military users can obtain the military charts listed in [§ 5.2](#) from their local AIS office. En-route charts "Airspace 4500FT / FL195", "Airspace FL200 / UNL" and "Brussels FIR/UIR structure" are available on request at the AIS headquarters.

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### 4 AERONAUTICAL CHART SERIES AVAILABLE

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#### **Aerodrome Chart - ICAO:**

This chart contains detailed aerodrome data to provide flight crews with information that will facilitate the ground movement of aircraft from the aircraft stand to the runway and from the runway to the aircraft stand. It also provides essential operational information concerning the aerodrome.

#### **Aerodrome Ground Movement Chart - ICAO:**

This chart is produced for those aerodromes where, due to congestion of information, details necessary for the ground movement of aircraft along the taxiways to and from the aircraft stands and for the parking or docking of aircraft cannot be shown with sufficient clarity on the Aerodrome Chart - ICAO.

#### **Aircraft Parking/Docking Chart - ICAO:**

This chart is produced for those aerodromes where, due to the complexity of the terminal facilities, the information to facilitate the ground movement of aircraft between the taxiways and the aircraft stands and the parking or docking of aircraft cannot be shown with sufficient clarity on the Aerodrome Chart - ICAO or on the Aerodrome Ground Movement Chart - ICAO.

#### **Aerodrome Obstacle Chart - ICAO - Type A (operating limitations):**

This chart contains detailed information on obstacles in the take-off flight path areas of aerodromes. It is shown in plan and profile view. This obstacle information provides the data necessary to enable an operator to comply with the operating limitations as contained in *ICAO Annex 6*.

#### **Aerodrome Obstacle Chart - ICAO - Type B:**

This chart provides information to satisfy the following functions:

- The determination of minimum safe altitudes/heights, including those for circling procedures;
- The determination of procedures for use in the event of an emergency during take-off or landing;
- The application of obstacle clearing and marking criteria;
- The provision of source material for aeronautical charts.

#### **Precision Approach Terrain Chart - ICAO:**

This chart provides detailed terrain profile information within a defined portion of the final approach so as to enable aircraft operating agencies to assess the effect of the terrain on decision height determination by the use of radio altimeters. It is produced for all precision approach runways CAT II and III.

#### **En-route Chart - ICAO:**

This chart is produced for the Brussels FIR/UIR. It provides the flight crew with information that will facilitate navigation along ATS routes in compliance with ATS procedures.

#### **ATC Surveillance Minimum Altitude Chart - ICAO:**

This chart provides information which will enable flight crews to monitor and cross-check altitudes assigned by a controller using an ATS surveillance system.

#### **Standard Departure Chart - Instrument (SID) - ICAO:**

This chart is produced whenever a SID has been established and provides the flight crew with information that will enable them to comply with the designated SID from the take-off phase to the en-route phase.

**Standard Arrival Chart - Instrument (STAR) - ICAO:**

This chart is produced whenever a STAR has been established and provides the flight crew with information that will enable them to comply with the designated STAR from the en-route phase to the approach phase.

**Instrument Approach Chart - ICAO:**

This chart is produced for all aerodromes used for civil aviation where instrument approach procedures have been established. A separate Instrument Approach Chart - ICAO is provided for each approach procedure. It provides the flight crew with information that will enable them to perform an approved instrument approach procedure to the runway of intended landing, including the missed approach procedure and, where applicable, associated holding patterns.

**Visual Approach Chart - ICAO:**

This chart provides the flight crew with information that will enable them to transit from the en-route/descent phase to the approach phase and to perform an approach by means of visual reference to the runway of intended landing.

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## 5 LIST OF AERONAUTICAL CHARTS AVAILABLE

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### 5.1 Aeronautical Charts Contained in the AIP

#### 5.1.1 Aerodrome Charts - ICAO

See section AD 2.24 of relevant aerodromes/heliports.

#### 5.1.2 Aerodrome Ground Movement Charts - ICAO

See section AD 2.24 of relevant aerodromes/heliports.

#### 5.1.3 Aircraft Parking/Docking Charts - ICAO

See section AD 2.24 of relevant aerodromes/heliports.

#### 5.1.4 Aerodrome Obstacle Charts (- ICAO) - Type A

See section AD 2.24 of relevant aerodromes/heliports.

#### 5.1.5 Aerodrome Obstacle Charts - ICAO - Type B

See section AD 2.24 of relevant aerodromes/heliports.

#### 5.1.6 ATC Surveillance Minimum Altitude Charts - ICAO

See section AD 2.24 of relevant aerodromes/heliports.

#### 5.1.7 En-route Charts (- ICAO)

See [ENR 6](#).

#### 5.1.8 En-route Index Charts

See [ENR 6](#).

#### 5.1.9 Precision Approach Terrain Charts - ICAO

See section AD 2.24 of relevant aerodromes/heliports.

#### 5.1.10 Standard Departure Charts - Instrument (SID) - ICAO

See section AD 2.24 of relevant aerodromes/heliports.

#### 5.1.11 Standard Arrival Charts - Instrument (STAR) - ICAO

See section AD 2.24 of relevant aerodromes/heliports.

#### 5.1.12 Instrument Approach Charts - ICAO

See section AD 2.24 of relevant aerodromes/heliports.

#### 5.1.13 Visual Approach Charts - ICAO

See section AD 2.24 of relevant aerodromes/heliports.

### 5.2 BEMIL FLIP Charts

The Belgian Military Flight Information Publication booklets contain the military IFR and VFR flying procedures (BEMIL FLIP IFR and BEMIL FLIP VFR). These booklets are published as two volumes and are only available for Belgian military users.

**5.2.1 Aerodrome Layout / Radar**

- EBBE
- EBFS
- EBBL
- EBFN
- EBLG
- EBAW
- EBBR
- EBCI
- EBOS

**5.2.2 Aerodrome Ground Movement Charts**

- EBBE
- EBFS
- EBBL
- EBFN

**5.2.3 Instrument Departure Charts**

- EBBE
- EBFS
- EBBL
- EBFN

**5.2.4 Instrument Approach Charts**

- EBBE
- EBFS
- EBBL
- EBFN
- EBLG
- EBAW
- EBBR
- EBCI
- EBOS

**5.2.5 Visual Approach and Departure Charts**

- EBBE
- EBFS
- EBBL
- EBFN
- EBLG
- EBAW
- EBBR
- EBCI
- EBOS

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**6 INDEX TO THE WORLD AERONAUTICAL CHART (WAC) - ICAO 1:1000000**

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The WAC is not available for Belgium or Luxembourg.

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**7 TOPOGRAPHICAL CHARTS**

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Various topographical charts for Belgium can be obtained from the National Geographical Institute:

Post: IGN / NGI  
Service de Vente / Verkoopdienst  
Avenue de Cortenberg / Kortenberglaan 115  
1000 Brussels  
BELGIUM

TEL: +32 (0) 2 629 82 82

FAX: +32 (0) 2 629 82 83

URL: [www.ign.be](http://www.ign.be)

Military users can obtain the "Low-Air" Chart from COMOPSAIR, their local AIS or Mission Planning Office.

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## 8 CORRECTIONS TO CHARTS NOT CONTAINED IN THE AIP

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NIL

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## 9 MILITARY USE OF NAVIGATIONAL CHARTS

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For low-level flights military jet pilots shall use the latest edition of the Low Flying Chart 2<sup>nd</sup> series (LFC) 1:500 000. Sheets 1, 2, 4 and 5 give coverage of Belgium.

NOTAM and the Chart Amendment Document - GERMANY (CHAD-GER) shall be consulted for latest updates to sheets 1 and 2. The AAFCE Chart Amendment Low Flying (CALF) bulletin and NOTAM shall be consulted for latest updates to sheets 4 and 5.

Other than jet pilots can use the Belgian produced "Low-Air" Chart 1:250 000 (M-534) or the Transit Flying Chart (Low level) 2<sup>nd</sup> series (TFC(L)) sheets NM 31-2, NM 31-3, NM 31-5, NM 31-6, NM 31-9, NM 31-12 and NM32-4.

The AAFCE Chart Amendment Low Flying (CALF) bulletin and NOTAM shall be consulted for latest updates to all sheets except for sheet NM 32-4 which is updated by the CHAD-GER.

For the "Low-Air" Chart 1:250 000 there is no update in between the yearly publication cycle. Pilots are to consult AIP and NOTAM for the changes to the aeronautical information.

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## GEN 3.3 Air Traffic Services

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### 1 RESPONSIBLE SERVICES

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#### 1.1 Civil

Skeyes, ANA and Eurocontrol are the responsible authorities for the provision of air traffic services within the area indicated under § 2 below.

The services are provided in accordance with the provisions contained in the following ICAO documents:

- ICAO Annex 2. *Rules of the Air*
- ICAO Annex 11. *Air Traffic Services*
- ICAO Doc 4444. *Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM)*
- ICAO Doc 7030. *Regional Supplementary Procedures*
- ICAO Doc 8168. *Aircraft Operations (PANS-OPS)*

Differences to these provisions are detailed in section GEN 1.7.

##### 1.1.1 Skeyes

Post: skeyes  
DGS&O  
Tervuursesteenweg 303  
1820 Steenokkerzeel  
BELGIUM

TEL: +32 (0) 2 206 23 20

FAX: +32 (0) 2 206 22 21

AFS: EBVAZGZX

Email: [info@skeyes.be](mailto:info@skeyes.be)

URL: [www.skeyes.be](http://www.skeyes.be)

##### 1.1.2 ANA

###### 1.1.2.1 ANA ATC

Post: Administration de la navigation aérienne  
ATC Department  
BP 273  
L-2012 Luxembourg  
LUXEMBOURG

TEL: +352 47 98 24 00 1 (Head of TWR)

TEL: +352 47 98 24 00 4 (Head of APP)

FAX: +352 47 98 24 09 9 (TWR)

FAX: +352 47 98 24 09 0 (APP)

AFS: ELLXZTZX

Email: [info.dir@aeroport.public.lu](mailto:info.dir@aeroport.public.lu)

URL: [www.ana.gouvernement.lu](http://www.ana.gouvernement.lu)

###### 1.1.2.2 ANA ARO

Post: Administration de la navigation aérienne  
OPS Department – ARO division  
BP 273  
L-2012 Luxembourg  
LUXEMBOURG

TEL: +352 47 98 23 00 1 (Head of ARO)

TEL: +352 47 98 23 01 0 (ARO)

FAX: +352 47 98 23 09 0 (ARO)

AFS: ELLXZPZX

Email: [aro@airport.etat.lu](mailto:aro@airport.etat.lu)

URL: [www.ana.gouvernement.lu](http://www.ana.gouvernement.lu)

### 1.1.3 Eurocontrol

Post: Eurocontrol  
Maastricht UAC  
Horsterweg 11  
6199 AC Maastricht Airport  
THE NETHERLANDS  
TEL: +31 (0) 43 366 12 34  
FAX: +31 (0) 43 366 13 00  
AFS: EDYYZQZX  
Email: [masuac.info@eurocontrol.int](mailto:masuac.info@eurocontrol.int)  
URL: [www.eurocontrol.int/muac](http://www.eurocontrol.int/muac)

## 1.2 Military

Within Belgian Defence, Comopsair is the responsible authority for the provision of air traffic services to OAT (see [ENR 1.1](#)) within the area indicated under [§ 2.2](#) below.

Post: Defence  
Belgian Air Component - COMOPSAIR  
Air Operations Support (A 3.2)  
Kwartier Koningin Elisabeth  
Bldg 1  
Eversestraat / Rue d'Evere 1  
1140 Brussels  
BELGIUM  
TEL: +32 (0) 2 441 66 42  
Email: [comopsair-a3-air-ctrl-ops@mil.be](mailto:comopsair-a3-air-ctrl-ops@mil.be)

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## 2 AREA OF RESPONSIBILITY

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### 2.1 Civil

#### 2.1.1 Skeyes

Skeyes is responsible for the provision of air traffic services within the Brussels FIR/UIR up to and including FL245, with the exception of the airspace within which air traffic services are provided by ANA.

In some cases, delegated air traffic services are provided in airspace belonging to the Amsterdam, Langen and Paris FIR and the France UIR. Details of such services are provided in section [ENR 2.2](#).

#### 2.1.2 ANA

ANA is responsible for the provision of air traffic services within the territory of Luxembourg up to the upper limits of Luxembourg TMA One A and Luxembourg TMA One B.

In some cases, delegated air traffic services are provided in airspace of Belgium and in airspace belonging to the Langen, Reims and Paris FIR. Details of such services are provided in section [ENR 2.2](#).

#### 2.1.3 Eurocontrol

Eurocontrol Maastricht UAC is responsible for the provision of air traffic services within the Brussels UIR above FL245.

### 2.2 Military

Belgian Defence is responsible for the provision of air traffic services to OAT within the Brussels FIR/UIR.

In some cases, delegated air traffic services are provided in airspace belonging to the Amsterdam FIR, Paris FIR and France UIR. Details of such services are provided in section [ENR 2.2](#).

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## 3 TYPES OF SERVICES

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### 3.1 Civil

The following types of services are provided:

- Flight Information Service (FIS) and Alerting Service (ALRS);
- Area Control (ACC);
- Approach Control (APP).

The following types of services are provided at aerodromes:

- Aerodrome Control (TWR);
- Aerodrome Flight Information Service (AFIS);
- Automatic Terminal Information Service (ATIS);
- Alerting Service (ALRS);
- ATS Reporting Office (ARO).

At certain aerodromes basic information may be provided, consisting of advice and information useful for the safe and efficient conduct of flights while not subject to an air traffic service. Basic information shall not be considered to be equivalent to FIS. It may include:

- MET conditions;
- changes in the serviceability of facilities;
- AD conditions;
- general airspace activity;
- any other information likely to affect safety.

## 3.2 Military

When providing a radar service, controllers will, immediately after having identified the aircraft, notify pilots of the service they are provided with. Depending on the traffic situation, controllers may change the type of service. They will notify pilots of this. Pilots are to note that they are not in receipt of a radar service, until they are formally identified and notified of the type of service.

The following types of services are provided:

### 3.2.1 Radar Control (RC)

Radar control is an air traffic control radar service in which pilots are given mandatory instructions to enable the prescribed separation minima from other traffic to be maintained. These instructions will generally be associated with information on the conflicting traffic. No changes of heading or level are to be made without prior approval of the controller. The provision of RC will normally be restricted to flights within controlled airspace.

### 3.2.2 TRA Service (TRAS)

TRA Service is an air traffic control radar service in which pilots are given mandatory instructions in order to:

- Keep participating traffic (VFR and IFR) inside the published limits of its assigned reserved area;
- Enable the prescribed separation minima from other traffic to be maintained.

IFR traffic will be separated from VFR traffic and vice versa using the radar separation minima.

VFR traffic will be given traffic info towards other VFR traffic and traffic avoidance on request.

Responsibility for separation between participating aircraft inside the TRA lies with the pilots. 'Participating aircraft' are those flights for which a specific area has been booked for simultaneous use.

### 3.2.3 Radar Information Service (RIS)

Radar Information Service is an air traffic radar service provided to VFR flights, which assists pilots in their navigation.

In class C airspace, the VFR traffic will be informed of bearing, distance and, if available, level of any conflicting VFR traffic or obstacle known to the controller. Traffic avoidance advice will be provided on request. The pilot is responsible for maintaining the prescribed separation.

The controller has the authority to change the RIS into radar control to enable the prescribed separation minima to be maintained (VFR to IFR).

In Class G airspace, the VFR traffic will be informed of bearing, distance and, if available, level of any conflicting VFR traffic or obstacle known to the controller. The pilot is responsible for maintaining the prescribed separation whether the controller has called the conflicting traffic or obstacle or not.

### 3.2.4 Flight Information Service (FIS)

Flight Information Service is an air traffic service provided for the purpose of giving information for the safe and efficient conduct of flights.

### 3.2.5 Aerodrome Control Service

Aerodrome control service is an air traffic control service that shall issue, with or without the use of radar, information, clearances and instructions for sequencing to aircraft to achieve a safe, orderly and expeditious flow of air traffic on and in the vicinity of an aerodrome (pilots flying VFR are responsible for separation).

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#### **4 CO-ORDINATION BETWEEN THE OPERATOR AND ATS**

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Co-ordination between the operator and ATS is effected in accordance with *ICAO Annex 11*, chapter 2 and *ICAO Doc 4444*, chapter 8. For operational reasons, Belgian Defence may use non ICAO compliant procedures.

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#### **5 MINIMUM FLIGHT ALTITUDE**

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NIL.



**6 ATS UNITS ADDRESS LIST****6.1 Skeyes**

| ATS unit             | Postal address                                                                                                                   | TEL and FAX NR                                                                   | AFS address |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-------------|
| ANTWERPEN TWR        | skeyes<br>DGS&O/EBAW TWR<br>Luchthaven Antwerpen/Deurne<br>2100 Deurne<br>BELGIUM                                                | TEL: +32 (0) 3 285 69 08<br>TEL: +32 (0) 3 285 69 09<br>FAX: +32 (0) 3 281 29 84 | EBAWZTZX    |
| BRUSSELS ACC/APP/FIS | skeyes<br>DGS&O/CANAC<br>Tervuursesteenweg 303<br>1820 Steenokkerzeel<br>BELGIUM                                                 | TEL: +32 (0) 2 206 27 00<br>FAX: +32 (0) 2 206 27 09                             | EBBUZGZX    |
| BRUSSELS TWR         | skeyes<br>DGS&O/EBBR TWR<br>Tervuursesteenweg 303<br>1820 Steenokkerzeel<br>BELGIUM                                              | TEL: +32 (0) 2 206 25 10<br>FAX: +32 (0) 2 206 25 09                             | EBBRZTZX    |
| BRUSSELS ARO         | skeyes<br>DGI/AIM<br>Control Tower<br>Tervuursesteenweg 303<br>1820 Steenokkerzeel<br>BELGIUM                                    | TEL: +32 (0) 2 206 25 40<br>TEL: +32 (0) 2 206 25 41<br>FAX: +32 (0) 2 206 25 39 | EBBRZPZX    |
| CHARLEROI TWR/APP    | skeyes<br>DGS&O/EBCI TWR<br>Aéroport de Charleroi/Brussels South<br>6041 Gosselies<br>BELGIUM                                    | TEL: +32 (0) 71 25 12 13<br>FAX: +32 (0) 71 37 32 80                             | EBCIZTZX    |
| KORTRIJK AFIS        | skeyes<br>DGS&O/EBKT AFIS<br>Internationale Luchthaven Kortrijk Wevelgem<br>Luchthavenstraat 1 bus 1<br>8560 Wevelgem<br>BELGIUM | TEL: +32 (0) 56 36 20 44<br>TEL: +32 (0) 56 36 20 42                             | EBKTZPZX    |
| LIÈGE APP            | skeyes<br>DGS&O/EBLG APP<br>Aéroport civil de Liège<br>4460 Grâce-Hollogne<br>BELGIUM                                            | TEL: +32 (0) 4 234 84 23<br>FAX: +32 (0) 4 234 87 42                             | EBLGZGZA    |
| LIÈGE TWR            | skeyes<br>DGS&O/EBLG TWR<br>Aéroport civil de Liège<br>4460 Grâce-Hollogne<br>BELGIUM                                            | TEL: +32 (0) 4 234 84 92<br>FAX: +32 (0) 4 234 85 00                             | EBLGZGZT    |
| OOSTENDE TWR/APP     | skeyes<br>DGS&O/EBOS TWR<br>Internationale luchthaven Oostende-Brugge<br>8400 Oostende<br>BELGIUM                                | TEL: +32 (0) 59 55 14 90<br>FAX: +32 (0) 59 51 29 51                             | EBOSZTZX    |

## 6.2 ANA

| ATS unit       | Postal address                                                                                                         | TEL and FAX NR                                     | AFS address |
|----------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-------------|
| LUXEMBOURG TWR | Administration de la navigation aérienne<br>ATC Department - Tower<br>BP 273<br>L-2012 Luxembourg<br>LUXEMBOURG        | TEL: +352 47 98 24 00 1<br>FAX: +352 47 98 24 09 9 | ELLXZTZX    |
| LUXEMBOURG APP | Administration de la navigation aérienne<br>ATC Department - Approach<br>BP 273<br>L-2012 Luxembourg<br>LUXEMBOURG     | TEL: +352 47 98 24 00 4<br>FAX: +352 47 98 24 09 0 | ELLXZAZX    |
| LUXEMBOURG ARO | Administration de la navigation aérienne<br>OPS Department - ARO Division<br>BP 273<br>L-2012 Luxembourg<br>LUXEMBOURG | TEL: +352 47 98 23 01 0<br>FAX: +352 47 98 23 09 0 | ELLXZPZX    |

## 6.3 Eurocontrol

| ATS unit       | Postal address                                                                                  | TEL and FAX NR                                                               | AFS address |
|----------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------|
| MAASTRICHT UAC | EUROCONTROL<br>Maastricht UAC<br>Horsterweg 11<br>6199 AC Maastricht Airport<br>THE NETHERLANDS | TEL: +31 43 366 12 34<br>FAX: +31 43 366 13 00<br>INMARSAT: +871 761 619 227 | EDYYZQZX    |

## 6.4 Belgian Defence

| ATS unit                            | Postal address                                                                                    | TEL NR                   | AFS address |
|-------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------|-------------|
| BEAUVECHAIN TWR/APP<br>Supervisor   | Belgian Air Component<br>1W<br>Base Lt Col Avi Ch. Roman<br>1320 Beauvechain<br>BELGIUM           | TEL: +32 (0) 2 442 55 00 | EBBEZPZX    |
| FLORENNES TWR/APP<br>Supervisor     | Belgian Air Component<br>2 W TAC<br>Base J. Offenbergh<br>5620 Florennes<br>BELGIUM               | TEL: +32 (0) 2 442 62 90 | EBFSZPZX    |
| KLEINE-BROGEL TWR/APP<br>Supervisor | Belgian Air Component<br>10 W TAC<br>Vliegbasis Kleine-Brogel<br>3990 Peer<br>BELGIUM             | TEL: +32 (0) 2 443 31 35 | EBBLZPZX    |
| KOKSIJDE TWR/APP<br>Supervisor      | Belgian Air Component<br>Basis van Koksijde<br>R. Van Dammestraat, 10<br>8670 Koksijde<br>BELGIUM | TEL: +32 (0) 2 442 36 26 | EBFNZPZX    |

| ATS unit                           | Postal address                                                                                                 | TEL NR                                               | AFS address |
|------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------|
| STEENOKKERZEEL ATCC Supervisor     | Belgian Air Component<br>Air Traffic Control Centre<br>Tervuursesteenweg 303<br>1820 Steenokkerzeel<br>BELGIUM | TEL: +32 (0) 2 443 82 04                             |             |
| STEENOKKERZEEL Flight Data Section | Belgian Air Component<br>Air Traffic Control Centre<br>Tervuursesteenweg 303<br>1820 Steenokkerzeel<br>BELGIUM | TEL: +32 (0) 2 443 82 21                             |             |
| STEENOKKERZEEL ARO                 | Belgian Air Component<br>Air Traffic Control Centre<br>Tervuursesteenweg 303<br>1820 Steenokkerzeel<br>BELGIUM | TEL: +32 (0) 2 442 23 79                             | EBMIZGZF    |
| CRC ADNC                           | CRC Beauvechain<br>Rue de la Grande Lecke 5<br>1320 Beauvechain<br>BELGIUM                                     | TEL: +32 (0) 2 443 86 59                             |             |
| RCC Brussels                       | CRC Beauvechain<br>Rue de la Grande Lecke<br>1320 Beauvechain<br>BELGIUM                                       | TEL: +32 (0) 2 443 86 60<br>TEL: +32 (0) 2 443 47 69 | EBMIYCYX    |

## 7 STEENOKKERZEEL ATCC OPERATIONAL HOURS

Steenokkerzeel ATCC is providing ATS, except on HOL as published in [GEN 2.1, § 6](#), according to the following schedule:

1. 01 NOV till 28 or 29 FEB:
  - a. 0800 - 2030 on MON and TUE
  - b. 0730 - 1630 on WED, THU and FRI
2. 01 MAR till 31 MAY:
  - a. 0730 (0630) - 2300 (2200) on MON and TUE
  - b. 0730 (0630) - 1700 (1600) on WED, THU and FRI
3. 01 JUN till 31 AUG:
  - a. 0630 - 1600 on MON, TUE, WED, THU and FRI
4. 01 SEP till 31 OCT:
  - a. 0730 (0630) - 2300 (2200) on MON and TUE
  - b. 0730 (0630) - 1700 (1600) on WED, THU and FRI

Remarks:

- as from 1630 (1530) ATS will be provided only to Belgian OAT flights
- foreign OAT flights, requesting an airspace reservation, can be accepted according to the booking principles in [ENR 5.2, § 1.3](#)
- planned OAT flights outside these operational hours, see [ENR 1.1, § 2.1.2](#)
- during any additional opening outside the above mentioned operational hours (published by NOTAM), only planned OAT activities, QRA and EBFN activities will be accepted. More information can be obtained via ATCC SUPERVISOR
- under exceptional circumstances (contingencies, operations in the interest of national security, etc) COMOPSAIR can decide to activate Steenokkerzeel ATCC at short notice outside the normal operational hours and without NOTAM

## 8 CRC BEAUVECHAIN OPERATIONAL HOURS

CRC Beauvechain guarantees a minimum of 3 air defence control positions H24 in the Brussels FIR. The master controller has the authority to alter this number to maximum 5 in function of system status or manning.

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## GEN 3.4 Communication Services

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### 1 RESPONSIBLE SERVICES

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#### 1.1 Civil

Skeyes, ANA and Eurocontrol are the responsible authorities for the provision of telecommunication and navigation facility services within the areas indicated under § 2 below.

The services are provided in accordance with the provisions contained in the following ICAO documents:

- ICAO Annex 10. *Aeronautical Telecommunications*
- ICAO Doc 7030. *Regional Supplementary Procedures*
- ICAO Doc 7910. *Location Indicators*
- ICAO Doc 8400. *ICAO Abbreviations and Codes (PANS-ABC)*
- ICAO Doc 8585. *Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services*

##### 1.1.1 Skeyes

Post: skeyes  
DGS&O  
Tervuursesteenweg, 303  
1820 Steenokkerzeel  
BELGIUM  
TEL: +32 (0) 2 206 22 03  
FAX: +32 (0) 2 206 22 00  
Email: [info@skeyes.be](mailto:info@skeyes.be)  
URL: [www.skeyes.be](http://www.skeyes.be)

##### 1.1.2 ANA

Post: Administration de la Navigation Aérienne  
Service CNS  
BP 273  
L-2012 Luxembourg  
LUXEMBOURG  
TEL: +352 47 98 25 80 0  
FAX: +352 47 98 25 09 0  
Email: [cns\\_all@airport.etat.lu](mailto:cns_all@airport.etat.lu)  
URL: [www.ana.gouvernement.lu](http://www.ana.gouvernement.lu)

##### 1.1.3 Eurocontrol

Post: Eurocontrol  
Maastricht UAC  
Horsterweg 11  
6199 AC Maastricht Airport  
THE NETHERLANDS  
TEL: +31 (0) 43 366 12 34  
FAX: +31 (0) 43 366 13 00  
AFS: EDYYZQZX  
Email: [masuac.info@eurocontrol.int](mailto:masuac.info@eurocontrol.int)  
URL: [www.eurocontrol.int/muac](http://www.eurocontrol.int/muac)

#### 1.2 Military

Within Belgian Defence, Comopsair is the responsible authority for the provision of military telecommunication and navigation facility services within the area indicated under § 2.2 below.

Post: Defence  
Air Component - COMOPSAIR  
Air Operations Support (A 3.2)  
Kwartier Koningin Elisabeth  
Bldg 1  
Eversestraat / Rue d'Evere 1  
1140 Brussels  
BELGIUM

TEL: +32 (0) 2 701 17 04  
Email: [comopsair-a3-air-ctrl-ops@mil.be](mailto:comopsair-a3-air-ctrl-ops@mil.be)

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## 2 AREA OF RESPONSIBILITY

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### 2.1 Civil

#### 2.1.1 Skeyes

Skeyes is responsible for the provision of radio navigation and surveillance services within the territory of Belgium.

Skeyes is responsible for the provision of voice and data communications services within the area of responsibility of its air traffic services (see [GEN 3.3. § 2.1.2](#)).

*Note: Data link services are provided in cooperation with SITA, ARINC and Sat AIRCOM.*

#### 2.1.2 ANA

ANA is responsible for the provision of radio navigation and surveillance services within the territory of Luxembourg.

ANA is responsible for the provision of voice and data communication services within the area of responsibility of its air traffic services (see [GEN 3.3. § 2.1.2](#)).

#### 2.1.3 Eurocontrol

Eurocontrol Maastricht UAC is responsible for the provision of voice and data communication services within the Brussels UIR above FL245.

### 2.2 Military

Military communication services are provided for the Brussels FIR/UIR.

COMOPSAIR is responsible for the provision of military communications services within the area of responsibility of its air traffic services (see [GEN 3.3. § 2.2](#)).

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## 3 TYPE OF SERVICES

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### 3.1 Radio Navigation Services

The following types of radio aids for navigation are available:

- Non-directional radio beacon (NDB)
- VHF omnidirectional radio range (VOR) - Doppler VOR (DVOR)
- VHF direction-finding station (VDF)
- Instrument landing system (ILS)
- Distance measuring equipment (DME)
- UHF tactical air navigation aid (TACAN)
- Terminal area surveillance radar (TAR)
- Secondary surveillance radar (SSR)
- Surface movement radar (SMR)
- En-route surveillance radar (RSR)
- Global navigation satellite core constellations (GPS)
- Satellite based augmentation systems (EGNOS)

According to the judgement of the direction-finding station, bearings are classified as follows:

|         |                              |
|---------|------------------------------|
| Class A | Accurate within $\pm 2$ DEG  |
| Class B | Accurate within $\pm 5$ DEG  |
| Class C | Accurate within $\pm 10$ DEG |

Direction-finding stations have authority to refuse to give bearings or headings to steer when conditions are unsatisfactory or when bearings do not fall within the calibrated limits of the station, stating the reason at the time of refusal.

#### 3.1.1 Miscellaneous

Due to Clacton VOR/DME (CLN) operating on FREQ 114.550 MHZ / CH 92Y, aircraft equipped with receivers with channel spacing of 100 KHZ and flying in lower airspace may be subject to erroneous indications at the limit of the designated operational coverage of BUB (FREQ 114.600 MHZ) and KOK (FREQ 114.500 MHZ).

Consequently, it is recommended that these aircraft use only a coverage of 50 NM for BUB and 40 NM for KOK in the north sector of both stations between 270 and 090 degrees.

## 3.2 Voice and Fixed Services

### 3.2.1 Voice Service

The aeronautical stations maintain a continuous watch on their stated frequencies during the published hours of service unless otherwise notified.

An aircraft should normally communicate with the air-ground control radio station that exercises control in the area in which it is flying. Aircraft should maintain continuous watch on the appropriate frequencies of the control station and should not abandon watch, except in an emergency, without informing the control station.

On frequencies published as "guarded", a permanent listening watch is maintained during the responsible unit's operational hours. On frequencies published as "stand-by", no permanent listening watch is maintained.

### 3.2.2 Fixed Service

The messages to be transmitted over the AFS are accepted only if:

- they satisfy the requirements of *ICAO Annex 10*, volume 2, chapter 3
- they are prepared in the form specified in *ICAO Annex 10*
- the text of an individual message does not exceed 200 groups

## 3.3 Broadcasting Service

Sub-area meteorological broadcasts (VOLMET) are available H24 for use by aircraft in flight. Full details are given in [GEN 3.5, § 1.7](#).

At EBAW, EBBR, EBCI, EBLG, EBOS and ELLX, ATIS broadcasts are available to pass routine arrival and departure information. Full details are given in the relevant AD 2.18 and AD 2.23 sections.

*Note: In Belgium, voice toggling (male/female) is used in order to attract attention on the start of a new message.*

## 3.4 Data Link Service

### 3.4.1 Controller-Pilot Data Link Communication (CPDLC)

#### 3.4.1.1 General

The CPDLC application provides a means of communication between the air traffic controller and the pilot, using a predefined data link message set. This application includes a set of clearance/information/request message elements which correspond to the phraseologies used in the radiotelephony environment.

CPDLC services are available for all certified aircraft operating within the upper airspace (above FL245) of the Brussels UIR in the area under the responsibility of Maastricht UAC.

The following CPDLC services are provided in Maastricht UAC area of responsibility:

- DLIC (data link initiation capability)
- ACL (ATC clearances and instructions)
- ACM (ATC communications management)
- AMC (ATC microphone check)

The use of CPDLC is reserved for strategic clearances in this airspace and is conducted at the discretion of ATC.

In Brussels UIR (Maastricht UAC), it is mandatory for all flight crews of CPDLC-equipped and Eurocontrol NM Log On listed ATN aircraft to log on to EDYY.

Aircraft which do not qualify for NM DPMF Log ON Listing, should refrain from Log On attempts to avoid deterioration of the VDL Mode 2 performance.

If the pilot or ATC is of the opinion that CPDLC should no longer be used in the given circumstances, CPDLC shall be discontinued or terminated and the other party shall be informed about this by voice communication.

To increase acceptance and use of CPDLC, it is very important to confirm and execute all CPDLC Up Links promptly.

Flight crews shall ensure that they only execute UL instructions from the same ATC unit, they are in VHF contact as well.

#### 3.4.1.2 Registration and inclusion of air carriers on the Log On list

Air carriers wishing to conduct CPDLC in Brussels UIR shall register with the EUROCONTROL NM Data link Performance Monitoring at least four weeks prior to the AIRAC date before their first planned flight using data link.

Email: [dpmf@eurocontrol.int](mailto:dpmf@eurocontrol.int)

URL: [https://ext.eurocontrol.int/WikiLink/index.php/Main\\_Page](https://ext.eurocontrol.int/WikiLink/index.php/Main_Page)

No inquiries shall be made on the frequency. Contact for operational questions:

Post: MUAC Datalink Team  
Eurocontrol MAS-UAC  
NL-6191 AC Maastricht-Airport  
THE NETHERLANDS

Email: [masuac.datalink@eurocontrol.int](mailto:masuac.datalink@eurocontrol.int)

Technical issues can be reported to the Eurocontrol DLS CRO in the Jira ticket tool. Usage is described:  
[https://ext.eurocontrol.int/WikiLink/index.php/How\\_to\\_use\\_the\\_DLS\\_CRO\\_Issue\\_Management\\_Tool](https://ext.eurocontrol.int/WikiLink/index.php/How_to_use_the_DLS_CRO_Issue_Management_Tool)

### 3.4.1.3 **Flight Plan**

Pilots shall file their aircraft 24-bit address code in the flight plan item 18 "CODE/" (6 hexadecimal characters).

### 3.4.1.4 **CPDLC Use**

In the area of responsibility of Maastricht UAC, voice communication and radiotelephony instructions have priority over CPDLC instructions at all times. A clearance requested via CPDLC should subsequently be issued via CPDLC. A clearance requested via radiotelephony should also be issued via radiotelephony.

Only if the controller is asking explicitly for a voice read back, the following phrase should be used by the pilot: e.g. "Call sign -Confirming CPDLC climb FL370".

No CPDLC clearances shall be executed until the WILCO message has been sent.

If uncertainty arises regarding a data link message, voice communication shall be used. CPDLC exchanges with Maastricht UAC shall only be conducted when the aircraft is actually under control and responsibility of Maastricht UAC.

### 3.4.1.5 **DLIC log-on**

The data link address for Maastricht UAC is EDYY.

All data link-equipped aircraft included on the Eurocontrol NM Data link Performance Monitoring Log On white list which enter Maastricht UAC airspace are required to log on to EDYY as a secondary means of communication.

This improves safety in air traffic during VHF frequency interference and failures, adverse weather and traffic congestion. It also mitigates the consequences of a LOST COM.

Data link capability is displayed on the screens at Maastricht and the controllers will request appropriately equipped aircraft to LOG ON, CPDLC shall not be mentioned from the flight crew on the frequency.

Flight crews can expect to receive uplinks especially during periods of high traffic volume, and are requested to always confirm them as soon as possible with WILCO.

### 3.4.1.6 **CPDLC Services**

#### 3.4.1.6.1 **ATC Clearances and Instructions (ACL)**

Pilots may receive the uplink messages described via data link. Pilots may request changes to flight levels (ascent or descent) via data link or clearance direct to a point on their route.

#### 3.4.1.6.2 **ATC Communications Management (ACM)**

The pilot response to an ATC instruction to change the communication channel shall be WILCO. If the pilot is unable to comply with this data link instruction, he shall revert to voice communication to inform ATC.

When an aircraft is transferred by data link to an adjacent sector/ATS Unit, the pilot shall acknowledge the instruction by WILCO, and shall contact the next sector/ATS Unit by voice communication on the instructed channel.

#### 3.4.1.6.3 **ATC Microphone Check (AMC)**

A 'Check Stuck Microphone' instruction may be sent by ATC in circumstances where an aircraft is inadvertently blocking a voice communication channel. For FANS 1/A+ aircraft a ROGER response will be expected in response to this instruction.

If the 'Check Stuck Microphone' instruction relates to the RTF channel currently being used, the pilot shall check that the radio equipment is not causing the blockage. If the 'Check Stuck Microphone' instruction does not relate to the RTF channel being used, no further action by the pilot is required.

### 3.4.1.7 **Message Restrictions**

Pilots shall not use free-format free-text messages when communicating with Maastricht UAC via CPDLC. Use of such a free-text message will result in an error response.

### 3.4.1.8 **CPDLC Failure**

In case of a CPDLC failure, CPDLC clearances that have not yet been confirmed shall be repeated over radiotelephony and/or confirmed. If either the pilot or ATC consider that CPDLC should not be used in the prevailing circumstances, CPDLC shall be suspended or terminated and the other party shall be informed by voice communication.

In case of a scheduled shutdown or an unexpected failure of the CPDLC system, ATC will instruct all aircraft equipped with data link to return to voice communication. In case of an on board failure of CPDLC, the pilot shall return to voice communication and inform ATC.



### 3.4.1.9 CPDLC Messages

The controller or pilot shall construct CPDLC messages using the defined message set. The following uplink clearances and instructions may be expected when using CPDLC with Maastricht UAC:

- **ATC Uplink Clearances and Instructions, supported**
  - Vertical clearances:
    - MAINTAIN [level]
    - CLIMB TO [level]
    - DESCEND TO [level]
    - CLIMB TO REACH [level] BY [position]
    - DESCEND TO REACH [level] BY [position]
    - CLIMB TO [level], to cross [position] AT or ABOVE
    - DESCEND TO [level], to cross [position] AT or BELOW
  - Contact/monitor/surveillance requests:
    - CONTACT/MONITOR [unit name] [frequency]
    - SQUAWK [code]
    - SQUAWK IDENT
  - Lateral offsets:
    - RESUME OWN NAVIGATION
  - Route modifications:
    - PROCEED DIRECT TO [position]
    - CLEARED [route clearance]
    - CLEARED TO [position] VIA [route clearance]
  - Speed changes:
    - MAINTAIN [speed]
    - MAINTAIN PRESENT SPEED
    - MAINTAIN [speed] OR GREATER
    - MAINTAIN [speed] OR LESS
    - MAINTAIN NORMAL SPEED
  - Air traffic advisories:
    - CHECK STUCK MICROPHONE [frequency]
    - WHEN CAN YOU ACCEPT [level]
    - STATE PREFERRED LEVEL
    - STATE TOP OF DESCENT
  - Route modifications:
    - TURN [direction] HEADING [degrees]
    - FLY HEADING [degrees]
    - CONTINUE PRESENT HEADING
    - STATE TOP OF DESCENT

Pilots shall respond to all uplink clearances and instructions with the appropriate data link operational response, before manoeuvre execution.

- **Pilot Downlink Request**

The following downlink requests may be sent by pilots using CPDLC with Maastricht UAC:

- Vertical request:
  - REQUEST [level]
  - REQUEST CLIMB TO [level]
  - REQUEST DESCENT TO [level]
- Route modifications request:
  - REQUEST DIRECT TO [position]
- Speed requests:
  - REQUEST [speed]

When using CPDLC, the maximum dialogue time is 120 SEC. CPDLC shall only be used for non time critical requests, i.e. requests that do not require the immediate reaction of the controller. Nevertheless, as in radiotelephony, it is of paramount importance that the CPDLC messages shall be answered with the least possible delay. If the downlink request is cut off because the time limit was exceeded, the pilot should also repeat the request via radiotelephony.

### 3.4.2 D-VOLMET and D-ATIS

Digital VOLMET (D-VOLMET) and digital ATIS (D-ATIS) are available H24 via data link. The information provided is identical with the information provided through broadcasting (see § 3.3 above).

The system operates in accordance with specifications AEEC 622 and 623. Aircraft can interface with the service through the SITA and ARINC service providers' networks where available to aircraft.

Uplink messages will be formatted according to the line width indicated by the value of the avionics indicator contained in the down-linked request. Formatting of the up-linked information takes into account pre-defined rules intended to enhance the readability of the messages.

*Note 1: A single VOLMET message is provided for en-route (E) requests associated with EBAW, EBBR, EBCI, EBLG or EBOS.*

*Note 2: For EBBR a separate ATIS message is provided for arrival (A) or departure (D) requests; for EBAW, EBCI, EBLG and EBOS, a combined ATIS message is provided for arrival (A) or departure (D) requests. A continuous update sequence is generated for a contract (C) request and ended by a terminate (T) request, or else automatically timed out after 1 hour.*

D-VOLMET and D-ATIS information is also made available (for non-operational use only) in the following ways:

**Free dial-in voice service:**

TEL: +32 (0) 2 206 25 25

**Internet text service (registration required):**

URL: [ops.skeyes.be](https://ops.skeyes.be)

*Note: Message content should not differ from the airborne content (voice and text), but a small synchronisation lag may be noticed.*

### 3.5 Languages Used

#### 3.5.1 Civil

In the Brussels FIR/UIR English shall be used to contact ATS units providing ATC, FIS and AFIS.

#### 3.5.2 Military

In the Brussels FIR/UIR, for communication with military ATS, only English shall be used for the normal communication and flight safety messages.

### 3.6 Frequencies for gliding

| CHANNEL               | SERVICE | AREA    | DOC          |
|-----------------------|---------|---------|--------------|
| 122.385 (8.33 KHZ CH) | A/A     | Belgium | GND / FL 100 |
| 126.810 (8.33 KHZ CH) |         |         |              |
| 135.235 (8.33 KHZ CH) |         |         |              |

Users have to apply the most strictly as possible the limitations in levels and distances as mentioned above, to avoid interference of the other stations using the same channel to enable aircraft to exchange necessary operational information and to facilitate the resolution of operational problems.

Unless specifically approved by the Belgian CAA, these frequencies are not to be used for special events. Frequencies for special events shall continue to be requested through existing channels.

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## 4 REQUIREMENTS AND CONDITIONS

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NIL

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## 5 MISCELLANEOUS

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### 5.1 SUMMARY OF AFS ADDRESSES

#### 5.1.1 Belgium

##### 5.1.1.1 Civil

**SKEYES**

|     |          |
|-----|----------|
| AIM | EBVAYOYX |
| COM | EBBBYFYX |

**EBAW**

|             |          |
|-------------|----------|
| AD operator | EBAWYDYX |
| TWR         | EBAWZTZX |

**EBBR**

|                  |                     |
|------------------|---------------------|
| AD operator      | EBBRYDYX            |
| COM              | EBBBYFYX            |
| MET (Data Bank)  | EBBRYMYX - EBBRYZYX |
| NOF              | EBBRYNYN            |
| ARO              | EBBRZPZX            |
| ACC              | EBBUZGZX            |
| Operations (VFR) | EBBUZFZX            |
| Operations (IFR) | EBBUZQZX            |
| Operations (FMP) | EBBRFMPC            |
| TWR              | EBBRZTZX            |

**EBCI**

|             |          |
|-------------|----------|
| AD operator | EBCIYDYX |
| TWR         | EBCIZTZX |

**EBKT**

|      |          |
|------|----------|
| AFIS | EBKTZTZX |
|------|----------|

**EBLG**

|             |          |
|-------------|----------|
| AD operator | EBLGYDYX |
| MET         | EBLGYMYX |
| TWR/APP     | EBLGZTZX |

**EBOS**

|             |          |
|-------------|----------|
| AD operator | EBOSYDYX |
| TWR/APP     | EBOSZTZX |

**EBSP**

|                   |          |
|-------------------|----------|
| AD operator       | EBSPYDYX |
| Basic information | EBSPZTZX |

**5.1.1.2 Military****EBBE**

|         |          |
|---------|----------|
| W OPS   | EBBEZPZX |
| AIS CRC | EBGLZPZX |
| RCC     | EBMIYCYX |

**EBCV**

|          |                      |
|----------|----------------------|
| Base Ops | ETARYXYX<br>KRCHYXYX |
|----------|----------------------|

**EBFS**

|       |          |
|-------|----------|
| W OPS | EBFSZPZX |
|-------|----------|

**EBBL**

|       |          |
|-------|----------|
| W OPS | EBBLZPZX |
|-------|----------|

**EBFN**

|     |          |
|-----|----------|
| ATC | EBFNZPZX |
| RSC | EBFNZCYX |

**EBMB**

|       |          |
|-------|----------|
| W OPS | EBMBZPZX |
|-------|----------|

**STEENOKKERZEEL ATCC**

|     |          |
|-----|----------|
| NOF | EBMIZGZF |
| ARO | EBMIZGZF |

**5.1.2 Luxembourg**

**CAA**

|     |          |
|-----|----------|
| CAA | ELLXYAYX |
|-----|----------|

**ELLX**

|             |          |
|-------------|----------|
| AD operator | ELLXYDYX |
| COM         | ELLXYTYX |
| MET         | ELLXYMYX |
| AIS         | ELLXOYX  |
| ARO         | ELLXZPZX |
| TWR/APP     | ELLXZTZX |
| RSC         | ELLXYCYX |

**5.1.3 Eurocontrol**

|                 |          |
|-----------------|----------|
| UIC/UAC         | EDYYZQZX |
| CEU (West)      | EUCHCEUW |
| Network Manager | EUCHEUCX |
| ATFM            | EUCHZMTA |
| IFPU Brussels   | EUCHZMFP |
| IFPU Brétigny   | EUCBZMFP |

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## GEN 3.5 Meteorological Services

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### 1 CIVIL

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#### 1.1 Responsible Services

Skeyes and ANA are the meteorological service providers for international air navigation within the area indicated under § 1.2 below.

The services are provided in accordance with the provisions contained in the following ICAO documents:

- *Annex 3. Meteorological Service for International Air Navigation*
- *Doc 7030. Regional Supplementary Procedures*
- *Doc 7754. Air Navigation Plan. European Region*

Differences to these provisions are detailed in section GEN 1.7.

##### 1.1.1 Skeyes

Post: skeyes  
MET Department  
Tervuursesteenweg 303  
1820 Steenokkerzeel  
BELGIUM

TEL: +32 (0) 2 206 28 02

FAX: +32 (0) 2 206 28 09

Email: [meteo@skeyes.be](mailto:meteo@skeyes.be)

URL: [ops.skeyes.be](http://ops.skeyes.be)

##### 1.1.2 ANA

Post: Administration de la navigation aérienne  
MET Department - Forecast Office  
BP 273  
L-2012 Luxembourg  
LUXEMBOURG

TEL: +352 47 98 27 01 1

FAX: +352 47 98 27 09 0

Email: [info@meteo.public.lu](mailto:info@meteo.public.lu)

URL: [www.ana.gouvernement.lu](http://www.ana.gouvernement.lu) (ANA site)

URL: [www.meteolux.lu](http://www.meteolux.lu) (MET site)

AFS: ELLXYMYX

#### 1.2 Area of Responsibility

Skeyes is responsible for the provision of meteorological services within the Brussels FIR/UIR, with the exception of the airspace within which meteorological services are provided by ANA.

ANA is responsible for the provision of meteorological services within the territory of Luxembourg.

### 1.3 Meteorological Observations and Reports

| Name of station<br>Location<br>indicator | Type and<br>frequency of<br>observation/<br>automatic<br>observing<br>system | Types of MET<br>reports &<br>Supplementary<br>Information<br>included                                                                                | Observation system & Sites                                                                                                                                                                                                                                                                                                 | Hours of<br>operation                                                                                                                          | Climato-<br>logical<br>infor-<br>mation |
|------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| 1                                        | 2                                                                            | 3                                                                                                                                                    | 4                                                                                                                                                                                                                                                                                                                          | 5                                                                                                                                              | 6                                       |
| ANTWERPEN/<br>Deurne<br>EBAW             | Half hourly<br>plus special<br>observations                                  | METAR<br>MET REPORT<br>SPECIAL MET<br>REPORT<br>(AUTO METAR<br>AUTO MET REPORT<br>AUTO SPECIAL MET<br>REPORT) <sup>(1)</sup><br>TREND <sup>(2)</sup> | Windvector-sensor: THR 29 and THR 11.<br>Ceilometer: THR 29.<br>RVR measurement: forward scattermeters TDZ<br>RWY 29 and TDZ RWY 11.<br>Temperature: observation site.                                                                                                                                                     | During AD<br>OPR HR: MAN<br>reports issued<br>from EBAW or<br>EBBR (see<br><u>EBAW AD<br/>2.11</u> ).<br>Outside AD<br>OPR HR:<br>AUTO reports | AVBL <sup>(3)</sup>                     |
| BRUSSELS/<br>Brussels-National<br>EBBR   | Half hourly<br>plus special<br>observations                                  | METAR<br>MET REP<br>SPECIAL MET REP<br>TREND                                                                                                         | Windvector-sensor: see <u>AD 2.EBBR-ADC.01</u> .<br>Ceilometer: MM RWY 25L, MM RWY 01, THR<br>RWY 07L and THR RWY 25R.<br>RVR measurement: forward scattermeters TDZ,<br>MID and END of RWY 25R/07L, 25L/07R and<br>01/19.<br>Temperature: observation site.<br>Radar: airport centre (see <u>AD 2.EBBR-<br/>ADC.01</u> ). | H24                                                                                                                                            | AVBL <sup>(3)</sup>                     |
| CHARLEROI/<br>Brussels-South<br>EBCI     | Half hourly<br>plus special<br>observations                                  | METAR<br>MET REP<br>SPECIAL MET REP<br>TREND                                                                                                         | Windvector-sensor: THR 25 and THR 07.<br>Ceilometer: MM RWY 25 and THR RWY 07.<br>RVR measurement: forward scattermeter TDZ,<br>MID and END of RWY 25.<br>Temperature: observation site.                                                                                                                                   | H24                                                                                                                                            | AVBL <sup>(3)</sup>                     |
| KORTRIJK/<br>Wevelgem<br>EBKT            | Half hourly<br>plus special<br>observations                                  | METAR                                                                                                                                                | Windvector-sensor: observation site.<br>Ceilometer: observation site.<br>Temperature: observation site.<br>RVR measurement: NIL.                                                                                                                                                                                           | AD OPR HR                                                                                                                                      | Not<br>AVBL                             |
| LIÈGE/Liège<br>EBLG                      | Half hourly<br>plus special<br>observations                                  | METAR<br>MET REP<br>SPECIAL MET REP<br>TREND                                                                                                         | Windvector-sensor: THR RWY 22L and THR<br>RWY 04R.<br>Ceilometer: MM RWY 22L and TDZ of RWY<br>04R.<br>RVR measurement: forward scattermeters TDZ,<br>MID and END of RWY 22L and TDZ of RWY<br>22R.<br>Temperature: observation site.                                                                                      | H24                                                                                                                                            | AVBL <sup>(3)</sup>                     |
| LUXEMBOURG/<br>Luxembourg<br>ELLX        | Half hourly<br>plus special<br>observations                                  | METAR<br>MET REP<br>SPECIAL MET REP<br>TREND                                                                                                         | Windvector-sensor: THR 06, THR 24 and in the<br>middle of RWY 24.<br>Ceilometer: RWYs 06 and 24.<br>RVR measurement: points A, B and C of RWY<br>24.<br>Temperature: observation site.                                                                                                                                     | H24                                                                                                                                            | AVBL <sup>(4)</sup>                     |
| OOSTENDE-<br>BRUGGE/<br>Oostende<br>EBOS | Half hourly<br>plus special<br>observations                                  | METAR<br>MET REP<br>SPECIAL MET REP<br>TREND                                                                                                         | Windvector-sensor: THR RWY 26 and THR<br>RWY 08.<br>Ceilometer: MM RWY 26 and THR RWY 08.<br>RVR measurement: forward scattermeters TDZ,<br>MID and END of RWY 26.<br>Temperature: observation site.                                                                                                                       | H24                                                                                                                                            | AVBL <sup>(3)</sup>                     |
| SAINT-HUBERT/<br>Saint-Hubert<br>EBSH    | Half hourly                                                                  | AUTO METAR <sup>(1)</sup>                                                                                                                            | Windvector-sensor: THR NW.<br>Ceilometer: observation site.<br>Temperature: observation site.<br>RVR measurement: NIL.                                                                                                                                                                                                     | H24<br>(Unmanned<br>station)                                                                                                                   | AVBL <sup>(3)</sup>                     |
| SPA/La<br>Sauvinière<br>EBSP             | Half hourly                                                                  | AUTO METAR <sup>(1)</sup>                                                                                                                            | Windvector-sensor: 180M right side axis RWY<br>05.<br>Ceilometer: observation site.<br>Temperature: observation site.<br>RVR measurement: NIL.                                                                                                                                                                             | H24<br>(Unmanned<br>station)                                                                                                                   | AVBL <sup>(3)</sup>                     |

Note 1: When automated meteorological reports are provided, cumulonimbus clouds (CB), towering cumulus clouds (TCU) and thunderstorm (TS) are not included due to technical reasons.

Note 2: When automated meteorological reports are provided, no TREND forecast is included in the report.

Note 3: Aeronautical climatological information for aerodromes is available on request via the operational website of skeyes (request form available on [ops.skeyes.be](http://ops.skeyes.be), costs may be charged.)

Note 4: Aeronautical climatological information shall be requested via TEL (+352 47 98 27 00 3), FAX (+352 47 98 27 09 1), email ([climatologie@airport.etat.lu](mailto:climatologie@airport.etat.lu)), AFS (ELLXYMYX) or post (see [GEN 1.1, § 2.2](#)).

## 1.4 Types of Services

### 1.4.1 General

Personal briefing and consultation for flight crew members are provided at EBAW, EBCI, EBLG, EBOS and ELLX.

For all other civil aerodromes in Belgium (incl EBBR), briefing and consultation is available by telephone.

Flight documentation for flights from aerodromes in Belgium is supplied to operators and flight crew via self-briefing terminals in dedicated crew-rooms or via internet (operational website of skeyes accessible after registration). In case of problems or specific questions, please contact the local Aerodrome Meteorological Offices (AMO).

Note: Charges for telephone briefings and consultations may apply.

Details of the AMO and the meteorological information available are given in [§ 1.3](#) and in section AD 2.11.

For ELLX, a weather bulletin is available to the users via the MeteoLux website and through a polling system:

URL: [www.meteolux.lu](http://www.meteolux.lu)

FAX: +352 47 98 27 09 0

### 1.4.2 Meteorological Info for International Scheduled Air Traffic

Meteorological information for international scheduled air traffic normally consists of documentation and if necessary briefing/consultation.

The documentation is supplied to the pilot-in-command via self-briefing terminal or via airport operators.

The flight documentation consists generally of:

- Meteorological aerodrome reports: METAR;
- Aerodrome forecasts in TAF-form;
- Forecast of en-route conditions in form of charts (significant weather charts);
- Upper winds-and temperature-forecasts in chart form (for one or more isobaric standard levels best adapted to the flights concerned (3 levels MAX));
- SIGMET;
- AIRMET;
- Relevant Special Air Reports;
- Volcanic Ash Advisories, Tropical Cyclone Advisories and Space Weather Advisories.

The AMO at the aerodrome of departure can supply the pilot-in-command with a detailed oral explanation of the existing situation and the expected weather conditions during the flight and also with a forecast for take-off that can be requested MAX 3 hours before departure. At EBBR and EBCI, this consultation can only be obtained via telephone.

### 1.4.3 Meteorological Info for General Aviation

Meteorological information for General Aviation is normally supplied upon request by a pilot as briefing directly or by telephone.

Flight documentation is available via self-briefing terminal or via internet (operational website of skeyes accessible after registration).

In Belgium, for special activities such as glider flying, ballooning, VFR flights, low level private and business aviation, weather charts, special bulletins, etc. are available to the users via the skeyes website (after registration).

Briefing, consultation and information about these special activities may be obtained on request via CONSULTEL:

TEL: 0902 / 88 173 (charges apply).

In Luxembourg, information for glider flying, ballooning, VFR flights, low-level private and business aviation are available by phone.

#### 1.4.3.1 GAMET Area forecast for Low-level Flights

A GAMET Area Forecast is available at set timings and provides information about the following elements:

- A. Section I: Weather phenomena hazardous to low-level flights:
- Strong surface wind speed (>30KT);
  - Low surface visibility (≤5KM) + weather;
  - Significant weather phenomena;
  - Significant clouds;
  - Icing;
  - Turbulence;

- Applicable SIGMET.
- B. Section II: Additional information required by low-level flights:
  - Synopsis;
  - Surface wind speed (>30KT);
  - Winds and temperature at 1000, 2000, 5000 and 10000FT;
  - Surface visibility;
  - Clouds;
  - Freezing level;
  - MNM QNH;
  - Outlook:

| Availability |         | Validity period |
|--------------|---------|-----------------|
| (UTC)        | Outlook |                 |
| 2100         | 00-06   | +6              |
| 0300         | 06-12   | +6              |
| 0900         | 12-18   | +6              |
| 1500         | 18-24   | +6              |

The GAMET is accessible via the operational website of skeyes (after registration).

#### 1.4.3.2 Significant Weather Chart - Low Level (SWC - LL)

Periodically a SWC-LL covering the Brussels FIR will be made available. This chart is a prognostic chart for the low-level flights and gives areas with similar characteristics about:

- Visibility;
- Weather;
- Clouds;
- Turbulence and icing;
- Zero degree level.

Fronts and pressure centres with direction of movement, convergence lines, low-level jets, widespread strong surface winds and squall lines are given on the maps by means of the appropriate international symbols.

| Availability (UTC) | Validity time      |
|--------------------|--------------------|
| 0200               | 0600 (0430 - 0730) |
| 0500               | 0900 (0730 - 1030) |
| 0800               | 1200 (1030 - 1330) |
| 1100               | 1500 (1330 - 1630) |
| 1400               | 1800 (1630 - 1930) |

The SWC-LL is accessible via the operational website of skeyes (after registration).

## 1.5 Notification Required from Operators

The service required for a non-scheduled flight shall be requested with a prior notice sufficient for the preparation of the briefing and documentation (a 2 HR notice is generally sufficient for an ordinary flight).

## 1.6 Aircraft Reports

The meteorological office at the aerodrome of departure or arrival in Belgium should be informed as soon as possible (via the appropriate ATC communication channels) when the following weather phenomena are encountered during the climb-out, en route or approach phases of the flight:

- Moderate or severe icing;
- Moderate or severe turbulence;
- Moderate or severe wind shear;
- Volcanic ash;
- Thunderstorm (with/without hail);
- Other meteorological conditions when they, in the opinion of the pilot-in-command, may affect the safety of other aircraft operations.



**1.7 VOLMET Service**

| Name of station | Call sign Identification (EM) | FREQ (MHZ)            | Broadcast period | Hours of service | Aerodromes included                                                  | Contents and format of REP and FCST and remarks |
|-----------------|-------------------------------|-----------------------|------------------|------------------|----------------------------------------------------------------------|-------------------------------------------------|
| 1               | 2                             | 3                     | 4                | 5                | 6                                                                    | 7                                               |
| BRUSSELS        | Brussels MET Broadcast (A3E)  | 127.805 (8.33 KHZ CH) | H24              | CNS              | EBBR<br>EBOS<br>EGLL<br>ELLX<br>EHAM<br>LFPO<br>EDDF<br>EDDK<br>EDDL | METAR, TREND                                    |

**1.8 SIGMET and AIRMET Service****1.8.1 General**

For the safety of air traffic, the Meteorological Watch Office (MWO) maintains a continuous watch over meteorological conditions affecting flight operations within the Brussels FIR. In case of occurrence or expected occurrence of special meteorological phenomena, which may endanger safety and efficiency of flight operations, SIGMET and AIRMET information is issued.

Furthermore, aerodrome warnings are issued to operators, in accordance with local arrangements, by all AMO.

**1.8.2 Area Meteorological Watch Service**

SIGMET and AIRMET information are provided by the Brussels AMO and disseminated internationally as well as nationally. SIGMET information is valid for the entire Brussels FIR and refers to the following phenomena:

- Obscured, embedded, frequent, squall line thunderstorms (with/without hail);
- Severe icing;
- Severe turbulence;
- Radioactive cloud;
- Volcanic ash.

AIRMET information is valid for the entire Brussels FIR from surface up to level FL100 and will be issued if one of the following phenomena is not forecast in the section I of the GAMET:

- Occasional, isolated thunderstorms (with/without hail);
- Moderate icing;
- Moderate turbulence;
- Surface wind speed >30KT;
- Surface visibility <5KM;
- Broken or overcast clouds with base below 1000 FT AGL.

**1.8.3 Aerodrome Warning Service**

Local meteorological warnings referring to a certain airport and its vicinity are being provided by the local meteorological centres. These warnings refer to the occurrence or expected occurrence of one or more of the following phenomena:

- Thunderstorm;
- Squall line;
- Strong surface wind and gusts;
- Hail;
- Hoar frost or rime;
- Snow;
- Freezing precipitation;
- Freezing fog;
- Volcanic ash;
- Toxic chemicals;
- Funnel cloud.

The aerodrome warnings are issued in English and are distributed in accordance with a distribution list agreed upon locally. Lightning warnings are also provided to aerodrome operators.

## 1.9 Other Automated Meteorological Services

| Service name                                      | Information available                                                                                                                                                                    | Area, route and aerodrome coverage         | Telephone numbers, websites, remarks             |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------------|
| 1                                                 | 2                                                                                                                                                                                        | 3                                          | 4                                                |
| Meteorological Information Self-briefing Terminal | OPMET (TAF, METAR, SIGMET, ...), satellite imagery, weather-radar info, analysis charts of MSL pressure; FCST charts, SIGWX charts, aviation weather warning, UWT charts, time series... | Europe, Worldwide international aerodromes | Contact local AMO                                |
| Internet website                                  | OPMET (TAF, METAR, SIGMET,...), satellite imagery, weather-radar info, analysis charts of MSL pressure; FCST charts, SIGWX charts, aviation weather warning, UWT charts, time series...  | Europe, Worldwide international aerodromes | <a href="http://ops.skeyes.be">ops.skeyes.be</a> |
| Brussels EUROPMET Databank                        | METAR, TAF, SIGMET, AIRMET, volcanic ash advisories, other GA meteorological information                                                                                                 | Europe, Worldwide international aerodromes | access via AFS with ICAO OPMET query language    |

### 1.9.1 Meteorological Information Self-briefing Terminal (MIST)

Meteorological Information Self Briefing terminal are available at any Flight Briefing Unit. Contact the local AMO for details.

### 1.9.2 Internet Website

A dedicated website ([ops.skeyes.be](http://ops.skeyes.be)) is available, requiring user-name and password. These can be obtained online for aeronautical users residing in Belgium.

### 1.9.3 Brussels EUROPMET Databank

#### 1.9.3.1 General

To serve the aviation community, the Brussels databank supplies actual OPMET data for flight services. The Brussels databank is one of the three European ICAO EUR OPMET databanks.

The use of the databank is only for aviation purposes and commercial use for third parties is not allowed.

The Brussels EUR OPMET Databank is managed and operated by skeyes (H24):

Post: skeyes DGI/MET  
EUR OPMET Databank  
Tervuursesteenweg 303  
1820 Steenokkerzeel  
BELGIUM

Email: [metsysadmin@skeyes.be](mailto:metsysadmin@skeyes.be)

AFS: interrogation - automatic response:

- AFTN: EBBRYZYX (requests for data in TAC format only)
- AMHS: /C=XX/A=ICAO/P=BELGIUM/O=EBBR/OU1=EBBR/CN=EBBRYZYA (requests for data in TAC or IWXXM format)

#### 1.9.3.2 Contents

The EUR OPMET Database Catalogue consists of lists of OPMET products that are required to be available, in the ICAO EUR OPMET Databases, following the requirements by the ICAO EUR Air Navigation Plan (EUR ANP).

These requirements are:

- for message types METAR/SPECI, FT TAF and FC TAF:  
Table MET II-2 Volume II of the ICAO Regional Air Navigation Plans (eANP).
- for SIGMET messages:  
all FIR, as listed in the Regional SIGMET Guides. These documents are available via the regional ICAO websites; for the EUR/NAT region ([www.icao.int/eurnat/Pages/welcome.aspx](http://www.icao.int/eurnat/Pages/welcome.aspx)).

#### 1.9.3.3 Access Procedures

Access via AFTN/AMHS.

For details on the access procedures, data types and the EUR OPMET Databank query language, see *Appendix A (Interface Control Document) - ICAO EUR Doc-018: EUR OPMET Data management handbook*. This document is available on the ICAO EUR/NAT website:

URL: [www.icao.int/eurnat/Pages/welcome.aspx](http://www.icao.int/eurnat/Pages/welcome.aspx)

*Note: Access procedures shall be strictly applied.*

## 2 MILITARY

### 2.1 Responsible Service

The National Military Meteorological Centre (NMMC) is the meteorological service provider for military air navigation within the area indicated under § 2.2 below.

Post: Defence  
Air Component - COMOPSAIR  
Meteo Wing  
Base Charles Roman  
Rue de la Grande Lecke 1  
1320 Beauvechain  
BELGIUM

TEL: +32 (0) 2 442 54 24  
TEL: +32 (0) 2 442 54 34  
Email: [meteow-bmgt@mil.be](mailto:meteow-bmgt@mil.be)

### 2.2 Area of Responsibility

The NMMC is responsible for the provision of military meteorological services within the Brussels FIR/UIR.

### 2.3 Meteorological Offices

#### 2.3.1 National Military Meteorological Centre (NMMC)

The NMMC is competent to (H24):

- provide and obtain forecasts and other relevant information for flights that are concerned;
- provide an amendment service to forecasts;
- supply meteorological information and provide briefings and documentation to aeronautical personnel;
- disseminate meteorological information required by a dependent meteorological office or meteorological observation station;
- exchange meteorological information with other NMMCs, civil and allied meteorological offices.

#### 2.3.2 Dependent Meteorological Office (DMO)

A DMO is competent to:

- prepare and obtain forecasts under the guidance of the NMMC for flights that are concerned;
- supply meteorological information and provide briefings and documentation to aeronautical personnel;
- have forecasting capability for local meteorological conditions.

#### 2.3.3 Meteorological Observation Station (MOS)

A MOS is competent to:

- make synoptic and aeronautical observations;
- make meteorological reports and transmit these reports to the NMMC.

A MOS may be an independent station or may be part of a DMO.

#### 2.3.4 Address of National Military Meteorological Centre

| Location indicator<br>Name / type of unit                         | Hours of operation | Additional information:                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EBWM<br>Beauvechain Weather Military Centre / NMMC<br>(see § 2.1) | H24                | Post: Meteo Wing<br>Base Charles Roman<br>Rue de la Grande Lecke 1<br>1320 Beauvechain<br>BELGIUM<br><br>TEL: +32 (0) 2 442 58 02<br>TEL: +32 (0) 473 83 91 08<br>AFS: EBWMYMYX<br>Email: <a href="mailto:meteow-ops-meteoc@mil.be">meteow-ops-meteoc@mil.be</a><br><br>Language used: En - Fr - NI |

The Beauvechain Military Weather Centre is the associated NMMC of the following meteorological units.

## 2.4 Meteorological Observations and Reports

| Name of Station -<br>Location indicator<br>/ type of unit                                                                                                                                       | Observations |                 |         | Hours of operation                                                                                                         | Reports                                                                                                                                                                                           | Supplementary<br>information |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------|---------|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
|                                                                                                                                                                                                 | hourly       | half-<br>hourly | special |                                                                                                                            |                                                                                                                                                                                                   |                              |
| 1                                                                                                                                                                                               | 2            | 3               | 4       | 5                                                                                                                          | 6                                                                                                                                                                                                 | 7                            |
| BEAUVECHAIN -<br>EBBE / DMO - MOS                                                                                                                                                               | x            | x               | x       | DMO: MON to FRI, 0500-1700<br>(0400-1600) (night flight:<br>2300(2200))<br>MOS: H24 (manual if Air OPS;<br>AUTO if no OPS) | (AUTO-)SYNOP,<br>(AUTO-)METAR,<br>(AUTO-)SPECI,<br>TAF                                                                                                                                            | TREND/CSF                    |
| <b>Observation systems and site:</b><br>1. Windvector-sensor: THR 22 and THR 04<br>2. Ceilometer: observation site<br>3. Temperature: observation site<br>4. Visibility meter: observation site |              |                 |         |                                                                                                                            | <b>Additional information:</b><br>TEL: +32 (0) 2 442 54 97<br>AFS: EBBEYMYX<br>Email: <a href="mailto:meteow-ops-metsta-1w@mil.be">meteow-ops-metsta-1w@mil.be</a><br>Language used: En - Fr - NI |                              |

| Name of Station -<br>Location indicator<br>/ type of unit                                                                                                                                      | Observations |                 |         | Hours of operation    | Reports                                                                                                                                                                                                              | Supplementary<br>information |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------|---------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
|                                                                                                                                                                                                | hourly       | half-<br>hourly | special |                       |                                                                                                                                                                                                                      |                              |
| 1                                                                                                                                                                                              | 2            | 3               | 4       | 5                     | 6                                                                                                                                                                                                                    | 7                            |
| CHIEVRES - EBCV /<br>MOS                                                                                                                                                                       | x            | x               | x       | H24 (Fully AUTO mode) | AUTO-SYNOP,<br>AUTO-METAR,<br>AUTO-SPECI, TAF                                                                                                                                                                        |                              |
| <b>Observation systems and site:</b><br>1. Windvector-sensor: observation site<br>2. Ceilometer: observation site<br>3. Temperature: observation site<br>4. Visibility meter: observation site |              |                 |         |                       | <b>Additional information:</b><br>TEL: +32 (0) 2 442 58 02 (Meteo<br>Wing - MeteoC)<br>AFS: EBCVYMYX<br>Email: <a href="mailto:meteow-ops-meteoc@mil.be">meteow-ops-meteoc@mil.be</a><br>Language used: En - Fr - NI |                              |

| Name of Station -<br>Location indicator<br>/ type of unit                                                                                                                                                          | Observations |                 |         | Hours of operation    | Reports                                                                                                                                                                                                              | Supplementary<br>information |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------|---------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
|                                                                                                                                                                                                                    | hourly       | half-<br>hourly | special |                       |                                                                                                                                                                                                                      |                              |
| 1                                                                                                                                                                                                                  | 2            | 3               | 4       | 5                     | 6                                                                                                                                                                                                                    | 7                            |
| ELSENBORN - EBLB<br>/ MOS                                                                                                                                                                                          | x            | x               | x       | H24 (Fully AUTO mode) | AUTO-SYNOP,<br>AUTO-METAR,<br>AUTO-SPECI                                                                                                                                                                             |                              |
| <b>Observation systems and site:</b><br>1. Windvector-sensor: near center RWY 04-22<br>2. Ceilometer: near center RWY 04-22<br>3. Temperature: near center RWY 04-22<br>4. Visibility meter: near center RWY 04-22 |              |                 |         |                       | <b>Additional information:</b><br>TEL: +32 (0) 2 442 58 02 (Meteo<br>Wing - MeteoC)<br>AFS: EBLBYMYX<br>Email: <a href="mailto:meteow-ops-meteoc@mil.be">meteow-ops-meteoc@mil.be</a><br>Language used: En - Fr - NI |                              |

| Name of Station -<br>Location indicator<br>/ type of unit                                                                                                                                       | Observations |                 |         | Hours of operation                                                                                                          | Reports                                                                                                                                                                                      | Supplementary<br>information |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------|---------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
|                                                                                                                                                                                                 | hourly       | half-<br>hourly | special |                                                                                                                             |                                                                                                                                                                                              |                              |
| 1                                                                                                                                                                                               | 2            | 3               | 4       | 5                                                                                                                           | 6                                                                                                                                                                                            | 7                            |
| FLORENNES - EBFS<br>/ DMO - MOS                                                                                                                                                                 | x            | x               | x       | DMO: MON to FRI, 0500-1700<br>(0400-1600) (night flight: 2300<br>(2200))<br>MOS: H24 (manual if Air OPS;<br>AUTO if no OPS) | (AUTO-)SYNOP,<br>(AUTO-)METAR,<br>(AUTO-)SPECI,<br>TAF                                                                                                                                       | TREND/CSF                    |
| <b>Observation systems and site:</b><br>1. Windvector-sensor: THR 26 and THR 08<br>2. Ceilometer: observation site<br>3. Temperature: observation site<br>4. Visibility meter: observation site |              |                 |         |                                                                                                                             | <b>Additional information:</b><br>TEL: +32 (0) 2 442 65 84<br>AFS: EBFSYMYX<br>Email: <a href="mailto:meteow-ops-metsta-2w@mil.be">meteow-ops-metsta-2w@mil.be</a><br>Language used: En - Fr |                              |

| Name of Station -<br>Location indicator<br>/ type of unit                                                                                                                                                         | Observations |                 |         | Hours of operation                                                                                                         | Reports                                                                                                                                                      | Supplementary<br>information |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------|---------|----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
|                                                                                                                                                                                                                   | hourly       | half-<br>hourly | special |                                                                                                                            |                                                                                                                                                              |                              |
| 1                                                                                                                                                                                                                 | 2            | 3               | 4       | 5                                                                                                                          | 6                                                                                                                                                            | 7                            |
| KLEINE-BROGEL -<br>EBBL / DMO - MOS                                                                                                                                                                               | x            | x               | x       | DMO: MON to FRI, 0500-1700<br>(0400-1600) (night flight:<br>2300(2200))<br>MOS: H24 (manual if Air OPS;<br>AUTO if no OPS) | (AUTO-)SYNOP,<br>(AUTO-)METAR,<br>(AUTO-)SPECI,<br>TAF                                                                                                       | TREND/CSF                    |
| <b>Observation systems and site:</b>                                                                                                                                                                              |              |                 |         |                                                                                                                            | <b>Additional information:</b>                                                                                                                               |                              |
| <ol style="list-style-type: none"> <li>1. Windvector-sensor: THR 23 and THR 05</li> <li>2. Ceilometer: observation site</li> <li>3. Temperature: observation site</li> <li>4. Visibility meter: THR 05</li> </ol> |              |                 |         |                                                                                                                            | TEL: +32 (0) 2 443 30 28<br>AFS: EBBLYMYX<br>Email: <a href="mailto:meteow-ops-metsta-10w@mil.be">meteow-ops-metsta-10w@mil.be</a><br>Language used: En - NI |                              |

| Name of Station -<br>Location indicator<br>/ type of unit                                                                                                                                                                                     | Observations |                 |         | Hours of operation                                                                                                          | Reports                                                                                                                                                               | Supplementary<br>information |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------|---------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
|                                                                                                                                                                                                                                               | hourly       | half-<br>hourly | special |                                                                                                                             |                                                                                                                                                                       |                              |
| 1                                                                                                                                                                                                                                             | 2            | 3               | 4       | 5                                                                                                                           | 6                                                                                                                                                                     | 7                            |
| KOKSIJDE - EBFN /<br>DMO - MOS                                                                                                                                                                                                                | x            | x               | x       | DMO: MON to FRI, 0500-1700<br>(0400-1600) (night flight: 2300<br>(2200))<br>MOS: H24 (manual if Air OPS;<br>AUTO if no OPS) | (AUTO-)SYNOP,<br>(AUTO-)METAR,<br>(AUTO-)SPECI,<br>TAF                                                                                                                | TREND/CSF                    |
| <b>Observation systems and site:</b>                                                                                                                                                                                                          |              |                 |         |                                                                                                                             | <b>Additional information:</b>                                                                                                                                        |                              |
| <ol style="list-style-type: none"> <li>1. Windvector-sensor: THR 29 and near RWY (29 - 11) / VOR</li> <li>2. Ceilometer: observation site</li> <li>3. Temperature: observation site</li> <li>4. Visibility meter: observation site</li> </ol> |              |                 |         |                                                                                                                             | TEL: +32 (0) 2 442 35 78<br>AFS: EBFNYMYX<br>Email: <a href="mailto:meteow-ops-metsta-bkoks@mil.be">meteow-ops-metsta-bkoks@mil.be</a><br>Language used: En - NI - Fr |                              |

| Name of Station -<br>Location indicator<br>/ type of unit | Observations |                 |         | Hours of operation                              | Reports                                                                                                                                                                            | Supplementary<br>information |
|-----------------------------------------------------------|--------------|-----------------|---------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
|                                                           | hourly       | half-<br>hourly | special |                                                 |                                                                                                                                                                                    |                              |
| 1                                                         | 2            | 3               | 4       | 5                                               | 6                                                                                                                                                                                  | 7                            |
| MESLBROEK - EBMB<br>/ DMO - MOS                           | (*)          | (*)             | (*)     | DMO: contact EBWM NMMC -<br>H24<br>MOS: H24 (*) | (*)                                                                                                                                                                                | (*)                          |
| (*) Observations are made by civil MOS (EBBR).            |              |                 |         |                                                 | <b>Additional information:</b>                                                                                                                                                     |                              |
|                                                           |              |                 |         |                                                 | TEL: +32 (0) 2 442 58 02 (Meteo<br>Wing - MeteoC)<br>AFS: EBMBYMYX<br>Email: <a href="mailto:meteow-ops-meteoc@mil.be">meteow-ops-meteoc@mil.be</a><br>Language used: En - Fr - NI |                              |

| Name of Station -<br>Location indicator<br>/ type of unit                                                                                                                                                                  | Observations |                 |         | Hours of operation                                                                                        | Reports                                                                                                                                                                 | Supplementary<br>information |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------|---------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
|                                                                                                                                                                                                                            | hourly       | half-<br>hourly | special |                                                                                                           |                                                                                                                                                                         |                              |
| 1                                                                                                                                                                                                                          | 2            | 3               | 4       | 5                                                                                                         | 6                                                                                                                                                                       | 7                            |
| SCHAFFEN - EBDT /<br>DMO - MOS                                                                                                                                                                                             | x            | x               | x       | DMO: MON to FRI, beginning till<br>end of training OPS<br>MOS: H24 (manual if Air OPS;<br>AUTO if no OPS) | (AUTO-)SYNOP,<br>(AUTO-)METAR,<br>(AUTO-)SPECI,<br>TAF                                                                                                                  | TREND/CSF                    |
| <b>Observation systems and site:</b>                                                                                                                                                                                       |              |                 |         |                                                                                                           | <b>Additional information:</b>                                                                                                                                          |                              |
| <ol style="list-style-type: none"> <li>1. Windvector-sensor: observation site</li> <li>2. Ceilometer: observation site</li> <li>3. Temperature: observation site</li> <li>4. Visibility meter: observation site</li> </ol> |              |                 |         |                                                                                                           | TEL: +32 (0) 2 442 05 55<br>AFS: EBDTYMYX<br>Email: <a href="mailto:meteow-ops-metsta-cepara@mil.be">meteow-ops-metsta-cepara@mil.be</a><br>Language used: En - Fr - NI |                              |

| Name of Station -<br>Location indicator<br>/ type of unit                                                                                                                                      | Observations |                 |         | Hours of operation    | Reports                                                                                                                                                                                                           | Supplementary<br>information |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------|---------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
|                                                                                                                                                                                                | hourly       | half-<br>hourly | special |                       |                                                                                                                                                                                                                   |                              |
| 1                                                                                                                                                                                              | 2            | 3               | 4       | 5                     | 6                                                                                                                                                                                                                 | 7                            |
| SEMMERZAKE -<br>EBSZ / MOS                                                                                                                                                                     | x            | x               | x       | H24 (Fully AUTO mode) | AUTO-SYNOP,<br>AUTO-METAR,<br>AUTO-SPECI                                                                                                                                                                          |                              |
| <b>Observation systems and site:</b><br>1. Windvector-sensor: observation site<br>2. Ceilometer: observation site<br>3. Temperature: observation site<br>4. Visibility meter: observation site |              |                 |         |                       | <b>Additional information:</b><br>TEL: +32 (0) 2 442 58 02 (Meteo Wing - MeteoC)<br>AFS: EBSZYMYX<br>Email: <a href="mailto:meteow-ops-meteoc@mil.be">meteow-ops-meteoc@mil.be</a><br>Language used: En - Fr - NI |                              |

Note 1: No TREND included in automated meteorological reports (AUTO-METAR & AUTO-SPECI)

Note 2: No CB (Cumulonimbus clouds), No TCU (Towering Cumulus clouds), No TS (Thunderstorm) included in AUTO-reports.

## 2.5 Types of Services

### 2.5.1 General

Briefing and consultation (personal and/or by telephone) for flight crew members are provided at EBBE, EBBL, EBDT, EBFN and EBFS.

Other flight documentation is also supplied to operators and flight crew via self-briefing terminals in dedicated crew-rooms (via intranet Defence <http://meteo>).

In case of problems or specific questions, please contact the local Dependent Meteorological Office (DMO) or National Military Meteorological Centre (NMMC).

### 2.5.2 Meteorological Info for International Scheduled Air Traffic

Meteorological information for international scheduled air traffic (route forecast) normally consists of documentation and if necessary briefing/consultation.

This documentation is supplied to the pilot-in-command via self-briefing terminal or via e-mail and can be supplemented by a detailed oral explanation of the existing weather conditions during the flight and also with a forecast for take-off that can be requested maximum 3 hours before departure.

For EBMB, this MET information shall be obtained from the NMMC.

The flight documentation generally consists of:

- Meteorological Aerodrome Reports (METAR) of aerodromes of
  - departure
  - destination
  - en-route
- Aerodrome Forecasts (TAF) of aerodromes of
  - departure
  - destination
  - en-route
- Significant Weather Charts (forecasts of the en-route conditions in chart form)
  - F.e. PGDE14 EGRR (Sig Wx Chart: Trop/Max wind FL 100-450 Europe H+24)
- Forecasts of upper-winds and temperature (in chart form) (charts of relevant isobaric standard level have to be provided in function of flight level)
  - F.e. PWBE70 EBBR (Wind & Temp FL 100 H+24)
- SIGMET
- Volcanic Ash Advisories and Tropical Cyclone Advisories
- Local aerodrome warnings
- MET satellite images
- Ground-based weather radar information

### 2.5.3 Short-Range Bulletin (SR) - Significant Weather Forecast Chart (SWF) - Local Area Forecast (LAF)

On fixed time intervals a combined product (SR) consisting of SWF chart and a detailed weather description for Belgium (LAF) will be issued.

- The *Significant Weather Forecast* is a detailed and clear prognostic chart depicting weather conditions significant for aviation.

It covers Benelux, Germany, England, Wales and northern part of France and consists of following elements:

- frontal systems, convergence lines, squall lines and their direction of movement

- areas with similar significant meteorological conditions and their movement.  
For each area the prevailing (P), local (L) and isolated (I) weather conditions are described on terms of:
  - visibility
  - weather
  - cloudiness

| Availability | Validity Time             | Frontal Position |
|--------------|---------------------------|------------------|
| 0430 (0330)  | 0600 (0500) - 1200 (1100) | 0900 (0800)      |
| 0600 (0500)  | 1200 (1100) - 1800 (1700) | 1500 (1400)      |
| 1300 (1200)  | 1800 (1700) - 2400 (2300) | 2100 (2000)      |
| 2200 (2100)  | 0000 (2300) - 0600 (0500) | 0300 (0200)      |

- The *Local Area Forecast* is a text bulletin (FXBX50 EBWM) containing following information:
  - potentially dangerous phenomena Belgium
  - general situation Belgium
  - significant weather Belgium
  - surface temperatures Belgium
  - surface winds Belgium
  - upper winds Brussels
  - upper air data Belgium
  - outlook for next 12 hours Belgium
  - sea state Belgian coast and sea surface temperature Westhinder

| Availability | Validity Time             | Outlook                   |
|--------------|---------------------------|---------------------------|
| 0430 (0330)  | 0600 (0500) - 1800 (1700) | 1800 (1700) - 0600 (0500) |
| 1300 (1200)  | 1800 (1700) - 0600 (0500) | 0600 (0500) - 1800 (1700) |

- The *Short-Range Bulletin (SR)* combines:
  - SWF
  - elaborated LAF:
    - potentially dangerous phenomena Belgium
    - general situation Belgium
    - significant weather Belgium
    - surface temperatures Belgium
    - surface winds Belgium
    - upper winds Brussels
    - upper air data Belgium
    - outlook for next 12 hours Belgium
    - sea state Belgian coast and sea surface temperature Westhinder

| Availability | Validity Time             | SWF                       | LAF                       | Outlook                   |
|--------------|---------------------------|---------------------------|---------------------------|---------------------------|
| 0430 (0330)  | 0600 (0500) - 1200 (1100) | 0600 (0500) - 1200 (1100) | 0600 (0500) - 1800 (1700) | 1800 (1700) - 0600 (0500) |
| 0800 (0700)  | 1200 (1100) - 1800 (1700) | 1200 (1100) - 1800 (1700) | 0600 (0500) - 1800 (1700) | 1800 (1700) - 0600 (0500) |
| 1300 (1200)  | 1800 (1700) - 2400 (2300) | 1800 (1700) - 2400 (2300) | 1800 (1700) - 0600 (0500) | 0600 (0500) - 1800 (1700) |
| 2200 (2100)  | 0000 (2300) - 0600 (0500) | 0000 (2300) - 0600 (0500) | 1800 (1700) - 0600 (0500) | 0600 (0500) - 1800 (1700) |

## 2.5.4 Meteorological Warning Service

### 2.5.4.1 General

For the safety of military aviation, the NMMC maintains a continuous watch over meteorological conditions affecting flight operations within the area of responsibility.

In case of occurrence or expected occurrence of special meteorological phenomena, which may endanger safety and efficiency of flight operations, meteorological warnings are issued for one or more of the following phenomena:

- negative air and/or ground temperatures
- abundant precipitation (>15-20 MM/6 HR and /or >25-50 MM/12 HR)
- wintry precipitation
- rime and/or ice patches
- widespread fog formation
- freezing fog
- thunderstorms with or without hail/gusts
- strong winds or gusts (threshold:  $\geq 30$  KT)
- wind chill index  $\leq -7^{\circ}$  C
- heat stress index  $\geq 29^{\circ}$  C

#### **2.5.4.2 Local Aerodrome Warnings**

Furthermore, local aerodrome warnings are issued to operators, in accordance with local arrangements, by all DMO.

### **2.5.5 Climatology and Historical Data**

#### **2.5.5.1 Data**

Climatological (means - extreme – frequencies - ...) and historical (past meteorological) data is available for the following military stations:

- BEAUVECHAIN
- CHIEVRES
- ELSNBORN
- FLORENNES
- KLEINE-BROGEL
- KOKSIJDE
- SCHAFFEN
- SEMMERZAKE

#### **2.5.5.2 Parameters**

Climatological and/or historical data can be obtained for the following meteorological parameters, depending on their availability:

- Air temperature
- Soil temperature
- Surface wind (direction & speed)
- Visibility
- Cloud amount & height of cloud base
- Precipitation (rain, drizzle, snow)
- State of ground
- Surface pressure

#### **2.5.5.3 Winds and Temperature Aloft**

Historical data about winds and temperature aloft are available as well. They are based on the prognostic upper air soundings of Uccle (RMIB).



## 2.6 Belgian Meteorological Stations

| Belgian Military Meteorological Stations |                                                    |                           |          |              |                       |  |
|------------------------------------------|----------------------------------------------------|---------------------------|----------|--------------|-----------------------|--|
| Station                                  | Position<br>Lat/Long (D° M' S.S'')<br>WGS84 (2013) | Elevation AMSL<br>EGM2008 |          | WMO<br>Index | ICAO LOC<br>Indicator |  |
|                                          |                                                    | M                         | FT       |              |                       |  |
| BEAUVECHAIN                              | N50 44 44.47 - E4 45 47.80                         | 120.675                   | 395.915  | 06 458       | EBBE                  |  |
| CASTEAU                                  | N50 30 10.63 - E3 58 59.78                         | 90.721                    | 297.641  | 06 415       | EBCT                  |  |
| CHIEVRES                                 | N50 34 19.78 - E3 49 52.94                         | 60.164                    | 197.388  | 06 432       | EBCV                  |  |
| ELSENBORN                                | N50 28 56.49 - E6 10 52.68                         | 564.898                   | 1853.340 | 06 496       | EBLB                  |  |
| FLORENNES                                | N50 14 04.49 - E4 39 10.65                         | 287.558                   | 943.432  | 06 456       | EBFS                  |  |
| HOUTHALEN-<br>HELCHTEREN                 | N51 03 01.37 - E5 26 07.51                         | 77.217                    | 253.337  | 06 413       | EBHH                  |  |
| KLEINE-BROGEL                            | N51 10 07.79 - E5 27 45.71                         | 54.786                    | 179.744  | 06 479       | EBBL                  |  |
| KOKSIJDE                                 | N51 05 17.10 - E2 39 08.65                         | 4.075                     | 13.369   | 06 400       | EBFN                  |  |
| MARCHE-EN-FAMENNE                        | N50 14 16.44 - E5 21 21.25                         | 219.398                   | 719.810  | 06 417       | EBMF                  |  |
| SCHAFFEN                                 | N50 59 49.08 - E5 03 43.07                         | 51.780                    | 169.882  | 06 465       | EBDT                  |  |
| SEMMERZAKE                               | N50 56 26.03 - E3 40 10.96                         | 34.762                    | 114.049  | 06 428       | EBSZ                  |  |

Note 1: Elevation refers to height of the pressure sensor in the Meteo Park (ca 2 M above the ground level)

| Belgian Meteorological Stations - Code |             |                                     |                         |          |              |                       |
|----------------------------------------|-------------|-------------------------------------|-------------------------|----------|--------------|-----------------------|
| Station                                | MET Service | Position<br>Lat/Long (DMS)<br>WGS84 | Elevation HP<br>EGM2008 |          | WMO<br>Index | ICAO LOC<br>Indicator |
|                                        |             |                                     | M                       | FT       |              |                       |
| ANTWERPEN-DEURNE                       | skeyes      | 51 11 25N 004 27 28E                | 13.21                   | 43.340   | 06 450       | EBAW                  |
| BEAUVECHAIN                            | MIL         | 50 44 44N 004 45 48E                | 120.675                 | 395.915  | 06 458       | EBBE                  |
| BEITEM                                 | RMIB        | 50 54 14N 003 07 18E                | 25                      | 80.021   | 06 414       |                       |
| BRUSSELS NATIONAL<br>(AIRPORT)         | skeyes      | 50 53 47N 004 31 38E                | 54.9                    | 180.118  | 06 451       | EBBR                  |
| BUZENOL                                | RMIB        | 49 37 13N 005 35 15E                | 324                     | 1062.992 | 06 484       |                       |
| CASTEAU                                | MIL         | 50 30 11N 003 59 00E                | 90.721                  | 297.641  | 06 415       | EBCT                  |
| CHARLEROI/<br>BRUSSELS SOUTH           | skeyes      | 50 27 15N 004 26 24E                | 188.1                   | 617.126  | 06 449       | EBCI                  |
| CHIEVRES                               | MIL         | 50 34 20N 003 49 53E                | 60.164                  | 197.388  | 06 432       | EBCV                  |
| DIEPENBEEK                             | RMIB        | 50 54 56N 005 27 01E                | 39                      | 127.953  | 06 477       |                       |
| DOURBES                                | RMIB        | 50 05 44N 004 35 40E                | 233                     | 764.436  | 06 455       |                       |
| ELSENBORN                              | MIL         | 50 28 56N 006 10 53E                | 564.898                 | 1853.34  | 06 496       | EBLB                  |
| ERNAGE                                 | RMIB        | 50 34 55N 004 41 21E                | 157                     | 515.092  | 06 459       |                       |
| FLORENNES                              | MIL         | 50 14 04N 004 39 11E                | 287.558                 | 943.432  | 06 456       | EBFS                  |
| GENK                                   | RMIB        | 50 56 00N 005 30 00E                | 63                      | 206.693  | 06 481       |                       |
| GENT/INDUSTRIE-<br>ZONE                | RMIB        | 51 10 50N 003 48 15E                | 8                       | 26.247   | 06 431       |                       |
| HOUTHALEN-<br>HELCHTEREN               | MIL         | 51 03 01N 005 26 08E                | 77.217                  | 253.337  | 06 413       | EBHH                  |
| HUMAIN                                 | RMIB        | 50 11 37N 005 15 20E                | 296                     | 971.129  | 06 472       |                       |
| KLEINE-BROGEL                          | MIL         | 51 10 08N 005 27 46E                | 54.786                  | 179.744  | 06 479       | EBBL                  |
| KOKSIJDE                               | MIL         | 51 05 17N 002 39 09E                | 4.075                   | 13.369   | 06 400       | EBFN                  |
| LIEGE-BIERSET                          | skeyes      | 50 38 45N 005 27 20E                | 181.03                  | 593.930  | 06 478       | EBLG                  |
| MARCHE-EN-FAMENNE                      | MIL         | 50 14 16N 005 21 21E                | 219.398                 | 719.810  | 06 417       | EBMF                  |
| MELLE                                  | RMIB        | 50 58 49N 003 48 57E                | 15                      | 49.213   | 06 434       |                       |
| MONT-RIGI                              | RMIB        | 50 30 39N 006 04 24E                | 673                     | 2208.005 | 06 494       |                       |
| OOSTENDE (AIRPORT)                     | skeyes      | 51 12 01N 002 53 14E                | 4                       | 13.123   | 06 407       | EBOS                  |
| OOSTENDE (PIER)                        | RMIB        | 51 14 00N 002 55 00E                | 9                       | 29.528   | 06 408       |                       |
| RETIE                                  | RMIB        | 51 13 17N 005 01 38E                | 21                      | 68.898   | 06 464       |                       |
| SAINT-HUBERT                           | skeyes      | 50 02 20N 005 24 14E                | 557.03                  | 1827.526 | 06 476       | EBSH                  |
| SCHAFFEN                               | MIL         | 50 59 49N 005 03 43E                | 51.780                  | 169.882  | 06 465       | EBDT                  |

| Belgian Meteorological Stations - Code |             |                                     |                         |          |              |                       |  |
|----------------------------------------|-------------|-------------------------------------|-------------------------|----------|--------------|-----------------------|--|
| Station                                | MET Service | Position<br>Lat/Long (DMS)<br>WGS84 | Elevation HP<br>EGM2008 |          | WMO<br>Index | ICAO LOC<br>Indicator |  |
|                                        |             |                                     | M                       | FT       |              |                       |  |
| SEMMERZAKE                             | MIL         | 50 56 26N 003 40 11E                | 34.762                  | 114.049  | 06 428       | EBSZ                  |  |
| SINT-KATELIJNE-<br>WAVER               | RMIB        | 51 04 30N 004 31 29E                | 11                      | 36.089   | 06 439       |                       |  |
| SPA/LA SAUVENIERE                      | skeyes      | 50 28 43N 005 54 36E                | 477.35                  | 1566.109 | 06 490       | EBSP                  |  |
| STABROEK                               | RMIB        | 51 19 29N 004 21 50E                | 6                       | 19.685   | 06 438       |                       |  |
| UCCLE                                  | RMIB        | 50 47 49N 004 21 29E                | 101                     | 331.365  | 06 447       | EBUM                  |  |
| ZEEBRUGGE                              | RMIB        | 51 20 50N 003 12 06E                | 9                       | 29.528   | 06 418       |                       |  |

Source: <https://oscar.wmo.int>

Note 1: Elevation HP is the datum level to which barometric pressure reports at the station refers.

Note 2: Service:

- MIL: MET stations of the Belgian Air Component.
- skeyes: MET stations of the Civil Aviation Authority.
- RMIB: MET stations of the Royal Meteorological Institute of Belgium.

## 2.7 Regulations

### 2.7.1 International Flights of Transport Aircraft

The basic obligations for meteorological service for International Air Navigation are contained in the ICAO Annex 3.

Pilots-in-command of transport aircraft and meteorological officers should comply with the regulations concerning briefing, de-briefing, documentation and in-flight weather observation and reporting.

### 2.7.2 Operational and Training Flights

#### 2.7.2.1 Briefing

No pilot is allowed to take-off unless he is fully briefed on the meteorological situation.

Attendance to a general or an individual meteorological briefing is mandatory. This shall be by means of personal contact with the aerodrome meteorological office or by means of consultation of network displayed briefings. When personal briefing or consultation is impracticable, meteorological information should be provided by telephone or other suitable telecommunication facilities.

Flight documentation will be issued when considered necessary and as agreed between aerodrome meteorological office and the flight crew members.

#### 2.7.2.2 In-flight Weather Observation

Debriefing should always include the weather elements so that actual enroute information is obtained. If the qualified meteorological officer does not receive the weather de-briefing, weather information should be made available to the debriefing officer who will pass it to the local meteorological office or station for onward dissemination through national channels.

Aircrew will usually be able to provide detailed information and they are encouraged to draft a pilot-report (PIREP) using the pro-format.

The value of aircrew weather reports is increased if, prior to take-off, pilots are given some indication where weather observation is considered most important.

## 2.8 Summary of MIL AFTN Addresses

| METEO STATION | SERVICE                                         | AFTN-ADDRESS        |
|---------------|-------------------------------------------------|---------------------|
| BEAUVECHAIN   | Meteo Station<br>Military Meteorological Center | EBBEYMYX<br>EBWYMYX |
| CHIEVRES      | Meteo Station                                   | EBCVYMYX            |
| ELSENBORN     | Meteo Station                                   | EBLBYMYX            |
| FLORENNES     | Meteo Station                                   | EBFSYMYX            |
| KLEINE-BROGEL | Meteo Station                                   | EBBLYMYX            |
| KOKSIJDE      | Meteo Station                                   | EBFNMYX             |
| SCHAFFEN      | Meteo Station                                   | EBDTYMYX            |
| SEMMERZAKE    | Meteo Station                                   | EBSZYMYX            |

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## GEN 3.6 Search and Rescue

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### 1 RESPONSIBLE SERVICE

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#### 1.1 Responsible Authority

SAR within the Brussels FIR is organized in accordance with ICAO SARPS and the overall responsibility for making available the necessary facilities rests with the Belgian Department of Defence.

#### 1.2 Rescue Co-ordination Centre (RCC) and Related Rescue Units

Details of the RCC and related Rescue Units are given in § 2.

In addition, various elements of the State Police Organization, the Merchant Marine, the Armed Forces and private organizations can be made available for SAR missions, when required. The aeronautical maritime and public telecommunication services are available to the SAR organization.

#### 1.3 Applicable ICAO Documents

- ICAO Annex 12. Search and Rescue
- ICAO Annex 13. Aircraft Accident and Incident Investigation
- ICAO Doc 7030. Regional Supplementary Procedures
- ICAO Doc 9731. International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual

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### 2 AREA OF RESPONSIBILITY

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#### 2.1 General

The SAR Region coincides with the Brussels FIR/UIR. Operations are performed by military organization under the direction of the Belgian Air Component.

#### 2.2 Rescue Co-ordination Centre

The RCC Brussels for SAR operations is a section of the CRC located at Beauvechain and operates under the responsibility of Comopsair Brussels.

RCC Brussels, to which all phases of emergency are to be notified, provides the aeronautical SAR services and may call upon the Koksijde and Luxembourg Sub-Centres (RSC) for assistance.

MRCC Oostende provides the maritime SAR services.

The RCC Brussels is in direct liaison with all stations guarding the emergency frequencies and communicates with adjacent RCC, i.e. Fareham (the United Kingdom), Den Helder (the Netherlands), Münster (Germany) and Lyon (France), when necessary.

#### 2.3 Co-ordination with the Neighbouring SAR Organisations

In compliance with ICAO Recommended Practices, RCC Brussels may be called upon to put its available SAR means at the disposal of the neighbouring RCC and to co-operate with SAR operations.

SAR service may be called upon for SAR operations within the national SAR region, and outside that region, on request by a neighbouring RCC.

If a SAR operation necessitates different RCC to co-operate in close conjunction, they will, by mutual arrangements, agree on a directing RCC and one or more associated RCC.

#### 2.4 Rescue Sub-Centre (Belgium)

The RSC Koksijde assures a permanent listening watch on emergency - and search and rescue frequencies during SAR operations.

It initiates SAR operations according to the decision matrix as stated in the Guidelines for Homeland Operations when first advised or when immediate action is required.

It executes SAR operations requested by the RCC Brussels.

It co-ordinates SAR operations within its area of responsibility.

It keeps RCC Brussels informed about SAR operations.

## 2.5 Contact

### 2.5.1 Rescue Co-ordination Centre (RCC)

Post: Belgian Air Component  
Control and Reporting Centre  
Search and Rescue Co-ordination Centre  
RCC Brussels  
Rue de la Grande Lecke 5  
1320 Beauvechain  
BELGIUM

AFS: EBMIYCYX

TEL: +32 (0) 2 443 86 60

TEL: +32 (0) 2 443 47 69

Email: [CRC-11SQN-RCC@mil.be](mailto:CRC-11SQN-RCC@mil.be)

### 2.5.2 Rescue Sub-Centres (RSC)

#### 2.5.2.1 Belgium

Post: Search and Rescue Sub-Centre Koksijde  
Koksijde Air Base  
R. Van Dammestraat, 100  
8670 Koksijde  
BELGIUM

AFS: EBFNYCYX

TEL: +32 (0) 58 31 17 14 (direct line)

TEL: +32 (0) 58 53 25 11 (direct line)

TEL: +32 (0) 2 442 35 69

TEL: 9-2630-2504 (MIL network)

TEL: 9-2630-2511 (MIL network)

TEL: 9-6321-23569 (MIL network)

#### 2.5.2.2 Luxembourg

Post: Administration de la navigation aérienne  
ATC Department - Rescue Sub-Centre  
BP 273  
L-2012 Luxembourg  
LUXEMBOURG

AFS: ELLXYCYX

TEL: +352 47 98 24 00 4

FAX: +352 47 98 24 09 0

**3 TYPES OF SERVICE**

| Name                        | Location            | Means             | Remarks                                                                                  |
|-----------------------------|---------------------|-------------------|------------------------------------------------------------------------------------------|
| BEAUVECHAIN (EBBE)          | 504528N<br>0044601E | HEL SRG           | Depending on availability                                                                |
| BLANKENBERGE                | 511851N<br>0030635E | RV / RB           | Depending on availability                                                                |
| BRUSSELS / Melsbroek (EBMB) | 505405N<br>0042904E | ACFT              | NIL                                                                                      |
| KOKSIJDE (EBFN)             | 510525N<br>0023910E | HEL               | 0700-1900 (0600-1800): 20 MIN prior notice<br>1900-0700 (1800-0600): 45 MIN prior notice |
| NIEUWPOORT                  | 510919N<br>0024310E | RV / RB           | Depending on availability                                                                |
| OOSTENDE                    | 511414N<br>0025518E | RV / RB, tugboats | Depending on availability                                                                |
| ZEEBRUGGE                   | 512027N<br>0031230E | RV / RB           | Depending on availability                                                                |

**4 SAR AGREEMENTS**

INFO not AVBL.

**5 CONDITIONS OF AVAILABILITY**

INFO not AVBL.

**6 PROCEDURES AND SIGNALS USED****6.1 Procedures and Signals Used by Aircraft**

Procedures for pilots-in-command observing an accident or intercepting a distress call and/or message are outlined SAR in *ICAO Annex 12*, Chapter 5.

**6.2 Communication**

Transmission and reception of distress messages within the SAR Region are handled in accordance with *ICAO Annex 10, Volume II*, § 5.3. High priority indicators are specified for such messages:

- "DD" for INCERFA
- "SS" for ALERFA and DETRESFA.

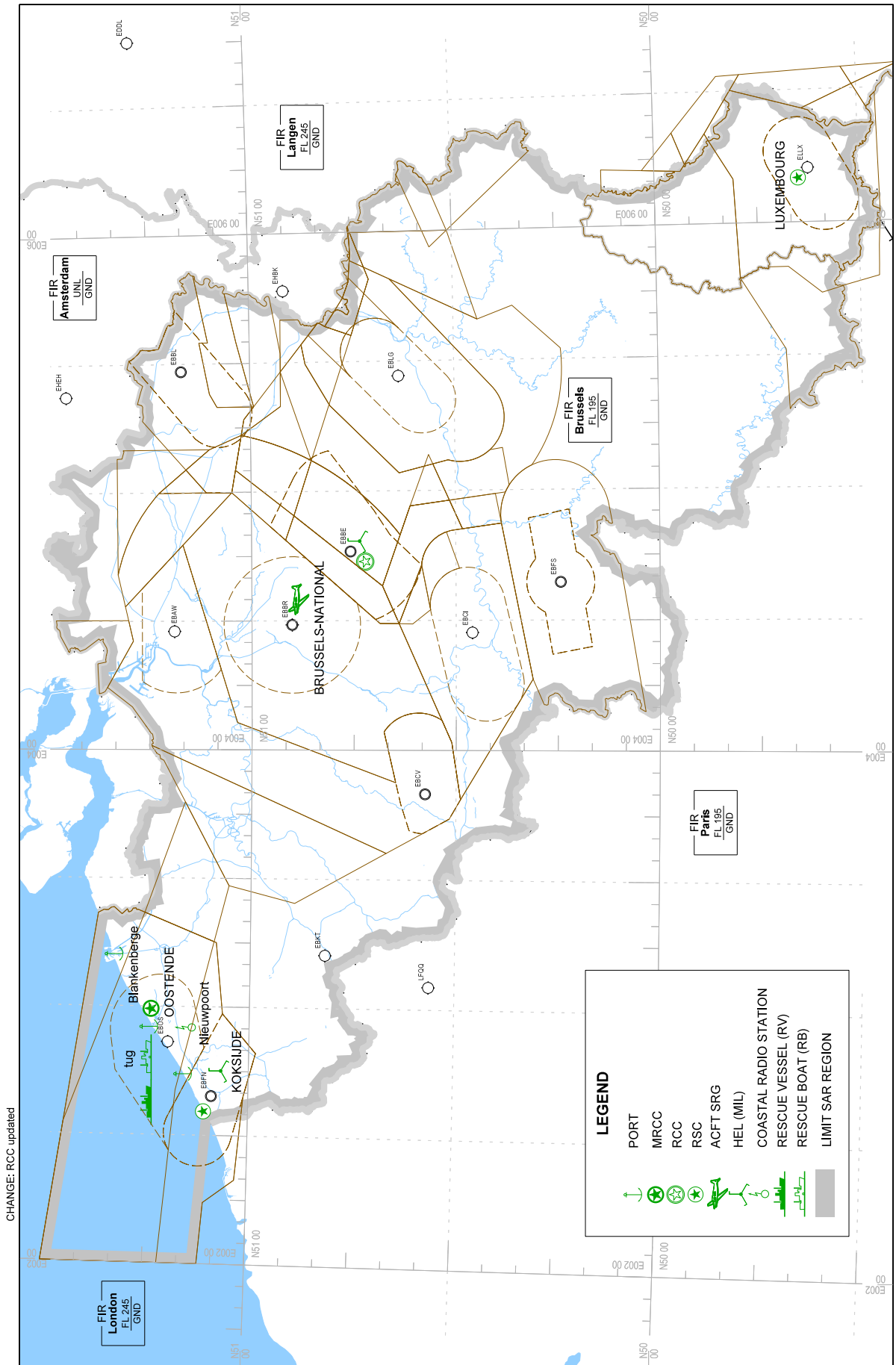
The following frequencies are designated for the reception of distress messages:

| FREQ                                                                         | EM | Normal use                                                       | Guarded by or remarks                                                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------|----|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The designated air-ground area or route frequency (see <u>ENR 2.1. § 3</u> ) | A3 | ATC RTF (HF - VHF - UHF)                                         | ATC units                                                                                                                                                                                                                                                                             |
| 121.500 MHZ                                                                  | A3 | International VHF: emergency VHF channel (aeronautical stations) | <ul style="list-style-type: none"> <li>• EBAW (HS)</li> <li>• EBBR (H24)</li> <li>• EBCI (HS)</li> <li>• EBLG (H24)</li> <li>• ELLX (H24)</li> <li>• MIL AD (HO)</li> <li>• EBOS (H24)</li> <li>• CRC (H24)</li> <li>• ATCC (HO)</li> <li>• RSC (H24)</li> <li>• RCC (H24)</li> </ul> |
| 243.000 MHZ                                                                  | A3 | International UHF: emergency RTF channel (aeronautical stations) | <ul style="list-style-type: none"> <li>• EBBR (H24)</li> <li>• EBCI (HS)</li> <li>• EBLG (H24)</li> <li>• MIL AD (HO)</li> <li>• CRC (H24)</li> <li>• ATCC (HO)</li> <li>• RSC (H24)</li> <li>• RCC (H24)</li> </ul>                                                                  |
| 2182 KHZ                                                                     | A3 | International distress RTF frequency for coastal and sea areas   | Coastal station Oostende <ul style="list-style-type: none"> <li>• Call sign: Oostende Radio (H24)</li> </ul>                                                                                                                                                                          |

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**7 SAR REGION CHART**

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# GEN 4 CHARGES FOR AERODROMES/HELIPORTS AND AIR NAVIGATION SERVICES

## GEN 4.1 Aerodrome/Heliport Charges

### 1 EBAW

This information can be consulted online on the Antwerp Airport website.

URL: <https://www.antwerp-airport.com/airport-fees>

Post: LEM Antwerpen NV  
Luchthavenlei  
2100 Deurne (Antwerpen)  
BELGIUM

Email: [info@antwerpairport.aero](mailto:info@antwerpairport.aero)

### 2 EBBR

This information can be consulted online on the Brussels Airport website.

URL: <https://www.brusselsairport.be/en/airport-operations/operations/charges-fees>

Post: Brussels Airport Company  
Luchthaven Brussel Nationaal 1M  
1930 Zaventem  
BELGIUM

Email: [OperationalDocumentation@brusselsairport.be](mailto:OperationalDocumentation@brusselsairport.be)

### 3 EBCI

#### 3.1 Landing Charges

##### 3.1.1 Scheduled Passenger Flights (North Terminal)

###### 3.1.1.1 Scheduled/charter flights

The landing charges for scheduled passenger flights at EBCI are fixed at 2.94 EUR/passenger.

Reduction to the yearly charges per carrier is granted as follows:

| Bracket of departing passengers | Reduction applicable to the passengers in this bracket |
|---------------------------------|--------------------------------------------------------|
| 15001 to 35000                  | 5%                                                     |
| 35001 to 50000                  | 10%                                                    |
| 50001 to 100000                 | 25%                                                    |
| 100001 to 200000                | 35%                                                    |
| 200001 and up                   | 50%                                                    |

The landing charges are also due for diverted flights and for flights forced to land for technical reasons.

###### 3.1.1.2 Ad hoc flights

The landing charges for based aircraft at EBCI are fixed at 11.44 EUR/T MTOW.

The landing charges are also due for diverted flights and for flights forced to land for technical reasons.

##### 3.1.2 General Aviation and Cargo Flights (South Terminal)

The landing charges for based aircraft at EBCI are fixed at 11.44 EUR/T MTOW.

The landing charges for non-based aircraft at EBCI are fixed at 13.82 EUR/T MTOW.

For aircraft with a MTOW < 6T, quarterly and annual subscriptions for landing charges are available as follows:

| MTOW       | Quarterly   | Annual      |
|------------|-------------|-------------|
| < 1T       | 352.50 EUR  | 1101.59 EUR |
| 1T to < 2T | 572.82 EUR  | 1938.80 EUR |
| 2T to < 3T | 749.09 EUR  | 2555.68 EUR |
| 3T to < 4T | 969.42 EUR  | 3172.56 EUR |
| 4T to < 5T | 1189.71 EUR | 3921.65 EUR |
| 5T to < 6T | 1410.03 EUR | 4714.82 EUR |

### 3.1.3 Training Flights and Touch-and-go

The landing charges for training flights and touch-and-go movements are fixed at 11.44 EUR/T MTOW.

For training flights and touch-and-go movements performed with aircraft of 6T or more from MON to FRI (HOL excl), a reduction of 50% is granted.

## 3.2 Unsheltered Parking

### 3.2.1 Scheduled Passenger Flights (North Terminal)

A charge is due for the unsheltered parking of an aircraft for longer than twelve consecutive hours. This charge is fixed at 2.64 EUR/T MTOW per day.

### 3.2.2 General aviation and cargo flights (South Terminal)

For based aircraft, a charge is due for the unsheltered parking for longer than twelve consecutive hours. This charge is fixed at 2.64 EUR/T MTOW per day.

For non-based aircraft, a charge is due for the unsheltered parking for longer than twelve consecutive hours. This charge is fixed at 3.19 EUR/T MTOW per day.

For aircraft with a MTOW < 6T, quarterly and annual subscriptions for parking fees are available as follows:

| MTOW       | Quarterly   | Annual      |
|------------|-------------|-------------|
| < 1T       | 204.80 EUR  | 722.87 EUR  |
| 1T to < 2T | 409.62 EUR  | 1445.74 EUR |
| 2T to < 3T | 614.43 EUR  | 2168.61 EUR |
| 3T to < 4T | 819.26 EUR  | 2891.48 EUR |
| 4T to < 5T | 1024.07 EUR | 3614.34 EUR |
| 5T to < 6T | 1228.88 EUR | 4337.23 EUR |

## 3.3 Passenger charges

### 3.3.1 Scheduled Passenger Flights (North Terminal)

NIL

### 3.3.2 General aviation and cargo flights (South Terminal)

A charge is due for the use of passenger facilities. This charge is fixed at 20.42 EUR/passenger in and out.

## 3.4 Fuelling for Scheduled/Charter/Ad hoc flights (North Terminal)

The charges for the supply of fuel on board of aircraft are:

Per m<sup>3</sup> (cubic meter) taken on board: 5.00 EUR

## 3.5 Exemptions

None of the above mentioned charges are due for

- Aircraft used for the exclusive transport of heads of state or government members on official business;
- Aircraft carrying out flights on request of the Walloon regional government;
- Aircraft carrying out flights on request of the CAA in order to perform checks and controls;

- Aircraft carrying out flights on request of skeyes for a mission concerning EBCI;
- Aircraft carrying out flights of which the humanitarian character has been recognized by the regional Minister of Transport;
- Members of the Walloon regional government or services of the Walloon regional government on official duty.

### 3.6 Remarks

For the calculation of the charges, every part of a ton is counted as a full ton and every started day is counted as a full day.

All charges are linked to the Belgian consumer price index and will be updated accordingly, once a year. The tariffs mentioned are VAT excl.

If the charges due are not settled as required, aircraft may be grounded by the Airport Authority.

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## 4 EBLG

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This information can be consulted online on the Liège Airport website.

URL: <http://www.liegeairport.com/flexport/en/landing-fee/>

Post: Liège Airport  
Rue de l'Aéroport  
4460 Grâce-Hollogne  
BELGIUM

Email: [alp@liegeairport.com](mailto:alp@liegeairport.com)

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## 5 EBKT

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This information can be consulted online on the Kortrijk Airport website.

URL: <https://www.kortrijkairport.be/index.php?id=99&L=2>

Post: International Airport Kortrijk-Wevelgem  
Luchthavenstraat 1 bus 1  
8560 Wevelgem  
BELGIUM

Email: [info@kortrijkairport.be](mailto:info@kortrijkairport.be)

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## 6 ELLX

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The Airport Charges in effect at Luxembourg Airport include the following:

- Landing and Take-off Charge;
- Aircraft Parking Charge;
- Passenger Service Charge;
- PRM Charge.

The details of the airport charges, their calculation method, the amounts as well as the exemptions are specified in the publication done by the aerodrome operator "Société de l'Aéroport de Luxembourg S.A.".

The publication can be consulted online on the website:

URL: <https://www.lux-airport.lu/corporate/services-and-facilities/airport-fees-charges/>

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## 7 EBOS

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This information can be consulted online on the Ostend Airport website.

URL: <https://www.ostendbruges-airport.com/technical-information/>

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## GEN 4.2 Air Navigation Services Charges

### 1 SKEYES

#### 1.1 Amount of the Charges

skeyes levies a charge for each take-off in the charging zone of EBBR, the amount of which is equal to the product of the formula:

$$U \times W_i \times N_i \times P_i \times S_i \times \alpha$$

in which:

- “U” is the unit rate;
- “W<sub>i</sub>” is the number of terminal air navigation service units payable for this flight;
- “N<sub>i</sub>” is the noise factor for this flight;
- “P<sub>i</sub>” is the emission factor of the aircraft used for this flight;
- “S<sub>i</sub>” is the distance factor of this flight;
- “i” is the identification of the individual flight;
- “α” is the compensation coefficient (set to 0.6368) allowing to offset the revenue surplus or deficit due to the application of factors N, P and S.

**U:** the unit rate (U) is set at 219.37 EUR for 2024.

**W:** the number of terminal air navigation service units (W<sub>i</sub>) equals the weight factor for the aircraft concerned, expressed according to Annex VIII of *Implementing Regulation (EU) nr. 2019/317* as a figure taken to two decimal places, being the quotient obtained by dividing the certified maximum take-off mass of the aircraft in metric tons by 50 and increasing it to the power of 0.7.

**N:** the noise factor (N<sub>i</sub>) is equal to (N<sub>1</sub>+N<sub>2</sub>)/2, where N<sub>1</sub> is the noise factor for landing and N<sub>2</sub> is the noise factor for take-off.

N<sub>1</sub> is determined using the following table:

| QCA           | N1                           |                              |                              |                              |
|---------------|------------------------------|------------------------------|------------------------------|------------------------------|
|               | 0500 (0400) -<br>0559 (0459) | 0600 (0500) -<br>1959 (1859) | 2000 (1900) -<br>2159 (2059) | 2200 (2100) -<br>0459 (0359) |
| 0             | 2.50                         | 2.00                         | 2.50                         | 3.00                         |
| 0.10 - 0.90   | 1.50                         | 1.00                         | 1.50                         | 2.00                         |
| 1.00 - 1.90   | 1.65                         | 1.10                         | 1.65                         | 2.50                         |
| 2.00 - 2.90   | 1.80                         | 1.20                         | 1.80                         | 3.00                         |
| 3.00 - 3.90   | 1.95                         | 1.30                         | 1.95                         | 3.50                         |
| 4.00 - 4.90   | 2.10                         | 1.40                         | 2.10                         | 4.00                         |
| 5.00 - 5.90   | 2.25                         | 1.50                         | 2.25                         | 4.50                         |
| 6.00 - 6.90   | 2.40                         | 1.60                         | 2.40                         | 5.00                         |
| 7.00 - 7.90   | 2.55                         | 1.70                         | 2.55                         | 5.50                         |
| 8.00 - 8.90   | 2.70                         | 1.80                         | 2.70                         | 10.00                        |
| 9.00 - 9.90   | 2.85                         | 1.90                         | 2.85                         | 10.00                        |
| 10.00 - 10.90 | 3.00                         | 2.00                         | 3.00                         | 10.00                        |
| 11.00 - 11.90 | 3.15                         | 2.10                         | 3.15                         | 10.00                        |
| 12.00 - 12.90 | 10.00                        | 2.20                         | 3.30                         | 10.00                        |
| 13.00 - 13.90 | 10.00                        | 2.30                         | 3.45                         | 10.00                        |
| 14.00 - 14.90 | 10.00                        | 2.40                         | 3.60                         | 10.00                        |
| 15.00 - 15.90 | 10.00                        | 2.50                         | 3.75                         | 10.00                        |
| 16.00 - 16.90 | 10.00                        | 2.60                         | 3.90                         | 10.00                        |
| 17.00 - 17.90 | 10.00                        | 2.70                         | 4.05                         | 10.00                        |
| 18.00 - 18.90 | 10.00                        | 2.80                         | 4.20                         | 10.00                        |
| 19.00 - 19.90 | 10.00                        | 2.90                         | 4.35                         | 10.00                        |
| 20.00 - 20.90 | 10.00                        | 3.00                         | 4.50                         | 10.00                        |
| 21.00 - 21.90 | 10.00                        | 3.10                         | 4.65                         | 10.00                        |
| 22.00 - 22.90 | 10.00                        | 3.20                         | 4.80                         | 10.00                        |
| 23.00 - 23.90 | 10.00                        | 3.30                         | 4.95                         | 10.00                        |
| ≥ 24.00       | 10.00                        | 10.00                        | 10.00                        | 10.00                        |

N2 is determined using the following table:

| QCD           | N2                           |                              |                              |                              |
|---------------|------------------------------|------------------------------|------------------------------|------------------------------|
|               | 0500 (0400) -<br>0559 (0459) | 0600 (0500) -<br>1959 (1859) | 2000 (1900) -<br>2159 (2059) | 2200 (2100) -<br>0459 (0359) |
| 0             | 2.50                         | 2.00                         | 2.50                         | 3.00                         |
| 0.10 - 0.90   | 1.50                         | 1.00                         | 1.50                         | 2.00                         |
| 1.00 - 1.90   | 1.65                         | 1.10                         | 1.65                         | 2.50                         |
| 2.00 - 2.90   | 1.80                         | 1.20                         | 1.80                         | 3.00                         |
| 3.00 - 3.90   | 1.95                         | 1.30                         | 1.95                         | 3.50                         |
| 4.00 - 4.90   | 2.10                         | 1.40                         | 2.10                         | 4.00                         |
| 5.00 - 5.90   | 2.25                         | 1.50                         | 2.25                         | 4.50                         |
| 6.00 - 6.90   | 2.40                         | 1.60                         | 2.40                         | 5.00                         |
| 7.00 - 7.90   | 2.55                         | 1.70                         | 2.55                         | 5.50                         |
| 8.00 - 8.90   | 2.70                         | 1.80                         | 2.70                         | 10.00                        |
| 9.00 - 9.90   | 2.85                         | 1.90                         | 2.85                         | 10.00                        |
| 10.00 - 10.90 | 3.00                         | 2.00                         | 3.00                         | 10.00                        |
| 11.00 - 11.90 | 3.15                         | 2.10                         | 3.15                         | 10.00                        |
| 12.00 - 12.90 | 10.00                        | 2.20                         | 3.30                         | 10.00                        |
| 13.00 - 13.90 | 10.00                        | 2.30                         | 3.45                         | 10.00                        |
| 14.00 - 14.90 | 10.00                        | 2.40                         | 3.60                         | 10.00                        |
| 15.00 - 15.90 | 10.00                        | 2.50                         | 3.75                         | 10.00                        |
| 16.00 - 16.90 | 10.00                        | 2.60                         | 3.90                         | 10.00                        |
| 17.00 - 17.90 | 10.00                        | 2.70                         | 4.05                         | 10.00                        |
| 18.00 - 18.90 | 10.00                        | 2.80                         | 4.20                         | 10.00                        |
| 19.00 - 19.90 | 10.00                        | 2.90                         | 4.35                         | 10.00                        |
| 20.00 - 20.90 | 10.00                        | 3.00                         | 4.50                         | 10.00                        |
| 21.00 - 21.90 | 10.00                        | 3.10                         | 4.65                         | 10.00                        |
| 22.00 - 22.90 | 10.00                        | 3.20                         | 4.80                         | 10.00                        |
| 23.00 - 23.90 | 10.00                        | 3.30                         | 4.95                         | 10.00                        |
| 24.00 - 24.90 | 10.00                        | 3.40                         | 10.00                        | 10.00                        |
| 25.00 - 25.90 | 10.00                        | 3.50                         | 10.00                        | 10.00                        |
| 26.00 - 26.90 | 10.00                        | 3.60                         | 10.00                        | 10.00                        |
| 27.00 - 27.90 | 10.00                        | 3.70                         | 10.00                        | 10.00                        |
| 28.00 - 28.90 | 10.00                        | 3.80                         | 10.00                        | 10.00                        |
| 29.00 - 29.90 | 10.00                        | 3.90                         | 10.00                        | 10.00                        |
| 30.00 - 30.90 | 10.00                        | 4.00                         | 10.00                        | 10.00                        |
| 31.00 - 31.90 | 10.00                        | 4.10                         | 10.00                        | 10.00                        |
| 32.00 - 32.90 | 10.00                        | 4.20                         | 10.00                        | 10.00                        |
| 33.00 - 33.90 | 10.00                        | 4.30                         | 10.00                        | 10.00                        |
| 34.00 - 34.90 | 10.00                        | 4.40                         | 10.00                        | 10.00                        |
| 35.00 - 35.90 | 10.00                        | 4.50                         | 10.00                        | 10.00                        |
| 36.00 - 36.90 | 10.00                        | 4.60                         | 10.00                        | 10.00                        |
| 37.00 - 37.90 | 10.00                        | 4.70                         | 10.00                        | 10.00                        |
| 38.00 - 38.90 | 10.00                        | 4.80                         | 10.00                        | 10.00                        |
| 39.00 - 39.90 | 10.00                        | 4.90                         | 10.00                        | 10.00                        |
| 40.00 - 40.90 | 10.00                        | 5.00                         | 10.00                        | 10.00                        |
| 41.00 - 41.90 | 10.00                        | 5.10                         | 10.00                        | 10.00                        |
| 42.00 - 42.90 | 10.00                        | 5.20                         | 10.00                        | 10.00                        |
| 43.00 - 43.90 | 10.00                        | 5.30                         | 10.00                        | 10.00                        |
| 44.00 - 44.90 | 10.00                        | 5.40                         | 10.00                        | 10.00                        |
| 45.00 - 45.90 | 10.00                        | 5.50                         | 10.00                        | 10.00                        |
| 46.00 - 46.90 | 10.00                        | 5.60                         | 10.00                        | 10.00                        |
| 47.00 - 47.90 | 10.00                        | 5.70                         | 10.00                        | 10.00                        |
| ≥ 48.00       | 10.00                        | 10.00                        | 10.00                        | 10.00                        |

skeyes uses the noise quotas (QCD and QCA) of the aircraft determined by the competent service at Brussels National Airport.

The time to be taken into account for take-off shall be that at which the aircraft leaves the ground.

**P:** The emissions factor of the aircraft used for the flight ( $P_i$ ) shall be determined using the following table:

| Emissions score of the aircraft | $P_i$ |
|---------------------------------|-------|
| $\geq 90$                       | 0.95  |
| $> 10$ and $< 90$               | 1.00  |
| $\leq 10$                       | 1.05  |

The aircraft's emissions score is equal to the average of the CO<sub>2</sub> score and the NO<sub>x</sub> score. The methods for determining these scores are set out in the following document: [https://ops.skeyes.be/html/belgocontrol\\_static/eaip/eAIP\\_Product/Documents/Methodology\\_to\\_determine\\_emission\\_factor.pdf](https://ops.skeyes.be/html/belgocontrol_static/eaip/eAIP_Product/Documents/Methodology_to_determine_emission_factor.pdf)

**S:** The flight's distance factor ( $S_i$ ) is 1.5 for flights whose destination, according to the great-circle distance, is no more than 500 KM from the ARP of Brussels National Airport. The flight's distance factor is 1.0 for flights whose destination, according to the great-circle distance, is more than 500 KM from the ARP of Brussels National Airport.

$$\alpha = \Sigma W_i / \Sigma [W_i \times N_i \times P_i \times S_i]$$

$\alpha$  is calculated on the data of the year n-2.

## 1.2 Exemptions

Exempted from this charge are aircraft:

- flights performed exclusively for the transport, on official mission, of reigning Monarchs and their immediate family, head of state, heads of Government and Government Ministers; in all cases, the exemption must be substantiated by the appropriate status indicator or remark on the flight plan;
- search and rescue flights authorised by the appropriate competent body;
- flights performed exclusively for the purpose of checking or testing equipment used or intended to be used as ground aids to air navigation, excluding positioning flights by the aircraft concerned;
- flights forced to return;
- humanitarian flights authorised by the appropriate competent body;
- customs and police flights.

## 1.3 Remarks

The charge laid down by the present regulations does not include VAT, if any.

The above-mentioned charge has to be paid to the airport manager or his deputy in specie, with a eurocheque or by means of any electronic instrument of payment.

Payment on a later date is possible on the understanding that skeyes has given prior written agreement. In that case, the deposit of a guarantee can be required.

Provision of air navigation services will be refused to debtors unwilling to pay outstanding ATC charges with conventional enforcement measures. skeyes will inform its debtors in writing of the deadline from when the provision of air navigation services will be discontinued if payment is not received. After the expiry of this deadline all skeyes regions and local units will be instructed not to accept any flight plans from such debtors nor to issue start-up permission, taxi or take-off clearances.

## 1.4 Military Aircraft

Belgian military aircraft are exempted from charge. Foreign military aircraft are exempted from charge if their State grants a similar advantage to Belgian military aircraft on a properly settled reciprocal basis.

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## 2 ANA

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### 2.1 General

All landings are free of TNC charges, only departing aircraft shall pay a TNC charge.

### 2.2 Amount of Charges

The formula used for the calculation of the TNC charges is shown below:

$$R = U \times (MTOW/50)^{0.7} \times E \times D \times \alpha$$

in which:

- "R" is the TNC charge per departure aircraft in EUR;

- “U” is the unit rate (set to 257.80 EUR for 2024);
- “MTOW” is the maximum take-off weight of the aircraft expressed in tons;
- “E” is the environmental factor;
- “D” is the day/night factor;
- “ $\alpha$ ” is the compensational factor (set to 0.8251 for 2024).

### 2.2.1 Environmental factor

The environmental factor (E) is determined according to the table below:

| Acoustic Category   | V (acoustic factor)           | E    |
|---------------------|-------------------------------|------|
| CAT A (least noisy) | 10 or more                    | 0.90 |
| CAT B               | between 7.5 (included) and 10 | 1.00 |
| CAT C               | between 5 (included) and 7.5  | 1.25 |
| CAT D (most noisy)  | less than 5                   | 1.50 |

In order to define the environmental factor (E), an acoustic factor (V) will be used.

The acoustic factor is obtained by dividing through the number of engines of the aircraft the difference of the aircraft maximum noise level value(s) as specified in *ICAO Annex 16* and the actual aircraft noise level value(s) figuring on the noise certification data sheet.

In case of multiple values for lateral, approach, fly over, overflight and/or take-off noise levels, cumulative noise values will be used.

In the case of *ICAO Annex 16* chapters containing sub-chapters (e.g. chapter 8, 10 or 11), the highest maximum noise levels will be considered.

In case of multiple values for MTOW, the highest MTOW shall be applied.

### 2.2.2 Day/Night factor

The day/night factor (D) is determined according to the table below:

| TKOF time                 | D    |
|---------------------------|------|
| 0500 - 2200 (0400 - 2100) | 1.00 |
| 2201 - 2300 (2101 - 2200) | 1.50 |
| 2301 - 0459 (2201 - 0359) | 2.00 |

The take-off time on the flight progress strip applies.

## 2.3 Noise Certification Data Sheet

In order to allow for the correct calculation of the TNC, especially with regard to the environmental factor it is strongly recommended to submit all noise certification data sheet(s) to the ANA OPS Department prior to departure (see [GEN 3.1](#)).

In the case that the noise certificate has not been received prior to departure, is unreadable or does not provide actual noise level values, the environmental factor (E) is considered as 1.50.

In this context the correct environmental factor (E) can only be applied starting from the date the noise certificate has been received by ANA OPS Department. Backwards recalculation prior to the date of reception of the noise certificate cannot be performed.

## 2.4 Exemptions

The following aircraft are exempted from TNC:

- Flights carried out exclusively to transport, on official missions, the reigning monarchs and their immediate family, heads of state, heads of government and government ministers, when the status of those flights is confirmed by an appropriate indication of the status or by an adequate note on the flight plan;
- Search and rescue flights authorized by the appropriate competent authority;
- Military flights carried out by military aircraft of any country;
- Training flights carried out exclusively for the purposes of obtaining a license or an evaluation of the abilities of the flight crew, when this purpose has been confirmed by an adequate remark on the flight plan. These flights must be carried out exclusively within Luxembourgish airspace and must not be used for the transport of passengers or goods, nor for positioning or convoying;
- Flights carried out exclusively for the purposes of checking or testing equipment used or to be used as ground aids for air navigation, excluding positioning flights carried out by the aircraft concerned;
- Humanitarian flights authorized by ANA;
- Flights carried out by customs and the police.



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## 2.5 Payment Terms

If the bill is not paid within thirty days from the date of invoice, ANA reserves the right to charge default interest. After sixty days late, ANA will automatically send a formal notice to the debtor and will charge default interest in accordance and as foreseen in the national legislation.

ANA may prohibit the flight of any aircraft for which the charges due under this regulation have not been paid within the time prescribed above.

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## 3 ROUTE CHARGES

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The route charges for the Brussels FIR/UIR are managed by Eurocontrol's Central Route Charges Office (CRCO). Details can be consulted on the Eurocontrol website:

URL: [www.eurocontrol.int/crco](http://www.eurocontrol.int/crco)

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