# **ELLX - LUXEMBOURG / Luxembourg**

### **ELLX AD 2.1 Aerodrome Location Indicator and Name**

ELLX - LUXEMBOURG / Luxembourg

# **ELLX AD 2.2 Aerodrome Geographical and Administrative Data**

1	ARP coordinates	493724N 0061216E
1	Site of ARP at aerodrome	193° MAG / 560M from TWR
2	Direction and distance from (city)	3.25NM E of Luxembourg
3	Elevation / reference temperature	1234FT / 26°C
4	Geoid undulation at AD ELEV PSN	158FT
5	Magnetic variation / annual change	3° E (2020)/ 11' E increasing
	Name of AD operator	Société de l'aéroport de Luxembourg SA
	Address	lux-Airport BP 635 L-2016 Luxembourg LUXEMBOURG
6	TEL	+352 24 64 31 00
	FAX	NIL
	Email	operations@lux-airport.lu
	AFS	NIL
	Website	www.lux-airport.lu
7	Types of traffic permitted (IFR/VFR)	IFR / VFR
8	Remarks	NIL

# **ELLX AD 2.3 Operational Hours**

1	AD Operator	MON to FRI: 0800-1600 (0700-1500)
2	Customs and immigration	H24
3	Health and sanitation	O/R
4	AIS Briefing Office	H24
5	ATS Reporting Office (ARO)	H24
6	MET Briefing Office	H24
7	ATS	H24
8	Fuelling	H24
9	Handling	H24 <sup>(1)</sup>
10	Security	H24
11	De-icing	H24
12	Remarks	The airport is closed to traffic from 2200 to 0500 (2100 to 0400), except for government flights, SAR flights, humanitarian flights, hospital flights, distress flights and delayed scheduled flights. The airport should not be considered as take-off, en route or destination alternate during this period.  (1) Outside airport opening hours, prior notice is required for government flights, SAR flights, humanitarian flights and hospital flights. Contact Airport Duty Manager: +352 24 64
		31 10. Specific rules apply to GAT flights, see AD 2.20, § 6.

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# **ELLX AD 2.4 Handling Services and Facilities**

1	Cargo-handling facilities	Dedicated cargo area and facilities available at apron P7.		
2	Fuel types	AVGAS 100 LL and JET A1		
	Oil types	INFO not AVBL		
3	Fuelling facilities and capacity	AVGAS 100 LL: 1 storage tank (60000 L), 1 truck (5000 L) and 1 self-service (5000 L) JET A1: 4 storage tanks (6900000 L) and 12 trucks (25000 L to 85000 L) Delivery flow rates from 1200 to 4000 L/MIN		
4	De-icing facilities	On-stand de-icing only		
5	Hangar space for visiting aircraft	NIL		
6	Repair facilities for visiting aircraft	All repairs		
7	Remarks	Handling on apron P5 on request. Contact Business Aviation Centre: +352 24 64 34 00.  Specific rules apply to GAT flights, see <u>AD 2.20, § 6</u> .		

# **ELLX AD 2.5 Passenger Facilities**

1	Hotels	Near aerodrome and in the city			
2	Restaurants	At aerodrome and in the city			
3	Transportation	Taxis, buses, car hire and coach service			
4	Medical facilities	First aid treatment and ambulance Hospitals in Luxembourg			
5	Bank	Cash dispensers and currency exchange in main terminal building.			
3	Post office	NIL			
6	Tourist office	At aerodrome			
7	Remarks	NIL			

# **ELLX AD 2.6 Rescue and Fire Fighting Services**

1	Aerodrome category for fire fighting	CAT 9
2	Rescue equipment	CAT 9 compliant
3	Capability for removal of disabled aircraft	Tow bar, lifting bags, towing set and ground reinforcement mats
4	Remarks	NIL

# ELLX AD 2.7 Runway Surface Condition Assessment and Reporting, and Snow Plan

1	Types of clearing equipment	<ul> <li>3 snow blowers</li> <li>9 sweeper-blowers</li> <li>1 sprayer truck, capacity 15000L (liquid)</li> <li>1 sprayer truck, capacity 14000L (liquid)</li> <li>1 sprayer truck, capacity 8000L (liquid)</li> <li>1 spreader truck, capacity 6400L (liquid), 3M<sup>3</sup> (solid)</li> </ul>		
2	Clearance priorities	<ol> <li>RWY over a width of 45M</li> <li>Main TWY A, A1, A2, B1, B2, B3, B4</li> <li>Intersection TWY C, D1, D2, E, F, G depending on the runway in use</li> </ol>		
3	Use of material for movement area surface treatment	KFOR (potassium formate fluids) and NAFO (sodium formate solids) used.		
4	Specially prepared winter runways	Not applicable.		
5	Remarks	Refer to AD 1.2, § 2.2 for further information.		

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# **ELLX AD 2.8 Aprons, Taxiways and Check Locations/Positions Data**

	Apron designation	See chart AD 2.ELLX-GMC.02			
1	Apron surface	CONC / ASPH			
	Apron strength	See chart AD 2.ELLX-GMC.02			
	Taxiway width	See chart AD 2.ELLX-GMC.02			
2	Taxiway surface	ASPH			
	Taxiway strength	See chart AD 2.ELLX-GMC.02			
3	ACL and elevation	At apron P2 (1233FT)			
4	VOR check points	NIL			
5	INS check points	See chart AD 2.ELLX-APDC.01			
6	Remarks	NIL			

# **ELLX AD 2.9 Surface Movement Guidance and Control System and Markings**

	Aircraft stand identification signs	No		
1	Taxiway guide lines	Guidance sign-boards at entrance of TWY to RWY and at intersections of TWYs		
	Visual docking/parking guidance system at aircraft stands	NIL		
	Runway markings and lighting	Designation, THR, TDZ, aiming point, centre line and side stripe markings		
2	Taxiway markings and lighting	Centre line, enhanced centre line and RWY holding positions at the TWY/RWY intersections RWY AHEAD markings on all RWY/TWY intersections		
	Stop bars	See AD 2.ELLX-GMC.01		
3	Runway guard lights	Inset RWY guard lights on TWY A1, A2, B4, C, E, F, H and I Elevated RWY guard lights on TWY D1, D2 and G		
4	Other runway protection measures	NIL		
5	Remarks	NIL		

### **ELLX AD 2.10 Aerodrome Obstacles**

### **Close-In Obstacles**

ID	Туре	Latitude	Longitude	ELEV (FT)	Marked	Area	RWY affected
EL479637	Vegetation	493818.5N	0061415.0E	1279.1	No	2C	06
EL041439	Vegetation	493808.5N	0061432.8E	1270.7	No	2C	06
EL467209	Vegetation	493655.1N	0061112.3E	1194.5	No	2C	24

### Visual Segment Surface (VSS) Penetration

ID	Туре	Latitude	Longitude	ELEV (FT)	Marked	Area	Procedure minima affected
EL041248	Vegetation	493652.5N	0061101.1E	1198.2	No	2B	VOR 06, LNAV 06 and LNAV/ VNAV 06
EL481126	Vegetation	493820.1N	0061421.5E	1291.5	No	2C	VOR 24, LNAV 24 and LNAV/ VNAV 24
EL449378	Vegetation	493808.5N	0061431.9E	1271.6	No	2C	VOR 24, LNAV 24 and LNAV/ VNAV 24

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# **ELLX AD 2.11 Meteorological Information Provided**

1	Associated MET Office	ELLX MET			
2	Hours of service	H24			
	MET Office outside hours	NIL			
3	Office responsible for TAF preparation	ELLX			
3	Periods of validity	30HR			
4	Trend forecast	AVBL			
4	Interval of issuance	30MIN			
5	Briefing / consultation provided	Official in charge, TEL, full display and CCTV			
6	Flight documentation	Plain language, tables and schedules, charts			
	Languages used	Lu, Ge, Fr and En			
7	Charts and other information available for briefing or consultation	Surface charts, altitude charts, prognostic altitude charts, prognostic chart of significant weather, tropopause and maximum wind chart			
8	Supplementary equipment available for providing information	Weather radar, IR, HRV (high resolution visible) and WV (water vapour), NWP (numerical weather prediction)			
9	ATS units provided with information	Luxembourg TWR and Luxembourg APP			
		TEL: +352 47 98 27 01 1			
10	Additional information	FAX: +352 47 98 27 09 0			
		Email: metprv@airport.etat.lu			

# **ELLX AD 2.12 Runway Physical Characteristics**

			04 41 4 <b>70</b> 00	THR COORD	THR ELEV and
RWY	True BRG	Dimensions of	Strength (PCN) and surface of	RWY end COORD	highest ELEV of
designator	mac ziko	RWY (M)	RWY and SWY	THR geoid undulation	TDZ of precision APCH RWY
1	2	3	4	5	6
		4002 x 45	79/F/A/W/T ASPH	493703.08N 0061115.05E	
06	060.18°			493807.42N 0061408.17E	THR 1158.5 FT TDZ 1204 FT
				157.6FT	
	24 240.18° 4002 x 45		79/F/A/W/T ASPH	493807.42N 0061408.17E	
24		4002 x 45		493703.08N 0061115.05E	THR 1212.6 FT TDZ 1213 FT
				157.7FT	

RWY designator	Slope of RWY and SWY (*)	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	Dimensions of RESA (M)
7	8	9	10	11	12
06	+1.50% (from 0 to 1512 M) -0.41% (from 1512 to 2982 M) -0.02% (from 2982 to 4002 M)	NIL	NIL	4122 x 280	130 x 150
24	+0.02% (from 0 to 1020 M) +0.41% (from 1020 to 2490 M) -1.50% (from 2490 to 4002 M)	NIL	NIL	4122 x 280	97 x 150

<sup>(\*)</sup> High slope between THR06 and TWY F. Slope variation might generate optical illusion, especially during approach on RWY 06. Opposite THR not visible.

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RWY designator	Location and description of arresting gear	OFZ	RMK		
13	14	15	16		
06	NIL	yes	NIL		
24	NIL	yes	NIL		

# **ELLX AD 2.13 Declared Distances**

RWY designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	RMK
1	2	3	4	5	6
06	4002	4002	4002	4002	NIL
24	4002	4002	4002	4002	NIL

Note: In order to reduce the taxi procedure, ATC may authorize, for certain types of aircraft, take-off from one of the following intersections:

RWY	From	TORA (M)	Remarks	
	E	2464	NIL	
06	F	2497	Not allowed for aircraft with WTC 'H'.	
06	G	3275	Not allowed for aircraft with WTC 'H'.	
	Н	3275	NIL	
24	С	2850	Not allowed for aircraft with WTC 'H'.	
24	F	1529	Not allowed for aircraft with WTC 'H'.	

# **ELLX AD 2.14 Approach and Runway Lighting**

			RWY 0	6			
	Туре:	PALS CAT I			Туре:	PAPI (left / 3°)	
Approach lighting system	Length:	900M		VASIS	МЕНТ:	65FT	
ngg oyoto	Intensity:	LIH					
Runway	Colour:	green		Touchdown	NIL		
threshold lights	Wing bars:	NIL		zone lights			
Runway end	Colour:	red		Stopway	NIL		
lights	Wing bars:	NIL		lights			
_	Length:	4002M white:		from 0 to 3094M			
Runway centre line lights	Spacing:	15M red / white:		from 3109 to 3691M			
ege	Intensity:	LIH red:		from 3706 to 4002M			
	Length:	4002 M	white:	from 0 to 3377M			
Runway edge lights	Spacing:	30 M	yellow:	from 3407 to 4	002M		
	Intensity:	LIH					
Remarks	All RWY lights till stopbars included LED.  No LED used for approach lighting system.						

RWY 24							
	Туре:	PALS CAT II / III		Type:	PAPI (left / 3°)		
Approach lighting system	Length:	900M	VASIS	МЕНТ:	65FT		
ngnung oyotom	Intensity:	LIH					
Runway	Colour:	green	Touchdown	900M			
threshold lights	Wing bars:	NIL	zone lights				

	RWY 24								
Runway end	Colour:	red		Stopway	NIL				
lights	Wing bars:	NIL		lights					
	Length:	4002M	white:	from 0 to 3091 M					
Runway centre	Spacing:	15M	red / white:	from 3106 to 3689M					
inio ngino	Intensity:	LIH	red:	from 3704 to 4	002M				
_	Length:	4002M	white:	from 0 to 3377	М				
Runway edge lights	Spacing:	30M	yellow:	from 3407 to 4	002M				
gc	Intensity:	LIH							
Remarks	All RWY lights till stopbars included LED.  No LED used for approach lighting system.								

# **ELLX AD 2.15 Other Lighting and Secondary Power Supply**

1	ABN / IBN location, characteristics and hours of operation	ABN: TWR building, FLG W EV 2.4 SEC/H24 IBN: NIL		
	LDI location and lighting	NIL		
2	WDI location and lighting	At 276M from THR 06 and 3726M from THR 24 (lighted) At 1813M from THR 06 and 2189M from THR 24 (lighted) At 3678M from THR 06 and 324M from THR 24 (lighted)		
3	Taxiway edge lighting	All TWY		
3	Taxiway centre line lighting	All TWY		
4	Secondary power supply	AVBL		
4	Switch-over time	1SEC during LVP, 15SEC outside LVP		
5	Remarks	NIL		

# **ELLX AD 2.16 Helicopter Landing Area**

All helicopters have to use the RWY for landing and take-off except HEMS and police flights by local operators, which are allowed to land and take-off from TWY B3.

# **ELLX AD 2.17 ATS Airspace**

	Designation	Luxembourg CTR
1	Lateral limits	494311N 0061213E - an arc of circle, 5NM radius, centred on 493850N 0061603E and traced clockwise to 493429N 0061952E - 493041N 0060939E - an arc of circle, 5NM radius, centred on 493502N 0060549E and traced clockwise to 493923N 0060159E - 494311N 0061213E.
2	Vertical limits	2500FT AMSL
3	Airspace classification	D
4	ATS unit call sign	Luxembourg Tower
*	Language(s)	En
5	Transition altitude	5000 FT AMSL
6	Hours of activation	H24
7	Remarks	NIL

# **ELLX AD 2.18 ATS Communication Facilities**

Service designation	Call sign	Channel/ Frequency	Hours of operation	Remarks
1	2	3	4	5
		120.885	H24	Primary 8.33 KHZ CH DOC: 80 NM - FL200
		362.300 MHZ	H24	NIL
	Luxembourg Approach	121.500MHZ	H24	Emergency
APP	Euxembourg Approach	120.165	H24	Spare 8.33 KHZ CH DOC: 25NM - FL100
		119.950MHZ	H24	Spare DOC: 25NM - FL100
	Luxembourg Director	118.905	нх	Control service on final approach with radar. 8.33 KHZ CH On ATC instructions only. Only state CS on initial contact. DOC: 40 NM - FL200
		118.105	H24	Primary 8.33 KHZ CH DOC: 25NM - FL040
		362.300 MHZ	H24	NIL
	Luxembourg Tower	121.500MHZ	H24	Emergency
TWR	Luxenibodig Tower	120.165	H24	Spare 8.33 KHZ CH DOC: 25NM - FL100
		119.950MHZ	H24	Spare DOC: 25NM - FL100
	Luxembourg Delivery	121.855	HS	Clearance delivery. 8.33 KHZ CH Operational hours: 0500-2200 (0400-2100) DOC: 5NM - GND See ELLX AD 2.22, § 3.1
ATIS	Luxembourg ATIS	134.755	H24	8.33 KHZ CH DOC: 40NM - FL150 See <u>ELLX AD 2.23</u>
VDF	Luxembourg Homer	118.105 120.885	H24	8.33 KHZ CH
		121.500MHZ	H24	NIL

# **ELLX AD 2.19 Radio Navigation and Landing Aids**

Type of aid (MAG VAR)	ID	Frequency	Hours of operation	Position of transmitting antenna	DME antenna elevation	Remarks
1	2	3	4	5	6	7
DVOR/DME (2° E/2020)	DIK	114.400MHZ (CH 91X)	H24	495140.7N 0060747.1E	1100FT	349° GEO / 14.58NM from ARP DOC DVOR: 100NM - FL500
DVOR/DME (2° E/2020)	LUX	112.250MHZ CH 59Y	H24	493822.3N 0061450.2E	1200FT	060° GEO / 1.93 NM from ARP DOC: 60 NM - FL250

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	of aid VAR)	ID	Frequency	Hours of operation	Position of transmitting antenna	DME antenna elevation	Remarks
•	1	2	3	4	5	6	7
ILS 06	(CAT I)						
	LOC	ILE	109.900MHZ	H24	493818.6N 0061438.4E		060° GEO / 2.55NM from THR 06 DOC: 25NM - FL060
	GP		333.800MHZ	H24	493703.4N 0061128.1E		Slope 3° RDH 57FT DOC: 25NM - FL060
	DME	ILE	CH 36X	H24	493703.4N 0061128.1E	1200 FT	Type N Collocated with GP 0 at 230M from THR 06 DOC: 25NM - FL100
ILS 24	(CAT III	)					
	LOC	ILW	110.700MHZ	H24	493658.7N 0061103.6E		240° GEO / 2.31NM from THR 24 DOC: 25NM - FL060
	GP		330.200MHZ	H24	493758.5N 0061359.1E		Slope 3° RDH 50FT DOC: 25NM - FL060
	DME	ILW	CH 44X	H24	493758.5N 0061359.1E	1300 FT	Type N Collocated with GP 0 at 300M from THR 24 (ABM antenna) DOC: 25NM - FL100

### **ELLX AD 2.20 Local Aerodrome Regulations**

#### 1 GENERAL

### 1.1 Ground Surveillance - Use of Mode A, C and S Transponders

ELLX is equipped with an advanced ground surveillance system using Mode A and S.Operators intending to use the airport should ensure that Mode S transponders are able to operate when their aircraft are on the ground.

Pilots shall select XPDR or the equivalent according to specific installation, AUTO if available, not OFF or STBY, and the assigned Mode A code, if available:

- · from the request for push-back or start-up, whichever is earlier;
- after landing, continuously until the aircraft is fully parked on stand. When parked, Mode A code 2000 shall be set before selecting OFF or STBY.

Whenever possible, the aircraft identification (i.e. call sign used in flight) shall be entered as from the request for push-back or start-up, whichever is earlier (through the FMS or the transponder control panel). Pilots shall use the ICAO format for aircraft identification, as entered in item 7 of the flight plan form (e.g. "LGL123").

To ensure that the performance of systems based on SSR frequencies (incl. airborne ACAS units and SSR radars) is not compromised, ACAS shall not be selected before receiving clearance to line up. It should be deselected after vacating the runway.

Aircraft without assigned Mode A code or taxiing without flight plan, shall select Mode A code 2000.

#### 1.2 Aircraft Code F

Aircraft code F other than B747-8F are subject to a special permission. Requests for special permission have to be sent minimum 72 hours in advance to <a href="mailto:dutymanager.ops@lux-airport.lu">dutymanager.ops@lux-airport.lu</a>.

At holding points RWY 24 on TWY A1 and TWY A2, no simultaneous holding positions will be allowed for B747 type aircraft.

#### 1.3 Adverse Weather

During adverse weather situations such as lightning activity above or in the proximity of the aerodrome and high winds exceeding 40 KT expect suspension of ground handling activities. Arriving aircraft are to follow the Follow Me guidance for parking of aircraft.

#### 1.4 Wildlife strikes

Pilots are requested to report wildlife strikes as well as observed wildlife risks in flight immediately to ATC.

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Once on stand submit the report also to the Wildlife Unit.

#### Wildlife Unit

TEL: +352 24 64 31 00

Always submit the wildlife strike report to the Safety Management Unit.

#### Safety Management Unit

Email: safety@lux-airport.lu

#### 2 TAXI REGULATIONS

When issued with taxi instructions, departing aircraft shall taxi as close as possible to the appropriate runway-holding position. Unless otherwise notified to ATC by the pilot, aircraft are expected to be ready for departure upon reaching the runway-holding position. General aviation aircraft departing from aprons P5 and P6 shall complete all pre-departure checks, including engine/power checks, before requesting taxi instructions to enter the manoeuvring area.

Aircraft with WTC H are not allowed to enter RWY 06/24 via intersection G, except when towed. All aircraft are still permitted to vacate at TWY G after landing.

TWY F is not available for aircraft with WTC H.

Traffic landing on RWY 06 and vacating at TWY E or D1 shall await onward clearance before entering TWY B1 due to conflicting ground traffic in opposite direction.

To expedite departing traffic flow on RWY 24, use TWY A2. Other TWY are available on request or ATC instruction.

Note: Main gear clearance on TWY A2 is below minima on the inner side of the turn for aircraft types Airbus A340-600, Airbus A350-1000 and Boeing 777-300.

#### 3 APRON REGULATIONS

No control service provided on aprons by ATC.

Aprons P1, P2, P7 and P10 shall only be entered behind a follow-me car.

On aprons P7 and P10, use minimum thrust, maximum 30 PCT N1, when entering aircraft stands to avoid jet blast damage and injuries. Aircraft entering stands Z5, Z6, Z7 and Z8 use caution due to slight upslope.

On aprons P1 and P2, boarding and deboarding is not permitted with running engines. The use of APU is limited to 15 minutes after arrival and 20 minutes before departure. Exception to this only after authorisation of Business Aviation Center on apron P2.

Due to reduced space on B-aircraft stands, pilots must proceed with caution when parking and strictly follow the instructions from the marshaller.

On apron P6:

- · Exit is not allowed via TXL N unless explicitly approved by ATC.
- Air taxiing is forbidden.

Wearing of high visibility vest mandatory on movement area.

### 4 RUNWAY REGULATIONS

#### 4.1 Reduced Runway Separation Minima

Reduced RWY separation minima can be applied by TWR on RWY 06/24 if following criteria are met:

- VMC;
- Daytime;
- Tailwind ≤ 5 KT;
- · Runway braking action not adversely affected by contaminants (i.e. RWYCC 6 or 5).

### 4.2 Minimum Runway Occupancy Time

### 4.2.1 Departure

Pilots should be ready for a rapid line-up according to ATC instructions.

Cockpit checks should be completed prior to line-up and any checks requiring completion whilst on the runway should be kept to a minimum required. Pilots should ensure that they are able to commence take-off roll immediately after receiving take-off clearance. Pilots not able to comply with the above requirements shall notify ATC as soon as possible.

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#### 4.2.2 Arrival

Landing aircraft shall vacate the runway expeditiously and are to ensure fully vacated before stopping.

#### 5 SPECIFIC TRAFFIC REGULATIONS

#### 5.1 Aircraft without Radio

Aircraft without radio are prohibited.

#### 5.2 Glider Flights

Glider flights are prohibited except with a special permission from the CAA.

#### 5.3 ULM Flights

ULM flights are prohibited except with a special permission from the CAA.

### 5.4 Balloon Flights

Balloon flights are prohibited. Transit of CTR allowed (radio contact mandatory).

### 5.5 Parachuting

Parachuting is prohibited.

#### 5.6 Acrobatic Flights

Acrobatic flights are prohibited.

### 5.7 Training and Test Flights

Are considered as training flights:

- Successive touch-and-goes in the traffic circuit;
  - · Approaches, VFR or IFR, followed by a go-around (except for operational and emergency reasons).

Only Luxembourg registered aircraft and aircraft with a special permission from the CAA are allowed to perform training flights at ELLX.

Only one training flight is allowed in the traffic circuit at a time. Time slots shall be arranged via telephone with ELLX ARO (+352 47 98 23 01 0 or 1), starting at 0600 (0500) of the day on which the flight is planned to be executed.

Overview of allowed training times:

Type of training	MON to SAT	SUN and HOL
Training flights performing successive touch-and-goes in the traffic circuit	0700-0830 (0600-0730) 1100-1600 (1000-1500) 1900-2000 (1800-1900)	0700-0830 (0600-0730) 1300-1600 (1200-1500) 1900-2000 (1800-1900)
IFR training flights (see Note 3)	0530-0830 (0430-0730) 1100-1600 (1000-1500) 1900-2000 (1800-1900)	0700-0830 (0600-0730) 1100-1600 (1000-1500) 1900-2000 (1800-1900)

- Note 1: Training flights with multi-engine aircraft are not allowed on SUN and HOL.
- Note 2: RWY maintenance/inspection has priority over training flights.
- Note 3: Exceptions to IFR training flight times may be granted upon request on day of operations via telephone with ELLX ARO (+352 47 98 23 01 0 or 1).
- Note 4: ATC may refuse training flights on short notice in case of adverse traffic situation.

#### 5.8 Local Flights

Any flight departing from and arriving at ELLX without intermediate landing abroad is considered as a local flight. Local flights are allowed: MON to SAT 0530-2100 (0430-2000); SUN and HOL 0700-2100 (0600-2000).

#### 5.9 Green Lane

Green Lane can be used by vehicles after authorisation by TWR. Wingtip clearance between all code A, B and C aircraft and vehicles on Green Lane guaranteed.

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### 6 HANDLING OF GENERAL AVIATION FLIGHTS

#### 6.1 Principles

Except for cases listed in § 6.3, handling is mandatory and will be coordinated by Business Aviation Center: MON-SUN 0500-2200 (0400-2100).

Aircraft will be parked on apron P2 by default. Apron P5 East can only be used for Luxembourg Air Ambulance and Police activities. Apron P5 West can only be used for:

- AVGAS refuelling of single engine, propeller aircraft without commercial passengers;
- Pre-flight checks on positions W01, W02, W03 and W04;
- · W02/W12 can only be used by rotary wing aircraft;
- The use of any of these positions for a period longer than needed for the pre-flight checks, is subject to approval by lux-Airport;
- Temporary parking during standard times, of single engine, propeller aircraft without commercial passengers on GA1 box only (wingspan ≤ 15 M). Aircraft shall not operate under own power within the parking area. Engine(s) must be turned off prior to entry and may only be turned on after exiting the parking box.

In case apron P5 West parking spaces are full, aircraft will be positioned on apron P2 where handling is mandatory.

Aircraft based on apron P6 can apply for JET A1 fuelling permission on apron P5.

The standard time allowed on the ground is 72 hours. Extended stays must be notified as repositioning can be required.

Operating without prior permission can result in an additional fee of up to a maximum of 4 times the regular handling fee and lead to refusal of future requests.

#### 6.2 Procedure

- Handling requests must be sent at the latest 6 business hours prior to the flight to <u>bac@lux-airport.lu</u> in order to obtain
  a general aviation PPR.
- The request must include the noise certificate and specify arrival & departure date and times (no open-ended schedule).
- · The permission number must be specified in item 18 of the FPL.
- · Immediately notify any changes, cancellations or parking extension requests.

### 6.3 Exempted Flights

Following aircraft can be exempted from the mandatory handling on the condition that they do not perform any commercial passenger transport and where the crew is in possession of a valid and correct lux-Airport access badge:

- · Aircraft based on apron P6;
- · Non ELLX-based, single engine, propeller aircraft temporarily parking on apron P5;
- · Ambulance, police, military, state and search and rescue flights;
- Flights diverting for safety or emergency landing and for weather or technical reasons.

#### 6.4 Payment Methods

- · Handling fees: Credit card or credit account. No other payment accepted.
- JET A1 payment: Fuel contract, fuel release or fuel card.

#### **ELLX AD 2.21 Noise Abatement Procedures**

### 1 GENERAL

### 1.1 "Chapter 2" Aircraft

In accordance with European Directive 2002/30, take-off and landing of aircraft noise certified according to the criteria of *ICAO Annex 16*, Chapter 2, are forbidden.

State and military aircraft are exempted from this prohibition.

### 1.2 Use of Reverse Thrust

Except for reasons of safety, aircraft crews using the airport must conform to all relevant noise abatement techniques laid down for the type of aircraft and appropriate to the operations undertaken.

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Aircraft must be operated at all times in a manner designed to cause the least disturbance practicable in areas surrounding the airport. In particular, the use of reverse thrust should be limited to idle power wherever possible and higher power used only for reasons of safety or for compliance with operational instructions.

#### 2 GROUND PROCEDURES

Engine run-ups are only allowed for aircraft meeting the standards of *ICAO Annex 16. Volume 1, Chapter 3* and shall only be conducted on the engine test area located on TWY I.

Except when specifically authorised, engine test runs are only allowed from MON to FRI between 0600 and 2000 (0500 and 1900), and on SAT between 0700 and 1900 (0600 and 1800). Engine test runs are prohibited on SUN and public holidays.

An aircraft wanting to perform an engine run-up must request prior approval 2 hours in advance to the Airport Duty Manager. In the request, the operator must indicate the aircraft type, the foreseen start and end time, as well as the power settings used for the engine test. After approval received from Airport Duty Manager, the operator can contact ATC to access the area and perform the run, according to the conditions allowed for.

Ground idle runs are not considered to be engine test runs and need to be pre-approved by Airport Duty Manager.

#### **Airport Duty Manager**

TEL: +352 24 64 31 10

Email: dutymanager.ops@lux-airport.lu

#### 3 ARRIVAL PROCEDURES

### 3.1 Noise Abatement Approach and Landing Procedures

Aircraft performing a visual approach shall intercept the final approach leg not earlier than 6NM from the threshold.

### 3.2 Continuous Descent Operations (CDO)

When the traffic situation permits, ATC will facilitate continuous descent for all RWY, based on radar vectoring or RNAV1 procedure. Facilitation of CDO will be provided at ATC discretion only.

When a CDO can be approved by ATC, as soon as practicable after first call on the APP frequency, ATC will provide a clearance to proceed on a CDO via one or more of the following significant points: IRTON, LX242, LX243, LX063, LX062, BREDI & PONIG.

After passing either LX242 or LX243 (for RWY24), respectively LX063 or LX062 (for RWY06), aircraft on CDO are expected to turn inbound and intercept the ILS prior to the FAF.

Following phraseology shall be used:

CDO Requ	uest	[aircraft call sign], [position report], REQUEST CDO.
CDO Appi	oval	[aircraft call sign], CLEARED CDO ILS RWY XX VIA [significant point], QNH (number)[units], (report established).

Descent clearance to 3000FT is included in the ILS clearance.

Following restrictions apply:

RWY	Route	Restriction
	MMD – IRTON – LX06I	MNM FL 080 abeam IRTON
06	AKELU – BREDI – LX062	MNM FL 080 2 NM north of AKELU MNM 4 700 FT above LX062
	MMD – IRTON – LX242	MNM FL 080 abeam IRTON
24	SORAL – AKELU – LX243	MNM FL 080 2 NM north of AKELU
	PONIG – LX24I	MNM FL 060 above PONIG

CDO will not be facilitated in adverse weather conditions that may affect the approach (wind shear, thunderstorms, etc.).

Subject to ATC instructions, inbound aircraft shall adopt a continuous descent profile - to the greatest possible extent compatible with safe operation of the aircraft - by employing minimum engine thrust, ideally in a low drag configuration, prior to the FAF/FAP.

Note: All noise abatement procedures for arrivals as well as the speed limitations as specified in the AIP Belgium & Luxembourg remain applicable when performing CDO.

#### 4 DEPARTURE PROCEDURES

#### 4.1 General

The SID (see ELLX AD 2.22, § 3.2.1) constitute noise abatement procedures. It is therefore emphasized that pilots shall adhere to these routes as closely as performance permits. If unable to comply with these procedures, they shall advise ATC immediately.

#### 4.2 Noise Abatement Take-off and Climb Procedures

Climb until 4000 FT shall be performed with most noise abatement efficient aircraft setting if available, or at maximum climb gradient compatible with safety.

### **ELLX AD 2.22 Flight Procedures**

#### 1 GENERAL

#### 1.1 Aerodrome Minima

Except in case of emergency, no pilot shall land or take off when RVR is below 125M.

Specific minima apply for following procedures:

- ILS/DME CAT I RWY 06: 600 M RVR;
- ILS/DME CAT I RWY 24: 550M RVR;
- ILS/DME CAT II RWY 24: 300M RVR;
- · ILS/DME CAT IIIA RWY 24: 200M RVR;
- · ILS/DME CAT IIIB RWY 24: 125M RVR;
- · LOC/DME RWY 06 (CAT A/B/C): 800M RVR or VIS;
- · LOC/DME RWY 06 (CAT D): 1200M RVR or VIS;
- LOC/DME RWY 24 (CAT A/B/C): 800M RVR or VIS;
- LOC/DME RWY 24 (CAT D): 1200M RVR or VIS;
- VOR/DME RWY 06 (CAT A/B/C): 1200 M RVR or VIS;
- VOR/DME RWY 06 (CAT D): 1600M RVR or VIS;
- VOR/DME RWY 24 (CAT A/B/C): 1200 M RVR or VIS;
- VOR/DME RWY 24 (CAT D): 1600M RVR or VIS.

### 2 IFR FLIGHTS (INBOUND)

### 2.1 General

ILS is the default approach procedure. Pilots planning for any other type of procedure must ask for explicit ATC clearance.

### 2.1.1 Aircraft Equipment

DME is compulsory for all inbound IFR traffic.

#### 2.1.2 Radar Vectoring

Radar vectoring may be expected.

Aircraft receiving radar vectors to intercept an instrument approach to Luxembourg Airport may be assigned levels by ATC below the minimum sector altitude/terminal arrival level. Levels assigned will assure that the aircraft remains at least 1000FT above the highest obstacle located within 3NM or 5NM of the aircraft, as appropriate (in accordance with *ICAO Doc 8168 PANS-OPS, Volume II, Section 2, § 6.2.3*). Refer to <u>AD 2.ELLX-ATCSMAC.01</u>.

#### 2.1.3 Speed Limitations

Aircraft being radar vectored shall reduce speed to 250KIAS MAX when crossing 25 DME LUX or when below FL100.

Unless instructed otherwise, the speed on final approach shall not exceed 180 KIAS at the FAF/FAP.

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Pilots are requested to comply as promptly as feasible within operational constraints with any speed adjustments requested by ATC. Aircraft unable to comply with the requested speed shall inform ATC and indicate the speed that will be used.

### 2.2 Conventional Navigation

### 2.2.1 Holding Patterns

#### **DIEKIRCH**

Fix	DIK DVOR/DME
Turn / inbound track (MAG)	Right / 120°
Levels (MAX / MNM)	FL100 / 4000FT QNH
Remarks	Holding pattern shall be flown at 220 KIAS MAX

#### **HOLDING 24**

Fix	R-058/5.0 DME LUX			
Turn / inbound track (MAG)	Right / 237°			
Levels (MAX / MNM)	4000FT QNH / 3000FT QNH			
Remarks	Holding/racetrack pattern shall be flown at 200 KIAS MAX Limit of the outbound track is 9 DME LUX			

#### **HOLDING 06**

Fix	R-238/9.0 DME LUX
Turn / inbound track (MAG)	Left / 057°
Levels (MAX / MNM)	FL070 / 3000FT QNH
Remarks	Holding/racetrack pattern shall be flown at 220KIAS MAX Limit of the outbound track is 14 DME LUX

#### 2.2.2 Standard Instrument Arrivals

STAR have been established as shown on the STAR charts (see <u>ELLX AD 2.24</u>) and as listed below. ATC may deviate from these routes and pilots may expect radar vectors for separation reasons or in order to expedite traffic flow.

### **HOLDING DIK DVOR/DME**

Designator	Route	Track (MAG)	Distance (NM)	MNM IFR level	Remarks
	REMBA				Holding entry: direct
		132°	49.1	FL100	
	RITAX				
REMBA5K		133°	3.0	FL100	
	TMA BDRY				
		133°	15.0	4000FT QNH	
	DIK DVOR				
	LNO DVOR				Holding entry: direct
		156°	27.5	FL070	
LNO7K	TMA BDRY				
		156°	18.9	4000FT QNH	
	DIK DVOR				
	BETEX				Holding entry: offset
BETEX4K		280°	11.8	4000FT QNH	
	DIK DVOR				
	EXCOS				Holding entry: parallel
		292°	9.6	4000FT QNH	
EXCOS2K	LUX DVOR				
		338°	14.1	4000FT QNH	
	DIK DVOR				

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### **HOLDING DIK DVOR/DME**

Designator	Route	Track (MAG)	Distance (NM)	MNM IFR level	Remarks
	AKELU				Holding entry: parallel
		334°	2.0	FL080	
	27 NM north of GTQ VOR				
		334°	3.6	FL060	
AKELU5K	TMA BDRY				
		334°	6.0	4000FT QNH	
	MOSET				
		333°	20.7	4000FT QNH	
	DIK DVOR				
	MMD VOR				Holding entry: parallel
		068°	26.2	FL080	
	TMA BDRY				
MMD6K		068°	4.8	4000FT QNH	
	PETAN				
		025°	21.0	4000FT QNH	
	DIK DVOR				

# 2.3 Performance Based Navigation

### 2.3.1 Holding Patterns

### 2.3.1.1 Waypoints

ID	Latitude	Longitude	Remarks
DIK	495140.7N	0060747.1E	
EXCOS	493419.7N	0062813.8E	
LX06F	493415.3N	0060344.6E	
LX24F	494049.8N	0062125.9E	

### 2.3.1.2 Path Terminators

Note: These database entries are suggestions only and should be checked by a professional database coder before entry into an active database.

### **DIEKIRCH**

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST	Speed limit (KT)	NAV Spec	Remarks
1	DIK	НМ	Y	120 (123.0)	R	FL 140/4000	1 MIN	-230	RNAV1	GNSS only

#### **EXCOS**

•	#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST	Speed limit (KT)	NAV Spec	Remarks
,	1	EXCOS	НМ	Y	042 (045.0)	L	FL 090 / FL 060	1 MIN	-230	RNAV1	GNSS only Direct entry only Not AVBL for RCF

### LX06F

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST	Speed limit (KT)	NAV Spec	Remarks
1	LX06F	НМ	Υ	057 (060.1)	L	FL 070 / 3000	1 MIN	-220	RNAV1	GNSS only Direct entry only

### LX24F

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST	Speed limit (KT)	NAV Spec	Remarks
1	LX24F	НМ	Υ	237 (240.3)	R	4000 / 3000	1 MIN	-200	RNAV1	GNSS only Direct entry only

### 2.3.2 Standard Instrument Arrivals

### 2.3.2.1 Waypoints

ID	Latitude	Longitude	Remarks
BITBU	495858.6N	0063341.9E	
BREDI	493120.0N	0061730.0E	
DIK	495140.7N	0060747.1E	
EXCOS	493419.7N	0062813.8E	
GIVOR	483930.6N	0062329.1E	
GTQ	485911.2N	0064258.4E	
IRTON	493300.0N	0053300.0E	
LNO	503509.3N	0054237.0E	
LX770	490406.7N	0064122.1E	
LX771	491402.4N	0063806.8E	
LX772	492552.5N	0062957.6E	
LX776	490220.4N	0063307.0E	
LX873	500911.5N	0055744.6E	
LX875	490315.5N	0063820.8E	
LX887	490204.7N	0062546.7E	
LX889	500229.0N	0055141.5E	
LX896	492307.1N	0062009.0E	
LX899	491315.0N	0062655.2E	
MMD	492328.5N	0050727.9E	
OXCAM	494954.5N	0063017.6E	
PONIG	494536.0N	0063410.0E	
REMBA	503944.0N	0045450.5E	
RITAX	500440.0N	0054825.0E	
SORAL	490649.6N	0062615.6E	
VAVOT	492913.0N	0053400.0E	

### 2.3.2.2 Path Terminators

Note: These database entries are suggestions only and should be checked by a professional database coder before entry into an active database.

### **REMBA3D**

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	REMBA	IF							RNAV1	GNSS only
2	RITAX	TF		132 (135.3)		+FL 100	49.1		RNAV1	
3	LX889	TF		133 (136.0)		+FL 100	3.0		RNAV1	Equivalent to 'TMA BDRY'
4	DIK	TF		133 (136.0)		+4000	15.0	-250	RNAV1	

### LNO3D

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	LNO	IF							RNAV1	GNSS only
2	LX873	TF		156 (159.5)		+FL 070	27.7		RNAV1	Equivalent to 'TMA BDRY'
3	DIK	TF		157 (159.6)		+4000	18.7	-250	RNAV1	

### BITBU2D

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	BITBU	IF				-FL 090			RNAV1	GNSS only
2	DIK	TF		244 (246.6)		+FL 070	18.3	-250	RNAV1	

### MMD2W

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	MMD	IF							RNAV1	GNSS only Only at ATC discretion
2	IRTON	TF		057 (060.1)		+FL 080	19.2	-250	RNAV1	

### MMD2V

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	MMD	IF							RNAV1	GNSS only
2	VAVOT	TF		068 (071.5)		+FL 080	18.2	-250	RNAV1	

### GTQ3S

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	GTQ	IF							RNAV1	GNSS only
2	LX770	TF		345 (347.9)		+FL 160	5.0		RNAV1	
3	LX771	TF		345 (347.9)		+FL 150	10.2		RNAV1	
4	LX772	TF		333 (335.8)		-FL 090 / +FL 080	13.0		RNAV1	
5	EXCOS	TF		349 (352.4)		-FL 090 / +FL 060	8.5	-250	RNAV1	

### **GIVOR3S**

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	GIVOR	IF							RNAV1	GNSS only
2	LX776	TF		012 (015.5)		+FL 160	23.7		RNAV1	
3	LX771	TF		013 (015.6)		+FL 150	12.2		RNAV1	
4	LX772	TF		333 (335.8)		-FL 090 / +FL 080	13.0		RNAV1	
5	EXCOS	TF		349 (352.4)		-FL 090 / +FL 060	8.5	-250	RNAV1	

### **GIVOR1B**

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	GIVOR	IF							RNAV1	GNSS only
2	LX887	TF		001 (003.8)		+FL 160	22.6		RNAV1	
3	SORAL	TF		001 (003.8)			4.8		RNAV1	
4	LX899	TF		001 (003.9)		+FL 150	6.4		RNAV1	
5	LX896	TF		333 (335.9)		+FL 080	10.8		RNAV1	
6	BREDI	TF		345 (348.1)		+FL 060	8.4	-250	RNAV1	

### GTQ1B

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	GTQ	IF							RNAV1	GNSS only
2	LX875	TF		320 (323.3)		+FL 160	5.1		RNAV1	
3	LX899	TF		320 (323.2)		+FL 150	12.5		RNAV1	
4	LX896	TF		333 (335.9)		+FL 080	10.8		RNAV1	
5	BREDI	TF		345 (348.1)		+FL 060	8.4	-250	RNAV1	

### 2.3.3 Transitions (RWY 06)

### 2.3.3.1 Waypoints

ID	Latitude	Longitude	Remarks
AKELU	492201.0N	0062750.0E	
BREDI	493120.0N	0061730.0E	
DIK	495140.7N	0060747.1E	
EFFAP	494529.9N	0054210.0E	
EXCOS	493419.7N	0062813.8E	
IRTON	493300.0N	0053300.0E	
LX062	492747.8N	0060153.5E	
LX063	493622.3N	0055352.9E	
LX066	493449.9N	0054417.4E	
LX067	493006.5N	0054623.4E	
LX069	493039.0N	0055404.8E	
LX06F	493415.3N	0060344.6E	
LX06I	493208.4N	0055804.5E	
LX777	493958.9N	0054915.6E	
LX861	494812.7N	0060437.2E	
LX862	495831.8N	0054936.7E	
LX863	494746.7N	0055141.5E	
LX871	492433.7N	0062501.1E	
RITAX	500440.0N	0054825.0E	
VAVOT	492913.0N	0053400.0E	

#### 2.3.3.2 Path Terminators

Note: These database entries are suggestions only and should be checked by a professional database coder before entry into an active database.

### DIK3D

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	DIK	IF						-250	RNAV1	GNSS only
2	LX861	TF		208 (210.6)		+4000	4.0		RNAV1	
3	LX063	TF		208 (210.5)			13.7	-220	RNAV1	
4	LX06I	TF		144 (147.2)		+3000	5.0		RNAV1	
Expect ILS, LOC, VOR or RNP APCH at LX06F.										

### IRTON4D

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	IRTON	IF						-250	RNAV1	GNSS only
2	LX066	TF		073 (075.9)		+FL 070	7.6		RNAV1	
3	LX06I	TF		104 (106.6)		+3000	9.4	-220	RNAV1	
Expect ILS, LOC, VOR or RNP APCH at LX06F.										

### VAVOT3D

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	VAVOT	IF						-250	RNAV1	GNSS only
2	LX067	TF		081 (083.6)		+FL 080	8.1		RNAV1	
3	LX069	TF		081 (083.8)			5.0		RNAV1	
4	LX06I	TF		057 (060.1)		+3000	3.0	-220	RNAV1	
Expect ILS, LOC, VOR or RNP APCH at LX06F.										

### RITAX3D

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	RITAX	IF							RNAV1	GNSS only
2	LX862	TF		170 (172.8)		+FL 100	6.2	-250	RNAV1	
3	LX863	TF		170 (172.9)		+4000	10.8		RNAV1	
4	LX063	TF		170 (172.9)			11.5	-220	RNAV1	
5	LX06I	TF		144 (147.2)		+3000	5.0		RNAV1	
Expect ILS, LOC, VOR or RNP APCH at LX06F.										

### EFFAP1D

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	EFFAP	IF						-250	RNAV1	GNSS only
2	LX777	TF		137 (140.1)		+FL 070	7.2		RNAV1	+FL 060 when QNH ≥ 1013
3	LX063	TF		137 (140.2)		+3000	4.7	-220	RNAV1	
4	LX06I	TF		144 (147.2)		+3000	5.0		RNAV1	
Expect ILS, LOC, VOR or RNP APCH at LX06F.										

### EXCOS3D

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks		
1	EXCOS	IF						-250	RNAV1	GNSS only		
2	LX062	TF		246 (249.3)		+4700	18.4	-220	RNAV1			
3	LX06I	TF		327 (330.2)		+3000	5.0		RNAV1			
Expe	ct ILS, LOC, \	VOR or I	Expect ILS, LOC, VOR or RNP APCH at LX06F.									

### AKELU3D

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	AKELU	IF						-250	RNAV1	GNSS only
2	LX871	TF		321 (324.2)		+FL 080	3.1		RNAV1	
3	BREDI	TF		321 (324.2)		+FL 060	8.4		RNAV1	
4	LX062	TF		248 (250.9)		+4700	10.8	-220	RNAV1	
5	LX06I	TF		327 (330.2)		+3000	5.0		RNAV1	
Expect ILS, LOC, VOR or RNP APCH at LX06F.										

### **BREDI2D**

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	BREDI	IF				+FL 060		-250	RNAV1	GNSS only
2	LX062	TF		248 (250.9)		+4700	10.8	-220	RNAV1	
3	LX06I	TF		327 (330.2)		+3000	5.0		RNAV1	
Expe	Expect ILS, LOC, VOR or RNP APCH at LX06F.									

### 2.3.4 Transitions (RWY 24)

### 2.3.4.1 Waypoints

ID	Latitude	Longitude	Remarks
BREDI	493120.0N	0061730.0E	
DIK	495140.7N	0060747.1E	
EXCOS	493419.7N	0062813.8E	
IRTON	493300.0N	0053300.0E	
LX062	492747.8N	0060153.5E	
LX066	493449.9N	0054417.4E	
LX242	494716.6N	0062317.8E	
LX243	493836.0N	0063056.0E	
LX24F	494049.8N	0062125.9E	
LX24I	494256.2N	0062706.8E	
LX864	494956.2N	0061356.8E	
LX869	492833.7N	0054707.8E	
OXCAM	494954.5N	0063017.6E	
PONIG	494536.0N	0063410.0E	
VAVOT	492913.0N	0053400.0E	

### 2.3.4.2 Path Terminators

Note: These database entries are suggestions only and should be checked by a professional database coder before entry into an active database.

### DIK3C

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	DIK	IF						-250	RNAV1	GNSS only
2	LX864	TF		111 (113.6)		+4000	4.4		RNAV1	
3	LX242	TF		111 (113.7)			6.6	-220	RNAV1	
4	LX24I	TF		147 (150.3)		+3000	5.0		RNAV1	
Expect ILS, LOC, VOR or RNP APCH at LX24F.										

### OXCAM3C

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	OXCAM	IF				+FL 070		-220	RNAV1	GNSS only
2	LX24I	TF		193 (196.5)		+3000	7.3		RNAV1	
Expe	Expect ILS, LOC, VOR or RNP APCH at LX24F.									

### **PONIG4C**

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	PONIG	IF				+5000		-220	RNAV1	GNSS only
2	LX24I	TF		237 (239.8)		+3000	5.3		RNAV1	
Expe	Expect ILS, LOC, VOR or RNP APCH at LX24F.									

### EXCOS3C

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	EXCOS	IF						-250	RNAV1	GNSS only
2	LX243	TF		019 (022.3)		+4000	4.6	-220	RNAV1	
3	LX24I	TF		327 (330.3)		+3000	5.0		RNAV1	
Expect ILS, LOC, VOR or RNP APCH at LX24F.										

### IRTON4N

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	IRTON	IF						-250	RNAV1	GNSS only
2	LX066	TF		073 (075.9)		+FL 070	7.6		RNAV1	
3	LX242	TF		061 (063.6)			28.2	-220	RNAV1	
4	LX24I	TF		147 (150.3)		+3000	5.0		RNAV1	
Expe	ct ILS, LOC, \	VOR or I	RNP AP	CH at LX24F.						

### **VAVOT3S**

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	VAVOT	IF						-250	RNAV1	GNSS only
2	LX869	TF		091 (094.3)		+FL 080	8.6		RNAV1	
3	LX062	TF		091 (094.5)			9.7		RNAV1	
4	BREDI	TF		068 (070.7)		+FL 060	10.8		RNAV1	
5	LX243	TF		047 (050.2)		+4000	11.4	-220	RNAV1	
6	LX24I	TF		327 (330.3)		+3000	5.0		RNAV1	
Expe	ct ILS, LOC, \	VOR or I	RNP AP	CH at LX24F.						

### 2.3.5 Approaches (RWY 06)

### 2.3.5.1 Waypoints

ID	Latitude	Longitude	Remarks
LX872	494919.3N	0061223.0E	
LX062	492747.8N	0060153.5E	IAF
LX063	493622.3N	0055352.9E	IAF
LX069	493039.0N	0055404.8E	IAF
LX06I	493208.4N	0055804.5E	IF
LX06F	493415.3N	0060344.6E	FAF
RW06	493703.08N	0061115.05E	MAPt
LX24F	494049.8N	0062125.9E	MATF
DIK	495140.7N	0060747.1E	MAHF

#### 2.3.5.2 Path Terminators

Note: These database entries are suggestions only and should be checked by a professional database coder before entry into an active database.

### RNP RWY06 via LX063

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	VPA (°)/ TCH (FT)	NAV Spec	Remarks
1	LX063	IF	N					-220		RNP APCH	IAF
2	LX06I	TF	N	144 (147.2)		+3000	5.0			RNP APCH	IF
3	LX06F	TF	N	057 (060.1)	L	@3000	4.3			RNP APCH	FAF
4	RW06	TF	Υ	057 (060.1)			5.6		-3.00/57	RNP APCH	MAPt
5	LX24F	DF	Υ			@3000				RNP APCH	MATF
6	LX872	DF	N		L	@4000				RNP APCH	
7	DIK	TF	N	305 (308.4)		@4000	3.8	-250		RNP APCH	MAHF

### RNP RWY06 via LX069

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	VPA (°)/ TCH (FT)	NAV Spec	Remarks
1	LX069	IF	N					-220		RNP APCH	IAF
2	LX06I	TF	N	057 (060.1)		+3000	3.0			RNP APCH	IF
3	LX06F	TF	N	057 (060.1)		@3000	4.3			RNP APCH	FAF
4	RW06	TF	Y	057 (060.1)			5.6		-3.00/57	RNP APCH	MAPt
5	LX24F	DF	Υ			@3000				RNP APCH	MATF
6	LX872	DF	N		L	@4000				RNP APCH	
7	DIK	TF	N	305 (308.4)		@4000	3.8	-250		RNP APCH	MAHF

### RNP RWY06 via LX062

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	VPA (°)/ TCH (FT)	NAV Spec	Remarks
1	LX062	IF	N			+4700		-220		RNP APCH	IAF
2	LX06I	TF	N	327 (330.2)		+3000	5.0			RNP APCH	IF
3	LX06F	TF	N	057 (060.1)	R	@3000	4.3			RNP APCH	FAF
4	RW06	TF	Υ	057 (060.1)			5.6		-3.00/57	RNP APCH	MAPt
5	LX24F	DF	Υ			@3000				RNP APCH	MATF
6	LX872	DF	N		L	@4000				RNP APCH	
7	DIK	TF	N	305 (308.4)		@4000	3.8	-250		RNP APCH	MAHF

### ILS Z RWY06 via LX062

#	ID	P/T	F/O	Course °M (°T)	Recom. NAVAID	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	VPA (°)/ TCH (FT)	NAV Spec	Remarks
1	LX062	IF	N				+4700		-220		RNAV1	IAF GNSS only
2	LX06I	TF (*)	N	327 (330.2)			+3000	5.0			RNAV1	IF (*) Or CI ILE
3			•			•	CONV IL	c				
4							CONVIL	5				
5	LX24F	DF	Υ				@3000				RNAV1	MATF
6	LX872	DF	N			L	@4000				RNAV1	
7	DIK	TF	N	305 (308.4)			@4000	3.8	-250		RNAV1	MAHF

### ILS Z RWY06 via LX063

#	ID	P/T	F/O	Course °M (°T)	Recom. NAVAID	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	VPA (°)/ TCH (FT)	NAV Spec	Remarks
1	LX063	IF	N						-220		RNAV1	IAF GNSS only
2	LX06I	TF (*)	N	144 (147.2)			+3000	5.0			RNAV1	IF (*) Or CI ILE
3							CONNUL	0				
4							CONV IL	5				
5	LX24F	DF	Υ				@3000				RNAV1	MATF
6	LX872	DF	N			L	@4000				RNAV1	
7	DIK	TF	N	305 (308.4)			@4000	3.8	-250		RNAV1	MAHF

### 2.3.6 Approaches (RWY 24)

### 2.3.6.1 Waypoints

ID	Latitude	Longitude	Remarks
LX878	494814.5N	0060534.8E	
LX242	494716.6N	0062317.8E	IAF
LX243	493836.0N	0063056.0E	IAF
PONIG	494536.0N	0063410.0E	IAF
LX24I	494256.2N	0062706.8E	IF
LX24F	494049.8N	0062125.9E	FAF
RW24	493807.42N	0061408.17E	MAPt
LX891	493404.1N	0060314.7E	MATF
DIK	495140.7N	0060747.1E	MAHF

#### 2.3.6.2 Path Terminators

Note: These database entries are suggestions only and should be checked by a professional database coder before entry into an active database.

### RNP RWY24 via LX242

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	VPA (°)/ TCH (FT)	NAV Spec	Remarks
1	LX242	IF	N					-220		RNP APCH	IAF
2	LX24I	TF	N	147 (150.3)		+3000	5.0			RNP APCH	IF
3	LX24F	TF	N	237 (240.3)	R	@3000	4.2			RNP APCH	FAF
4	RW24	TF	Υ	237 (240.3)			5.5		-3.00/50	RNP APCH	MAPt
5	LX891	DF	Υ			@3000				RNP APCH	MATF
6	LX878	DF	N		R	@4000				RNP APCH	
7	DIK	TF	Ν	020 (022.5)		@4000	3.7	-250		RNP APCH	MAHF

### **RNP RWY24 via PONIG**

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	VPA (°)/ TCH (FT)	NAV Spec	Remarks
1	PONIG	IF	N			+5000		-220		RNP APCH	IAF
2	LX24I	TF	N	237 (239.8)		+3000	5.3			RNP APCH	IF
3	LX24F	TF	N	237 (240.3)		@3000	4.2			RNP APCH	FAF
4	RW24	TF	Υ	237 (240.3)			5.5		-3.00/50	RNP APCH	MAPt
5	LX891	DF	Υ			@3000				RNP APCH	MATF
6	LX878	DF	N		R	@4000				RNP APCH	
7	DIK	TF	N	020 (022.5)		@4000	3.7	-250		RNP APCH	MAHF

#### RNP RWY24 via LX243

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	VPA (°)/ TCH (FT)	NAV Spec	Remarks
1	LX243	IF	N			+4000		-220		RNP APCH	IAF
2	LX24I	TF	N	327 (330.3)		+3000	5.0			RNP APCH	IF
3	LX24F	TF	N	237 (240.3)	L	@3000	4.2			RNP APCH	FAF
4	RW24	TF	Y	237 (240.3)			5.5		-3.00/50	RNP APCH	MAPt
5	LX891	DF	Υ			@3000				RNP APCH	MATF
6	LX878	DF	N		R	@4000				RNP APCH	
7	DIK	TF	N	020 (022.5)		@4000	3.7	-250		RNP APCH	MAHF

#### ILS Z RWY24 via LX242

#	ID	P/T	F/O	Course °M (°T)	Recom. NAVAID	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	VPA (°)/ TCH (FT)	NAV Spec	Remarks	
1	LX242	IF	N						-220		RNAV1	IAF GNSS only	
2	LX24I	TF (*)	N	147 (150.3)			+3000	5.0			RNAV1	IF (*) Or CI ILW	
3													
4							CONV IL	5					
5	LX891	DF	Υ				@3000				RNAV1	MATF	
6	LX878	DF	N			R	@4000				RNAV1		
7	DIK	TF	N	020 (022.5)			@4000	3.7	-250		RNAV1	MAHF	

#### ILS Z RWY24 via LX243

#	ID	P/T	F/O	Course °M (°T)	Recom. NAVAID	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	VPA (°)/ TCH (FT)	NAV Spec	Remarks	
1	LX243	IF	N				+4000		-220		RNAV1	IAF GNSS only	
2	LX24I	TF (*)	N	327 (330.3)			+3000	5.0			RNAV1	IF (*) Or CI ILW	
3			CONV ILS										
4							CONVIL	5					
5	LX891	DF	Υ				@3000				RNAV1	MATF	
6	LX878	DF	N			R	@4000				RNAV1		
7	DIK	TF	N	020 (022.5)			@4000	3.7	-250		RNAV1	MAHF	

### 2.4 Circling Approach

Circling approaches are prohibited.

### 3 IFR FLIGHTS (OUTBOUND)

### 3.1 Starting Procedures

All outbound flights shall check their EOBT and update via handling or ARO if necessary. If CTOT cannot be met request delay via handling or ARO.

- All outbound flights contact Luxembourg Delivery. Start-up shall be requested from Luxembourg Delivery EOBT-15
  MIN or CTOT-30 MIN earliest if attributed and ready to push-back and/or taxi accordingly. Pilots shall request
  departure clearance to Luxembourg Delivery after start-up has been granted by Luxembourg Delivery.
- If Luxembourg Delivery closed by ATIS, start-up shall be requested from Luxembourg TWR EOBT-15 MIN or CTOT-30 MIN earliest if attributed and ready to push-back and/or taxi immediately. Pilots shall request their departure clearance after start-up has been granted by TWR.

ATC start-up and/or push-back clearances are based on the assumption that an average of 15 MIN is required for start-up, push-back, taxi and take-off manoeuvres.

Pilots shall report their parking stand with the request for start-up clearance. Start-up and/or push-back shall be performed without delay after reception of the respective clearance. An ATC departure clearance shall only be requested after start-up and/or push-back has been granted by ATC.

If a time check is required and other sources such as GPS UTC time are not available, pilots can request a time check on the ATC frequency.

### 3.2 Departure Procedures

#### 3.2.1 Standard Instrument Departures

SID have been established as shown on the SID charts (see <u>ELLX AD 2.24</u>) and as listed below. Pilots unable to comply shall inform ATC when requesting start-up clearance. ATC may deviate from these routes and pilots may expect radar vectors for separation reasons or in order to expedite traffic flow.

After take-off, aircraft shall immediately contact Luxembourg APP on CH 120.885.

The initial turns are based upon 250 KIAS, a bank angle of 25° and a temperature of ISA+15°C. PBN SID Navigation Specification is "RNAV1 - GNSS only".

Although initial departure legs might be coded as to maintain a course to an AT or Above altitude 'CA', ATC expects flights to turn at the specified minimum altitude and not later.

#### **RWY 06 - Conventional**

Designator	Route	Remarks
DIK5T	Intercept R-058 LUX. At 6 DME LUX, LT to intercept R-120 DIK to DIK.	NIL
ASMOX4T	Intercept R-058 LUX. At 6 DME LUX, LT to intercept R-120 DIK INBD. RT to intercept R-002 LUX to ASMOX.	Cross ASMOX FL 080 MNM
	Intercept R-058 LUX. At 2 700 FT, RT to intercept R-113	Cross EXCOS FL 060 MNM
EXCOS4T	LUX to EXCOS. No turn before DER.	Always AVBL for traffic DEST EDDR, EDRZ and ETAR
		Additionally AVBL FRI, 1700 (1600) to MON, 0700 (0600) to join Q760 and Z729
	Intercept R-058 LUX. At 2 700 FT, RT to intercept R-334	Cross 27 DME GTQ FL 080 MNM
GTQ4T	GTQ INBD to LX890, GTQ next. No turn before DER.	Flights filing FL 130 or above, cross 25 DME GTQ FL 130 MNM. If unable to comply or if filing lower, advise ATC.
MMD2T	Intercept R-058 LUX. At 6 DME LUX, LT to intercept R-018 LUX to LUX. RT to intercept R-264 LUX to TILVI, MMD next.	Cross 19 DME LUX FL 080 MNM
RAPOR8T	Intercept R-058 LUX. At 6 DME LUX, LT to intercept R-018 LUX to LUX. RT to intercept R-264 LUX to TILVI, RAPOR next.	Cross 19 DME LUX FL 080 MNM

### **RWY 06 - PBN**

Designator NAV Spec	Route	Remarks
LNO1P [RNAV1]	Climb on course 057° MAG; At 1 700 FT direct to LX24F, turn left; Direct to DIK; To GESLO; To LX873 at or above FL 080; To LNO.	If unable RNAV, advise ATC.
ARCKY1P [RNAV1]	Climb on course 057° MAG; At 1 700 FT direct to LX24F, turn left; Direct to DIK; To GESLO; To LX866 at or above FL 110; To ARCKY at or above FL 180.	If unable RNAV, advise ATC. Cross ARCKY FL 180 MNM. If unable to comply, advise ATC. Expect LNO1P.
RAPOR1P [RNAV1]	Climb on course 057° MAG; At 1 700 FT direct to LX24F, turn left; Direct to LX101 at 250 KT MAX; To LX063; To LX894 at or above FL 080; To TILVI; To TALUD; To RAPOR.	If unable RNAV, advise ATC.
MMD1P [RNAV1]	Climb on course 057° MAG; At 1 700 FT direct to LX24F, turn left; Direct to LX101 at 250 KT MAX; To LX063; To LX894 at or above FL 080; To TILVI; To GEBKI; To MMD.	If unable RNAV, advise ATC.
ASMOX1P [RNAV1]	Climb on course 057° MAG; At 1 700 FT direct to <u>LX24F</u> , turn left; Direct to ASMOX at or above FL 080.	If unable RNAV, advise ATC.
EXCOS1P [RNAV1]	Climb on course 057° MAG; At 2 700 FT turn right; Direct to EXCOS at or above FL 060.	If unable RNAV, advise ATC. No turn before DER.
GTQ1P [RNAV1]	Climb on course 057° MAG; At 2 700 FT turn right; Direct to LX775 at or above 4 000 FT and at or below FL 090; To LX898 at or above FL 060; To LX772 at or above FL 080; To LX773 at or above FL 130; To LX771; To GTQ.	If unable RNAV, advise ATC. No turn before DER. Cross LX773 FL 130 MNM. If unable to comply or if filling lower, advise ATC.

### **RWY 24 - Conventional**

Designator	Route	Remarks
DIK5X	Intercept R-238 LUX. At 8 DME LUX, RT to intercept R-199 DIK to DIK.	NIL
ASMOX4Z	Intercept R-238 LUX. At 8 DME LUX, RT to intercept R-199 DIK to DIK. RT to intercept R-064 DIK to ASMOX.	Cross ASMOX FL 080 MNM
	Intercept R-238 LUX. At 5.4 DME LUX, LT to intercept R-076 MMD to EXCOS.	Climb gradient: 5.2% MNM until 4 000FT AMSL due to NAVAID performance.
		Maximum speed 220 KIAS until interception R-076 MMD to EXCOS
EXCOS4X		Cross EXCOS FL 060 MNM
		Always AVBL for traffic DEST EDDR, EDRZ and ETAR
		Additionally AVBL FRI, 1700 (1600) to MON, 0700 (0600) to join Q760 and Z729
		For NON-RNAV equipped aircraft
	Intercept R-238 LUX. At 5.4 DME LUX, LT to intercept R-076 MMD INBD EXCOS. RT to intercept R-334 GTQ to	Climb gradient: 5.2% MNM until 4 000FT AMSL due to NAVAID performance.
	GTQ.	Maximum speed 220 KIAS until interception R-334 GTQ to GTQ
GTQ4X		Cross 27 DME GTQ FL 080 MNM
		Flights filing FL 130 or above, cross 25 DME GTQ FL 130 MNM. If unable to comply, advise ATC.
		For NON-RNAV equipped aircraft
MMD2X	Intercept R-238 LUX. At 8 DME LUX, RT to intercept R-264 LUX to TILVI, MMD next.	Cross 19 DME LUX FL 080 MNM
RAPOR8X	Intercept R-238 LUX. At 8 DME LUX, RT to intercept R-264 LUX to TILVI, RAPOR next.	Cross 19 DME LUX FL 080 MNM

### **RWY 24 - PBN**

Designator NAV Spec	Route	Remarks
LNO1R [RNAV1]	Climb on course 237° MAG; At 1 700 FT direct to <u>LX06F</u> , turn right; Direct to GESLO; To LX873 at or above FL 080; To LNO.	If unable RNAV, advise ATC.
ARCKY1R [RNAV1]	Climb on course 237° MAG; At 1 700 FT direct to LX06F, turn right; Direct to GESLO; To LX866 at or above FL 110; To ARCKY at or above FL 180.	If unable RNAV, advise ATC. Cross ARCKY FL 180 MNM. If unable to comply, advise ATC. Expect LNO1R.
RAPOR1R [RNAV1]	Climb on course 237° MAG; At 1 700 FT direct to <u>LX06F</u> , turn right; Direct to LX063; To LX894 at or above FL 080; To TILVI; To TALUD; To RAPOR.	If unable RNAV, advise ATC.

### **RWY 24 - PBN**

Designator NAV Spec	Route	Remarks
MMD1R [RNAV1]	Climb on course 237° MAG; At 1 700 FT direct to LX06F, turn right; Direct to LX063; To LX894 at or above FL 080; To TILVI; To GEBKI; To MMD.	If unable RNAV, advise ATC.
ASMOX1R [RNAV1]	Climb on course 237° MAG; At 1 700 FT direct to <u>LX06F</u> , turn right; Direct to ASMOX at or above FL 080.	If unable RNAV, advise ATC.
EXCOS2R [RNAV1]	Climb to LX892 on course 237° MAG, turn left; Direct to LX893; To EXCOS at or above FL 060.	If unable RNAV, advise ATC. Always AVBL for traffic DEST EDDR, EDRZ and ETAR. Additionally AVBL FRI, 1700 (1600) to MON, 0700 (0600) to join Q760 and Z729.
GTQ2R [RNAV1]	Climb to LX892 on course 237° MAG, turn left; Direct to LX893, turn right; To SUTAL at or above FL 060; To LX883 at or above FL 080; To AKELU at or above FL 130; To GTQ.	If unable RNAV, advise ATC. Cross AKELU FL 130 MNM. If unable to comply or if filing lower, advise ATC.
GTQ1Q [RNAV1]	Climb to LX892 on course 237° MAG, turn left; Direct to LX895 at or above 4500 FT, turn right; To LX896 at or above FL 080; To LX880 at or above FL 130; To LX899; To GTQ.	If unable RNAV, advise ATC. Cross LX880 FL 130 MNM. If unable to comply or if filing lower, advise ATC.

### 3.2.2 Climb Requirements

All traffic shall initially climb to 4000FT QNH with climb gradient 3.3% MNM, unless instructed otherwise by ATC.

### 3.2.3 Waypoints

ID	Latitude	Longitude	Remarks
AKELU	492201.0N	0062750.0E	
ARCKY	501757.0N	0060756.0E	
ASMOX	495410.4N	0061634.2E	
DIK	495140.7N	0060747.1E	
EXCOS	493419.7N	0062813.8E	
GEBKI	493246.4N	0052704.5E	
GESLO	500445.0N	0060018.0E	
GTQ	485911.2N	0064258.4E	
LNO	503509.3N	0054237.0E	
LX063	493622.3N	0055352.9E	
LX06F	493415.3N	0060344.6E	
LX101	494344.7N	0061210.7E	
LX24F	494049.8N	0062125.9E	
LX771	491402.4N	0063806.8E	
LX772	492552.5N	0062957.6E	
LX773	492308.6N	0063150.9E	
LX775	493341.6N	0062432.0E	
LX866	500924.8N	0060259.3E	
LX873	500911.5N	0055744.6E	
LX880	492023.0N	0062201.8E	
LX883	492448.1N	0062549.1E	
LX890	492937.8N	0062245.9E	
LX892	493542.1N	0060737.3E	
LX893	493315.4N	0061954.1E	
LX894	493626.3N	0054456.1E	
LX895	492948.0N	0061532.2E	
LX896	492307.1N	0062009.0E	
LX898	492920.8N	0062733.2E	
LX899	491315.0N	0062655.2E	
MMD	492328.5N	0050727.9E	
RAPOR	493529.0N	0051247.0E	
SUTAL	492800.0N	0062330.0E	
TALUD	493604.0N	0052514.0E	
TILVI	493630.0N	0053503.0E	

### 3.2.4 Path Terminators RWY 06

Note: These database entries are suggestions only and should be checked by a professional database coder before entry into an active database.

### ARCKY1P

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1		CA		057 (060.2)		+ 1 700			RNAV1	GNSS only
2	LX24F	DF	Υ						RNAV1	
3	DIK	DF	N		L				RNAV1	
4	GESLO	TF	N	337 (339.8)			13.9		RNAV1	
5	LX866	TF	N	017 (020.3)		+FL 110	5.0		RNAV1	
6	ARCKY	TF	N	017 (020.4)		+FL 180	9.1		RNAV1	

### LNO1P

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1		CA		057 (060.2)		+1 700			RNAV1	GNSS only
2	LX24F	DF	Υ						RNAV1	
3	DIK	DF	N		L				RNAV1	
4	GESLO	TF	N	337 (339.8)			13.9		RNAV1	
5	LX873	TF	N	337 (339.7)		+FL 080	4.7		RNAV1	
6	LNO	TF	N	337 (339.7)			27.7		RNAV1	

### ASMOX1P

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1		CA		057 (060.2)		+1 700			RNAV1	GNSS only
2	LX24F	DF	Υ						RNAV1	
3	ASMOX	DF	N		L	+FL 080			RNAV1	

### RAPOR1P

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1		CA		057 (060.2)		+1 700			RNAV1	GNSS only
2	LX24F	DF	Υ						RNAV1	
3	LX101	DF	N		L			-250	RNAV1	
4	LX063	TF	N	235 (238.3)			14.0		RNAV1	
5	LX894	TF	N	268 (270.7)		+FL 080	5.8		RNAV1	
6	TILVI	TF	N	268 (270.6)			6.4		RNAV1	
7	TALUD	TF	N	263 (266.2)			6.4		RNAV1	
8	RAPOR	TF	N	263 (266.0)			8.1		RNAV1	

### MMD1P

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1		CA		057 (060.2)		+1 700			RNAV1	GNSS only
2	LX24F	DF	Υ						RNAV1	
3	LX101	DF	N		L			-250	RNAV1	
4	LX063	TF	N	235 (238.3)			14.0		RNAV1	
5	LX894	TF	N	268 (270.7)		+FL 080	5.8		RNAV1	
6	TILVI	TF	N	268 (270.6)			6.4		RNAV1	
7	GEBKI	TF	N	231 (234.3)			6.4		RNAV1	
8	MMD	TF	N	231 (234.1)			15.8		RNAV1	

### EXCOS1P

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1		CA		057 (060.2)		+2 700			RNAV1	GNSS only
2	X (.().	DF	N		R	+FL 060			RNAV1	

### GTQ1P

;	#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
	1		CA		057 (060.2)		+ 2 700			RNAV1	GNSS only
	2	LX775	DF	N		R	-FL 090 / +4 000			RNAV1	

### GTQ1P

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
3	LX898	TF	N	153 (155.6)		+FL 060	4.8		RNAV1	
4	LX772	TF	N	153 (155.7)		+FL 080	3.8		RNAV1	
5	LX773	TF	N	153 (155.7)		+FL 130	3.0		RNAV1	
6	LX771	TF	N	153 (155.7)			10.0		RNAV1	
7	GTQ	TF	N	165 (167.8)			15.2		RNAV1	

### 3.2.5 Path Terminators RWY 24

lote: These database entries are suggestions only and should be checked by a professional database coder before entry into an active database.

### ARCKY1R

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1		CA		237 (240.2)		+1 700			RNAV1	GNSS only
2	LX06F	DF	Υ						RNAV1	
3	GESLO	DF	N		R				RNAV1	
4	LX866	TF	N	017 (020.3)		+FL 110	5.0		RNAV1	
5	ARCKY	TF	N	017 (020.4)		+FL 180	9.1		RNAV1	

#### LNO1R

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1		CA		237 (240.2)		+1 700			RNAV1	GNSS only
2	LX06F	DF	Υ						RNAV1	
3	GESLO	DF	N		R				RNAV1	
4	LX873	TF	N	337 (339.7)		+FL 080	4.7		RNAV1	
5	LNO	TF	N	337 (339.7)			27.7		RNAV1	

### ASMOX1R

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1		CA		237 (240.2)		+1 700			RNAV1	GNSS only
2	LX06F	DF	Υ						RNAV1	
3	ASMOX	DF	N		R	+FL 080			RNAV1	

### RAPOR1R

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1		CA		237 (240.2)		+1 700			RNAV1	GNSS only
2	LX06F	DF	Υ						RNAV1	
3	LX063	DF	N		R				RNAV1	
4	LX894	TF	N	268 (270.7)		+FL 080	5.8		RNAV1	
5	TILVI	TF	N	268 (270.6)			6.4		RNAV1	
6	TALUD	TF	N	263 (266.2)			6.4		RNAV1	
7	RAPOR	TF	N	263 (266.0)			8.1		RNAV1	

#### MMD1R

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1		CA		237 (240.2)		+1 700			RNAV1	GNSS only
2	LX06F	DF	Υ						RNAV1	
3	LX063	DF	N		R				RNAV1	
4	LX894	TF	N	268 (270.7)		+FL 080	5.8		RNAV1	
5	TILVI	TF	N	268 (270.6)			6.4		RNAV1	
6	GEBKI	TF	N	231 (234.3)			6.4		RNAV1	
7	MMD	TF	N	231 (234.1)			15.8		RNAV1	

#### **EXCOS2R**

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	LX892	CF	Υ	237 (240.2)					RNAV1	GNSS only
2	LX893	DF	N		L				RNAV1	
3	EXCOS	TF	N	076 (078.8)		+FL 060	5.5		RNAV1	

#### GTQ2R

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	LX892	CF	Υ	237 (240.2)					RNAV1	GNSS only
2	LX893	DF	N		L				RNAV1	
3	SUTAL	TF	N	153 (156.0)	R	+FL 060	5.8		RNAV1	
4	LX883	TF	N	152 (154.7)		+FL 080	3.5		RNAV1	
5	AKELU	TF	N	152 (154.7)		+FL 130	3.1		RNAV1	
6	GTQ	TF	N	153 (156.4)			24.9		RNAV1	

#### GTQ1Q

#	ID	P/T	F/O	Course °M (°T)	Turn Dir.	ALT (FT)	DIST (NM)	Speed limit (KT)	NAV Spec	Remarks
1	LX892	CF	Υ	237 (240.2)					RNAV1	GNSS only
2	LX895	DF	N		L	+4 500			RNAV1	
3	LX896	TF	N	153 (155.7)		+FL 080	7.3		RNAV1	
4	LX880	TF	N	153 (155.8)		+FL 130	3.0		RNAV1	
5	LX899	TF	N	153 (155.8)			7.8		RNAV1	
6	GTQ	TF	N	140 (143.0)			17.6		RNAV1	

### 4 LOW VISIBILITY PROCEDURES

### 4.1 Facilities and Equipment Available

### 4.1.1 Runways

RWY 06 is equipped with ILS and approved for CAT I operations.

RWY 24 is equipped with ILS and approved for CAT II and III operations.

Guided take-off is only available for RWY 24, if requested upon start-up.

Aerodrome operating minima can be found under § 1.1.

### 4.1.2 Taxiways

Information on airport ground lighting can be found on charts AD2.ELLX-ADC.02 and AD2.ELLX-GMC.02.

During LVP, arriving aircraft shall respect the following restrictions when vacating RWY 06:

- TWY A1, A2, C or D1: preferably to be used when vacating RWY 06;
- TWY A1, A2: if planned to use, advise ATC as soon as possible;
- TWY G, F, E and D2: only usable on ATC instructions;
- TWY B4 or I: not usable.

During LVP, arriving aircraft shall respect the following restrictions when vacating RWY 24:

- TWY D2, E or F: preferably to be used when vacating RWY 24;
- TWY B4, G or H: if planned to use, advise ATC as soon as possible;
- TWY C, D1, H or I: only usable on ATC instructions;
- · TWY A1 or A2: not usable.

ATC may use ground surveillance information to assist in monitoring aircraft and vehicles on the manoeuvring area. Any ground surveillance derived information is however to be considered as advice only.

#### 4.1.3 Communications

Pilots will be informed by ATIS or ATC when LVP are in progress. The ATIS message will contain the phrase "LOW VISIBILITY PROCEDURES IN OPERATION. DEPARTING AIRCRAFT, USE CAT TWO THREE HOLDING POINTS. ARRIVING AIRCRAFT, LATEST RVR WILL BE GIVEN ON THE ATC FREQUENCY. CHECK YOUR MINIMA".

In addition to the current readings for the landing runway and information on significant changes in surface wind, ATC will provide details of any unavailability of equipment relevant to LVP (NOTAM will be issued if the unavailability is expected to last more than 1HR).

Pilots will be informed by ATC when LVP are terminated.

Pilots shall report when runway and taxiway are vacated and when approaching any CAT II/III holding points.

Pilots should be ready for departure at the CAT II/III holding point.

#### 4.2 Criteria for Initiation and Termination of LVP

The preparation phase will start when visibility is at or below 1500M and/or ceiling is at or below 300FT, and further weather deterioration is expected. The notification phase will start when RVR is at or below 800M and/or ceiling/vertical visibility is at or below 200FT.

LVP will be terminated when RVR increases above 800M and ceiling/vertical visibility is higher than 200FT, and a further improvement of the weather conditions is expected.

Note: The ILS sensitive area shall remain clear of vehicles until the visibility exceeds 1500M and the ceiling is higher than 300FT.

#### 4.3 Other Information

Pilots wishing to practice a CAT II/III approach shall inform Luxembourg APP using the phraseology "REQUEST PRACTICE CAT II/III APPROACH." They should be aware that protection of the ILS sensitive area is not guaranteed and no special ATC procedures will be applied.

During low visibility operations and provided adjacent airspace is available, arriving aircraft are typically vectored to intercept ILS at 10NM final. Due to airspace limitations arriving aircraft may be vectored to be established at 8NM final latest. Aircraft requiring a longer than 8NM line-up shall inform ATC as soon as practicable to allow time for the necessary coordination with adjacent sectors.

The spacing between inbound flights established on the ILS is typically 10NM, but may vary depending on actual weather conditions and runway contamination.

During low visibility operations, all guided take-offs shall be requested upon start-up, otherwise there is no ILS protection for departures.

During low visibility operations, the aerodrome capacity is reduced. Major delay should be expected.

### 5 VFR FLIGHTS

#### 5.1 General

A flight plan is compulsory for all VFR flights to and from ELLX (see ENR 1.10, § 1.1).

The published inbound and outbound routes indicate the optimum routing with regard to safety and noise abatement. The indicated routes are compulsory and shall be followed as accurately as possible, unless otherwise instructed by ATC or necessary for the safety of the aircraft or flight. 2 000FT AMSL are to be maintained as far as cloud separation permits.

Centreline crossing closer than 11NM from ARP should be done at 2000FT MAX. Aircraft unable to comply shall contact Luxembourg APP on CH 120.885.

VFR pilots should expect delay during ATC peak hours which are defined as follows: MON to SUN 0830-1100 (0730-1000), 1600-1900 (1500-1800) and 2000-2100 (1900-2000).

### 5.2 Visual Reporting Points

VFR traffic shall only use following compulsory reporting points:

Name	Associated landmark	Relative position	Position
ALPHA	Church of Keispelt	R-293 LUX / 7.7 DME	494138N 0060407E
MERSA	Red bridge over railway at Mersch	R-319 LUX / 8.5 DME	494459N 0060639E
BRAVO	VRP-Road crossing Waldhof	R-298 LUX / 2.4 DME	493933N 0061139E
CARLI	Castle of Fischbach	R-338 LUX / 6.9 DME	494451N 0061112E
OSCAR	Bridge of Wormeldange	R-106 LUX / 6.4 DME	493626N 0062414E
REMIK	Bridge of Remich	R-138 LUX / 7.5 DME	493236N 0062214E
SIERA	Railway crossing at Moutfort	R-174 LUX / 2.8 DME	493534N 0061507E
TANGO	Water tower at Frisange	R-195 LUX / 7.8 DME	493053N 0061123E

#### 5.3 Inbound Traffic

Inbound flights shall proceed via the arrival routes depicted on chart AD 2.ELLX-VAC.01.

The VFR holding patterns and aerodrome traffic circuits are depicted on chart <u>AD 2.ELLX-VAC.02</u> and take into consideration preferred operational routes and avoidance of noise nuisance to neighbouring communities.

If PAPI required for approach, advise ATC.

#### 5.4 Outbound Traffic

Outbound flights shall contact Luxembourg Delivery with relevant flight plan information (e.g. exit point, touch and go) except HEMS and police flights by local operators.

Outbound flights shall proceed via the departure routes depicted on chart AD 2.ELLX-VAC.01 and

- · if RWY 06 is in use, via CARLI or OSCAR;
- if RWY 24 is in use, via ALPHA or TANGO.

### 5.5 8.33 KHZ Channel Spacing

Luxembourg CTR has been designated as controlled airspace (airspace class D).

Voice communications with ATC within this airspace are performed in a 8.33 KHZ channel.

Airspace users planning to enter or operate within this airspace shall ensure that proper radio communications equipment is available on board their aircraft.

Operators equipped only with 25 KHZ channel spacing radios capability shall not use these radios in trying to communicate on a 8.33 KHZ spaced channel due to potential interferences.

25 KHZ voice channel spaced frequencies published as "contingency" shall only be used in these remote situations (e.g. airspace infringement by flights not planned to operate within the Luxembourg CTR) and only when directed by ATC.

Non-adherence to the procedures related to communication requirements mentioned above may result in the flight being refused to enter the CTR or being instructed to leave the CTR.

### 6 RADIO COMMUNICATION FAILURE

#### 6.1 General

DIK is the only holding available in case of RCF.

Aircraft equipped with an on-board telephone/mobile phone, dial +352 47 98 24 01 0 or +352 47 98 24 01 1 and mention last RTF channel used.

#### 6.2 IFR

#### 6.2.1 Conventional Navigation

- · Set transponder on code 7600;
- Proceed to DIK at last assigned and acknowledged flight level or, if assigned a level below 4 000 FT whilst receiving radar vectors to intercept an instrument approach, climb immediately to 4 000 FT;
- At last received and acknowledged EAT or, in the absence of an EAT, at FPL ETA, descend to 4 000 FT QNH in the DIK holding pattern;
- Descend to initial approach altitude to carry out a standard instrument approach according to IAC.

#### 6.2.2 Performance Based Navigation

#### 6.2.2.1 Standard Instrument Arrivals

- · Set transponder code 7600;
- · Follow STAR to end waypoint;
- · Proceed to DIK at last assigned and acknowledged flight level;
- · Continue with a published approach.

#### 6.2.2.2 Transitions

- · Set transponder code 7600;
- · Follow Transition to FAF/FAP;
- · Adhere to published profile and speed;
- Continue with a published approach.

#### 6.2.2.3 Holding Patterns

- Commence descent from the last NAVAID or fix at or as close as possible to the last expected approach time that has been received and acknowledged;
- If no expected approach time has been received and acknowledged, the estimated time of arrival as indicated in the FPL shall be used;
- · Continue with a published approach;
- Land, if possible, within 30 MIN after the ETA or the last acknowledged expected approach time, whichever is earlier.

#### 6.3 VFR

- Set transponder on code 7600;
- · Without clearance do not enter Luxembourg CTR and land on alternate aerodrome;
- · If already cleared to join aerodrome circuit: hold on downwind and look out for light signals from TWR.

### **ELLX AD 2.23 Additional Information**

### 1 ATIS

ATIS messages serving both inbound and outbound traffic are broadcast H24 (see  $\underline{\text{ELLX AD 2.18}}$ ) and available via phone under: +352 47 98 27 30 0.

The messages contain following elements in the order as listed:

Item	Remarks
Name of aerodrome	
Arrival and departure indicator with alphabetical designator	
Time of observation	Expressed in HR and MIN UTC.
Type of approach(es) to be expected	Not reported.
Runway-in-use	
-	Significant runway surface conditions are reported at end of message, see below.
Holding delay	If appropriate.
Transition level	
ATC operational information	
Operational status LVP	Low visibility operations are announced when RVR is at or below 800 M or ceiling or vertical visibility is at or below 200 FT.
Surface wind direction (in degrees magnetic) and speed (average and gusts when appropriate)	Expressions "variable" and "calm" are used when appropriate.
Visibility, and when applicable, RVR with the indication of the runway and the section of the runway to which the information refers	The expression CAVOK is used when VIS is 10 KM MNM, no clouds exist below 5000 FT and no CB are present and no precipitation or thunderstorms exist.
Present weather	
Clouds (amount expressed by SCT, BKN and OVC, height in feet. Types CB and TCU only are specified)	

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Item	Remarks
Air temperature and dew point temperature	
QNH	In HPA.
Information on recent weather of operational significance	Reported over the ATC frequencies.
Wind shear	
Trend forecast	
Significant runway surface conditions (RWYCC for all three parts of the runway, for each of the three parts of the runway the coverage, the depth of loose contaminant in MM as applicable and the condition description)	Runway condition information is always provided starting from THR RWY06. Runway condition for a dry runway (RWYCC 6/6/6) will not be included in ATIS messages.

### 2 Wildlife Inspections

Wildlife inspections are active MON-SUN: 0430-2100 (0330-2000) and use various equipment, including remote control gas cannons, flare shell crackers, alternating wildlife dispersal guns and amplified cries of distress.

### **ELLX AD 2.24 Charts Related to ELLX**

AD 2.ELLX-ADC.01	Aerodrome Chart - ICAO
AD 2.ELLX-ADC.02	Aerodrome Chart - ICAO. Appendix 1: Runway Markings and Lighting Aids
AD 2.ELLX-GMC.01	Aerodrome Ground Movement Chart - ICAO
AD 2.ELLX-GMC.02	Aerodrome Ground Movement Chart - ICAO. Appendix 1: Taxiways and Aprons
AD 2.ELLX-GMC.03	Aerodrome Ground Movement Chart - ICAO. Appendix 2: Hot Spots
AD 2.ELLX-APDC.01	Aircraft Parking Docking Chart - ICAO
AD 2.ELLX-APDC.02	Aircraft Parking Docking Chart - ICAO: Apron P5
AD 2.ELLX-AOC.01	Aerodrome Obstacle Chart. Type A (Operating Limitations): RWY 06/24
AD 2.ELLX-PATC.01	Precision Approach Terrain Chart - ICAO: RWY 24
AD 2.ELLX-ATCSMAC.01	ATC Surveillance Minimum Altitude Chart - ICAO
AD 2.ELLX-STAR.01	Standard Arrival Chart - Instrument (STAR) - ICAO: Holding DIK DVOR/DME
AD 2.ELLX-STAR.02	Standard Arrival Chart - Instrument (STAR) - ICAO: RNAV ALL RWY
AD 2.ELLX-STAR.03	Standard Arrival Chart - Instrument (STAR) - ICAO: RNAV TRANSITION TO RWY 06
AD 2.ELLX-STAR.04	Standard Arrival Chart - Instrument (STAR) - ICAO: RNAV TRANSITION TO RWY 24
AD 2.ELLX-SID.01	Standard Departure Chart - Instrument (SID) - ICAO: RWY 06
AD 2.ELLX-SID.02	Standard Departure Chart - Instrument (SID) - ICAO: RWY 24
AD 2.ELLX-SID.03	Standard Departure Chart - Instrument (SID) - ICAO: RNAV RWY 06
AD 2.ELLX-SID.04	Standard Departure Chart - Instrument (SID) - ICAO: RNAV RWY 24
AD 2.ELLX-IAC.01a	Instrument Approach Chart - ICAO: ILS or LOC z RWY 06
AD 2.ELLX-IAC.01b	Instrument Approach Chart - ICAO: ILS or LOC y RWY 06
AD 2.ELLX-IAC.02a	Instrument Approach Chart - ICAO: ILS CAT II & III or LOC z RWY 24
AD 2.ELLX-IAC.02b	Instrument Approach Chart - ICAO: ILS CAT II & III or LOC y RWY 24
AD 2.ELLX-IAC.03	Instrument Approach Chart - ICAO: VOR RWY 06 IAF DIK
AD 2.ELLX-IAC.04	Instrument Approach Chart - ICAO: VOR RWY 24 IAF DIK
AD 2.ELLX-IAC.05	Instrument Approach Chart - ICAO: RNP RWY 06
AD 2.ELLX-IAC.05a	Instrument Approach Chart - ICAO: RNP RWY 06. Appendix: FAS Datablock
AD 2.ELLX-IAC.06	Instrument Approach Chart - ICAO: RNP RWY 24
AD 2.ELLX-IAC.06a	Instrument Approach Chart - ICAO: RNP RWY 24. Appendix: FAS Datablock
AD 2.ELLX-VAC.01	Visual Approach Chart - ICAO
AD 2.ELLX-VAC.02	Visual Approach Chart - ICAO. Appendix 1: Aerodrome Traffic Circuit

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