AD 2 AERODROMES

LPPT AD 2

LPPT AD 2.1 AERODROME LOCATION INDICATOR AND NAME

LPPT - LISBOA / Humberto Delgado

LPPT AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site	LAT: 384627N LONG: 0090803W Midpoint TWY T3
2	Direction and distance of ARP from city or town	7KM (3.65NM) BRG 359º GEO from S.Jorge Castle in Lisboa
3	Elevation/Reference temperature	108M / 355FT 24.2º C (AUG)
4	Geoid undulation at aerodrome elevation position	53M
5	MAG VAR/Annual change	2ºW (2020) / 0.17º decreasing
6	AD Administration, address, telephone, telefax, telex, AFS	Post:ANA Aeroportos de Portugal, SA Aeroporto de Lisboa 1700-007 LISBOA Phone: +351 218413500 Fax: +351 218413675 and +351 218413680 AFS: LPPTYDYA SITA: LISANXH LISKAXH Email: lisbon.airport@ana.pt URL: http://www.ana.pt
7	Types of traffic permitted (IFR/VFR)	IFR / VFR
8	Remarks	NIL

LPPT AD 2.3 OPERATIONAL HOURS

1	AD Administration	H24*
2	Customs and immigration	H24
3	Health and sanitation	First AID: H24 Public Health Authority: MON-FRI 09:00-17:30 (08:00-16:30) VET- Live animal: H24 PPR
4	AIS Briefing Office	AIS available through ARO Portugal (see GEN 3.1)
5	ATS Reporting Office (ARO)	ARO available through ARO Portugal (see GEN 3.1)
6	MET Briefing Office	H24
7	ATS	H24
8	Fuelling	H24
9	Handling	H24
10	Security	H24
11	De-icing	Not available

12	Remarks	* Through Airport Duty Manager Phone:+351 218413529 Fax:+351 218445162 Email:alssup@ana.pt SITA:LISANXH, LISKAXH

LPPT AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo handling facilities:	Fork lifts (9 tons) – High lift loader – conveyor belts – sufficient number of various Vehicles and equipment. Prior arrangements with SPdH and/or Portway
2	Fuel/oil types	Fuel grades: JET A1. Oil grades: Mobil Jet Oil 291, Mobil Jet Oil 254 and Mobil Jet Oil II. BP Turbo Oil 2197, BP Turbo Oil 2380 and BP Turbo Oil 25. Other oils with prior arrangements with ground handlers.
3	Fuelling facilities/capacity	Hydrant servicer and refuller: 20L per second. No limitations.
4	De-icing facilities	Not available
5	Hangar space available for visiting aircraft	Not available
6	Repair facilities for visiting aircraft	A major or minor repairs by arrangement with ground handlers.
7	Remarks	Oxygen and related servicing: by arrangement with ground handlers.

LPPT AD 2.5 PASSENGER FACILITIES

1	Hotels	Near the aerodrome, in City
2	Restaurants	Aerodrome restaurant: capacity 125 hot meals per hour between 08:00-22:00 (07:00-21:00) (PPR 45 minutes required). Snacks available between 06:00-24:00 (05:00-23:00).
3	Transportation	Buses, Underground, Taxis and Rent-a-Car
4	Medical facilities	First Aid Treatment, Nurse, Hospital in city 6KM (3.24NM).
5	Bank and Post Office	At aerodrome
6	Tourist Office	At aerodrome
7	Remarks	ATM - H24

LPPT AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	9
2	Rescue equipment	In accordance with CAT 9 requirements established in the Table 5.2 of ICAO Doc. 9137-AN/898 Part 1.
3	Capability for removal of disabled aircraft	All aircraft up to maximum weight of 300 tons with gear down and operational. Grounded aircraft up to code C.
4	Remarks	NIL

LPPT AD 2.7 RUNWAY SURFACE CONDITION ASSESSEMENT AND REPORTING AND SNOW PLAN

1	Type(s) of clearing equipment	NIL
2	Clearance priorities	NIL
3	Use of material for movement area surface treatment	NIL
4	Specially prepared winter runways	NIL
5	Remarks	For further information, see also Section AD 1.2.2. - RUNWAY SURFACE CONDITIONS ASSESSMENT AND REPORTING AND SNOW PLAN.

LPPT AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

		APRON	SURFACE	STRENGTH	
1	Apron Surface and Strength	10	Concrete	PCN 87/R/C/W/T	
		11	Concrete	PCN 80/R/C/W/T	
		12	Concrete	PCN 81/R/C/W/T	
		14	Concrete	PCN 125/R/B/W/T	
		20 and 22	Concrete	PCN 74/R/C/W/T	
		30	Concrete	PCN 139/R/C/W/U	
		40	Concrete	PCN 139/R/C/W/T	
		41	Concrete	PCN 132/R/C/W/T	
		42	Concrete	PCN 104/R/C/W/U	
		50	Concrete	PCN 139/R/C/W/T	
		60	Concrete	PCN 135/R/C/W/T	
		70	Concrete	PCN 85/R/C/W/T	
		80	Concrete	PCN 132/R/C/W/T	
		Multipurpose Apron	Concrete	PCN 137/R/C/W/T	
		Military Apron	Concrete	PCN 50/R/B/W/U	

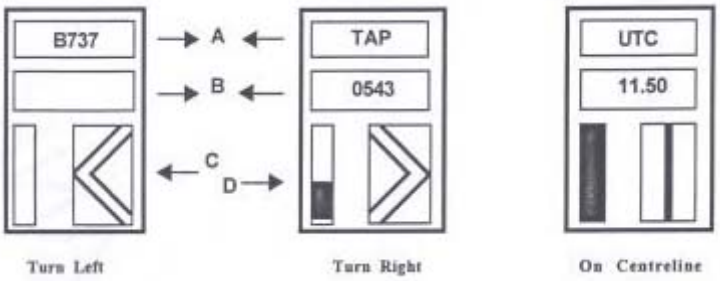
		TAXIWAY	WIDTH (M)	SURFACE	STRENGTH
2	Taxiway width, surface and strength	A4	32M	Asphalt	PCN 139/F/C/W/T
		A5	23		PCN 200/F/A/W/T
		A6			PCN 83/F/B/W/T
		A7			PCN 224/F/B/W/T
		G1			PCN 139/F/C/W/T
		G2, H4, H3, L1, L2, M3, Q2, Q3			PCN 139/F/B/W/T
		H1			PCN 217/F/A/W/T
		J			PCN 93/F/C/W/T
		K			PCN 127/F/B/W/T
		M1	28		PCN 51/F/C/W/T*
		M2	23		PCN 63/F/C/W/T*
		M4			PCN 129/F/C/W/T
		M5			PCN 200/F/B/W/T
		N1			PCN 135/F/C/W/T
		N2	30		PCN 200/F/B/W/T
		P	32		PCN 107/F/C/W/T
		Q1	23		PCN 102/F/C/W/T
		S1	33		PCN 224/F/B/W/T
		S2, S3	23		PCN 65/F/D/W/T*
		S4			PCN 137/F/A/W/T
		T1, T2, T3	33		PCN 89/F/C/W/T
		T4, T5			PCN 105/F/B/W/T
		T6			PCN 109/F/B/W/T
		U1	23		PCN 180/F/B/W/T
		U2			PCN 101/F/C/W/T
		U3			PCN 82/F/C/W/T
		U4			PCN 59/F/C/W/T*
		U5			PCN 49/F/B/W/T*
		U6			PCN 139/F/C/W/T
		V			PCN 139/F/B/W/T
		W2	30		PCN 139/F/B/W/T
		W3	24		PCN 139/F/A/W/T
		Y	40		PCN 139/F/B/W/T
		Z1			PCN 139/F/A/W/T
		Z3	32		PCN 139/F/A/W/T
		TAXILANE	**WIDTH (M)**	**SURFACE**	**STRENGTH**
2	Taxiway width, surface and strength	A1, A2, A3	23	Asphalt	PCN 139/F/C/W/T
		B	23	Asphalt	PCN 62/F/B/W/T
		C	23	Asphalt	PCN 42/F/C/W/T
		D	30	Concrete	PCN 85/R/C/W/T
		E	18	Asphalt	PCN 139/F/B/W/T
		F	18	Asphalt	PCN 139/F/A/W/T
		W1	23	Asphalt	PCN 48/F/B/W/T
		Z2	32	Asphalt	PCN 139/F/A/W/T
3	Altimeter Checkpoint location and elevation	Aprons 10, 11, 12, 14, 20, 22,30, 41, 42,50, 60, 70, 80.			
4	VOR Checkpoint locations	Not established			

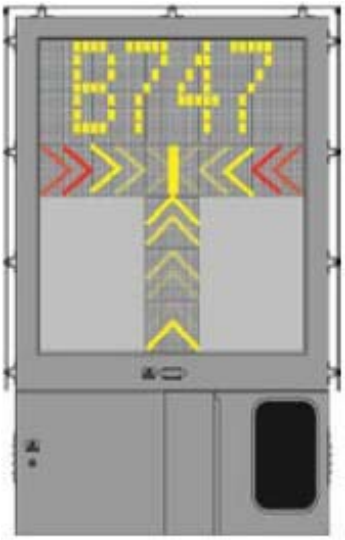
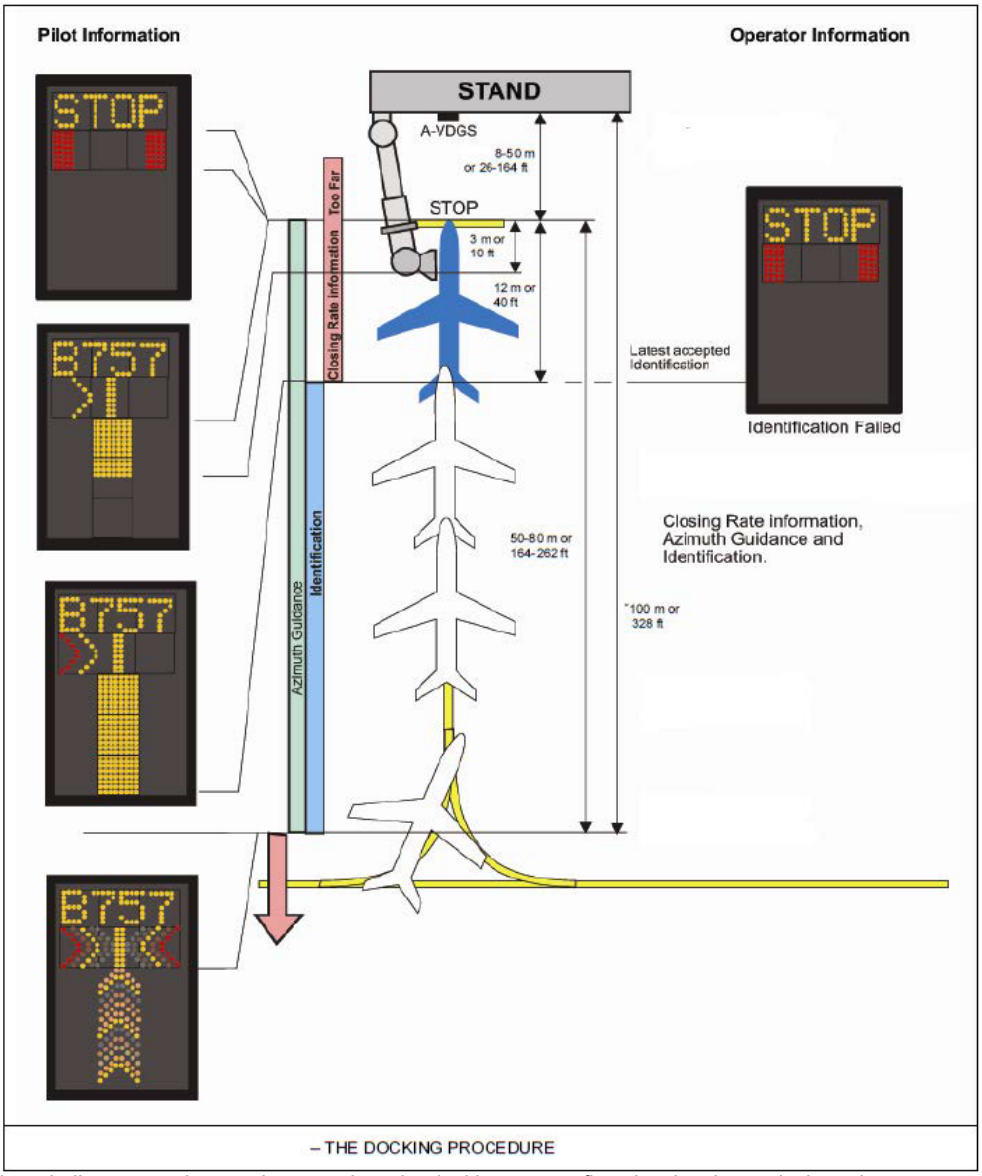
		RAMP	STAND	INS COORDINATES	ELEVATION (M/AMSL)	ACFT TYPE (CRITICAL)	PUSH BACK TO TAXIWAY / TAXILANE
5	INS Checkpoint Positions	10	104	384559.21N 0090746.80W	101M	Code C	A1
			105	384600.53N 0090747.15W	101M	Code C	A1
			106	384601.86N 0090747.47W	101M	Code C	A1
			107	384603.47N 0090747.84W	101M	B767-300ER	A1
			108	384604.42N 0090749.09W	101M	ATR72-600	A1
		11	114	384608.16N 0090749.43W	100M	B757-200	A2
			115	384609.81N 0090749.88W	101M	B757-200	A2
			116	384611.42N 0090750.30W	101M	B757-200	A2
			117	384613.06N 0090750.75W	100M	B757-200	A2
5	INS Checkpoint Positions	12	122	384616.22N 0090751.59W	100M	B757-200	A3
			123	384617.85N 0090752.02W	99M	B757-200	A3
			124	384619.52N 0090752.47W	99M	B757-200	A3
			125	384621.24N 0090752.92W	99M	B757-200	A3
			126	384622.77N 0090753.32W	98M	A321NEO	A3
		14	141	384625.53N 0090752.25W	98M	B767-400ER	A4
			142	384627.57N 0090752.38W	98M	A330-900NEO	A4
			143	384629.75N 0090752.96W	98M	A330-900NEO	A4
			144	384631.93N 0090753.53W	99M	A330-900NEO	A4
			145	384634.10N 0090754.12W	99M	A330-900NEO	A4
			146	384635.68N 0090754.75W	99M	B777-300ER	A4
			147	384635.89N 0090752.00W	98M	B767-300ERW	B
5	INS Checkpoint Positions	20	200	384553.17N 0090809.13W	103M	Code C	Z2
			201	384552.69N 0090809.95W	103M	B747-400	Z2
			202	384552.58N 0090810.88W	103M	Code C	Z2
			203	384552.31N 0090812.51W	103M	Code C	Z2
			204	384551.93N 0090813.37W	103M	Code E	Z2
			205	384552.01N 0090814.34W	103M	Code C	Z2
			206	384551.74N 0090815.98W	103M	Code C	Z2
			207	384551.37N 0090816.83W	103M	Code E	Z2
			208	384551.45N 0090817.81W	103M	Code C	Z2
			209	384551.81N 0090819.59W	103M	B737-900	Z2
		22	221	384552.66N 0090800.25W	99M	B737-800	E
			222	384553.93N 0090800.72W	100M	Code C	E
			223	384555.19N 0090801.19W	100M	Code C	E
			224	384556.45N 0090801.65W	101M	Code C	E
			225	384557.71N 0090802.11W	101M	Code C	E
		30	301	384601.92N 0090822.07W	101M	Code C	V
			302	384603.33N 0090822.56W	102M	Code C	V

5	INS Checkpoint Positions	40	401	384602.59N 0090820.83W	101M	A310-300	L1
			402	384604.22N 0090821.27W	102M	B757-200W	L1
			403	384605.54N 0090822.39W	102M	Code C	L1
			404	384606.11N 0090822.79W	102M	B747-400	L1
			405	384606.90N 0090822.76W	103M	Code C	L1
		41	411	384603.50N 0090812.74W	101M	Code C	L1
			412	384604.28N 0090812.23W	101M	Code F	L1
			413	384604.83N 0090813.10W	102M	Code C	L1
			414	384606.32N 0090813.50W	102M	Code C	L1
			415	384607.10N 0090812.99W	102M	B747-400	L1
			416	384607.65N 0090813.86W	102M	A321-200	L1
		42	421	384609.31N 0090814.43W	103M	A321-200	L1
			422	384610.02N 0090813.78W	103M	B747-400	L1
			423	384610.54N 0090814.76W	103M	B737-800	L1
			424	384611.84N 0090815.00W	103M	Code C	L1
			425	384612.55N 0090814.89W	104M	AN124-100	L1
			426	384613.17N 0090815.36W	104M	Code C	L1
5	INS Checkpoint Positions	50	501	384604.00N 0090808.83W	102M	Code C	J
			502	384605.65N 0090809.50W	102M	Code D	J
			503	384607.67N 0090810.08W	103M	B777-200	J
			504	384609.95N 0090810.84W	103M	B747-400	J
			505	384612.27N 0090811.32W	103M	A330-900NEO	J
			506	384614.33N 0090811.70W	103M	B757-300W	J
		60	600	384617.01N 0090807.73W	103M	Code C	F
			601	384616.74N 0090809.37W	104M	Code C	F
			602	384616.37N 0090810.02W	103M	A330-300	G2
			603	384616.47N 0090811.01W	104M	Code C	F
			604	384616.20N 0090812.66W	104M	Code C	F
			605	384615.44N 0090813.67W	104M	B747-400	G2
			606	384615.93N 0090814.29W	104M	Code C	F
			607	384615.66N 0090815.93W	104M	Code C	F
			608	384614.77N 0090817.08W	104M	B747-400	G2
			609	384614.88N 0090817.44W	104M	Code C	F

5	INS Checkpoint Positions	70	701	384640.80N 0090757.12W	101 M	E195 LR	D a)
			702	384641.98N 0090757.47W	101 M	E195 LR	D a)
			703	384643.17N 0090757.82W	101 M	E195 LR	D a)
			704	384644.14N 0090759.34W	102 M	ATR72-600	D
			705	384644.30N 0090754.83W	101M	ATR72-600	D
			706	384642.29N 0090754.24W	101M	ATR72-600	D
		80	801	384646.28N 0090748.09W	98M	B767-300ERW	B
			802	384647.58N 0090747.03W	98M	B767-300ER	B
			803	384649.15N 0090745.72W	97M	B767-300ER	B
			804	384650.42N 0090744.31W	97M	A321-200	B
			805	384651.36N 0090743.23W	97M	A321-200	B
			806	384652.55N 0090742.52W	97M	A321-200	B
		351	Temporary Parking Area	384558.88N 0090754.94W	-	Up to code E aircraft	-
6	Remarks	* TWY with PCN below critical aircraft ACN in permanent surveillance. a) Nose out position.					

LPPT AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system at aircraft stands	All Stands with ID signs and marks; Taxiway guide lines. Follow-me Guidance available on request. Apron 10, 11, 12, 14 and 60 provided with ASMGL - Aircraft Stand Manoeuvring Guidance Lights, intended to be use on LVO and NVO operational conditions. Incoming traffic for the mentioned Stands, will see yellow sequence and omnidirectional flashing lights on pavement activated when aircraft is located 200 meters from stand lead in line, thereon ASMGL lights will turn yellow fixed from a distance of 95 meters of stand entrance and until chocks-on input is given on A-VDGS or by time limit. Marshalling granted to all Stands without A-VDGS. A-VDGS available for all Stands located on Aprons 10, 11,12, 14, 20, 22, 30, 40, 41, 42, 50 and 80. A-VDGS display indication “OK” is a system status information and not a Stand Clearance confirmation message. Pilots shall not consider as granted that aircraft safety area (ASA) is clear of obstacles when A-VDGS is displaying a “OK” message. If pilots are unsure about information displayed, aircraft should be immediately stopped and request further information for clearance. Pilots shall not enter the stand area, unless the aircraft type displayed is equal to the approaching aircraft. the correctness of other information shall also be checked. **Description of APIS units (Aprons 22, 30, 40, 41, 42, 50 and 80).**  A - Display indicating: “AIRLINE”, “ETD”, “AIRCRAFT TYPE”, “SLOW”, “STOP”, “CHCK” and “TOO” information. B - Display indicating: “FLIGHT NUMBER”, “TIME”, “AIRCRAFT SERIES”, “DOWN”, “OK”, “ON” (chocks) and “FAR” information. C - Centreline beacon side-in-guidance.(ONLY TO CAPTAIN VIEW). D - Closing-rate information. Full closing rate thermometer indicates at least 14M to stop position. Pilot Instructions: 1. - Follow taxi lead-in and adjust according to the directions of the centreline beacon single-in guidance. 2. - Check correct Aircraft Type is flashing and that centreline guidance and closing rate thermometer is activated. 3. - Do not enter the Stand if display presents “STOP” or wrong Aircraft Type. 4. - 23M before “STOP”, Aircraft Type goes steady. If speed is too high “SLOW DOWN” can be shown. 4A. - 19M before Stop position aircraft series information disappears. 4B. - 15M before Stop position aircraft type information disappears and 14M is displayed and gradually decreases until final stop position. 5. - Full closing rate thermometer indicates at least 14M to STOP. When Aircraft has less than 14M to STOP thermometer start to move from bottom to top. 6. - When stop position reached, display indicates “STOP” and if Aircraft parks correctly, display indicates also “OK”. 7. - If Aircraft overshoots the limit for correct parking, display indicates “TOO/FAR”. Request for push-back might be necessary. 8. - Display and indicators automatically shut down after 3 minutes. 9. - When final stop position reached or if a failure occurs, the display shows first stop-stop before OK or the failure code is displayed. 10. - When pilot receives from APIS, wrong aircraft type, wrong flight number, an ERR-message (i.e ER-62), an ESTP (emergency stop message), if the display becomes unreadable, or if the distance indicator remains frozen once the aircraft cockpit is abeam the boarding bridge, AIRCRAFT MUST BE STOPPED immediately. Crew shall then contact GND, ask for a marshaller and hold position.

1		**Description of Safedock system (Aprons 10, 11,12, 14 and 20)** The system Safedock contains information about azimuth guidance (shows the aircraft position with relation to the centre line of the Stand) and distance to the stop position (based on a laser radar measurement), that is provided by a display unit, in front of the cockpit. **Pilot Display** a. One alphanumeric presentation line of 4 characters, composed by yellow LED, which can indicate several information: AIRCRAFT TYPE, STOP, OK, TOO FAR, SLOW, WAIT TEST, ID FAIL (not exclusive). b. One line with a unit of yellow LED and 2 units of red/yellow LED for indication of aircraft azimuth and stop indication. c. One column of 3 units of yellow LED in the centre to indicate the distance to the stop position.  **Docking Procedure - Summary**  – THE DOCKING PROCEDURE Pilots shall not enter the stand area, unless the docking system first showing the vertical running arrows. Pilots must not proceed beyond the bridge, unless these arrows have been superseded by the closing rate bar.

2	RWY/TWY markings and lights	RWY Marking Aids: Runway designation, Runway centre line, Threshold, Aiming Point, Runway Side Stripes, Touchdown Zone, Displaced Threshold , RWY End Marking. TWY Marking Aids; Enhanced Taxiway centre line at RWY Holding Positions, mandatory instructions, Information (direction) at F, G2, M5, N2 and U2, Information (wing span restriction) at B. Taxiway Centre Line, Taxiway Side Strip, Runway Holding Position and Intermediate Holding position. Runway Lights: RWY 02: Threshold, Runway Edge, Centre Line, Wing-Bar, THR Identification, RWY Guard Lights and RWY End. RWY 20: Threshold, Runway Edge, Centre Line, Wing-Bar, RWY Guard Lights and Runway End. Taxiway Lights: Centre Line (See remarks below) RETIL for H4, H1 and H3.	
3	Stop bars	Stop Bar: All CAT II/III RWY02/20 holding positions and intermediate holding positions with stop bars associated and vertical signs. Additionally stop bars also on following TWY: A1, A2, A3, A4, A5, G2, H4, H1, H3, M2, M3, M4, N1, Q1, Q2, T1, T2, T3, T4, T5, T6, A6, S3, U2, U3, U4 and W3. Runway Incursion Alarm: Micro-wave alarm sensors provided on following locations: Holding positions CAT II/III RWY 02/20 at TWY M5, N2, P, H3, H1, T5, A6, A7, H4, U5, T6, U6 and S3.	
4	Remarks	Traffic lights not provided on service road crossing TWY L1 and L2 and on service road crossing Taxilane F and TWY G2. TWY Centre Line Lights not provided on TWY D.	

LPPT AD 2.10 AERODROME OBSTACLES

In Approach / take.off areas			In circling area and at Aerodrome	
1			2	
RWY/AREA Affected	Obstacle type Elevation Marking/Lighting	Coordinates	Obstacle type Elevation Marking/Lighting	Coordinates
a	**b**	**c**	**a**	**b**
02	See LPPT AD 2.24.04-1			
20	See LPPT AD 2.24.04-3			
REMARKS: All identified obstacles outside Approach and Take-Off surfaces are provided with day marking and obstruction lighting				

LPPT AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	LISBOA AMS
2	Hours of service	H24
3	Office responsible for TAF preparation Periods of validity and interval of issuance	CPVM-AERO MWO/AMO 30HR - issuance every 6 hours
4	Trend forecast Interval of issuance	NIL

5	Briefing/consultation provided	Briefing on observed meteorological conditions: personal or by phone. Briefing on expected meteorological conditions: By phone provided by the CPVM-AERO MWO/AMO (see GEN 3.5.4).
6	Flight documentation Language(s) used	C, CR English, Portuguese
7	Charts and other information available for briefing or consultation	P, S, SWH, SWM, W
8	Supplementary equipment available for providing information	Self-briefing, Lightning detection, SATEL, WXR
9	ATS units provided with information	Lisboa TWR, APP and ACC
10	Additional information (limitation of service, etc.)	LISBOA AMS: Phone: +351 218 489 305 Email:cmal@ipma.pt AFS: LPPTYMYM CPVM-AERO MWO/AMO: Phone: +351 218474583 Fax: +351 218402370 Email: met.aero@ipma.pt

LPPT AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR COORD RWY END Geoid Undulation	THR elevation and highest elevation of TDZ of precision APCH RWY	Slope of RWY/SWY
1	2	3	4	5	6	7
02	22.72	3707X45	PCN 200/F/A/W/T ASPH FCT CLBR: 0.69	THR 384559.14N 0090838.05W RWY END 384747.32N 0090740.17W THR GEOID 53.4M	THR 100.6M TDZ 106.3M	1%
20	202.73			THR 384732.39N 0090748.17W RWY END 384556.44N 0090839.49W THR GEOID 53.5M	THR 105.6M TDZ 108.1M	1%

Designations	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA	OFZ	Remarks
1	8	9	10	11	12	13
02	No SWY	100x300	3827X300	240x90	Yes	THR permanently displaced 90M.
20				240X90	Yes	THR permanently displaced 499M.

LPPT AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
02	See below			3617	See AD 2.20 parag. 6.3, Take-off run.
	3707	3807	3707	-	Take-off from intersection with TWY M5.
	3631	3731	3631	-	Take-off from intersection with TWY N2.
	3007	3107	3007	-	Take-off from intersection with TWY P.
20	See below			3207	See AD 2.20 parag. 6.3, Take-off run.
	3707	3807	3707	-	Take-off from intersection with TWY S4.
	2412	2512	2412	-	Take-off from intersection with TWY U5. Except for heavy jets.

LPPT AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH light Type / Length / Intensity	THR Light colour/ WBAR	VASIS type	TDZ length	RWY Centre Line Lights Length / spacing / colour/ Intensity	RWY edge Lights Length / spacing / colour/ Intensity	RWY End Lights Colour / WBAR	SWY Light Length / Colour	Remarks
1	2	3	4	5	6	7	8	9	10
02	Precision Approach CAT II / III (One extra barrette at 150M) Extending 450M from the THR	Green/ Green	PAPI - Slope 3.0°, left side MEHT - 69FT	900M LED	3701M / 2802M White + 600M white/red + 300M red 15M Spaced Intensity variable All LED	3707M / 60M Red + 2877M white + 650M yellow 60M spaced intensity variable LED	Red/ NIL	NIL	LED technology on: RWY Centre Line lights, TDZ and elevated RWY edge lights. Incandescent lights used in the full length of the approach lighting system, THR, THR identification and THR wing bar.

RWY Designator	APCH light Type / Length / Intensity	THR Light colour/ WBAR	VASIS type	TDZ length	RWY Centre Line Lights Length / spacing / colour/ Intensity	RWY edge Lights Length / spacing / colour/ Intensity	RWY End Lights Colour / WBAR	SWY Light Length / Colour	Remarks
1	2	3	4	5	6	7	8	9	10
20	Precision Approach CAT I (distance coded) and CAT II / III Extending 900M from the THR	Green/ Green	PAPI - Slope 3.0°, left side MEHT - 64FT	900M LED	3701M / 2802M White + 600M white/red + 300M red 15M Spaced Intensity variable All LED	3707M /470M Red + 2518M white + 600M yellow 60M spaced Intensity variable LED	Red/ NIL LED	NIL	LED technology on: RWY Centre Line lights, TDZ, elevated RWY edge lights and RWY End lights. Incandescent lights used in the full length of the approach lighting system, THR, THR identification and THR wing bar.

LPPT AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN / IBN location, characteristics and hours of operation	Not available
2	LDI location and lighting Anemometer location and lighting	LDI: NIL RWY 02 - 1 Anemometer right side - 300M THR RWY 20 - 1 Anemometer right side - 300M THR TPA 351 - 1 anemometer west side TPA 351. 1 middle point Anemometer near intersection of TWY T5 with RWY 02/20 (see Chart AD 2.24.01-1)
3	TWY edge and centre line lighting	TWY Edge Lights: Apron 20, 70 Entry and Multipurpose Apron. TWY Centre Line; All Aerodrome Taxiways except TWY D on Apron 70, are provided with Centre Line Lighting: - NVO: 30M straight segment and 15M curve segment - LVO: 15M straight segment and 7.5M curve segment Coded TWY Centre Line Lights (yellow/green) to indicate Localizer Sensitive Area on TWY M5, N2, P, A6, A7, S4, U5, U6, RET H1, RET H3 and RET H4.
4	Secondary power supply/switch-over time	Secondary Power Supply in accordance with requirements of Annex 14.
5	Remarks	NIL

LPPT AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO	Not established
2	TLOF and/or FATO elevation	Not established
3	TLOF and FATO area dimensions, surface, strength, marking	Not established
4	True BRG of FATO	Not established
5	Declared distance available	Not established
6	APCH and FATO lighting	Not established

7	Remarks	See LPPT AD 2.22 paragraph 3

LPPT AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	LISBOA CTR 385738N 0091104W - 385817N 0090538W - 385640N 0090009W - 385055N 0090459W - 384849N 0090056W - 384755N 0090043W - 384148N 0090835W - 384043N 0090829W - 383938N 0091141W - 384122N 0091634W - 384636N 0091827W then a counter clockwise arc 7.5NM centred on 385241N 0092407W - 384940N 0091519W - 385738N 0091104W Excluding portions of R43C when activated.
2	Vertical limits	SFC / 2000FT ALT
3	Airspace classification	C
4	ATS unit call sign / Language(s)	Lisboa Approach Lisboa Tower EN, PT
5	Transition altitude	4000FT
6	Remarks	All traffic entering Lisboa CTR shall contact APP Frequency

LPPT AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of Operation	Remarks
1	2	3	4	5
APP	Lisboa Control	123.980 MHZ 119.555 MHZ 120.355 MHZ 282.700 MHZ 233.975 MHZ	HO	Primary Secondary Secondary
	Lisboa Approach	119.105 MHZ 119.555 MHZ 120.355 MHZ 233.975 MHZ 363.300 MHZ	H24	Primary Secondary Secondary
	Lisboa Arrival	125.130 MHZ 119.555 MHZ 120.355 MHZ	HO	Primary Secondary Secondary
TWR	Lisboa Tower	118.105 MHZ 118.505 MHZ 279.000 MHZ 121.500 MHZ 243.000 MHZ	H24 HX H24 H24 H24	Primary Secondary Emergency Primary Emergency / Military Aircraft / SAR
SMC	Lisboa Ground	121.755 MHZ 118.505 MHZ		Primary Secondary SMC hours of service: 07:00-23:00 (06:00-22:00) Changes in operation hours will be broadcast by ATIS Information
Clearance Delivery	Lisboa Delivery	118.955 MHZ 118.505 MHZ	Broadcast by ATIS	Primary Secondary

Service designation	Call sign	Frequency	Hours of Operation	Remarks
1	2	3	4	5
ATIS	Lisboa Information	124.155 MHZ (arrivals) 121.955 MHZ (departures)	H24	Service also available by ACARS for aircraft equipped with ACARS Management Unit Providers are SITA for data link communications and LISBOA TWR. Telephone Service: +351 218553424 or +351 218553423.

LPPT AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type Category (MAG Variation) (VOR Declination)	ID	Frequency	Hours of operation	Site of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
DVOR (02º W - 2020)	LIS	114.800 MHZ	H24	385315.9N 0090946.1W		Coverage: 80NM FL500
DME	LIS	CH 95X	H24	385315.6N 0090945.8W	1100FT	Coverage: 80NM FL500
NDB (02º W - 2020)	LAR	382KHZ	H24	385939.6N 0090225.4W		Coverage: 50NM
DVOR/DME (02º W - 2020)	ESP	112.500MHZ CH 72X	H24	382526.9N 0091108.4W	180M	Coverage: 203°/315° - 200NM FL500 315°/203° - 80NM FL500 Not usable: 060°/180° BYD 30NM BLW 4000FT
DVOR/DME (03º W - 2020)	CAS	114.300MHZ CH90X	H24	384453.7N 0092143.3W	700FT	Coverage: 60NM DVOR sectors not usable: 030/060 BYD 20NM below FL100 290/350 BYD 10NM below FL100
DME	FTM	CH 82X	H24	393957.9N 0082935.6W	700FT	Coverage: 60NM FL500 Not usable: 210° / 230° BYD 35NM BLW 4000FT BYD 40NM BLW 5000FT BYD 47NM BLW 6000FT
DVOR (02º W - 2020)	FTM	113.500 MHZ	H24	393956.5N 0082933.5W		Coverage: 60NM FL500 Not usable: 210° / 230° BYD 35NM BLW 4000FT BYD 40NM BLW 5000FT BYD 47NM BLW 6000FT RDL 173 BYD 65NM at or BLW 9500FT
DVOR/DME (01º W - 2020)	NSA	115.500MHZ CH 102X	H24	DVOR: 393352.8N 0075452.6W DME: 393352.3N 0075452.6W	1300FT	Coverage: 000º/180º - 60NM FL500 181º/359º - 200NM FL500 DME unlocks at 37NM on RDL004
ILS RWY 02 (CAT III/E/4)						
LOC (02º W - 2020)	ILI	109.100 MHZ	H24	384756.8N 0090735.1W		Front course angle: 3.1º

Type Category (MAG Variation) (VOR Declination)	ID	Frequency	Hours of operation	Site of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
GP / DME	ILI	331.400 MHZ DME CH 28X	H24	384609.7N 0090837.8W	300FT	HGT of ILS: 54.8FT GP: Angle 3º Zero range is indicated at THR RWY 02
MM	Dot - Dashes	75 MHZ	H24	384527.5N 0090854.8W		0.57NM from THR RWY 02
ILS RWY 20 (CAT III/E/4)						
LOC (02º W - 2020)	ILB	109.500 MHZ	H24	384546.4N 0090844.8W		Front course angle: 3.45º
GP / DME	ILB	332.600 MHZ DME CH 32X	H24	384721.0N 0090748.9W	300FT	HGT of ILS: 50FT GP: Angle 3º Zero range indicated at THR RWY 20 only
OM	Dashes	75 MHZ	H24	385111.9N 0090550.6W		3.95NM from THR RWY 20
MM	Dot - Dashes	75 MHZ	H24	384759.4N 0090734.2W		0.49NM from THR RWY 20

LPPT AD 2.20 LOCAL AERODROME REGULATIONS

1. Limitations on use of aerodrome

1.1 Restricted to ACFT capable of maintaining two way communications with Lisboa TWR.

1.2 Landing and/or take-off is forbidden by Law between 00:00 (23:00) and 06:00 (05:00), except in case of force majeure. However, according to governmental deliberation, exception regime has been granted for Lisboa Airport in which landing and/or take-off are allowed in a limited number.

1.3 Night restrictions are now applicable at LISBOA AIRPORT between 00:00 / 06:00 (23:00 / 05:00). This restriction is only applicable to civil subsonic jet aeroplanes with a maximum certificated take-off mass of 34000KG or more, or with a certified maximum internal accommodation for the aeroplane type in question consisting of more than 19 passengers seats, excluding any seats for crew only.

The authorisation for air movements during this period is conditioned to:

1.3.1 The maximum number of movements allowed (26 daily, 91 weekly),

1.3.2 The noise level of the aircraft concerned, in compliance with ICAO,

1.3.3 Aircraft authorised to land during the night period are strictly forbidden to reverse thrust right after landing,

1.3.4 The operating restrictions set out in Item 1.3.1 shall not apply to the following cases of force majoeure:

a. Aircraft operating humanitarian emergency or evacuation missions,

b. Aircraft to come across urgent situations, taking in account weather, technical failure or flight safety reasons,

c. Air movements subject to an unforeseen schedule alteration due to abnormal disturbance within Air Traffic Control.

d. Air movements operated up to 01:00 which were actually scheduled for periods up to 00:00, due to delays for which neither the Airport Management Company nor the Operator were to blame,

e. Air movements from / to Autonomous Regions of Madeira and Azores, due to meteorological conditions,

f. Landings operated during the period comprised between 05:00 / 06:00, due to weather reasons, as far as the arrival had been scheduled for a time after 06:00.

1.3.5 For the purpose of compliance with provision of Item 1.3.2 above, the operator shall, when applying for a slot provide the information contained in the aircraft manufacturer’s noise certificate.

1.3.6 Noise abatement procedures during approach, landing and take-off shall comply with standards and procedures set in ICAO PANS OPS Volume I and Portuguese AIP.

1.3.7 Aircraft authorised to land and take-off shall comply with technical characteristics according to ICAO Annex 16 Volume I, Chapter 4 and Portuguese AIP:

a. For Landing: Approach to landing MS 9 equal x EPNDB

b. For Take-off: (take-off PS side-line) / 2 equal x EPNDB.

Note: Information contained in the ACFT manufacturer’s noise certificate.

1.4 Air movements considered to be of public interest are not defined as a case of force major and have to be previously and exceptionally authorised by the Autoridade Nacional da Aviação Civil (ANAC) according to Decree Law 293/2003 of 19 November.

1.5 For request of Airport Slots see page GEN 1.2 - 1.2.2

1.6 Due to the actual high demand of traffic inbound Lisboa AD and surrounding aerodromes (LPAR-Alverca, LPCS-Cascais and LPMT-Montijo), the practice of instrument approach to LPPT-Lisboa for training and/or for instruction is not allowed in normal circumstances. Exceptions can be accepted after coordination with the Approach supervisor on duty and subject to analysis.

1.7 Penalties for non-compliance with slot allocation rules during the night period:

See Section GEN 1.2.2.1.2

2. Radio communication

Continuous two-way as prescribed in Airspace Classification C possessions (see ENR 1.4 - 1.4.2).
After Take-off all aircraft shall contact Lisboa Approach when passing 1000FT QNH, unless otherwise instructed by Lisboa Tower.

In order to reduce the frequency occupancy in Lisboa APP/TMA Sectors, pilots are requested:

- Departures: On first contact with APP report only the Callsign and Altitude.
- Arrivals: On first contact with Lisboa Terminal Control report only the Callsign, Cleared Flight Level and STAR .

3. Taxi, Parking, Push-back and Engine Start-up, Procedures

3.1 Surveillance

Lisboa Airport is equipped with a Surface Surveillance System using Mode-S Multilateration:

a. Aircraft operators intending to use Lisboa Airport shall ensure that the Mode S transponders are able to operate when the aircraft is on the ground.

b. Pilots shall select Auto Mode and assigned Mode A code. If Auto Mode is not available select ON and assigned Mode A code:

- from the clearance for push-back or taxi whichever is earlier;
- after landing, continuously until the aircraft is parked on stand;
- when parked on stand select STBY or OFF.

c. Whenever the aircraft is capable of reporting aircraft identification, the aircraft identification should be entered from the request for push-back or taxi whichever is earlier (through the FMS or the transponder control panel). Air Crew must use ICAO defined format for entry of the aircraft identification.

d. To ensure that the performance of systems based on SSR frequencies (including airborne TCAS units and SSR radars) is not compromised, TCAS should be selected when approaching the holding point. It should then be deselected after vacating the runway.

e. For aircraft taxiing without flight plan, Mode A code 2000 should be selected.

3.2 ATC Clearance

Enroute clearance shall be requested to Lisbon Delivery no earlier than 25 minutes prior to EOBT or CTOT as applicable, and not after 10 or 5 minutes, respectively. Ready messages must be requested over RTF at all times. Thereafter clearance via DCL will be available according to the aforementioned time window.

The enroute clearance will contain:

- Clearance limit: destination aerodrome;
- Standard instrument departure (SID);
- SSR code;
- CTOT (if applicable).

Additional information about ATIS information, RWY in use and QNH setting (in free text) will be provided.

Enroute clearance may be requested by means of a data link departure clearance (DCL) service. DCL service implementation is based on EUROCAE Document ED-85. The following procedures apply:

a. The pilot sends a request for enroute clearance downlink (RCD) at the above mentioned times interval. Free text contained in RCD will not be made available to ATC. Any specific requests shall be transmitted by voice.

b. A flight system update link message (FSM) will be transmitted automatically:

i. If the RCD is accepted, a departure clearance uplink message (CLD) will be issued;

ii. If the RCD is rejected, the pilot shall revert to RTF procedures.

c. The pilot shall acknowledge the enroute clearance by means of a departure clearance readback downlink within CDA-Parameter (customizable time limit, ex. 5MIN). Otherwise, a negative FSM will be issued.

d. When the CDA is processed successfully, a positive FSM will be issued to mark the end of the procedure.

After receiving a clearance via DCL service, pilots shall monitor the published frequency for Lisbon Clearance Delivery and advise when ready for start and/or pushback.

Regardless of the clearance source, departing aircraft must report their stand number, QHN and identification letter of the received ATIS information to Lisbon Clearance Delivery when fully ready for pushback and start up. In case of doubts or system related difficulties RTF procedures shall be resumed. Any clearance issued by RTF always supersedes a clearance transmitted by DCL service.

Notes

If runway 20 is in use, advise Lisbon Delivery before pushback of the intended intersection for departure.

If unable to comply with a crossing condition prescribed in the SID or other restrictions as broadcasted by ATIS, advise Lisbon Clearance Delivery on the published frequency.

In case of need to revert to RTF for ATC Clearance, the following procedures apply:

Till 10 minutes prior to EOBT, departing traffic shall contact Lisboa Delivery, Lisboa Ground or Lisboa Tower, as announced by ATIS.

This contact with ATC is to inform / receive:

a. Parking Position

b. ATIS ACK;

c. ATC clearance which includes:

- aircraft identification;
- clearance limit, normally destination aerodrome;
- designator of the assigned SID, if applicable. When receiving the designator of the assigned SID, pilots shall comply with the published SID vertical profile; and
- any other necessary instructions or information not contained in the SID description, e.g. CTOT.

If ATIS not available, traffic shall contact Lisboa Tower between 22:00-07:00 (21:00-06:00) and Lisboa Delivery or Lisboa Ground between 07:00-22:00 (06:00-21:00).

Note: Start-up of flights affected by ATFM measures are to observe the stated in ENR 1.9 - 1.9.6.

3.3 Airport Collaborative Decision Making (A-CDM) Procedures

Lisbon Airport-Humberto Delgado is directly connected with the Network Manager Operations Centre (NMOC) to transmit flight update data messages (Collaborative Management of Flight Updates). Departure Planning Information messages (DPI) contain, among others, the estimated take-off time, which the NMOC takes into account for predictions of traffic enroute and for the allocation of ATC slots. Update the TOBT and/or the EOBT is beneficial to the airlines to obtain a more optimized calculation of the CTOT.

The different types of DPI messages are:

- Early Departure Planning Information (E-DPI)
- Target Departure Planning Information (T-DPI), t or s
- ATC Departure Planning Information (A-DPI)
- Cancellation of previous message (C-DPI)

In case connection problems to the NMOC, the procedures stated below still apply, as A-CDM procedures in local mode.

3.3.1 Flight Plan Validation

Incoming ATC flight plans for departures are validated with regard to their airport slots, i.e. the scheduled off-block times (SOBT). The estimated off-block time (EOBT) must correspond to the SOBT.

If the SOBT deviates from the EOBT, the relevant contact person will be informed and advised (via email) to adjust the times accordingly.

3.3.2 Target Off-Block Time (TOBT)

The TOBT represents the time that an Aircraft Operator or Handling Agent estimates to be ready to leave the stand. Accurate TOBT management is therefore a prerequisite for a punctual departure.

TOBT at Lisboa Airport is firstly calculated at the CDM Platform until AO/Ground Handlers (GH) send an update (manually or via interface). Only confirmed TOBT are accepted and sent to ATC systems, as 30 minutes prior to TOBT time;

If the TOBT cannot be respected, it must be corrected or re-entered by the person/system responsible for the TOBT. It has to be updated when deviations of more than 5 minutes (+/-) become obvious.

For deviations of 15 minutes or more it will still be mandatory to send a delay message (DLA) to the Network Manager Operations Centre (NMOC).

3.3.2.1 Changes on TOBT values and/or status

After TOBT being sent to ATC, changes on TOBT only occur after a Target Start-Up Approval Time (TSAT) release or a TOBT cancelled which is marked as a TOBT D.

The new TOBT must be at least 5 minutes later than the current time.

If a flight is to be taken out of the TOBT/TSAT calculation, the TOBT is to be cancelled. The TOBT must be re-entered by the person/system responsible for the TOBT.

If the aircraft is changed, a change message (CHG - type/registration) must be sent. In this case, the TOBT remains in effect and is allocated to the new aircraft.

3.3.2.2 Regulated and Non-regulated Flights

Take-off parameters for regulated and non-regulated flights are respectively [-5';CTOT;+10'] and [-15';ETOT;+15'].

In case TOBT generates a Target Take-Off Time (TTOT) that is outside take-off parameters, TWR system will react according to the following:

- if the TTOT associated with the TOBT is earlier than the take-off parameters, TWR system will calculate a TSAT for the earliest possible TTOT within take-off parameters;
- if the TTOT associated with the TOBT is later than the take-off parameters, TWR system will release a TSAT equal to the TOBT, combined with an error message "TSAT-1 – possible TSAT not ok"; a DLA or a new CTOT is expected in order to grant start-up approval.

3.3.3 Target Start-up Approval Time (TSAT)

The TSAT is the target time for start-up approval according to the A-CDM procedure. The TSAT is the time provided by departure traffic management system. The system calculates for every departure the best possible start-up and/or off-block time to reduce queuing times at the runway, while maintaining a high runway utilization.

The TSAT is calculated by taking into account TOBT, ETOT/CTOT, SID, departure fix, wake turbulence category, aircraft type, and variable taxi times from the parking position to the departure RWY, considering always the earliest possible TTOT.

The latest time for the TSAT calculation is up to 5 minutes after TOBT is sent to TWR. If TSAT is not received within 5 minutes, the person responsible for the TOBT should call A-CDM Monitoring Position (contact: +351 218413532).

3.3.4 Start-up and Push-back procedure

Start-up approvals and push-back clearances are issued taking into account the TOBT and TSAT only. The sequence of the start-up request is no longer a factor.

The following rules apply:

- The aircraft has to be ready for start-up at TOBT.
- The pilot must request start-up approval within the time period of TSAT +/-5 minutes.
- A new TOBT is compulsory if TSAT + 5 minutes is exceeded; otherwise start up approval may not be granted, and TSAT will be cancelled.
- Ground will issue the start-up approval depending on the TSAT and the current traffic situation.

- The push-back/start-up procedure has to be initiated no later than two (2) minutes after the start-up approval has been issued.

3.3.5 A-CDM Alerts

An alert mechanism monitors expected upcoming events to trigger data updates and consistency. These alert messages will be either displayed at the CDM Platform Human-Machine Interface (HMI) and/or sent to the responsible partner, via email and/or interface, to react onto the alerts as required.

3.4 Push-back and start-up procedures

All aircraft shall contact Lisboa Ground or Lisboa TWR (when Lisboa Ground is closed) for push-back and/or start-up Clearance. Aircraft outgoing from a nose-in stand only allowed when towed. Use of reverse thrust (power back) for manoeuvring from a stand is not permitted.

Starboard engine allowed running in “Hotel Mode” for turbo-propeller aircraft while parked in Stand, during ground rotation, if GPS not available or inadequate and for Safety reasons. If ACFT engine is running in “Hotel Mode” a crew member shall remain in the cockpit at all time.

Reverse thrust on propeller or jet engine as assistance on aircraft stopping during parking procedures, is not permitted, except for safety reasons to be justified.

Engine start-up is allowed in nose stands during push-back.

- Whenever an ACFT APU is inoperative or not available, one engine start-up is permitted on a nose-in stand before starting the push-back manoeuvring; in this circumstance Lisboa GND or Lisboa TWR must be advised and the start-up procedure will be assisted by follow-me.

Anti-collision lights must be activated whenever engines are operating and during push-back manoeuvre. Exception applicable for turbo-prop aircraft operating engine nr. 2 in “Hotel Mode” while parked in stand.

Restrictions

Aircraft Stands Limited
All aircraft, intending to operate single engine TAXI-IN, must consider in due time if able to shut down port side engines before having GPU or Ground Power System available on Stand. If unable due aircraft APU INOP starboard side engines shall then be maintained running instead of port side engines which must be shut down immediately upon aircraft on stand stops taxiing.

Engine cross-bleed starts are not allowed during push-back manoeuvres.

a. APRONS 10, 11, 12 and 14

- Be aware when pushing from Stands 106, 107, 108, 116, 117, 122, 123, 125, 126, 141 and 142, to not infringe clearance areas of TWY M1, Y, G1 and W2.
- Pilots are to use, minimum power necessary when manoeuvring on Taxilanes A1,A2 and A3. This is of utmost importance specially when turning to cross or enter onto TWY T1, T2, T3 via TWY M1, Y and G1, due to jet blast hazard affecting Apron Stands and vehicle movements on service roads adjacent to TWY A1, A2, and A3.
- Except for safety reasons, multi-propeller aircraft must have port engine propellers fully stopped before entering Apron Sands.
- Allowing the aircraft to move backwards on any Stand by releasing aircraft brakes, and without the assistance of a push-back tug, or power push device connected to the aircraft, is strictly forbidden.

b. APRON 14

- Aircraft pushing back from Stand 146 shall be pushed along the full length of the Stand maintain alignment with the lead-in line of the Stand until reaching TWY A5 and Taxilane W1 intersection. From there a Pull-ahead manoeuvre shall be executed placing the aircraft over A4 TWY centreline.
- Aircraft with wingspan above 58M entering stands on apron 14 shall consider that wing tip clearance may be reduced to a minimum of 4,5M if adjacent aircraft is the critical one for that stand.
- Pilots shall confirm alignment with azimuth guidance before cross information marking “REDUCED CLEARANCE”.

c. APRON 20

- Aircraft must be stopped in taxilane Z2 with the aircraft aligned parallel to the terminal, in order to avoid the effects of jet-blast on apron 20.

d. APRON 30

- Normal Visibility Operations (NVO) Traffic for all Runways

  1. Push-back must place the Aircraft at the dedicated axis only for push-back purpose (see graphic below) compulsory within the trapezium delimited with 2 dash lines (North and South); one to grant the clearance of Taxiway U1 designated clearance U1 and the second to grant the clearance of Taxiway N1 designated clearance N1. Both these dash lines are distant from the Centre Line of Taxiways U1 and N1 47.5M. The other 2 limits are delimited with the axis of Taxiway V and the safety line of Stands 301and 302. From Stand 301 the push-back manoeuvre must place the Aircraft at the dedicated axis inside the lines of the clearance U1 and N1, nose faced South.

  2. From Stand 302 the push-back manoeuvre must place the aircraft at the dedicated axis inside the lines of Clearance U1 and N1, nose faced North. This Stand is provided with dotted lines in white for push-back manoeuvre track.

- Low Visibility Operations (LVO) Traffic for Runway 20

- All push-back must place the Aircraft at Taxiway V axis nose faced South.

e. APRON 42

- In LVO push-back from Stands 424, 425 and 426 shall be assisted by Follow-Me Vehicle on TWR request to grantee TWY U1 and P clearance.

f. APRON 50

- When Aircraft with a wingspan superior to 65M are exceptionally parked on this Apron, they should always enter and exit through Taxiway M2 assisted by Follow-Me Vehicle while taxiing on Apron Taxilane J.

- Aircraft faced North at Aircraft Stand Taxilane J must only initiate taxiing after clearance for entering Taxiway Q2. Stoppage is not allowed to avoid jet blast at Stand 506.

g. APRON 60

- Apron Taxilane F restricted to aircraft with wingspan up to but not including 36M (ICAO Code C). Larger aircraft shall use TWY G2 for TAXI and ground manoeuvring.

- Apron not provided with A-VDGS. Aircraft destination Stands 600 to 609 shall proceed only under Follow-me assistance or Airport Marshall instructions.

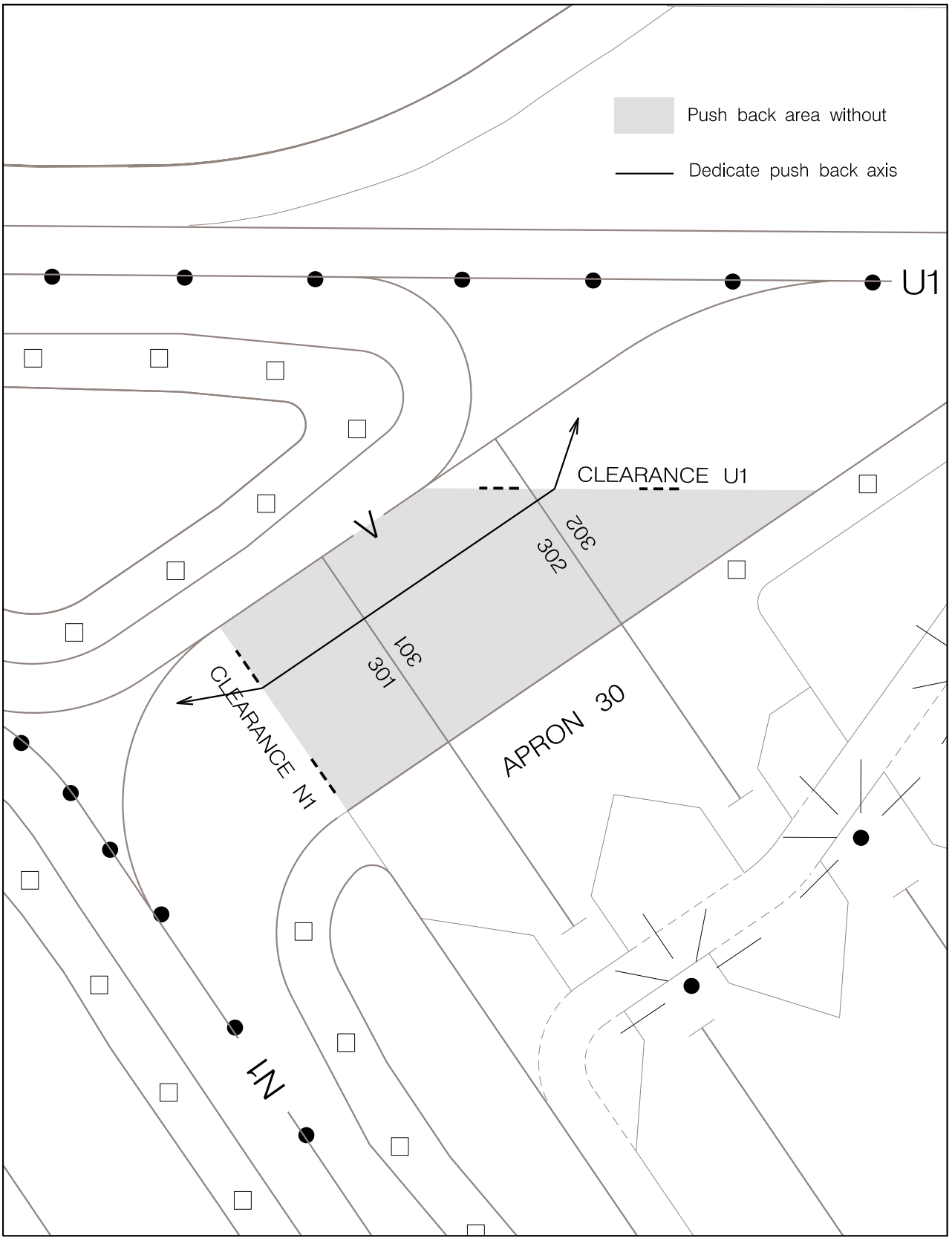
h. APRON 70

- On 701, 702, and 703 positions (nose out) ACFT will have direct entrance through TWY A5 and the departing manoeuvre will be autonomous through Taxilane D and via Taxilane W1.

- On position 704 (nose-in) the ACFT will entry by Taxilane W1 and Taxilane D, the departing manoeuvre will be done with push-back and pull-ahead to the breakaway zone of Taxilane D with the nose facing South, where, after the push-back unleashed, the ACFT will begin taxiing by its own means to Taxilane W1 under TWR instructions.

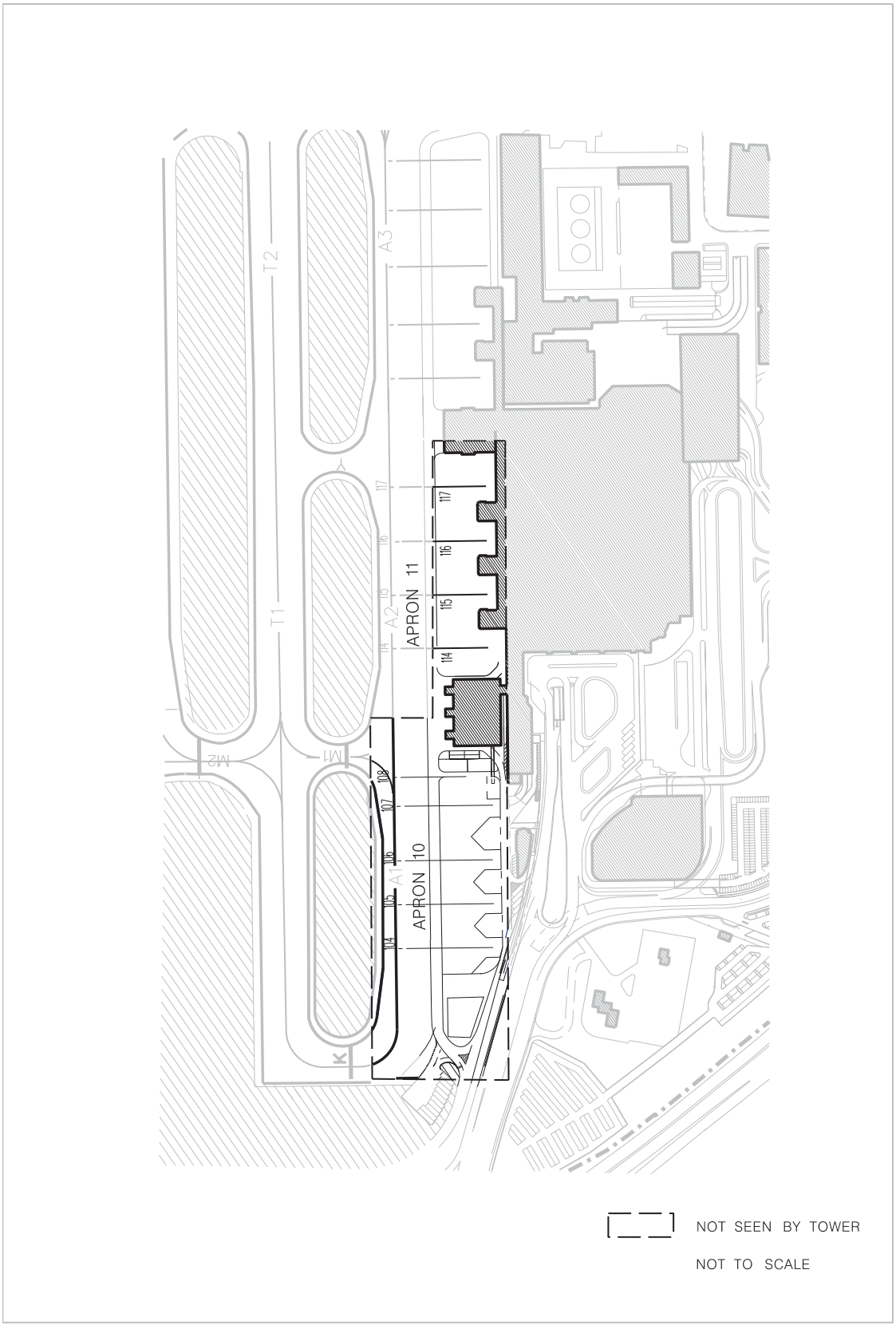
- Pilots are to use MNM PWR necessary when manoeuvring on this Apron. This is of utmost importance when break away from Stands 701, 702 and 703 and manoeuvring to exit Apron, where jet blast can affect adjacent Stands and vehicles on apron service roads.

Figure 1. APRON 30 EXITS:



3.5 Areas not seen by Tower

Stands of Aprons 10, and 11 not seen by Tower are: 104, 105, 106, 107, 108, 114, 115, 116 and 117



Stands and Taxiways not seen by Tower are:

Taxiways and Stands of Aprons 20, 30, 40, 41, 42 and 50 not seen by Tower are:

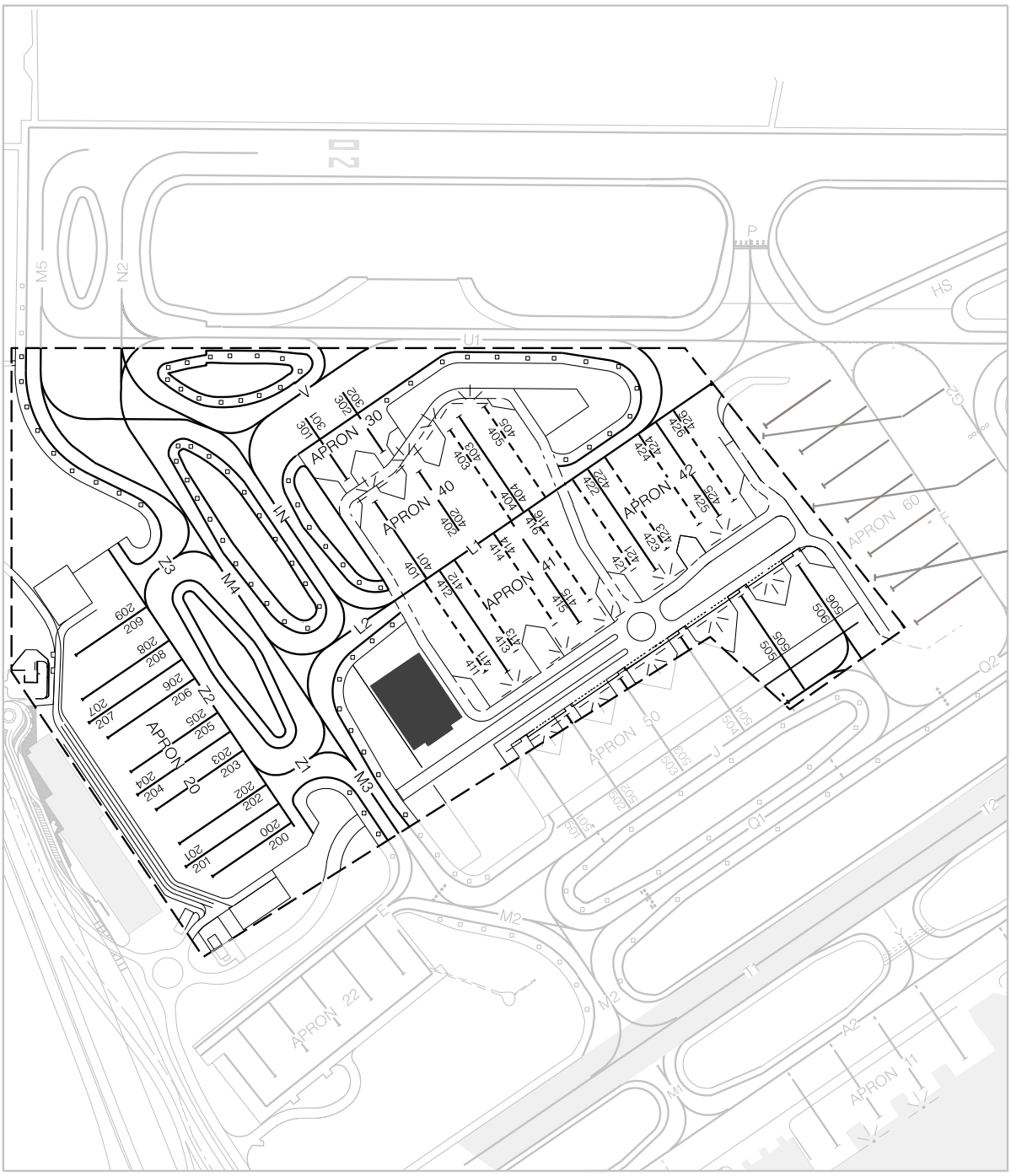
a. Apron 20, 40, 41 and 42 - all Stands

b. Apron 30 - all Stands

c. Apron 50 - Stands 505 and 506

d. Taxiways M3, M4, L1, L2, V, N1, and taxilanes Z1 and Z3

e. Taxilane A1 and TWY Z2



3.6 Taxi Procedures

3.6.1 Taxi Route Procedures

When RWY 02 in use aircraft taxiing via TWY G2, U1 and N1 expect N2 intersection departure. Aircraft taxiing via M4 expect M5 intersection for departure. If unable advise before starting taxi.

For Taxi Route Procedures see Charts LPPT AD 2.24.03-1, LPPT AD 2.24.03-3.

3.6.2 Taxi Restrictions

Nose-in stands centreline marked by yellow lines, Stand entry guidance is provided by A-VDGS system except Stands located on Aprons 60, and 70. Marshalling is compulsory on Stands not provided with A-VDGS units.

When manoeuvring on Stands with Passenger Boarding Bridge, upon reaching the Bridge Canopy if A-VDGS distance to stop is not shown by A-VDGS display or the vertical visual indicator thermometer in the display does not respond to the aircraft approach pilot MUST STOP ACFT IMMEDIATELY.

Aircraft type B747, A340 and AN124 shall TAXI with engines Nr 1 and Nr 4 maintaining IDLE power or shut down. Aircraft type AN124 and B748 are subject to taxi restrictions according TWR instructions. Heavy aircraft not authorized to turn from TWY G2 onto TWY U2 due jet blast hazard. In order to avoid jet blast affecting parked ACFT and structures:

- Aircraft taxiing on Taxilane A1, A2, A3 or TWY A4 and instructed to hold before TWY T1, T2, T3 shall stop and hold facing north or south. Stoppage is not allowed when on TWY M1 or G1 and facing west.
- Aircraft taxiing via Taxilane J to the north and instructed to hold before TWYQ1 shall stop and hold on aircraft stand taxilane J facing north. Stoppage is not allowed facing east.
- Aircraft taxiing on Taxilane Z2 must be stopped aligned parallel to the terminal, in order to avoid the effects of jet-blast on apron 20.

TWY M3, A5, A5, A7, S3, S4 and S1 with a grading strip distant 19M from TWY centre line. Due to intake area ACFT type B747 or similar are requested to taxi with engines nr. 1 and nr. 4 at IDLE Power. ACFT Taxiing Northbound on TWY S2 NOT ALLOWED to turn right and enter TWY U6.

All aircraft determined to be ICAO Code E and above must perform judgemental over-steering instead of cockpit over centreline steering when taxiing in order to avoid TWY lateral excursions from main gear. Taxi caution required on all aerodrome taxi routes.All 4 engine aircraft determined to be ICAO code E and above, shall not use differential engine thrust on engines 1 and 4 above 40 percent N1 (fan speed) or engine reverse thrust to make sharp turns over-steering in order to avoid TWY and RWY foreign object debris hazards.

3.6.3 Taxilane restrictions:

1. Taxilanes A1, A2, A3, M1, K and Y restricted to aircraft wingspan up to 48 meters.
2. Taxilanes B, C, and Taxilane W1 restricted to aircraft wingspan up to 51 meters
3. Taxilane F restricted to aircraft wingspan up to 36 meters.
4. Taxilane E restricted to aircraft wingspan up to 36 meters.
5. Taxilane D restricted to aircraft wingspan up to 31 meters.

3.6.4 Reduced Engine Taxi

Whenever operationally and safely feasible, all aircraft are requested to shut down as many engines as possible while taxiing and holding on the ground, EXCEPT in the following circumstances:

- By any aircraft reaching the holding point that is required to cross an active runway (no ACFT in front on the same taxiway).
- By any aircraft reaching the holding point for line-up (no ACFT in front on the same taxiway).

3.6.5 Prevention on Runway incursions

Ground will never issue a Clearance to cross/interfere with RWY 02/20. Aircraft departing from RWY 20 (S4) expect crossing with TWR Controller.

RWY Clearance is monitored by ATC using A-SMGCS system together with visual observation. All RWY intersections that are not used for departures are protected by Stop Bars at all time regardless of Normal or Low Visibility Operations.

When taxiing during LVO, in the event of pilots losing their visual reference, they shall stop taxiing, notify their position and request instructions from ATC. The taxiing instructions shall include clearance to cross runways. If they do not receive this clearance, aircraft shall hold at the holding position of the appropriate runway.

All RWY holding positions equipped with mandatory instruction signs and with mandatory instruction markings. All accesses to the RWY have enhanced taxiway centre line markings. All RET, in the opposite direction of the RWY exit, have «no entry» bars and signs. During LVO all RWY holding position are protected with microwave barriers.

Avoiding of other aircraft and obstacles in holding areas is the responsibility of the flight crew involved.

3.6.6 Aircraft towing procedures

Aircraft that are to be towed to another stand or to/from the maintenance areas, or to/from temporary parking areas, must have the transponder set to the appropriate Mode/code in order that the aircraft's registration number is displayed on the ATC radar screen.

From the time of the request for push-back or tow, until the aircraft is fully parked on stand, the transponder must be switched on with the Mode A code 2000 selected. Dependent on the type of aircraft, the transponder must either be switched to 'Alt-Off', 'X-pndr' or 'Auto' to display the aircraft registration.

Note: If the 'Aircrew Procedures' above are not followed, the towing crew will also have to select A2000 on the transponder and clear the Flight ID from the FMS/xpndr window.

If there's a Follow-me vehicle escorting the towing that is fitted with A-SMGCS compatible transmitter, Follow-me vehicle must remain at sufficient distance from the aircraft to avoid the radar receiving two overlapping signals.

If Follow-me vehicle crew escorting a towing is unable to set the transponder for technical reasons they should inform ATC prior to push-back, who will relay this information to ASD. If the transponder is not seen to be consistently on during towed movement this will be reported by ATC to ASD.

Some of the areas of the airfield are not currently available for Code F aircraft movements. Code F procedures are detailed in the Aeronautical Information Publication entry for Lisboa Airport (LPPT AD 2-20).

All Follow-me drivers towing Code F aircraft should ensure that when communicating with ATC, they append the word 'Super' to the end of their call-sign to identify themselves as a Code F movement. e.g. 'Operator Echo Alpha Super'.

In the unlikely event, neither the Follow-me nor the Aircraft have a A-SMGCS operational transmitter, the Follow-me crew must report this situation to the ATC before commencing the towing.

Towing of aircraft under LVO operation, under visibility condition 3 (visibility equivalent to an RVR of less than 400M), is not allowed, unless the aircraft have an A-SMGCS operational transmitter.

3.7 Follow-Me and marshaller assistance

Available under request. compulsory assistance for Stands not provided with A-VDGS.

3.8 Use of Auxiliary Power Unit (APU)

APU must be shut down at the earliest opportunity on arrival at Stand. Except in Emergency APU must not be operated between 23:00 (22:00) and 06:00 (05:00);

Aircraft APU must not be left running unless either a qualified person is in attendance or the APU as both an auto-shut down and auto-extinguish facility.

GPU is not allowed on aircraft Stands unless Ground Power System is not available.

Narrow body aircraft:

- Use of APU is restricted to 15 min after arrival and not more than 30 min before departure.
- If aircraft is on a short turnaround time of less than 55 min, the APU may be left ON after arrival.
- If OAT is below 5º C or above 25º C, the APU restriction is extended to 60 min before ETD.

Wide body aircraft:

- Use of APU is restricted to 20 min after arrival.
- Use of APU is restricted to 75 min before departure, or not more than 90 min when GPU has not enough power to support the FMS.

- If aircraft is on a short turnaround time of less than 110 min, the APU may be left ON after arrival on Stand.
- If OAT is below 5º C or above 25º C, the APU restriction is extended to 90 min before ETD.

3.9 Engine test runs

Engine test runs may only take place:

- On Multipurpose Apron
- Short Engine checks at Idle Power are allowed on stand. TWR permission required.

Test runs are allowed only from 06:00 (05:00) to 22:00 (21:00) on the condition that a previous authorization was obtained from the airport Duty Officer (Telephone Ext.Nr. 21686 or 21782).

4. Apron 70 operation and procedures

The coordinates of positions 701, 702, 703 and 704 are painted on the ground at the captain side.

Refuel service by fuel trucks only.

5. Parking restrictions

Due to shortage of Parking Stands the following restrictions are imposed:

Regular Flights

Airport slots for non-based carriers are restricted to a maximum of 2 hours parking.
Parking periods exceeding this interval, only upon prior approval from Lisboa Airport Management.

All aircraft based at Lisboa are only allowed to park for an eighteen (18) hours period.
Extension to this parking period must be subject to Lisboa Airport Director prior approval. Any extension granted is valid just for the time (date and hour) limit approved.

Failure to comply with the time limit approved on departure aircraft (based or non-based) is immediately subject to surcharge according to decree-law 254/2012.

Ad Hoc Flights

Maximum turnarounds of:

- 45 MIN - ACFT ICAO code A and B;
- 60 MIN - ACFT ICAO code C and D;
- 90 MIN - ACFT ICAO code E.

When requesting an airport slot, it is compulsory to mention:

- Ground handling agent at LPPT, name and full contact of local representative in Lisbon: address, email, telephone (including mobile).
- Parking periods exceeding the times above, only on very exceptional circumstances and upon prior approval from Lisboa airport management.

6. Use of runways

6.1 Runway-In-Use

RWY 02/20 is the only runway available.

Traffic departing RWY 02 may be subjected to a climb gradient of 6% until passing 2000FT due to ATS constraints. This restriction, when needed, will be included in the ATIS departure broadcast and/or Clearance delivery. If unable, pilot shall advise ATC prior to start up.

Traffic on approach to RWY 02 may be subjected to missed approach climb gradient of 3.5% until passing 2000FT due to ATS constraints. This restriction, when needed, will be included in the ATIS arrival broadcast. If unable, pilot shall advise ATC prior to commence the approach.

Unless otherwise instructed by ATC, pilots should plan their landing to vacate Runway 02 via RET H4 (distance from THR - 1790M) and Runway 20 preferably via RET H1 (distance from THR - 1600M) advising as soon as possible for the need of RET

H3 (distance from THR - 1910M). If unable to comply pilots shall advise ATC. High speed turn offs have been designated for vacating speeds up to 30KT.

If, for any particular reason, pilots wish to vacate Runway 02/20 via TWY A6 or T5 make the request in first contact with Tower.

In order to avoid jet blast affecting runway safety operation, aircraft vacating or crossing runways shall not stop until the RWY ILS sensitive area is completely free or until reaching parallel alignment with the RWY CL whichever applicable, unless otherwise instructed by the ATC.

6.2 Periods of Peak Traffic Demand

High Intensity Runway Operations (HIRO) are valid from 06:00 to 24:00 (05:00 to 23:00) unless otherwise advised by ATC (e.g. via ATIS). The HIRO system optimises separation of aircraft on final approach in order to minimise runway occupancy time for both arriving and departing aircraft, thereby maximising runway utilisation and minimising go-around.

Departures

ATC will consider every ACFT at the runway holding point as able to commence line-up and take-off roll immediately after clearance is issued, unless otherwise instructed. Pilots not ready when reaching the holding point (no ACFT in front on the same taxiway) shall advise ATC on Tower frequency as early as possible before entering the RWY.

When cleared for take-off, ATC will expect and has planned on seeing movement within 10 seconds (of take-off clearance being issued). Wake vortex separation is applied by ATC in accordance with the published requirements. If more separation than the prescribed minima is requested, pilots shall notify ATC before entering the RWY.

Where possible, cockpit checks and cabin readiness should be completed before line-up and any checks needing completion on the runway should be kept to the minimum required.

After take-off contact Lisboa Approach when passing 1000FT QNH unless otherwise instructed by Lisboa Tower.

Arrivals

Pilots are reminded that by leaving the runway at the fastest speed commensurate with safety and standard operating procedures, ATC will be able to guide aircraft on final approach using minimum radar separation or separation minimum according to wake vortex category. Extended runway occupancy may result in a go-around.Commensurate with the aircraft safety and standard operation, pilots are reminded to adopt the following procedures:

a. Comply with published standard arrival procedures altitude;

b. Strictly adhere to published or assigned speeds on descent;

c. Apply accurate speed control on final; and

d. Vacate the runway expeditiously at the recommended rapid exit TWY.

6.3 Take-off run

When RWY 02 is in use the following criteria will be applied:

a. For departure sequencing purposes ATC will indiscriminately use M5 and N2 intersections, if unable advise at start-up.

b. Take-off from M5 and N2 intersections are considered to be the same point for the purposes of departure wake vortex separation.

c. Whenever feasible ATC will inform about TWY P intersection availability as soon as possible.

When RWY 20 is in use, the preferred departure intersection for all aircraft, except for heavy jets, should be U5.

Pilots shall advise ATC on start-up when full length for RWY 02 or RWY 20 is required.

6.4 General conditions for the application of reduced runway separation at RWY 02/20:

a. Reduced runway separation minima may only be applied during the hours of daylight from 30 minutes after local sunrise to 30 minutes before local sunset. The controller is able to assess separation visually or by surveillance derived information and the surveillance system that provides the controller with position information shall be utilized in combination with visual means and shall be serviceable at all times;

b. the tail wind component is not greater than 5KT;

c. ground visibility is at least 5KM and the ceiling is not less than 300M(1000FT);

d. braking action is not impaired by RWY deposits such as ice, slush, snow, water etc.; pilots should report any impaired braking action detected during landing or departure;

e. reduced RWY minimum separation is only used between a arriving aircraft after an aircraft departing;

f. the following aircraft receives traffic information as follows:

..... (call sign) ..... traffic information ..... (Aircraft Type) departing Runway ..... (Designator).

g. special landing procedures may be in force at Lisbon Airport (Runway 02/20) in conditions shown hereunder, when the use will be as follows:

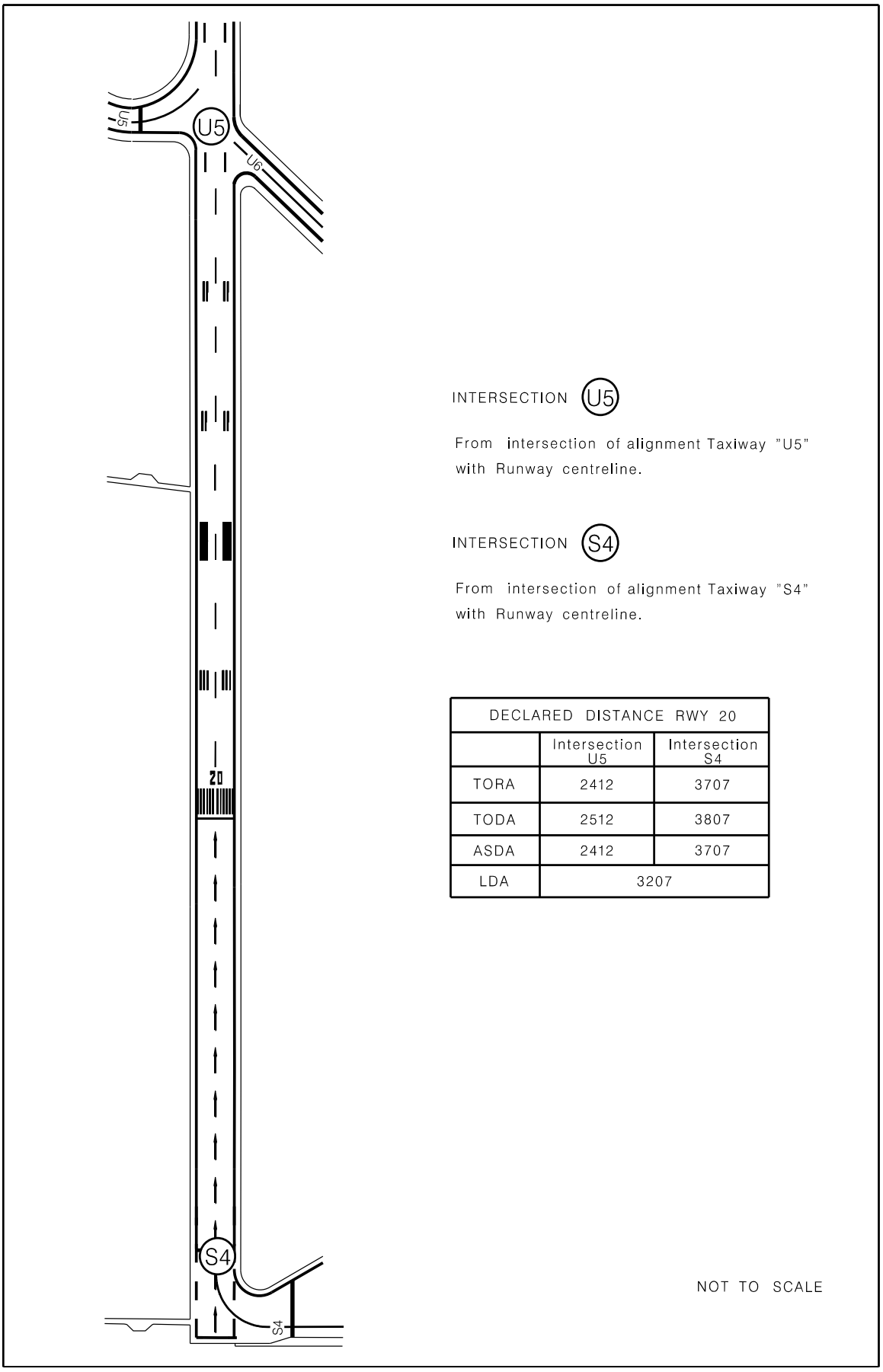
- when the runway-in-use is temporarily occupied by other traffic departing, landing clearance will be issued to an arriving aircraft provided that at the time the aircraft crosses the threshold of the runway-in-use the following separation distances will exist:

  - RWY02 – the departing aircraft has passed a point at least 2400M from the threshold (reference on the ground is intersection U6).

  - RWY20 – the departing aircraft has passed a point at least 2400M from the threshold (reference on the ground is intersection P).

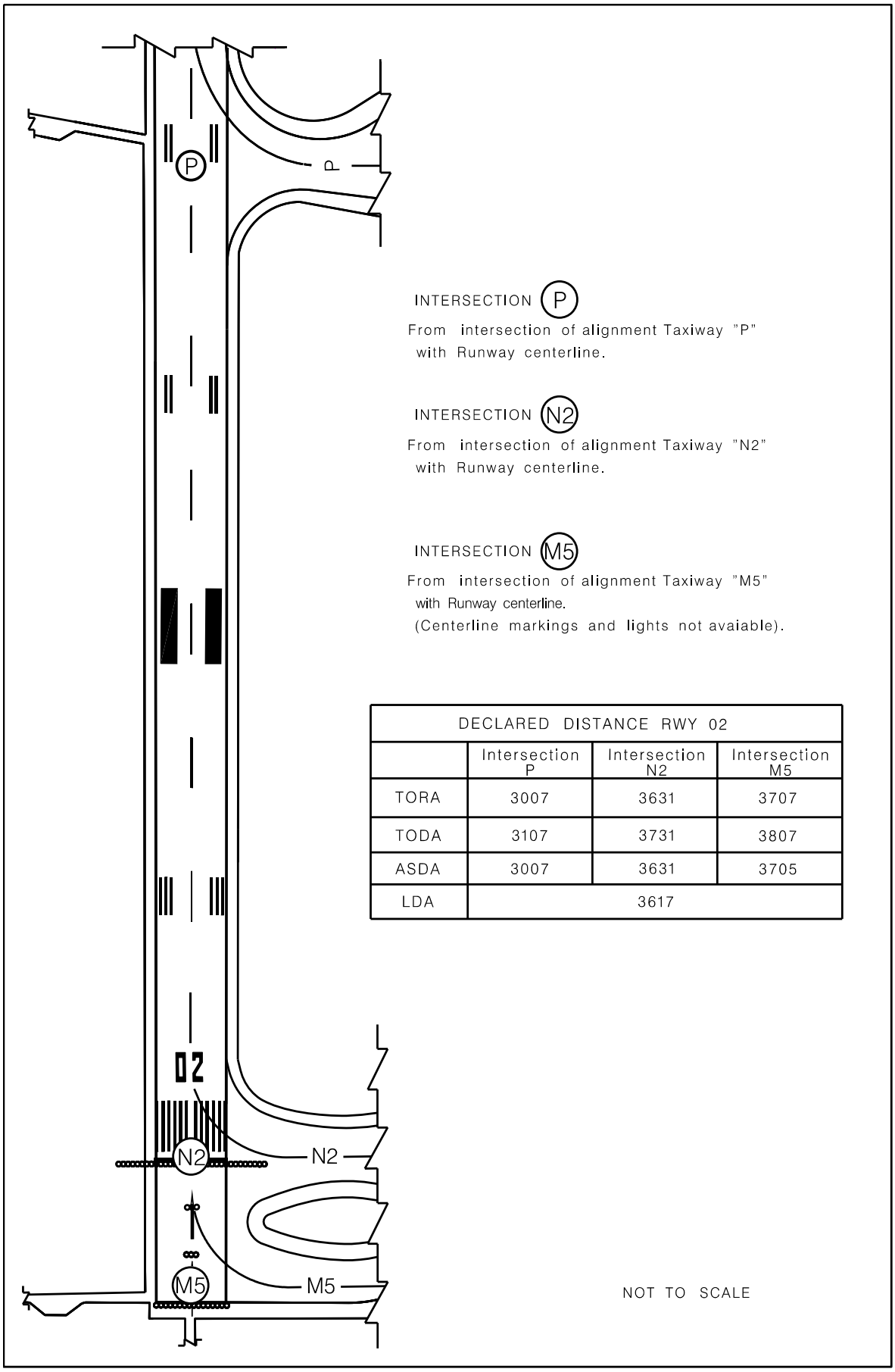
h. when issuing a landing clearance following the application of these procedures ATC will issue the second aircraft with the following instructions:
..... (call sign) ..... after the departing ..... (Aircraft Type) cleared to land Runway ..... (Designator).

Figure 2. Runway 20 take-off points



DECLARED DISTANCE RWY 20		
	Intersection U5	Intersection S4
TORA	2412	3707
TODA	2512	3807
ASDA	2412	3707
LDA	3207	

Figure 3. Runway 02 take-off points



DECLARED DISTANCE RWY 02			
	Intersection P	Intersection N2	Intersection M5
TORA	3007	3631	3707
TODA	3107	3731	3807
ASDA	3007	3631	3705
LDA	3617		

7. Category II/III operations

7.1Runway 02/20, subject to serviceability of the required facilities, is suitable for CAT II and III operations by operators whose minima have been accepted by ANAC - Autoridade Nacional da Aviação Civil.

7.2 LOW VISIBILITY OPERATIONS PROCEDURES (LVP) will be in course whenever:

7.2.1RWY 20 in use:

a. Runway Visual Range (RVR) - TDZ RWY 20 - is 550M or below; or,

b. cloud base height (CBH) - RWY 20 - is 200FT or below; or,

c. visibility conditions decrease rapidly;

irrespective of the serviceability state of the ILS, lighting, stand-by power, etc.

7.2.2RWY 02 in use:

a. Runway Visual Range (RVR) - TDZ RWY 02 - is 800M or below; or,

b. cloud base height (CBH) - RWY 02 - is 200FT or below; or,

c. visibility conditions decrease rapidly;

irrespective of the serviceability state of the ILS, lighting, stand-by power, etc.

Pilots will be informed when these procedures are in use by RTF if ATIS is unserviceable through the message “ATC LOW VISIBILITY PROCEDURES IN FORCE”.

7.3 ATC Low Visibility procedures

a. Ground Safeguarding Procedures will ensure that ILS protection areas (Critical and Sensitive) are clear of (KNOWN) traffic before issuing the landing clearance (never after the 2NM final).

b. When the aircraft reaches that point and landing clearance cannot be issued, it will be instructed to carry out a missed approach procedure.

c. Any incident detected that may affect the Low Visibility Procedures or any change of the operational minima will be communicated, immediately, to ATC units involved.

d. Pilots will be informed by ATC of any unserviceabilities in the promulgated facilities so that they can amend their minima, if necessary, according to their operations manual.

e. A change in operation, if caused by a failure expected to last more than one hour, will be promulgated by a NOTAM.

f. Aircraft awaiting weather improvement in the holding area will be stacked from FL060 upward.

g. ATC may, initially, allocate more favourable (higher) holding levels when the number and types of aircraft involved in pattern allows this procedure.

h. Surface Surveillance System (SMR and Multilateration) is normally available to ATC. If surface Surveillance System is out of service Pilots shall report RWY ILS Localizer Sensitive Area when aircraft passes the last alternate green yellow TWY Centreline lights. If the Surface Surveillance System and/or RWY Stop Bars are out of service restrictions will be applied.

7.4 Runway visual range

Runway Visual Range values will be reported by ATC for TDZ (Touchdown) of RWY in use.
For any of the two other positions, MID (Midpoint) and END (Stop-end), ATC will only report their RVR values if they are:

a. Less than the value reported for TDZ and less than 550M;

b. less than 350M; or,

c. requested by the pilot.

7.5 Push-Back and Start/Gate Entry

Push-back and Start/Gate Entry Procedures are assisted by marshaller and/or follow-me at aprons 10, 11 and 12.

Departing aircraft shall wait for RVR improvement at the stand.

7.6 Taxi

General:

Taxi instructions will be supported by the convenient switched on/off of taxiway centre line lights (green) and STOP BAR LIGHTS (red).

So, pilots shall stop and request further instructions at any STOP BAR lighted, as well as at any segment of taxiway centre line lights, unlighted.
Taxiway centre line lights within localizer sensitive area are coded by alternate yellow and green lights.

Departing Traffic:

ATC will require departing aircraft to use CAT II/III holding positions.

Arriving traffic:

The appropriate runway exits will be lighted, and pilots should select the first convenient exit.

If the Surface Surveillance System is out of service, Pilots of arriving aircraft shall report the localizer sensitive area vacated and the taxiway segment through which it vacates, when the aircraft is completely out of yellow and green taxiway centre line lights;

- e.g. “LOCALIZER SENSITIVE AREA VACATED VIA TWY (name)”

Runway crossing:

If the Surface Surveillance System is out of service, Pilots of aircraft crossing RWY 02/20, shall report the Localizer sensitive area vacated, when the aircraft is completely out of yellow and green taxiway centre line lights.

7.7 Practice CAT II/III approaches

Pilots who wish to practice CAT II/III approaches are to request practice CAT II/III approaches, on initial contact with LISBOA TMA (e.g. “REQUEST PRACTICE CAT II/III APPROACH”).

For practice approaches there is no guarantee that the full safeguarding procedures will be applied and pilots should anticipate the possibility of resultant ILS signal disturbance.

LPPT AD 2.21 NOISE ABATEMENT PROCEDURES

GENERAL

Landing and/or take-off is forbidden by law between 00:00 (23:00) and 06:00 (05:00), except in cases of force majeure. However, according to governmental deliberation, exception regime has been granted for Lisboa Airport in which landing and/or take-off of aircraft engaged in commercial aviation or aerial work are allowed in a limited number.

The authorisation for air movements during this period is conditioned to:

1. The number of movements per week, shall not exceed a total limit of 91.

2. In any case the number of air movements per night period (NP) shall not exceed the double of the daily movements in which

$$NP = \frac{\text{Limit per week}}{\text{Number of days of the week}}$$

3. The authorization for the air movements during the night period is also conditioned to the noise levels of the aircraft concerned, under the provisions of the items below.

4. For the purposes of effective perceived noise levels established by ICAO, aircraft are classified as follows

Level 0	below 87 EPNdB
Level 0,5	between 87 and 89.9 EPNdB

Level 1	between 90 and 92.9 EPNdB
Level 2	between 93 and 95.9 EPNdB
Level 4	between 96 and 98.9 EPNdB
Level 8	between 99 and 101.9 EPNdB
Level 16	above 101.9 EPNdB

5. The noise level classification of an aircraft either at landing or at take-off is given by the values indicated in the aircraft manufacturer's noise certificate, taking into account the reference points specified in the technical standards applicable to the approach to landing, overflight for take-off and sideline procedures, at full power.

6. Without prejudice to provisions of article 7 and 8 of Decreto-Lei nr. 293/2003 of 19 November 2003, on the exemption of aircraft registered in the developing countries and applicability of an exemption to the operation of aircraft under exceptional circumstances, respectively, the aircraft to operate in the night air movements allowed during this period shall comply with the following requirements:

   The aircraft classified in levels 8 and 16 cannot be scheduled for the night period;

   The aircraft classified in level 4 cannot be scheduled to take-off during night period on regular air services;

   The aircraft classified in level 2 can be scheduled to take-off between 00:00 (23:00) and 00:30 (23:30) as well as from 05:00 (04:00) thereon;

   The aircraft classified in levels 0, 0.5 and 1 are not subject to restrictions.

7. The aircraft falling into the criteria set out in 5- of this number authorized to land during the night period are forbidden to reverse thrust, right after landing.

The following approach procedures are established to reduce noise level in the city by over flying aircraft.

Visual Approach Procedures

From the South to:

RWY 02: The descent to final approach altitude will be done over the river and maintained until the aircraft is aligned with runway (the city will only be over flown on final and when lined up with runway).

RWY 20: The descent to final approach altitude should be made over the river and maintained on the left down wind sea until the aircraft is aligned with runway.

From the North to:

RWY 20 - No restrictions

RWY 02 - Left-hand traffic circuit

Final approaches for landing shall be carried out at an angle of not less than 3º and the indicated approach slope of the PAPI shall be followed for each runway.

Flat approaches flown with relatively high engine thrust at low altitude and great distance from airport are prohibited.

SID's are also established in accordance with Noise Abatement criteria (see AD 1.1 - 1.1.5).

Local flights

Local flights (test, training, etc.) with successive take-offs and landings are only permitted between 08:00/22:00 (07:00-21:00) and only if the operator has an open bank account with Lisboa Airport.

LPPT AD 2.22 FLIGHT PROCEDURES

1.Lisboa CTR - VFR flight restrictions

Once Traffic permitting, only two VFR flights will be simultaneously accepted concerning any activity in Lisboa CTR, except for flights from / to Lisboa AD (LPPT).

Low altitude VFR Flights over Lisboa City, within an area bounded by 384643N 0090519W along the north border of Tejo River 384137N 0091341W - 384548N 0091220W - 384743N 0090900W - 384643N 0090519W can only be approved with previous authorisation for exceptional purposes and subject to permanent two way radio communications with ATC, and minimum altitude of 1500FT.
Pilots should be prepared to exit the area at any time or hold VFR over one of the following designated points:
- Farol do Bugio (383932N 0091751W) and Algés - Doca de Pesca de Pedrouços (384131N 0091348W) - at an altitude of 500FT.
- Mata de Queluz (384433N 0091531W) - only to helicopters in stationary flight at an altitude of 1000FT and operating in conditions of visibility equal or greater than 10KM and with the ceiling scattered at or above 3000FT (conditions forecast to the next hour).

2.Visual Approach

A QNH altimeter setting shall be included in the descend clearance when first cleared to an altitude below the transition level, when cleared to enter in the traffic circuit.Prior to entering the visual approach procedure or commencing its approach to land, an aircraft shall be provided with the following elements of information, in the order listed, with the exception of such elements which it is known the aircraft has already received:

- The runway to be used;
- The surface wind direction and speed, including significant variations there from;
- The QNH altimeter setting and, either on a regular basis in accordance with local arrangements or, if so requested by aircraft, the QFE altimeter setting.

2.1Runway 02

All aircraft carrying out visual circuit approaches to runway 02 shall not, unless cleared by ATC, descend below 2500FT QNH on the left downwind leg. Aircraft must join the final approach track to runway 02 at 2500FT QNH or above. Pending traffic in LP-R42B/R42A.

See also Visual Approach Procedure charts.

3. Procedures for Helicopters within Lisboa CTR

3.1 Helicopters using heliports or other places within LISBOA CTR shall contact Lisboa Tower prior take-off.

3.2 Lisboa Airport Helicopters Entry/Exit Points and crossing operations

In order to facilitate arrivals and departures in Lisboa Airport, two visual Entry/Exit points were defined (see graphic below):

- IGREJA das Galinheiras (Church) - 384700N 0090836W (West of the airport)
- RALIS (Military Facility) - 384659N 009713W (East of the airport)

Unless otherwise instructed by ATC, Helicopters arriving to Lisboa Airport shall expect:

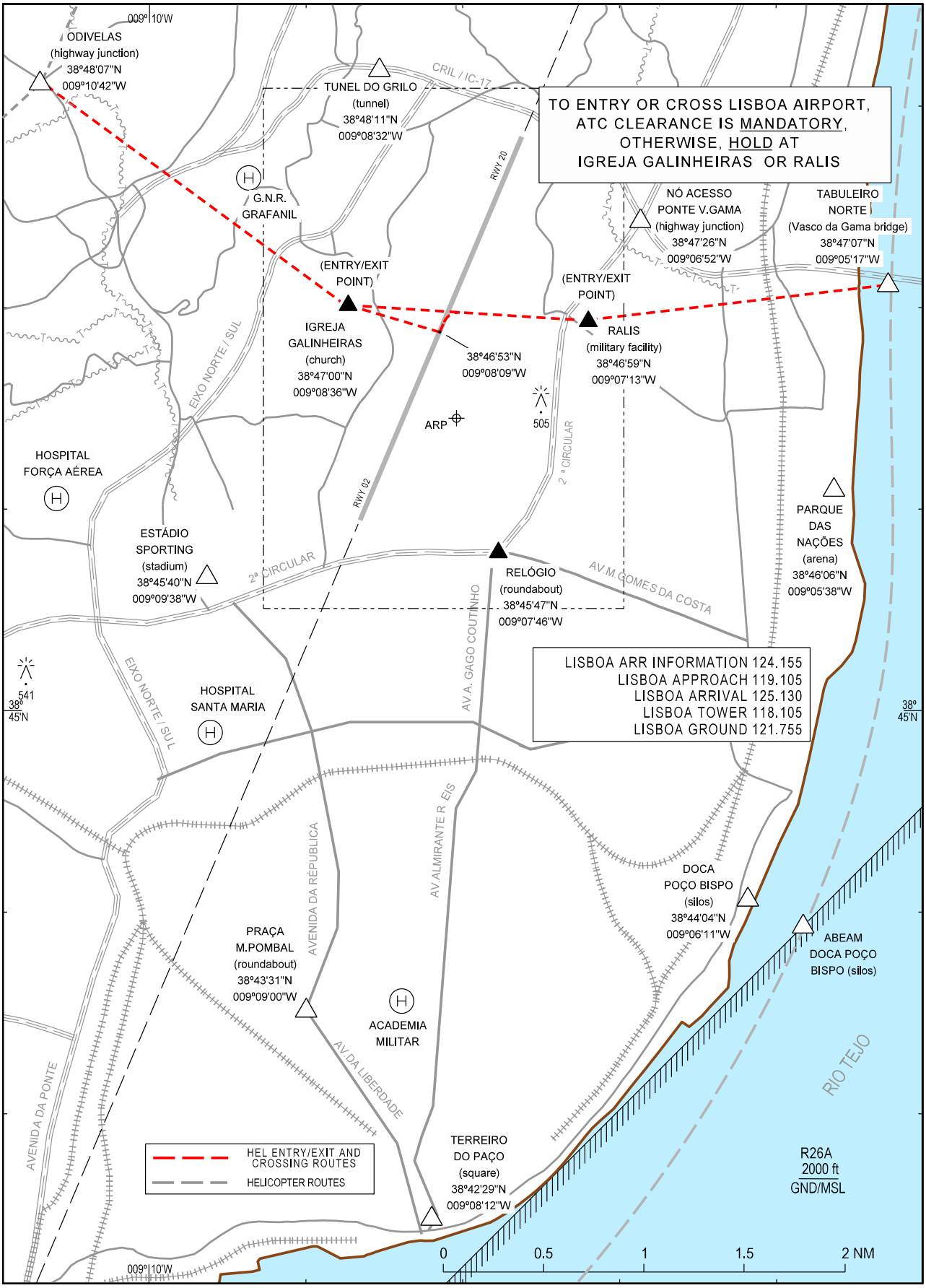
- Traffic on the Salemas Route:
  Proceed to Odivelas (highway junction) - 384807N 0091042W - at 1600FT AMSL and IGREJA das Galinheiras (church) - mandatory reporting point direct to intersection of RWY 02/20 with TWY T.
- Traffic on Tejo Route:
  Proceed to RALIS (military facility) - mandatory reporting point, and route segment to Galinheiras until intersecting RWY 02/20.

Helicopters shall use runway 02/20 directions for landing and take-off. Landing and Take-Off at 384652.69N 0090809.36W intersection of RWY 02/20 with TWY T.

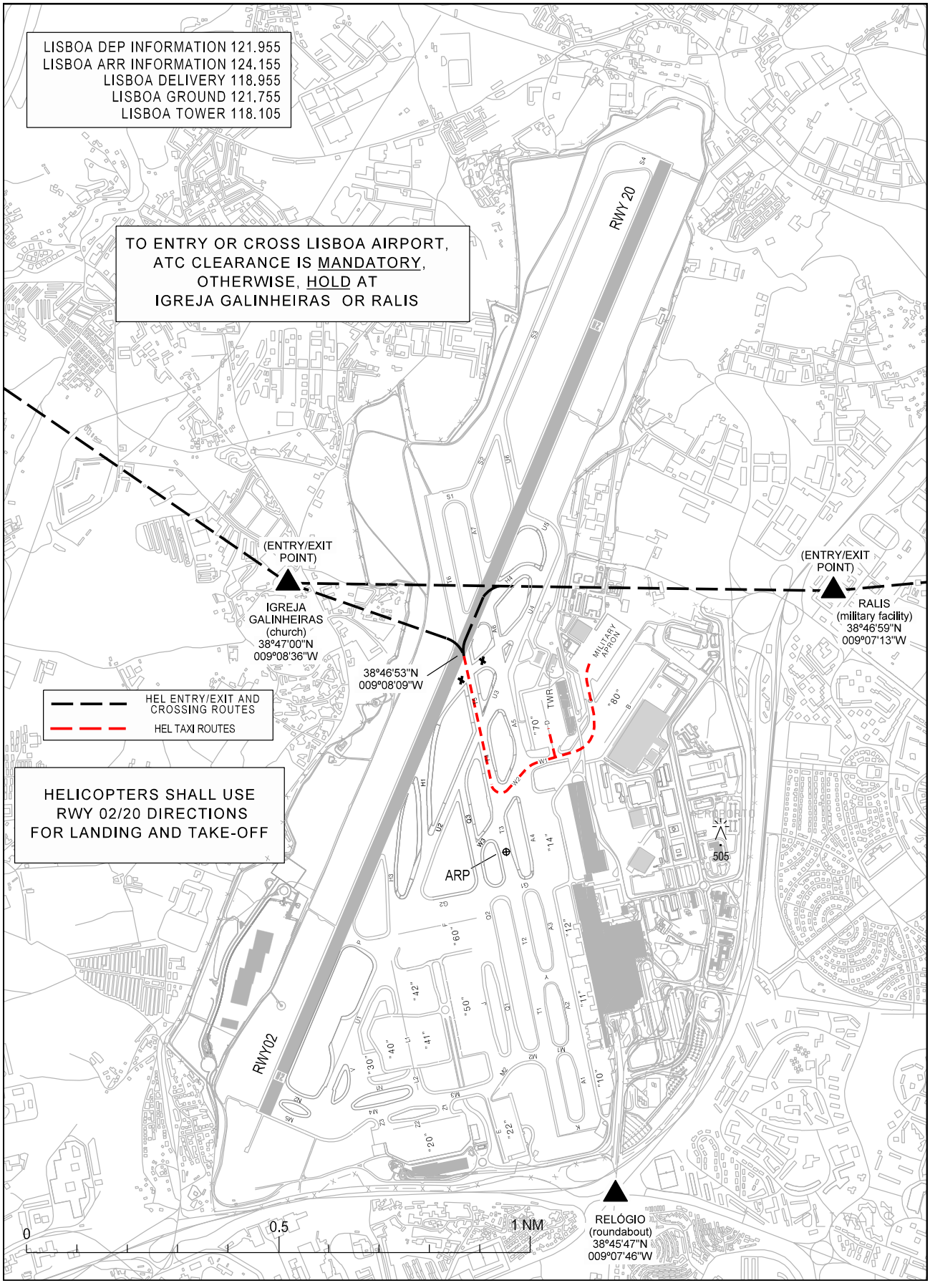
Unless instructed otherwise by ATC RWY 02/20 should be vacated by TWY T.

If unable to fly from designated Entry Points advise TWR to proceed to THR02 or THR20 and overfly until RWY intersection.

3.3Helicopter Entry/Exit Points and Crossing Operations



3.4Helicopter Taxi Route Procedures



4.EAT Calculation Method

Expected approach time (EAT) to Lisboa aerodrome, is calculated to the Holding Fix associated with the runway in use. This means EAT is calculated for RWY 02 at MAZUK or ORTUG and for RWY 20 at EKLID or DEKKI. An EAT to Lisboa aerodrome will be determined for an arriving aircraft subject to a delay of 10 minutes or more. A revised EAT will be transmitted to the aircraft whenever it differs from a previously transmitted by 5 minutes or more.

5. NON-RNAV STANDARD INSTRUMENT DEPARTURES FROM LISBOA AERODROME

GENERAL REMARKS:

Standard instrument departures available only for NON-RNAV ACFT.

NON-RNAV equipped aircraft not flying via FTM or ESP shall expect radar vectoring and/or **DIRECT TO** instructions

SPEED ADJUSTMENT

See ENR 1.5.4 paragraph 2a)

RADIO COMMUNICATIONS FAILURE:

In the event of RCF squawk A7600:

1. Fly at/to the last assigned and acknowledged level or FL100 if higher than the last assigned level until passing 30NM DME LIS DVOR/DME;

2. Thereafter adjust level and speed in accordance with the filed flight plan;

3. If being radar vectored or proceeding offset, when passing 30NM DME LIS DVOR/DME, rejoin the current flight plan route and proceed in accordance with para 2 above;

4. If cleared DCT to…, fly at/to the assigned and acknowledged level or to FL100, whichever is higher, until passing 30NM DME LIS DVOR/DME, maintain the current flight plan route and proceed in accordance with para 2 above.

See also STANDARD INSTRUMENT DEPARTURE (SID) charts.

6.RNAV STANDARD INSTRUMENT DEPARTURE ROUTES FROM LISBOA AERODROME

GENERAL REMARKS:

If unable to comply with these RNAV Departure Routes, advise ATC.

All procedures are based on RNAV 1 specification.

SPEED ADJUSTMENT

See ENR 1.5.4 paragraph 2a)

RADIO COMMUNICATIONS FAILURE:

In the event of RCF squawk A7600:

1. Fly at/to the last assigned and acknowledged level or FL100 if higher than the last assigned level until passing 30NM DME LIS DVOR/DME;

2. Thereafter adjust level and speed in accordance with the filed flight plan;

3. If being radar vectored or proceeding offset, when passing 30NM DME LIS DVOR/DME, rejoin the current flight plan route and proceed in accordance with para 2 above.

4. If cleared DCT to…, fly at/to the assigned and acknowledged level or to FL100 , whichever is higher, until passing 30 NM DME LIS DVOR/DME, maintain the current flight plan route and proceed in accordance with para 2 above.

See also RNAV SID charts.

7. NON-RNAV STANDARD INSTRUMENT ARRIVAL TO LISBOA AERODROME

GENERAL REMARKS:

NON RNAV ACFT shall proceed on airways to either ESP, LIS or FTM and expect ATC instructions for final approach.

PMS point merge system implemented for sequencing arrival flows. Expect, as soon as possible, “direct-to” instructions to the Merge Point PESEX for RWY02 or Merge Point UPKAT for RWY20.

7.1 RUNWAY 02

SPEED ADJUSTMENT:

Descend via Mach number until transition to 280Kts.
Maintain 280Kts until further instructions by ATC.

It is imperative that speed and level restrictions assigned by ATC are complied with. ATC must be informed of any deviation from assigned speed or level.

See ENR 1.5.4 paragraph 2a)

RADIO COMMUNICATIONS FAILURE:

In the event of RCF or RCF and RNAV capability loss, squawk A7600, fly at/to the last assigned level DCT to ESP holding pattern and at ETA according to CPL or at EAT (when received and acknowledged) start descent to initial approach altitude to carry out a standard IFR approach according to IAC.

In case of RCF the established maximum level for ESP holding pattern referred by ENR 3.6.1 does not apply.

7.2 RUNWAY 20

SPEED ADJUSTMENT:

Descend via Mach number until transition to 280Kts.
Maintain 280Kts until further instructions by ATC.

It is imperative that speed and level restrictions assigned by ATC are complied with. ATC must be informed of any deviation from assigned speed or level.

See ENR 1.5.4 paragraph 2a)

RADIO COMMUNICATIONS FAILURE:

In the event of RCF or RCF and RNAV capability loss, squawk A7600, fly at/to the last assigned level DCT to FTM holding pattern and at ETA according to CPL or at EAT (when received and acknowledged) start descent to initial approach altitude to carry out a standard IFR approach according to IAC.

In case of RCF the established maximum level for FTM holding pattern referred by ENR 3.6.1 does not apply.

8. **RNAV STANDARD INSTRUMENT ARRIVAL ROUTES TO LISBOA AERODROME**

GENERAL REMARKS:

ARRIVAL ROUTES

LPPT RNAV Arrival Routes are based on the Point Merge System (PMS), a systematized method for sequencing arrival flows by merging inbound flows to a single point.

All Point Merge Systems require a level segment on the PMS arc which may be considered as a linear hold. This means the linear hold will resemble an arc with the Merge Point (MP), at the centre of the arc.

While an aircraft is on the linear hold, it can be instructed by the controller to fly “Direct To” the MP, at any appropriate time, to shorten the trajectory rather than flying the entire PMS Arc.

For each RWY there are two linear holding entry points:
RWY02: MAZUK and ORTUG
RWY20: EKLID and DEKKI

The MP for each RWY is coincident with the IF of the Instrument Approach Procedures RWY02/20.

FUEL MANAGEMENT – EXPECTED APPROACH DISTANCE

For fuel management purposes only, aircraft operators may plan each STAR according to the “Nominal Distances” as specified in the tables below.

This distance is considered as the expected route/distance from the initial point of the STAR to the MP without considering the linear hold on the Point Merge Arc. Any deviation from this track may be regarded as a delaying action.

STAR RWY02	ESUTI1A	INBOM2A	LAZET2A	XAMAX2A	LUVUP2A	UPULO2A	VATZI2A
Nominal Distance	78.77	122.86	84.85	120.62	95.02	95.96	72.48
STAR RWY20	ESUTI1B	INBOM3B	LAZET3B	XAMAX3B	LUVUP3B	UPULO3B	VATZI3B
Nominal Distance	114.76	114.52	92.27	110.24	138.34	66.97	111.76

8.1 RUNWAY 02

GENERAL REMARKS:

PMS point merge system implemented for sequencing arrival flows. Expect, as soon as possible, "direct-to" instructions to the Merge Point PESEX.

When planning STARs vertical profile, an explicit ATC descend clearance is always required.

To shorten these RNAV Arrival Procedures, radar vectors or instructions to follow specific waypoints shall be expected.

All procedures are based on RNAV 1 specification.

SPEED ADJUSTMENT:

Descend via Mach number until transition to 280Kts.
Maintain 280Kts until slowed by the STAR or assigned by ATC.

It is imperative that speed and level restrictions described in the STAR or assigned by ATC are complied with. ATC must be informed of any deviation from assigned speed or level.

See ENR 1.5.4 paragraph 2a)

RADIO COMMUNICATIONS FAILURE:

In the event of RCF, squawk A7600

In case of RCF prior to the linear holding entry points MAZUK or ORTUG:
Perform the assigned RNAV STAR, if received and acknowledged, or FPL RNAV STAR complying with all FL and speed constraints inbound MAZUK or ORTUG.

At MAZUK or ORTUG proceed direct to the Merge Point PESEX and start the Instrument Approach Procedure.

In case of RCF during the linear hold:
Complete the remaining portion of the STAR procedure according to FMS, reaching PESEX start the Instrument Approach Procedure.

See also RNAV STAR charts.

8.2 RUNWAY 20

GENERAL REMARKS:

PMS point merge system implemented for sequencing arrival flows. Expect, as soon as possible, "direct-to" instructions to the merge point UPKAT.

When planning STARs vertical profile, an explicit ATC descend clearance is always required.

To shorten these RNAV Arrival Procedures, radar vectors or instructions to follow specific way points shall be expected.

SPEED ADJUSTMENT:

Descend via Mach number until transition to 280Kts.
Maintain 280Kts until slowed by the STAR or assigned by ATC.

It is imperative that speed and level restrictions described in the STAR or assigned by ATC are complied with. ATC must be informed of any deviation from assigned speed or level.

See ENR 1.5.4 paragraph 2a)

RADIO COMMUNICATIONS FAILURE:

In the event of RCF, squawk A7600

In case of RCF prior to the linear holding entry points EKLID or DEKKI:
Perform the assigned RNAV STAR, if received and acknowledged, or FPL RNAV STAR complying with all FL and speed constraints inbound EKLID or DEKKI.

At EKLID or DEKKI proceed direct to the Merge Point UPKAT and start the Instrument Approach Procedure.

In case of RCF during the linear hold:
Complete the remaining portion of the STAR procedure according to FMS, reaching UPKAT start the Instrument Approach Procedure.

See also RNAV STAR charts.

9. CONTINUOUS DESCENT OPERATIONS (CDO)

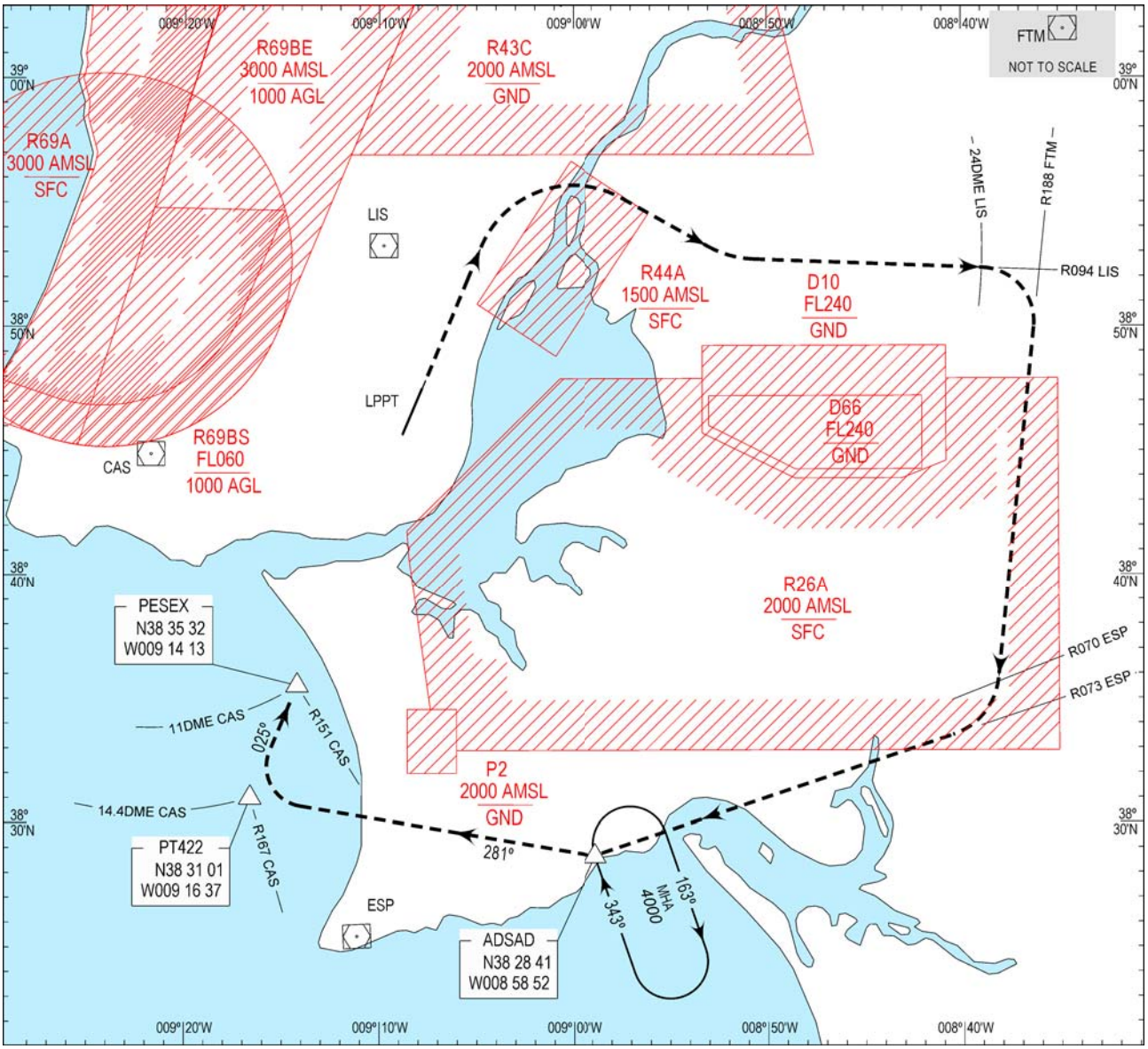
PMS STAR facilitates CDO, arriving aircraft can expect, as soon as possible, clearance direct to Merge Point. When traffic permits, the shortest distance from STAR starting point to the Merge Point may be seen as the expected track to the start of the instrument approach procedure.

10. INSTRUMENT APPROACH PROCEDURES FOR NON-RNAV EQUIPPED AIRCRAFT ONLY

10.1 RUNWAY 02

RADIO COMMUNICATIONS FAILURE

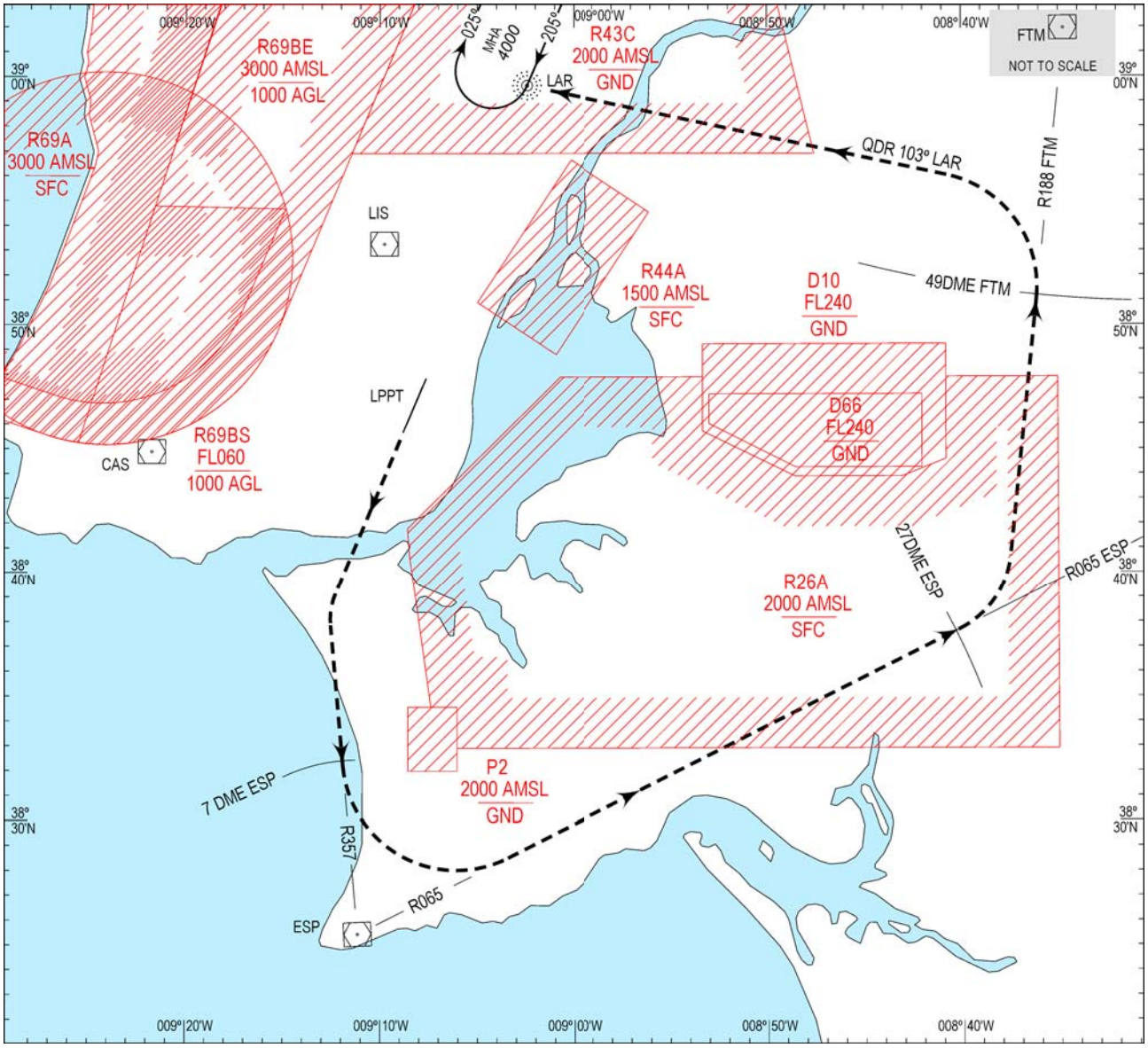
In case of RCF:
Squawk 7600. Climb FL070 straight-ahead to intercept and proceed R094 LIS DVOR/DME. At 24 DME LIS DVOR/DME turn right to intercept and proceed R188 FTM DVOR/DME. When crossing R070 ESP DVOR/DME turn right to intercept and proceed R073 ESP DVOR/DME to ADSAD holding. After completing one holding pattern proceed on track 281DEG to PT422 (R167 14.4DME CAS DVOR/DME). Turn right on track 025DEG to PESEX (R151 11.0DME CAS DVOR/DME) descending to 4000FT to perform another LOC approach.



10.2 RUNWAY 20

RADIO COMMUNICATIONS FAILURE

In case of RCF:
Squawk 7600. Climb FL070 straight-ahead to intercept and proceed R357 ESP DVOR/DME. At 7DME ESP DVOR/DME turn left to intercept and proceed R065 ESP DVOR/DME. At 27DME ESP DVOR/DME turn left to intercept and proceed R188 FTM DVOR. At 49DME FTM DVOR turn left to intercept and proceed QDR 103DEG LAR NDB holding. Complete one holding pattern descend to 4000FT to perform another LOC approach.



11. HOLDING PROCEDURES

HLDG ID/FIX/WPT Coordinates	INBD TR (MAG)	Direction of PTN	MAX IAS (KT)	MNM-MAX HLDG LVL FL/FT (MSL)	TIME (MIN) or DIST OUBD
ADSAD ADSAD 382841N0085852W RDL163-DME26 LIS DVOR/DME	343°	RIGHT	230	4000 FT ALT FL 140	5 NM
ADSAD ADSAD 382841N0085852W RDL163-DME26 LIS DVOR/DME	343°	RIGHT	230	FL 150 FL 200	8 NM
ARRUDA/LAR ARRUDA NDB 385940N0090225W	205°	RIGHT	230	4000 FT ALT FL 080	1 MIN
DEKKI DEKKI 385747N0084144W	272°	LEFT	230	FL 060 FL 140	1 MIN
EKLID EKLID 390833N0091549W	137°	RIGHT	230	FL 060 FL 140	1 MIN
ESPICHEL/ESP ESPICHEL DVOR/DME 382527N0091108W	030	RIGHT	230	FL 090 FL 140	1 MIN
ESPICHEL/ESP ESPICHEL DVOR/DME 382527N0091108W	030	RIGHT	280	FL 150 FL 999	1.5 MIN
ESUTI ESUTI 375136N 0102549W	049°	LEFT	280	FL 250 FL 290	1.5 MIN
EXONA EXONA 385416N0080100W	245°	RIGHT	230	FL 110 FL 140	1 MIN
EXONA EXONA 385416N0080100W	245°	RIGHT	265	FL 150 FL 290	1.5 MIN
FATIMA/FTM FATIMA DVOR/DME 393956N0082934W	219°	LEFT	230	FL 100 FL 140	1 MIN
FATIMA/FTM FATIMA DVOR/DME 393956N0082934W	219°	LEFT	240	FL 150 FL 240	1.5 MIN
GANSU GANSU 380000N0094903W	047°	LEFT	230	FL 110 FL 140	1 MIN
GANSU GANSU 380000N0094903W	047°	LEFT	265	FL 150 FL 240	1.5 MIN
INBOM INBOM 400007N0081807W	192°	LEFT	230	FL 110 FL 140	1 MIN
INBOM INBOM 400007N0081807W	192°	LEFT	280	FL 150 FL 290	1.5 MIN
ITVIT ITVIT 385741N0083344W	272°	LEFT	230	FL 060 FL 140	1 MIN
LAZET LAZET 385526N0104016W	095°	RIGHT	280	FL 250 FL 280	1.5 MIN

HLDG ID/FIX/WPT Coordinates	INBD TR (MAG)	Direction of PTN	MAX IAS (KT)	MNM-MAX HLDG LVL FL/FT (MSL)	TIME (MIN) or DIST OUBD
LUVUP LUVUP 374313N0101007W	047°	LEFT	280	FL 250 FL 290	1.5 MIN
LUXUT LUXUT 375959N0090137W	344°	LEFT	230	FL 110 FL 140	1 MIN
LUXUT LUXUT 375959N0090137W	344°	LEFT	265	FL 150 FL 240	1.5 MIN
MAZUK MAZUK 383538N0093315W	092°	LEFT	230	FL 060 FL 140	1 MIN
NATID NATID 385254N0093252W	095°	LEFT	230	FL 060 FL 140	1 MIN
NATID NATID 385254N0093252W	095°	LEFT	265	FL 150 FL 240	1.5 MIN
ORTUG ORTUG 382414N0085946W	317°	RIGHT	230	FL 060 FL 140	1 MIN
PESEX PESEX 383532N0091413W	025°	RIGHT	200	3000 FT ALT FL 090	1 MIN
RINOR RINOR 391237N0084728W	224°	LEFT	230	FL 150 FL 200	1.5 MIN
RINOR RINOR 391237N0084728W	224°	LEFT	230	FL 070 FL 140	1 MIN
RULOX RULOX 385400N0100000W	089°	RIGHT	230	FL 110 FL 140	1 MIN
RULOX RULOX 385400N0100000W	089°	RIGHT	265	FL 150 FL 240	1.5 MIN
UNPOT UNPOT 381046N0100000W	049°	LEFT	230	FL 110 FL 140	1 MIN
UNPOT UNPOT 381046N0100000W	049°	LEFT	265	FL 150 FL 240	1.5 MIN
UPKAT UPKAT 385759N0090212W	205°	LEFT	200	3000 FT ALT FL 090	1 MIN
UPULO UPULO 390238N0073907W	245°	RIGHT	280	FL 250 FL 280	1.5 MIN
VATZI VATZI 373552N0085147W	344°	LEFT	280	FL 250 FL 290	1.5 MIN
XAMAX XAMAX 400152N0083210W	178°	LEFT	230	FL 110 FL 140	1 MIN
XAMAX XAMAX 400152N0083210W	178°	LEFT	280	FL 150 FL 290	1.5 MIN

HLDG ID/FIX/WPT Coordinates	INBD TR (MAG)	Direction of PTN	MAX IAS (KT)	MNM-MAX HLDG LVL FL/FT (MSL)	TIME (MIN) or DIST OUBD
YETSI YETSI 381918N0085343W	317°	RIGHT	230	FL 060 FL 140	1 MIN

LPPT AD 2.23 ADDITIONAL INFORMATION

1. Bird hazard warning

Flocks of birds with significant activity occur daily at the airport and on the vicinity.

Depending on the specific species group and seasonal variation, bird activity in the aerodrome manoeuvring area is characterized as follows:

- High flight, between 10M (30FT) and a maximum of 70M (230FT).
- Main concentration areas near thresholds, runways 02/20.

Some species groups, like sea gulls (larus and larus argentus), cross the aerodrome field area from EAST to WEST and vice-versa during morning and evening periods.

Daily bird harassment and dispersal techniques implemented (HJ), including the use of birds of prey: Accipitriformes and Falconiformes.

2. Wind / Turbulence

RWY 02

Pilots are advised that turbulence can be expected on final and touchdown zone of runway 02 when wind direction is between 310 degrees and 360 degrees.

- With wind speeds between 14KT and 20KT, gusting up to 36KT moderate turbulence can be expected.
- With wind speeds above 21KT and gusts above 36KT, severe turbulence can be expected.

LPPT AD 2.24 CHARTS RELATED TO THE AERODROME

