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AIRAC AIP SUP 005/2024

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LQTZ – International Airport Tuzla – Trial PBN instrument flight procedures

With this AIP SUP a trial PBN satellite based procedures RNP 1 STARs and RNP APCH RWY 27 are available for testing purposes at Tuzla Airport. The satellite instrument flight procedures are GNSS based and contain STARs and APCH flight procedures for RWY 27

Trial PBN procedures are not intended for planning of operations.

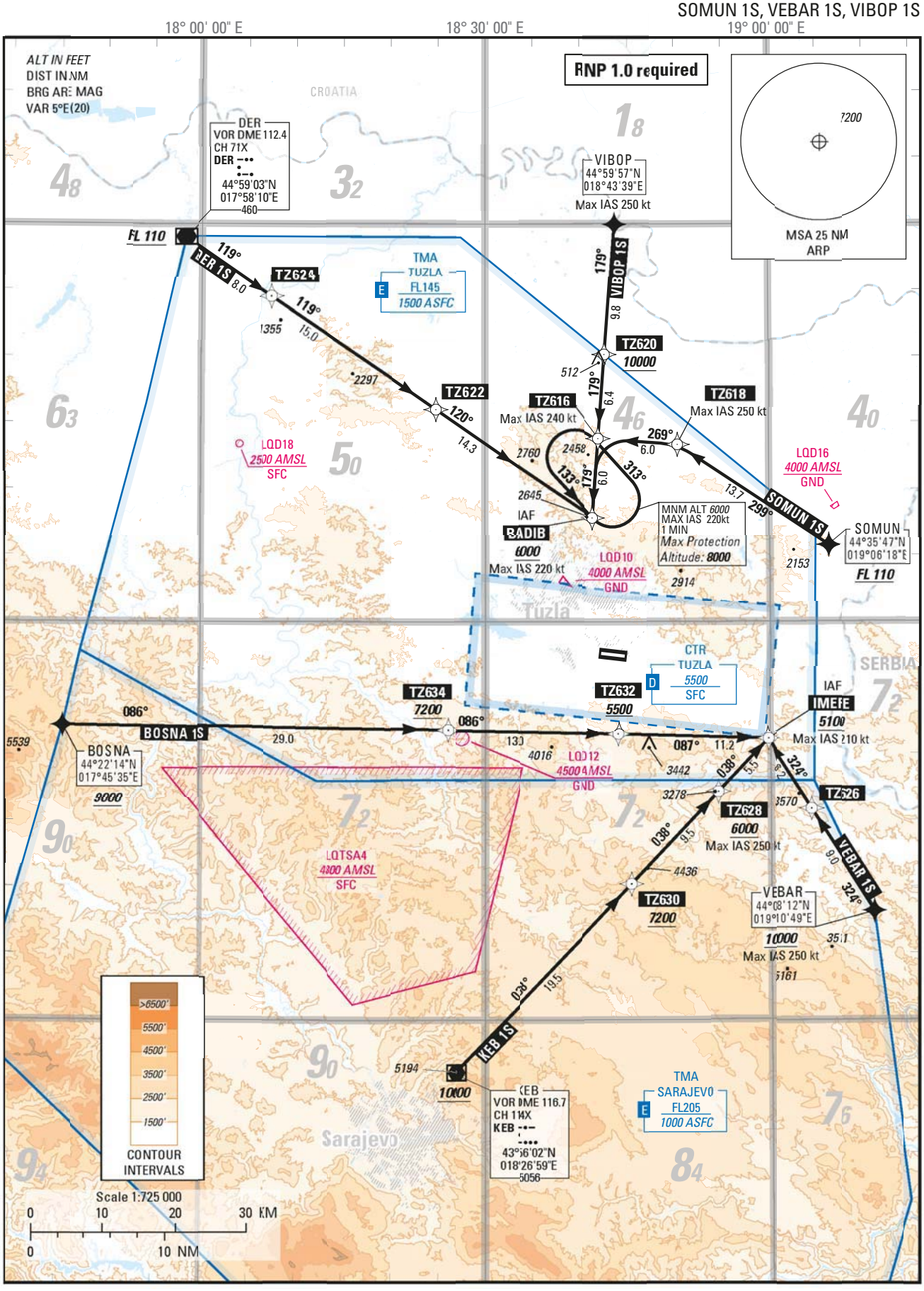
They are primary published for flight validation and flyability check purpose with the aim of collecting and developing safety argumentation for PBN implementation in Bosnia and Herzegovina.

STANDARD ARRIVAL CHART — INSTRUMENT (STAR) — ICAO

TRANSITION ALTITUDE
10 000 ft

APP 120.350
TWR 132.925

TUZLA / Tuzla (LQTZ)
RNP STAR RWY 27
BOSNA 1S, DER 1S, KEB 1S
SOMUN 1S, VEBAR 1S, VIBOP 1S



STAR BOSNA 1S

Seq N°	PT	W/P ID	OverFly	Fix role	TD	RMD VHF	THETA (°) magnetic	RHO Val	RHO uom	CRS Val (°)	CRS Type	TIME val	TIME uom	DIST val	DIST uom	ALT DESC	ALT ONE	ALT TWO	SPD LMT	VRT ANG (°)	NAV PERF	RADIUS val	RADIUS uom	ARC CTR ID	Phase	Transition Identifier	Runway Direction	Magnetic CRS val(°)
10	IF	BOSNA														+	9000.00 FT [ALT]				1.000 NM				5	RW27	27	
20	TF	TZ634	N							090.623	TT			29.000	NM	+	7200.00 FT [ALT]				1.000 NM				5	RW27	27	085.623
30	TF	TZ632	N							091.094	TT			13.000	NM	+	5500.00 FT [ALT]				1.000 NM				5	RW27	27	086.094
40	TF	IMEFE	N							091.660	TT			11.225	NM	+	5100.00 FT [ALT]		210.00 KT		1.000 NM				5	RW27	27	086.660

STAR DER 1S

Seq N°	PT	W/P ID	OverFly	Fix role	TD	RMD VHF	THETA (°) magnetic	RHO Val	RHO uom	CRS Val (°)	CRS Type	TIME val	TIME uom	DIST val	DIST uom	ALT DESC	ALT ONE	ALT TWO	SPD LMT	VRT ANG (°)	NAV PERF	RADIUS val	RADIUS uom	ARC CTR ID	Phase	Transition Identifier	Runway Direction	Magnetic CRS val(°)
10	IF	DER														+	FL110 [STD]				1.000 NM				5	RW27	27	
20	TF	TZ624	N							124.364	TT			7.999	NM						1.000 NM				5	RW27	27	119.364
30	TF	TZ622	N							124.474	TT			15.000	NM						1.000 NM				5	RW27	27	119.474
40	TF	BADIB	N							124.678	TT			14.336	NM	+	6000.00 FT [ALT]		220.00 KT		1.000 NM				5	RW27	27	119.678

STAR KEB 1S

Seq N°	PT	W/P ID	OverFly	Fix role	TD	RMD VHF	THETA (°) magnetic	RHO Val	RHO uom	CRS Val (°)	CRS Type	TIME val	TIME uom	DIST val	DIST uom	ALT DESC	ALT ONE	ALT TWO	SPD LMT	VRT ANG (°)	NAV PERF	RADIUS val	RADIUS uom	ARC CTR ID	Phase	Transition Identifier	Runway Direction	Magnetic CRS val(°)
10	IF	KEB														+	10000.00 FT [ALT]				1.000 NM				5	RW27	27	
20	TF	TZ630	N							042.984	TT			19.499	NM	+	7200.00 FT [ALT]				1.000 NM				5	RW27	27	037.984
30	TF	TZ628	N							043.198	TT			9.501	NM	+	6000.00 FT [ALT]		250.00 KT		1.000 NM				5	RW27	27	038.198
40	TF	IMEFE	N							043.304	TT			5.487	NM	+	5100.00 FT [ALT]		210.00 KT		1.000 NM				5	RW27	27	038.304

STAR SOMUN 1S

Seq N°	PT	W/P ID	OverFly	Fix role	TD	RMD VHF	THETA (°) magnetic	RHO Val	RHO uom	CRS Val (°)	CRS Type	TIME val	TIME uom	DIST val	DIST uom	ALT DESC	ALT ONE	ALT TWO	SPD LMT	VRT ANG (°)	NAV PERF	RADIUS val	RADIUS uom	ARC CTR ID	Phase	Transition Identifier	Runway Direction	Magnetic CRS val(°)
10	IF	SOMUN														+	FL110 [STD]				1.000 NM				5	RW27	27	
20	TF	TZ618	N							303.761	TT			13.685	NM				250.00 KT		1.000 NM				5	RW27	27	298.761
30	TF	TZ616	N							274.375	TT			6.000	NM				240.00 KT		1.000 NM				5	RW27	27	269.375
40	TF	BADIB	N							184.275	TT			6.000	NM	+	6000.00 FT [ALT]		220.00 KT		1.000 NM				5	RW27	27	179.275

STAR VEBAR 1S

Seq N°	PT	W/P ID	OverFly	Fix role	TD	RMD VHF	THETA (°) magnetic	RHO Val	RHO uom	CRS Val (°)	CRS Type	TIME val	TIME uom	DIST val	DIST uom	ALT DESC	ALT ONE	ALT TWO	SPD LMT	VRT ANG (°)	NAV PERF	RADIUS val	RADIUS uom	ARC CTR ID	Phase	Transition Identifier	Runway Direction	Magnetic CRS val(°)
10	IF	VEBAR														+	10000.00 FT [ALT]		250.00 KT		1.000 NM				5	RW27	27	
20	TF	TZ626	N							328.593	TT			9.000	NM						1.000 NM				5	RW27	27	323.593
30	TF	IMEFE	N							328.517	TT			6.223	NM	+	5100.00 FT [ALT]		210.00 KT		1.000 NM				5	RW27	27	323.517

STAR VIBOP 1S

Seq N°	PT	W/P ID	OverFly	Fix role	TD	RMD VHF	THETA (°) magnetic	RHO Val	RHO uom	CRS Val (°)	CRS Type	TIME val	TIME uom	DIST val	DIST uom	ALT DESC	ALT ONE	ALT TWO	SPD LMT	VRT ANG (°)	NAV PERF	RADIUS val	RADIUS uom	ARC CTR ID	Phase	Transition Identifier	Runway Direction	Magnetic CRS val(°)
10	IF	VIBOP																	250.00 KT		1.000 NM				5	RW27	27	
20	TF	TZ620	N							184.295	TT			9.814	NM	+	10000.00 FT [ALT]				1.000 NM				5	RW27	27	179.295
30	TF	TZ616	N							184.283	TT			6.360	NM				240.00 KT		1.000 NM				5	RW27	27	179.283
40	TF	BADIB	N							184.275	TT			6.000	NM	+	6000.00 FT [ALT]		220.00 KT		1.000 NM				5	RW27	27	179.275

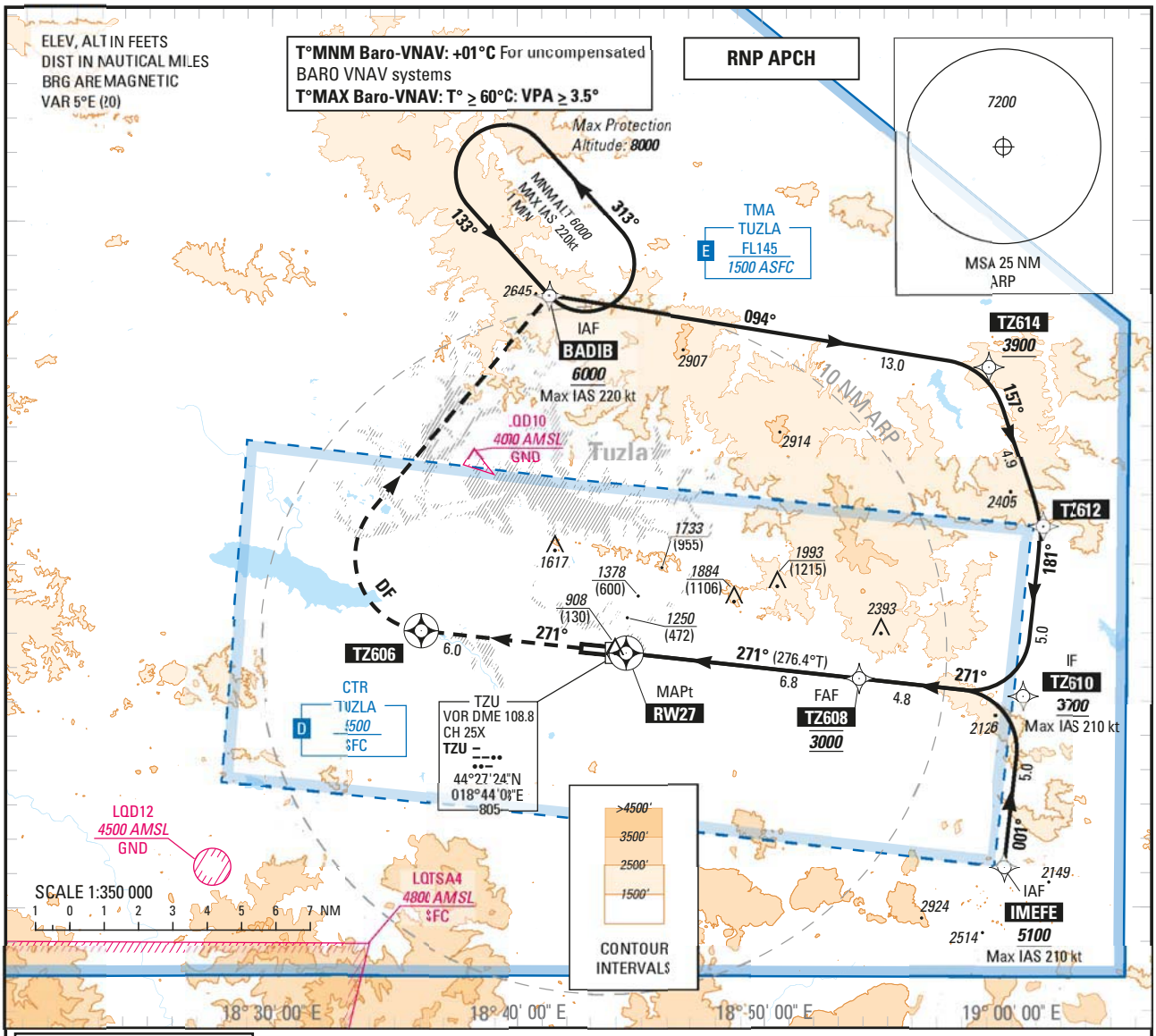
INSTRUMENT APPROACH CHART — ICAO

SBAS CH 76177 E27A

AERODROME ELEV *779 ft*
HEIGHTS RELATED TO
THR RWY 27 — ELEV *778 ft*

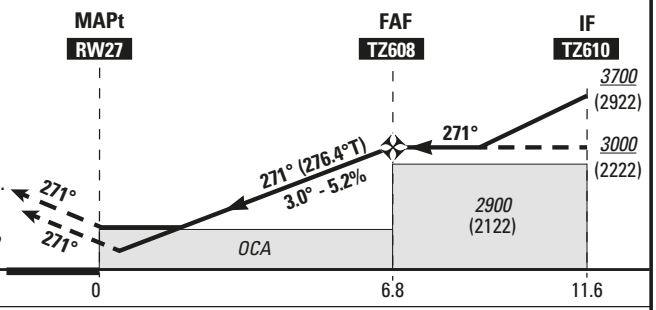
APP 120.350
TWR 132.925

TUZLA / Tuzla (LQTZ)
RNP RWY 27



TRANSITION ALT *10 000*

MISSED APPROACH:
Climb to **TZ606**, then turn **right** direct to
BADIB (MAX IAS **220kt**) climbing to ***6000*** (5222).
At **BADIB**, hold and follow ATC instructions.
If unable to reach ***6000*** over **BADIB**, continue to climb in the holding.



	LPV	LNAV/VNAV	LNAV	Circling (1)
CAT	*OCA* (H)	*OCA* (H)	*OCA* (H)	*OCA* (H)
A	***1030*** (250)	***1210*** (430)	***1260*** (480)	***1680*** (900)
B		***1220*** (440)		***2030*** (1250)
C	***1040*** (260)	***1240*** (460)		***2280*** (1500)
D	***1050*** (270)	***1270*** (490)	***1270*** (490)	***2390*** (1610)

(1) Circling are prohibited South side of the runway 09/27

DIST RW27

NM	2	3	4	5	6
ALT (HGT)	***1460*** (682)	***1780*** (1002)	***2100*** (1322)	***2420*** (1642)	***2740*** (1962)

FAF - RW27 (NM)	6.8	Speed Time	70 Kt 5 min 51	85 Kt 4 min 49	100 Kt 4 min 06	115 Kt 3 min 34	130 Kt 3 min 09	145 Kt 2 min 49	160 Kt 2 min 34	185 Kt 2 min 13
Slope (%)	5.2	VSP (ft/min)	370	450	530	610	680	760	840	970

HOLDING

Region Code	ICAO Code	Duplicate Identifier	Type	W/P ID	Name	Inbound CRS Val (°)	Inbound CRS Type	TD	Inbound length val	Inbound length uom	Inbound time val	Inbound time uom	ALT MIN	ALT MAX	SPD LMT	NAV PERF	ARC RADIUS val	ARC RADIUS uom	Magnetic CRS val(°)
LQTZ	LQ		TER	BADIB		138.000	TBRG	L			60.000	S	6000.00 FT [ALT]	8000.00 FT [ALT]	220 KT				133.000

APPROACH R27

Seq N°	PT	W/P ID	OverFly	Fix role	TD	RMD VHF	THETA (°) magnetic	RHO Val	RHO uom	CRS Val (°)	CRS Type	TIME val	TIME uom	DIST val	DIST uom	ALT DESC	ALT ONE	ALT TWO	SPD LMT	VRT ANG (°)	NAV PERF	RADIUS val	RADIUS uom	ARC CTR ID	Phase	Transition Identifier	Runway Direction	Magnetic CRS val(°)
10	IF	BADIB		IAF												+	6000.00 FT [ALT]		220.00 KT		1.000 NM				A	BADIB		
20	TF	TZ614	N							099.213	TT			12.951	NM	+	3900.00 FT [ALT]				1.000 NM				A	BADIB		094.213
30	TF	TZ612	N							161.822	TT			4.865	NM						1.000 NM				A	BADIB		156.822
40	TF	TZ610	N							186.492	TT			5.000	NM	+	3700.00 FT [ALT]		210.00 KT		1.000 NM				A	BADIB		181.492
10	IF	IMEFE		IAF												+	5100.00 FT [ALT]		210.00 KT		1.000 NM				A	IMEFE		
20	TF	TZ610	N							006.475	TT			5.000	NM	+	3700.00 FT [ALT]				1.000 NM				A	IMEFE		001.475
10	IF	TZ610		IF												+	3700.00 FT [ALT]		210.00 KT		1.000 NM				R		27	
20	TF	TZ608	N	FAF						276.484	TT			4.800	NM	@	3000.00 FT [ALT]				1.000 NM				R		27	271.484
30	TF	RWY27	Y	MAPT						276.406	TT			6.824	NM	@	827.00 FT [ALT]			-3.000	0.300 NM				R		27	271.406
40	TF	TZ606	Y							276.296	TT			6.000	NM						1.000 NM				Z			271.296
50	DF	BADIB	Y		R											+	6000.00 FT [ALT]		220.00 KT		1.000 NM				Z			
60	HM	BADIB	Y		L					138.000	TT	60.000	S			B	8000.00 FT [ALT]	6000.00 FT [ALT]	220.00 KT		NA				Z			133.000

Input data

Operation Type	0
SBAS Provider	1 (EGNOS)
Airport Identifier	LQTZ
Runway	27
Runway Letter	0 (None)
Approach Performance Designator	0
Route Indicator	
Reference Path Data Selector	0
Reference Path Identifier	E27A
LTP/FTP Latitude	442726.7200N
LTP/FTP Longitude	0184425.2900E
LTP/FTP Ellipsoidal Height (metres)	282.2
FPAP Latitude	442735.5500N
Delta FPAP Latitude (seconds)	8.8300
FPAP Longitude	0184233.3500E
Delta FPAP Longitude (seconds)	-111.9400
Threshold Crossing Height	15.0
TCH Units Selector	1 (meters)
Glidepath Angle (degrees)	3.00
Course Width (metres)	105.00
Length Offset (metres)	0
HAL (metres)	40.0
VAL (metres)	35.0

Output data

Data Block	10 1A 14 11 0C 1B 00 00 01 37 32 05 00 3D 14 13 94 E0 0A 08 06 1F FC 44 00 78 95 FC 2C 81 2C 01 64 00 C8 AF 20 DD C1 36
Calculated CRC Value	20DDC136

Required Additional Data

ICAO Code	LQ
LTP/FTP Orthometric Height (metres)	237.0

EUROCONTROL FAS DB tool Version 3.2.1

ADHP ICAO Identifier	W/P ID	W/P ICAO Code	W/P Type	Latitude	Longitude
LQTZ	BADIB		ICAO	44°37'50.3370"N	018°41'19.4590"E
LQTZ	BIBWA		ICAO	44°35'10.0400"N	018°22'36.1240"E
LQTZ	BOSNA		ICAO	44°22'14.0000"N	017°45'35.0000"E
LQTZ	DER		ICAO	44°59'02.8600"N	017°58'10.0600"E
LQTZ	EDHUG		ICAO	44°41'27.2760"N	018°44'00.0270"E
LQTZ	IMEFE		ICAO	44°21'11.0280"N	018°59'45.6390"E
LQTZ	KEB		ICAO	43°56'01.9100"N	018°26'59.3800"E
LQTZ	MATQU		ICAO	44°29'12.0440"N	018°21'43.1980"E
LQTZ	NOMQI		ICAO	44°23'14.0360"N	018°20'50.4520"E
LQTZ	RW09		ADHP	44°27'35.5500"N	018°42'33.3500"E
LQTZ	RW27		ADHP	44°27'26.7200"N	018°44'25.2900"E
LQTZ	SANWI		ICAO	44°50'59.2960"N	018°19'19.2830"E
LQTZ	SOMUN		ICAO	44°35'47.0000"N	019°06'18.0000"E
LQTZ	TZ408		ADHP	44°28'40.3140"N	018°28'39.8850"E
LQTZ	TZ414		ADHP	44°53'00.6510"N	018°37'43.2310"E
LQTZ	TZ416		ADHP	44°35'23.8690"N	018°36'54.9910"E
LQTZ	TZ424		ADHP	44°13'47.9710"N	018°22'59.0590"E
LQTZ	TZ426		ADHP	44°15'19.7580"N	018°43'21.5880"E
LQTZ	TZ428		ADHP	44°11'46.7050"N	018°57'06.1220"E
LQTZ	TZ430		ADHP	44°25'53.6810"N	018°04'25.9050"E
LQTZ	TZ440		ADHP	44°26'08.8830"N	019°00'35.4670"E
LQTZ	TZ441		ADHP	44°33'35.9940"N	019°01'46.5670"E
LQTZ	TZ510		ADHP	44°27'00.2660"N	018°49'58.3150"E
LQTZ	TZ522		ADHP	44°49'26.1280"N	018°43'50.9810"E
LQTZ	TZ530		ADHP	44°18'01.1970"N	018°56'07.1300"E
LQTZ	TZ532		ADHP	44°09'21.2100"N	018°44'34.4900"E
LQTZ	TZ540		ADHP	44°22'30.7530"N	018°39'12.2000"E
LQTZ	TZ544		ADHP	44°20'28.3550"N	018°05'57.1960"E
LQTZ	TZ550		ADHP	44°35'30.1850"N	018°44'10.0650"E
LQTZ	TZ560		ADHP	44°17'58.3590"N	019°02'03.6470"E
LQTZ	TZ606		ADHP	44°28'05.8950"N	018°36'05.5960"E
LQTZ	TZ608		ADHP	44°26'41.4250"N	018°53'53.4050"E
LQTZ	TZ610		ADHP	44°26'09.0950"N	019°00'32.8530"E
LQTZ	TZ612		ADHP	44°31'07.1680"N	019°01'20.1950"E
LQTZ	TZ614		ADHP	44°35'44.5370"N	018°59'12.9040"E
LQTZ	TZ616		ADHP	44°43'49.3190"N	018°41'57.0410"E
LQTZ	TZ618		ADHP	44°43'22.1690"N	018°50'20.5580"E
LQTZ	TZ620		ADHP	44°50'09.8570"N	018°42'37.0220"E
LQTZ	TZ622		ADHP	44°46'00.8940"N	018°24'48.9350"E
LQTZ	TZ624		ADHP	44°54'31.6020"N	018°07'27.5120"E
LQTZ	TZ626		ADHP	44°15'52.7130"N	019°04'17.3930"E
LQTZ	TZ628		ADHP	44°17'11.5510"N	018°54'30.9230"E
LQTZ	TZ630		ADHP	44°10'16.3490"N	018°45'27.7020"E
LQTZ	TZ632		ADHP	44°21'31.6070"N	018°44'07.3930"E
LQTZ	TZ634		ADHP	44°21'47.9340"N	018°26'00.3810"E
LQTZ	TZ700		ADHP	44°28'08.1250"N	018°35'36.9170"E
LQTZ	TZ702		ADHP	44°35'50.0380"N	018°24'33.8330"E
LQTZ	TZ704		ADHP	44°40'25.6270"N	018°19'22.6880"E
LQTZ	TZ706		ADHP	44°48'02.8400"N	018°10'44.0720"E
LQTZ	TZ708		ADHP	44°55'59.0870"N	018°32'36.6360"E
LQTZ	TZ710		ADHP	44°26'49.3100"N	018°23'28.7870"E
LQTZ	TZ712		ADHP	44°23'43.5260"N	017°57'42.4440"E
LQTZ	TZ714		ADHP	44°07'15.2410"N	018°29'52.1610"E
LQTZ	TZ716		ADHP	44°15'19.7580"N	018°43'21.5880"E
LQTZ	TZ718		ADHP	44°11'56.8880"N	018°56'26.8960"E
LQTZ	TZ720		ADHP	44°31'34.2470"N	018°55'06.7890"E
LQTZ	TZU		ICAO	44°27'24.3300"N	018°44'07.5300"E
LQTZ	VEBAR		ICAO	44°08'12.0000"N	019°10'49.0000"E
LQTZ	VIBOP		ICAO	44°59'57.0000"N	018°43'39.0000"E
LQTZ	WIXFI		ICAO	44°45'59.1330"N	018°08'31.9570"E
LQTZ	YULHU		ICAO	44°18'04.1600"N	018°32'39.7700"E

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