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SUP 007/2024

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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 SID RWY 09 are available for testing purposes at Tuzla Airport.

The satellite instrument flight procedures are GNSS based and contain SID flight procedures for RWY 09.

Trial PBN procedures are not intended for planning of operations.

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

**STANDARD DEPARTURE CHART —
INSTRUMENT (SID) — ICAO
CAT A B C D**

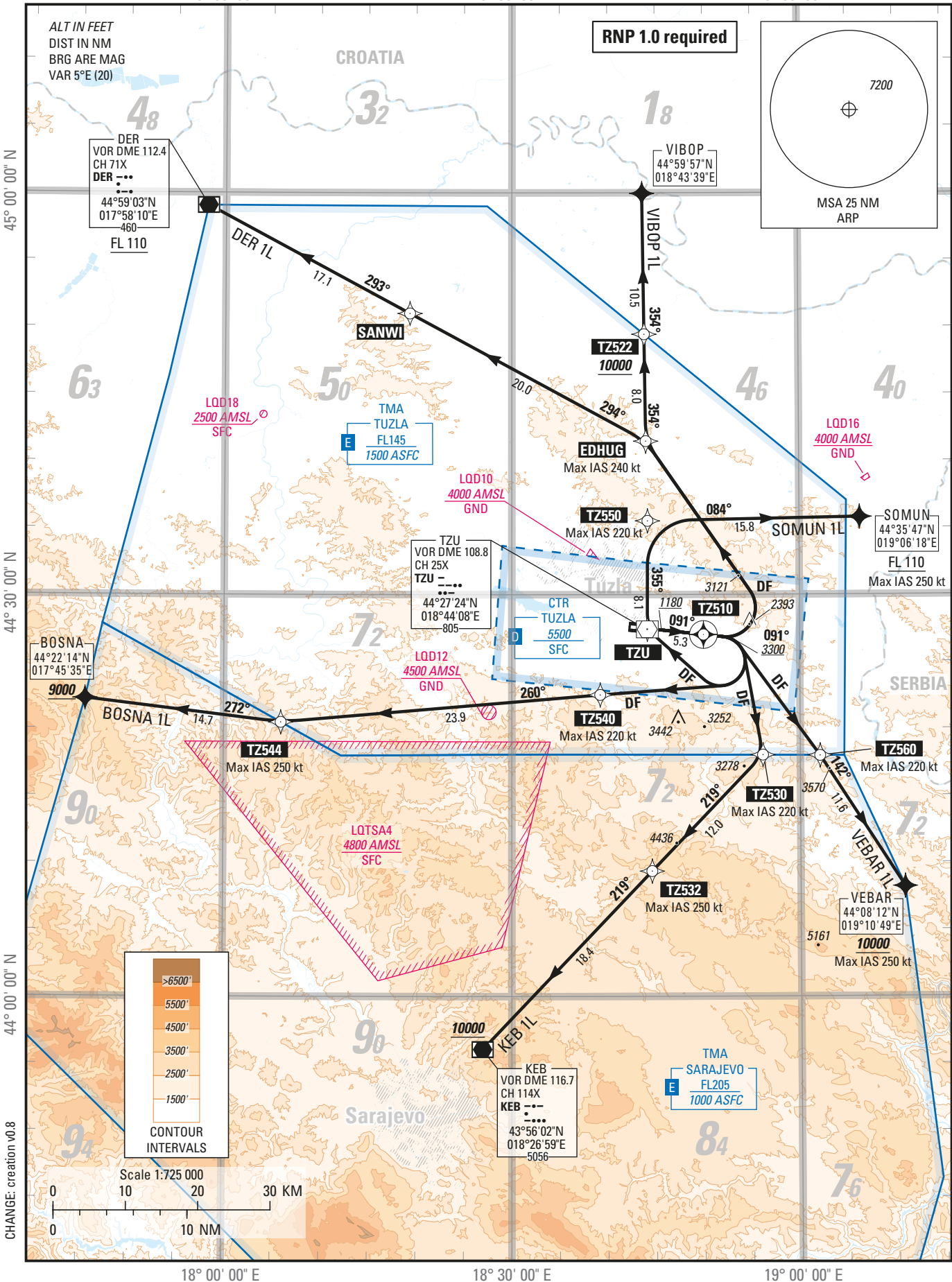
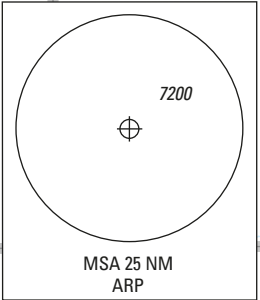
TRANSITION ALTITUDE
10 000 ft

APP 120.350
TWR 132.925

AD ELEV: 779

**TUZLA / TUZLA (LOTZ)
RNP SID RWY 09**
BOSNA 1L, DER 1L, KEB 1L
SOMUN 1L, VEBAR 1L, VIBOP 1L

RNP 1.0 required



CHANGE: creation v0.8

DEPARTURE TEXTS

BOSNA 1L SID

Climb (1) to **1180** on course **091°M**, then to **TZ510**, then continue on course **091°M**. Passing **3300**, turn **right** direct to **TZ540** (Max IAS **220kt**), then to **TZ544** (Max IAS **250kt**), then to **BOSNA** at or above **9000**.

(1) **PDG 4.4%** up to **3300** then **3.3%**

DER 1L SID

Climb (1) to **1180** on course **091°M**, then to **TZ510**, then continue on course **091°M**. Passing **3300**, turn **left** direct to **EDHUG** (Max IAS **240kt**), then to **SANWI**, then to **DER** at or above **FL110**.

(1) **PDG 4.4%** up to **3300** then **3.3%**

KEB 1L SID

Climb (1) to **1180** on course **091°M**, then to **TZ510**, then continue on course **091°M**. Passing **3300**, turn **right** direct to **TZ530** (Max IAS **220kt**), then to **TZ532** (Max IAS **250kt**), then to **KEB** at or above **10000**.

(1) **PDG 4.4%** up to **3300** then **3.3%**

SOMUN 1L SID

Climb (1) to **1180** on course **091°M**, then to **TZ510**, then continue on course **091°M**. Passing **3300**, turn **right** direct to **TZU**, then to **TZ550** (Max IAS **220kt**), then to **SOMUN** (Max IAS **250kt**), at or above **FL110** (2).

(1) **PDG 4.4%** up to **3300** then **3.3%**

(2) **ATS climb gradient: 4.8%** up to the EN-ROUTE safety altitude. Advise ATC if unable to ensure the ATS climb gradient.

VEBAR 1L SID

Climb (1) to **1180** on course **091°M**, then to **TZ510**, then continue on course **091°M**. Passing **3300**, turn **right** direct to **TZ560** (Max IAS **220kt**), then to **VEBAR** (Max IAS **250kt**) at or above **10000** (2).

(1) **PDG 4.4%** up to **3300** then **3.3%**

(2) **ATS climb gradient: 6.2%** up to the EN-ROUTE safety altitude. Advise ATC if unable to ensure the ATS climb gradient.

VIBOP 1L SID

Climb (1) to **1180** on course **091°M**, then to **TZ510**, then continue on course **091°M**. Passing **3300**, turn **left** direct to **EDHUG** (Max IAS **240kt**), then to **TZ522** at or above **10000** (2), then to **VIBOP**.

(1) **PDG 4.4%** up to **3300** then **3.3%**

(2) **ATS climb gradient: 4.6%** up to **10000** due to airspace structure. Advise ATC if unable to ensure the ATS climb gradient.

BOSNA 1L

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	CA									091.274	MT					+	1180.00 FT [ALT]				1.000 NM				5	RW09	09	NotApplicable
20	CF	T2510	Y			TZU	090.437	4.207	NM	091.274	MT			5.344	NM		3300.00 FT [ALT]				1.000 NM				5	RW09	09	NotApplicable
30	CA									091.274	MT					+	3300.00 FT [ALT]				1.000 NM				5	RW09	09	NotApplicable
40	DF	T2540	N		R					091.274	MT						220.00 KT				1.000 NM				5	RW09	09	NotApplicable
50	TF	T2544	N							205.306	TT			23.942	NM		250.00 KT				1.000 NM				5	RW09	09	260.306
60	TF	BOSNA	N							276.988	TT			34.720	NM	+	9000.00 FT [ALT]				1.000 NM				5	RW09	09	271.988

DER 1L

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	CA									091.274	MT					+	1180.00 FT [ALT]				1.000 NM				5	RW09	09	NotApplicable
20	CF	T2510	Y			TZU	090.437	4.207	NM	091.274	MT			5.344	NM		3300.00 FT [ALT]				1.000 NM				5	RW09	09	NotApplicable
30	CA									091.274	MT					+	3300.00 FT [ALT]				1.000 NM				5	RW09	09	NotApplicable
40	DF	EDHUG	N		L					091.274	MT						240.00 KT				1.000 NM				5	RW09	09	NotApplicable
50	TF	SANWI	N							296.636	TT			20.000	NM						1.000 NM				5	RW09	09	293.636
60	TF	DBR	N							298.325	TT			17.056	NM	+	FL110 [STD]				1.000 NM				5	RW09	09	293.325

KEB 1L

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	CA									091.274	MT					+	1180.00 FT [ALT]				1.000 NM				5	RW09	09	NotApplicable
20	CF	T2510	Y			TZU	090.437	4.207	NM	091.274	MT			5.344	NM		3300.00 FT [ALT]				1.000 NM				5	RW09	09	NotApplicable
30	CA									091.274	MT					+	3300.00 FT [ALT]				1.000 NM				5	RW09	09	NotApplicable
40	DF	T2530	N		R					091.274	MT						220.00 KT				1.000 NM				5	RW09	09	NotApplicable
50	TF	T2532	N							223.832	TT			12.000	NM		250.00 KT				1.000 NM				5	RW09	09	218.832
60	TF	KEB	N							223.688	TT			18.393	NM	+	10000.00 FT [ALT]				1.000 NM				5	RW09	09	218.688

SOMUN 1L

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	CA									091.274	MT					+	1180.00 FT [ALT]				1.000 NM				5	RW09	09	NotApplicable
20	CF	T2510	Y			TZU	090.437	4.207	NM	091.274	MT			5.344	NM		3300.00 FT [ALT]				1.000 NM				5	RW09	09	NotApplicable
30	CA									091.274	MT					+	3300.00 FT [ALT]				1.000 NM				5	RW09	09	NotApplicable
40	DF	TZU	N		R					091.274	MT						220.00 KT				1.000 NM				5	RW09	09	NotApplicable
50	TF	T2550	N							000.214	TT			8.098	NM		220.00 KT				1.000 NM				5	RW09	09	355.214
60	TF	SOMUN	N							088.855	TT			15.817	NM	+	FL110 [STD]				1.000 NM				5	RW09	09	083.855

VEBAR 1L

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	CA									091.274	MT					+	1180.00 FT [ALT]				1.000 NM				5	RW09	09	NotApplicable
20	CF	T2510	Y			TZU	090.437	4.207	NM	091.274	MT			5.344	NM		3300.00 FT [ALT]				1.000 NM				5	RW09	09	NotApplicable
30	CA									091.274	MT					+	3300.00 FT [ALT]				1.000 NM				5	RW09	09	NotApplicable
40	DF	T2560	N		R					091.274	MT						220.00 KT				1.000 NM				5	RW09	09	NotApplicable
50	TF	VEBAR	N							147.154	TT			11.625	NM	+	10000.00 FT [ALT]				1.000 NM				5	RW09	09	142.154

VIBOP 1L

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	CRS Type	TIME val	TIME uom	SPD LMT	VRT ANG (°)	NAV PERF	RADIUS val	RADIUS uom	ARC CTR ID	Phase	Transition Identifier	Runway Direction	Magnetic CRS val (°)
10	CA									091.274	MT					MT					1.000 NM				5	RW09	09	NotApplicable
20	CF	T2510	Y			TZU	090.437	4.207	NM	091.274	MT			5.344	NM		3300.00 FT [ALT]				1.000 NM				5	RW09	09	NotApplicable
30	CA									091.274	MT					MT					1.000 NM				5	RW09	09	NotApplicable
40	DF	EDHUG	N		L					091.274	MT					MT					1.000 NM				5	RW09	09	NotApplicable
50	TF	T2522	N							359.230	TT			7.982	NM		10000.00 FT [ALT]				1.000 NM				5	RW09	09	354.230
60	TF	VIBOP	N							359.228	TT			10.516	NM		10000.00 FT [ALT]				1.000 NM				5	RW09	09	354.228

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