

AIP SLOVENIA

AERONAUTICAL INFORMATION PUBLICATION

GENERAL



IVAO - SLOVENIAN DIVISION
FOR VIRTUAL PURPOSES ONLY
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Part 1 General (GEN)

GEN 0 Preface

1. Name of publishing division

Aeronautical publication of Slovenia is published by IVAO Slovenian division for Ljubljana FIR. The AIP Slovenia is published in English language only.

2. The AIP structure

- AIP Slovenia is the main documentation of airspace data, information, regulations and requirements in Slovenia on IVAO network www.ivoa.aero.
- Together with charts published on <http://charts.ivoa.si> forms a pack of information needed to fly or control in Slovenian country on IVAO network.
- The AIP is made up of four parts, General, En-route, Aerodromes and Charts, each divided into sections and subsections as applicable, containing various types of information subjects.

2.1. Part 1 – General (GEN)

Part 1 consists of three sections containing information:

- GEN 0 – Preface
- GEN 1 – Staff, contact persons, National regulations and requirements – Entry, transit and departure of aircraft; Aircraft instruments and equipment and Recommended procedures
- GEN 2 – Tables and codes – Measuring system, aircraft markings, holidays, Abbreviations used in AIP, Location indicators, List of radio navigation aids and Conversion tables.

- GEN 3 – Services – Aeronautical charts, Air traffic services radio navigation services and meteorological services.

2.2. Part 2 – En-route (ENR)

Part 2 consists of five sections containing information:

- ENR 1 – General rules and procedures – General rules, Visual flight rules, Instrument flight rules, ATS airspace classification, Holding, approach and departure procedures, Altimeter setting procedures and Flight planning.
- ENR 2 – Air traffic services airspace – Description of Flight Information region (FIR); Terminal control areas (TMA); and other regulated airspace.
- ENR 3 – Radio Navigation Aids; Name-code designators for significant points.
- ENR 4 – Prohibited, restricted and danger areas

2.3. Part 3 – Aerodromes (AD)

Part 3 consists of two sections containing information:

- AD 1 – Aerodromes/Heliports – Introduction, Index of aerodromes and heliports.
- AD 2 – Aerodromes – Detailed information about aerodromes including helicopter landing areas.

GEN 1 Regulations and requirements in Slovenia

GEN 1.1. Contact persons

Name	Pos., VID	E-mail addresses	Purpose
Vito Persoglia	SI-DIR, 142042	Division operations concerned:	- Division daily operations - Civil aviation, En-route services and documentation
Boštjan Bogataj	SI-ADIR, 191293	si-hq@ivao.aero	
Danilo Makuc	SI-FOC, 203045	Documentation:	
Gregor Gregorič	SI-WM, 238210	aip@ivao-si.org	
Emil Novak	SI-TAC, 274128	IVAO-SI ATC atc@ivao-si.org	

GEN 1.2. Entry, transit and departure of aircraft

- General

- Aircraft flying into or departing from Slovenia shall make their first landing at or final departure from an international airport: Ljubljana LJLJ/LJU, Maribor LJMB/MBX or Portorož LJPZ/POW.
- War related flights will not be permitted to enter airspace of Slovenia.

- Scheduled flights
- Flights scheduled shall be civil – with commercial or individual service function.
- International or domestic flight can be carried out according their route and scheduled time with priority to other traffic. Scheduling shall be used at least one day before flight, from main IVAO site with purpose to inform available controllers about your flight.

- Non-scheduled flights
- No restrictions defined.

GEN 1.3. Aircraft instruments and equipment

1. Radio and air navigation equipment for IFR flights:

1.1. For IFR flights aircraft shall be equipped with:

- VHF transmitter/receiver in FS with 25kHz channel spacing, text / voice and text option for communication
- VOR receiver
- automatic direction finder – ADF
- DME interrogator
- TCAS (of IvAp) – for a/c with more than 30 passenger seats or MTOM more than 15000kg.

1.2. For approaches utilizing the instrument landing system (ILS) aircraft shall be equipped with:

- one receiver for ILS localiser and glide path signals
- one VHF receiver with device for indication marker beacon signals

2. Radio and air navigation equipment for VFR flights:

2.1. For VFR flight aircraft, rotor craft, powered gliders, gliders, airship and free balloons shall be equipped with:

- VHF transmitter/receiver in FS with 25kHz channel spacing, text / voice and text option for communication

2.2. In addition to the VHF transmitter/receiver, aeroplanes, as well as rotor craft and powered gliders shall be equipped for:

- a. flight within Class C Airspace with a VOR receiver
- b. flights at night, approved for night operations and provided with lightning aids:
 - in controlled airspace with a VOR receiver
 - in uncontrolled airspace with a VOR receiver and ADF.
 - for flights above cloud cover with VOR receiver and ADF.

- EUR RVSM

- Only RVSM approved aircraft shall be permitted to operate within the EUR RVSM airspace as described in ENR-2.1.

GEN 1.4. Regulations

- Regulations for pilots, controllers in Slovenian division and function of Slovenian division itself is regulated by the rules and regulations of IVAO network.
www.ivaoo.aero/rulregs

GEN 2 Tables and codes

GEN 2.1. Measuring system, aircraft marking, holidays

- Units of measurement

<i>For measurement of</i>	<i>Units</i>
Distance used in navigation, position reporting, etc. generally in excess of 2 to 3 nautical miles	Nautical miles and tenths
Relatively short distances such as those relating to aerodromes	Meters
Altitudes, elevations and heights	Feet
Horizontal speed including wind speed	Knots
Vertical speed	Feet per minute
Wind direction for landing and taking off	Degrees Magnetic
Wind direction except for landing and taking off	Degrees True
Visibility, including runway visibility range	Kilometers or meter
Altimeter setting, atmospheric pressure	Hectopascals
Temperature	Degrees Celsius
Weight, mass	Metric tonnes or Kilogrammes
Time	Hours, minutes and seconds; the day of 24 hours, beginning at midnight UTC
Volume, tank capacity	Liters
Pump capacity (delivery rate)	Liter per minute

- Time system

Coordinated Universal Time (UTC) is used in Air Traffic, Communication Services and documents, unless otherwise mentioned. Midnight is designated as 2400 for the end of the day and 0000 for the beginning of the day. At reporting time the nearest full minute is used.

The Local time in Slovenia is the "local mean time" (LMT = UTC + 1 HR)
 The local time in Slovenia during the summertime period is (LMT = UTC + 2 HR)
 The summertime period will commence at the last Sunday of March at 0100 UTC and cease on the last Sunday of October at 0100 UTC.

- Aircraft nationality and registration marks

The national mark for civil aircraft registered in Slovenia consists of the letters S5. It is followed by a hyphen and the registration mark:

- a four-figure group for gliders, including motor gliders
- a three letter group for other aircraft

- Public holidays

NAME	DATE
New Year	- 1 st , 2 nd JAN
Slovene cultural holiday	- 8 th FEB
Easter Monday	- movable holiday
Day of uprising against the occupier	- 27 th APR
Labour Day	- 1 st , 2 nd MAY
Statehood day	- 25 th JUN
Assumption Day	- 15 th AUG
Reformation Day	- 31 st OCT
Rememberance Day	- 1 st NOV
Christmas	- 25 th DEC
Independence Day	- 26 th DEC

GEN 2.2. Abbreviations used in division documents

- A – approach
- ACC – Area Control Centre (in different meaning: Radar)
- AE – approach and enroute
- AGL – above ground level
- ATCS – Air Traffic Control Service
- CTA – Control Area (Area sector)
- CTR – Control zone
- dom – domestic flight
- DME – distance measuring equipment
- E – enroute
- FIS – Flight Information Service (also as FIC – Flight Information Centre)
- FIR – Flight Information Region
- GND – ground
- int – international flight
- L – location beacon
- LLZ – localiser
- MKR – marker
- MSL – mean sea level
- Sq – squawk code
- TMA – Terminal Area (Approach sector)
- VIS – visibility
- VMC – visual meteorological conditions

GEN 2.3. Location indicators

Location	Indicator
Ljubljana / Brnik	LJLJ
Maribor / Orehova vas	LJMB
Portoroz / Secovlje	LJPZ
Ajdovscina	LJAJ
Bovec	LJBO
Celje	LJCL
Cerklje	LJCE
Divaca	LJDI
Lesce	LJBL
Murska Sobota	LJMS
Novo mesto	LJNM
Postojna	LJPO
Ptuj	LJPT
Slovenj Gradec	LJSG
Sostanj	LJVE

GEN 2.4. List of Radio navigation aids

ID	Station	Facility	Purpose	Coordinates
DOL	DOLSKO	VOR/DME	AE	46 05 02.90 N 014 46 42.87 E
LBL	LJUBLJANA	VOR/DME	A	46 14 18.60 N 014 25 42.79 E
ILB	ILIRSKA BISTRICA	NDB	E	45 33 52.08 N 014 10 19.08 E
ILB	ILIRSKA BISTRICA	VOR/DME	E	45 33 56.11 N 014 10 15.11 E
KAM	DOLSKO	NDB	A	46 06 18.00 N 014 40 31.67 E
LJB	LJUBLJANA – ILS RWY 31	LLZ	A	46 14 04.34 N 014 26 11.00 E
LJB	LJUBLJANA – ILS RWY 31	DME/P	A	46 12 56.42 N 014 28 14.34 E
MAR	MARIBOR – ILS RWY 33	LLZ	A	46 29 29.99 N 015 40 28.73 E
MEL	METLIKA	NDB	E	45 39 16.52 N 015 19 05.65 E
MG	LJUBLJANA – ILS RWY 31	L/OM	A	46 10 23.63 N 014 33 21.40 E
MI	MARIBOR – ILS RWY 33	L/MM	A	46 27 45.91 N 015 42 11.02 E
MR	MARIBOR – ILS RWY 33	L	A	46 22 17.51 N 015 47 35.68 E
PZ	PORTOROŽ	L	A	45 28 38.87 N 013 36 53.72 E
W	LJUBLJANA – ILS RWY 31	MKR	A	46 14 18.65 N 014 25 43.00 E
	LJUBLJANA – ILS RWY 31	MM	A	46 12 35.60 N 014 29 04.33 E
	MARIBOR – ILS RWY 31	OM	A	46 25 39.42 N 015 44 11.42 E

GEN 2.5. Conversion tables

1. Altimeter setting

1 hPA = 1mb; Standard setting: 1013.25 hPa = 29.92 inHg

950	951	952	953	954	955	956	957	958	959
28.05	28.08	28.11	28.14	28.17	28.20	28.23	28.26	28.29	28.32
960	961	962	963	964	965	966	967	968	969
28.35	28.38	28.41	28.44	28.47	28.50	28.53	28.56	28.59	28.61
970	971	972	973	974	975	976	977	978	979
28.64	28.67	28.70	28.73	28.76	28.79	28.82	28.85	28.88	28.91
980	981	982	983	984	985	986	987	988	989
28.94	28.97	29.00	29.03	29.06	29.09	29.12	29.15	29.18	29.21
990	991	992	993	994	995	996	997	998	999
29.23	29.26	29.29	29.32	29.35	29.38	29.41	29.44	29.47	29.50
1000	1001	1002	1003	1004	1005	1006	1007	1008	1009
29.53	29.56	29.59	29.62	29.65	29.68	29.71	29.74	29.77	29.80
1010	1011	1012	1013	1014	1015	1016	1017	1018	1019
29.83	29.85	29.88	29.91	29.94	29.97	30.00	30.03	30.06	30.09
1020	1021	1022	1023	1024	1025	1026	1027	1028	1029
30.12	30.15	30.18	30.21	30.24	30.27	30.30	30.33	30.36	30.39
1030	1031	1032	1033	1034	1035	1036	1037	1038	1039
30.42	30.45	30.47	30.50	30.53	30.56	30.59	30.62	30.65	30.68
1040	1041	1042	1043	1044	1045	1046	1047	1048	1049
30.71	30.74	30.77	30.80	30.83	30.86	30.89	30.92	30.95	30.98

2. Temperature

°C	-39	-38	-37	-36	-35	-34	-33	-32	-31	-30
°F	-38.2	-36.4	-34.6	-32.8	-31.0	-29.2	-27.4	-25.6	-23.8	-22.0
°C	-29	-28	-27	-26	-25	-24	-23	-22	-21	-20
°F	-20.2	-18.4	-16.6	-14.8	-13.0	-11.2	-9.4	-7.6	-5.8	-4.0
°C	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10
°F	-2.2	-0.4	1.4	3.2	5.0	6.8	8.6	10.4	12.2	14.0
°C	-9	-8	-7	-6	-5	-4	-3	-2	-1	0
°F	15.8	17.6	19.4	21.2	23.0	24.8	26.6	28.4	30.2	32.0
°C	1	2	3	4	5	6	7	8	9	10
°F	33.8	35.6	37.4	39.2	41.0	42.8	44.6	46.4	48.2	50.0
°C	11	12	13	14	15	16	17	18	19	20
°F	51.8	53.6	55.4	57.2	59.0	60.8	62.6	64.4	66.2	68.0
°C	21	22	23	24	25	26	27	28	29	30
°F	69.8	71.6	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0
°C	31	32	33	34	35	36	37	38	39	40
°F	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2	104.0
°C	41	42	43	44	45	46	47	48	49	50
°F	105.8	107.6	109.4	111.2	113.0	114.8	116.6	118.4	120.2	122.0

GEN 3 Services

GEN 3.1. Aeronautical charts

- The following types of charts are available at the present:

- Aerodrome charts – ICAO
- Aircraft Parking/Docking Chart – ICAO
- Instrument Approach charts – ICAO
- Area Charts – ICAO – Standard Instrument Departure (SID)
- Area Charts – ICAO – Arrival (STAR)
- Precision Approach Terrain Chart – ICAO
- Visual Approach Charts (VFR) – ICAO (in course of preparation)
- En-route Charts – ICAO
- Aeronautical Chart (VFR-GPS)

GEN 3.2. Air traffic services:

1. Area of responsibility

Air traffic control services are provided for the entire territory of the state.

The provision of Air Traffic Services is given to ACC Wien, within the following airspace in Slovenia, displayed on chart: LJLA 11-2 "Airspace classification within Ljubljana FIR": TMA Mura and CTA Mura 1 including Upper Airspace above.

The rest of the Slovenian airspace is controlled by Slovenian Air Traffic Control Service.

Detailed definition of Slovenian Airspace is included in ENR 2.

2. Types of services

The following types of services are provided:

- Flight Information Service (FIS)
- Area Control Centre (ACC)
- Approach Control Service (APP)
- Aerodrome Control Service (TWR, GND)

3. ATS units list:

Radar ATS in Ljubljana FIR		
ACC Ljubljana		
Provide service for whole FIR in absence of other facilities		
Facility callsign	Network login	Description
Ljubljana (Approach) Radar	LJLA_CTR	Whole LJLA FIR
Ljubljana Radar	LJLA_U_CTR	Second - Upper sector, covering FIR above *FL245, when open.
Ljubljana Radar	LJLA_P_CTR	Third – Top sector, covering FIR above *FL350, if open.

Procedural facilities with only informational radar support	
Facility, providing info in uncontrolled airspace	
FIC Ljubljana	
Providing service to VFR traffic.	
Facility callsign	Network login code
Ljubljana Information	LJLA_FSS
Airport procedural facilities	
APP Maribor	
Maribor Approach	LJMB_APP
APP Portorož	
Portorož Approach	LJPZ_APP

Airport Service	
GND/TWR Ljubljana	
Facility callsign	Network login code
Ljubljana Tower	LJLJ_TWR
Cerklje Tower	LJCE_TWR
Ljubljana Ground	LJLJ_GND

* Note: Vertical limits between the sectors are movable regarding the traffic prediction. Pilots shall expect any different chosen limits between area facilities to be defined in ATIS of each facility.

GEN 3.3. Radio navigation services

The following types of radio aids to navigation are available:

- location beacon (L)
- non-directional beacon (NDB)
- VHF omnidirectional radio range (VOR)
- Instrument landing system (ILS)
- distance measuring equipment (DME)
- VHF-marker radio beacon (MKR)

GEN 3.4. Meteorological services

1. Types of services

- Meteorological aerodrome reports – METAR (via ServInfo, IvAe, IvAp)
- Aerodrome forecast in TAF form (via ServInfo, IvAe)

2. Meteorological observations and reports

Name of station / Location indicator	Frequency of observation / automatic observing equipment	Types of MET report	Observation system
Ljubljana LJLJ	Half hourly	METAR	Automatic Meteorological Station 31 / 13 Ceilometer 31 / 13 Cup anemometer
Maribor LJMB	Half hourly	METAR	Automatic Meteorological Station R33/ Ceilometer R33/ Cup anemometer
Portoroz LJPZ	Half hourly	METAR	Automatic Meteorological Station R15/ Forward Scatter Visibility meter Ceilometer Cup anemometer