

BOSNIA AND HERZEGOVINA
MINISTRY OF COMMUNICATION AND TRANSPORT
DIRECTORATE OF CIVIL AVIATION
AERONAUTICAL INFORMATION SERVICES

AIC

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VISUAL FLIGHT RULES - VFR IN BOSNIA AND HERZEGOVINA

NOTAMs related to the status of Visual Flight Rules concerned shall be issued by NOF BIH as NOTAM Series "A".

VISUAL FLIGHT RULES - VFR IN BOSNIA AND HERZEGOVINA

1 INTRODUCTION

Aeronautical Information Circular is intended to provide suitable overview of basic rules, requirements and method of service provision in accordance with visual flight rules in the airspace of Bosnia and Herzegovina.

AIC can by no means replace documents with pre-flight information and other information necessary for orderly flight planning.

Regulations used in air traffic are given in the Aviation Law of Bosnia and Herzegovina.

The Aviation Law of Bosnia and Herzegovina, by-laws and rules available in English and the official languages of Bosnia and Herzegovina can be found at the following address: www.bhdca.gov.ba

Illustrations are not intended to be used for the purpose of navigation but are attached for the sake of better understanding. The abbreviations used correspond to the standard ones customary in aviation.

2 GENERAL INFORMATION

2.1 Legislation

Flights considered in this AIC shall be carried out in conformity with the regulations of the International Civil Aviation Organization (ICAO) and Annexes to the Convention on International Civil Aviation.

The AIC does not address military air force of B&H and European Stabilization Forces (EUFOR) flights, and they are therefore not subject to the limitations stated therein.

2.2 Pre-flight and flight information and briefing

Available aeronautical publications and maps necessary to conduct VFR flights can be obtained from the following address:

Postal address: Ministry of Communications and Transport
Directorate of Civil Aviation
Fehima ef. Čurčića 6
71 000 Sarajevo
BOSNIA AND HERZEGOVINA

Telephone: ++ 387 33 251 365
Telefax: ++ 387 33 251 351
SITA:
AFS: LQBHYOYX
E-mail: bhdca@bhdca.gov.ba
Web: www.bhdca.gov.ba

Detailed information and specific requirements necessary for the conduct of VFR flights can be obtained at ARO at the following aerodromes:

Office	Hours of Operation - UTC	Telephone	Telefax	AFTN
ARO Banja Luka	H24	+387 51 337 537	+387 51 337 538	LQBKZPZX
ARO Sarajevo	MUN-SUN 05.00 - 21.00 Winter time MUN-SUN 04.00 - 20.00 Summer time	+387 33 461 199	+387 33 653 431	LQSAZPZX
ARO Mostar	see NOTAM	+387 36 352 209	+387 36 352 069	LQMOZPZX
ARO Tuzla	N/A	N/A	N/A	N/A

Aeronautical information is available in English and in one of the official languages of Bosnia and Herzegovina, and can be obtained:

- in writing
- by phone.

Flight plans are also submitted to the above mentioned ARO.

3 FLIGHT PLANNING

3.1 No entry/exit special permission (diplo clearance) to operate within Bosnia and Herzegovina for General Aviation is required for aircraft registered in an ICAO member state with seat configuration of six (6) or less, including pilot seats. Flight plan will suffice.

International arrivals to/departures from uncontrolled aerodromes and airfields in Bosnia and Herzegovina are approved only upon intermediate landing at the suitable international aerodrome with organized customs and immigration control.

If customs and passport services are provided at an uncontrolled aerodrome or airfield, international arrivals/departures may be conducted without obligation to make intermediate landing at a suitable international aerodrome.

A flight plan shall be filed for the following flights:

- all VFR flight in a controlled airspace, except for flights within CTR during the hours of daylight;
- all VFR flights departing from or arriving at a controlled aerodrome;
- all VFR flights living / entering Bosnia and Herzegovina airspace;
- all VFR flights through restricted and dangerous zones while they are active if so specifically regulated at establishment such zones/areas.
- all night flights.

* **Recommendation:** a Flight plan shall be filed also for all VFR flights in an uncontrolled airspace for the purpose of gathering information and for the timely initiation and conduct of Search And Rescue actions by the Search and Rescue Coordination Centre at the Banja Luka Airport.

	Operational hours	Telephone	Telefax	AFTN
RCC Banja Luka	H24	+387 51 1262 +387 51 337563 +387 51 337564 +387 51 337565	+387 51 337 566	LQBKYCYX

3.2 A Flight plan shall be filed no later than 60 minutes prior to EOBT.

3.3 In the event of delay in departure of 30 minutes or more for a flight for which a flight plan has been submitted, the flight plan shall be changed and a new one will be submitted after the cancellation of the old flight plan.

3.4 VFR and VFR/IFR flight plan shall be filed in the ARO at the departure aerodrome.

In case of absence or outside operation hours of ARO at the departure aerodrome, a flight plan shall be submitted to the nearest ARO in operation.

Flight plan may be submitted by telephone or telefax by using an appropriate FPL form.

If flight plan is submitted via telefax, submitter of the flight plan shall:

- after the transmission of the flight plan, immediately confirm by telephone the flight plan, otherwise the flight plan will not be processed;
- use a prescribed or a computer FPL form to file a flight plan;
- legibly and without omissions fill in the FPL form;
- enclose a telephone/telefax contact number.

When a flight plan is submitted by telephone, the ICAO sequence of items in the flight plan form shall be strictly followed.

- 3.5** Submitter of the flight plan is responsible for:
- completeness and accuracy of data;
 - acquisition of pre-flight information and necessary ATC approvals;
 - check of the flight feasibility;
 - complete addressing and transmission.
- 3.6** A flight plan may also be submitted in flight if so required by special circumstances, unknown before departure, except for flights which continue on after intermediate landing or for flights outside the borders of Bosnia and Herzegovina.
- 3.7** A pilot may request, during flight, from a relevant ATC to cancel the IFR flight plan and to continue flight in VMC.
- The relevant ATC will cancel the IFR flight plan and issue clearance to continue flight by VFR only if it is certain that the rest of the flight will be conducted in the VMC.
- 3.8** For all flights for which the flight plan has been submitted, and the departure is performed from uncontrolled aerodrome or airfields, an authorized person shall immediately submit departure message to the ARO.
- The departure message may be submitted to the relevant ATC, immediately after departure, also by the pilot via an appropriate radio communication procedure.
- 3.9** A take-off/departure report shall contain the following information:
- call sign of the aircraft;
 - airport of departure;
 - take-off time;
 - airport of arrival;
 - estimated time of arrival.
- 3.10** For flights for which a flight plan has been submitted, which are to land at an uncontrolled airport or airfield, the pilot shall submit an arrival message to the relevant ATC.
- The arrival message may be submitted also via radio communication prior to landing at an uncontrolled aerodrome or airfield.
- The arrival message shall be forwarded by the ATC that was last contacted by the pilot. If radio communication cannot be established, the message shall be forwarded by telephone or telefax.
- For flights from/to controlled aerodromes, the TWR shall automatically forward this message by telephone or telefax to an ARO.
- 3.11** An arrival message shall contain the following information:
- call sign of the aircraft;
 - airport of arrival;
 - time of arrival;
 - estimated time of landing.
- 3.12** For all flights for which a flight plan has been submitted, which are to land at an uncontrolled aerodrome or airfield, the pilot or an authorized person shall, immediately after the landing, submit the actual time of landing to the relevant ARO.
- 3.13** If for some reason the landing has not been completed at the planned aerodrome or airfield, the pilot shall inform the relevant ATC of the incurred changes in the flight plan, and of changing to another aerodrome or airfield of landing.

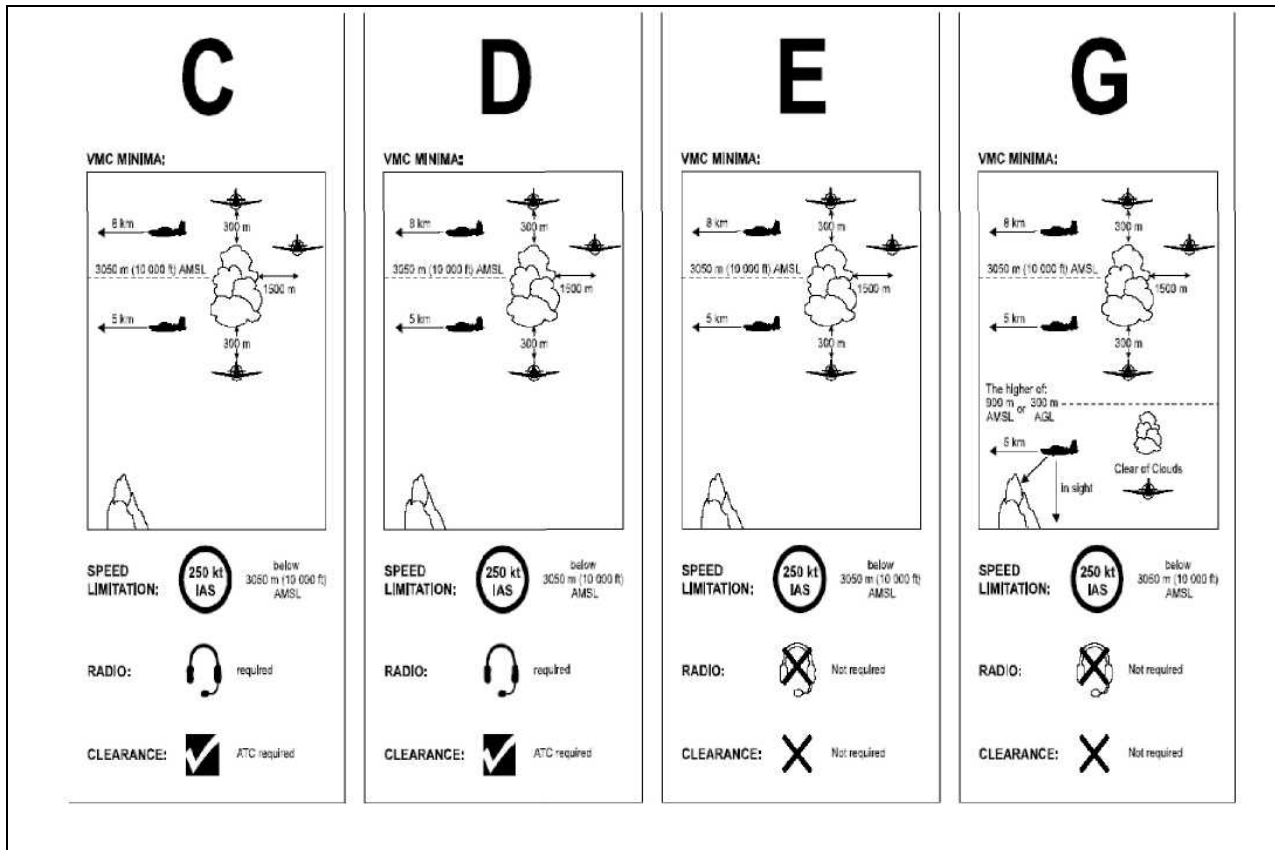
4 AIRSPACE STRUCTURE

The airspace of Bosnia and Herzegovina is classified in accordance with ICAO guidelines.

4.1 Airspace classes in Bosnia and Herzegovina

Within Bosnia and Herzegovina the airspace is classified as C, D, E (*controlled) and G (*uncontrolled).

Airspace classes A, B and F have not been established



4.2 Airspace classes concept

Controlled airspace

Controlled airspace consists of:

- control zones (CTR);
- terminal control areas (TMA);
- control areas (CTA).

The following airspace has been notified as Class “C” airspace;

- Sarajevo CTA from FL 100FT to FL 460, outside control zones (CTRs) and terminal control areas (TMAs).

The following airspace has been notified as Class “D” airspace:

- CTR Banja Luka: GND - 5500FT AMSL
- CTA Banja Luka: 1000FT AGL - 5500FT AMSL.
- CTR Sarajevo: GND- 6000FT AMSL
- CTR Mostar: GND - 6000FT AMSL

The following airspace has been notified as Class “E” airspace:

- TMA Banja Luka, from 1000FT AGL to FL 120, outside CTR Banja Luka.
- TMA Sarajevo, from 1000FT AGL to FL 160, outside CTR Sarajevo.
- TMA Mostar, from 1500FT AGL to FL 160, outside CTR Mostar.
- TMA Tuzla, from FL 100* to FL 160.

Uncontrolled airspace

Class "G" airspace spreads outside the controlled airspace.

- Airspace of TMA Tuzla from 1500FT AGL to 9500FT AMSL;
- CTR Tuzla from GND to 5500FT AMSL;
- Airspace outside TMAs and CTRs from GND to FL 100*

* - Annex 11: "Where Transition Altitude value is lower than 3050M(10000FT), FL 100 will be used instead of 10000FT."

* Controlled and uncontrolled airspace used as generic term

5 VFR OPERATIONAL PROCEDURES

5.1 General rules

VFR flights are conducted in accordance with airspace classification (Appendix 1)

- 5.1.1 Within FIR Sarajevo the following VFR flights are permitted:
- during the hours of daylight – day (except NVFR flights);
 - up to FL 200;
 - in VMC (except SVFR flights);
 - within and outside of the controlled airspace;
 - with cruising levels according to the semi – circular rules.

"Day" is defined as the period from half an hour before sunrise (SR-30) to half an hour after sunset (SS+30).

- 5.1.2 GAT VFR flights at and below FL 195 shall be conducted:
- in the reserved airspace (temporary reserved airspace or its equivalent)
 - in accordance with ATC clearance;
 - in accordance with a special arrangement made with the relevant ATC
 - in permanently or temporarily established "corridors" for VFR flights (VFR routes)

Note: In FIR Sarajevo, no permanent or temporary corridors for VFR flights have been established so far.

- 5.1.3 GAT VFR flights at altitudes above FL 195 including FL 285 shall be conducted:
- in the reserved airspace (temporary reserved airspace or its equivalent)
 - in accordance with the appropriate ATC clearance, subject to a prescribed and published procedure.

5.1.4 En-route GAT VFR flights above FL 195 will not be permitted.

5.1.5 GAT VFR flights above FL 290 shall only be approved within the reserved airspace (temporary or equivalent). Rules applicable to a reserved part of airspace at and above FL 290 are not subject to implementation of the reduced vertical separation minimum of 300M (1000FT).

5.1.6 Conduct of VFR flights above FL 290 in the airspace where the vertical separation minimum of 300M (1000FT) is applied shall not be approved.

5.1.7 During VFR flights in FIR Sarajevo, radiotelephone communication is conducted using standard radiotelephone communication using the standard R/T phraseology in English or in one of the official languages in Bosnia and Herzegovina.

5.1.8 Entry into/exit from controlled airspace may be conducted upon approval of the relevant ATC and under its specified conditions only.

5.1.9 Where traffic loads and airspace situation demand so, the appropriate air traffic control service may, to a space- and time-limited extent, completely or partially, prohibit the conduct of VFR flights in controlled airspace.

5.2 VFR Meteo Minimum

VFR flight may be conducted if meteo conditions are the same as or better than:

Class C, D and E Airspace

Altitude	Flight Visibility	Distance from cloud
10.000 FT or above	8 KM	1500 M horizontally and 300 M vertically
Below 10.000 FT	5 KM	

Class G Airspace

Altitude	Flight Visibility	Distance from cloud
10.000 FT or above	8 KM	1500 M horizontally and 300 M vertically
Below 10.000 FT	5 KM	
At or below 3.000 FT AMSL or 1.000 FT GND (whichever is higher)	5 KM	Clear of clouds and visual reference to ground

5.3 Special VFR flights (SVFR)

Special VFR Flight is a VFR flight cleared by air traffic control to operate within a control zone in meteorological conditions below VMC.

SVFR flights may be conducted:

- during the hours of daylight - day;
- if flight visibility is at least 1500m,
- as subject to ATC clearance;
- within CTR;
- within CTR- individually only;
- at a speed adjusted to the meteo conditions.

The relevant ATC shall issue approval to conduct SVFR under the following conditions only:

- if traffic situation permits so;
- if the pilot is trained for such flights;
- if the aircraft is equipped with the appropriate radio and navigation equipment;
- if the ground visibility is at least 1500m, for helicopters 800m;
- if the ceiling is at least 150m (500ft).

When performing special VFR flights, the pilot shall adhere to:

- minimum safe altitude;
- minimum meteo conditions according to class "G" airspace values.

In control zones, special VFR (SVFR) flights are separated from other IFR and SVFR flights according to standards applicable to IFR flight separation.

5.4 Flights above clouds

VFR flights above clouds are permitted if:

- the pilot is trained for such flights;
- the aircraft is equipped with a device for radio communication and pilot is certified to conduct air-ground communication;
- the pilot is able to adhere to the intended flight route without entering the clouds;
- the approach to the destination aerodrome and landing in VMC are permitted;
- the height above ground or water is at least 300m (1000ft) and the visual flight rules as in airspace class "E" are complied with.

5.5 Flights at night

"Night flight" is defined as a flight performed in the period from half an hour after sunset (SS+30) to half an hour before sunrise (SR-30).

VFR flights at night are permitted in accordance with appropriate VFR provided that the following conditions have been met:

- VMC and visual reference to ground;
- ceiling at 1500 FT or more, ground visibility 8 km or more;
- pilot trained for that kind of flight;
- aircraft are appropriately equipped for NVFR;
- Aircraft has suitable radio and navigation equipment;
- Transponder is used when flying outside CTR;
- radio communication established in Class E and G Airspace;
- Flight Plan has been submitted.

Besides the above conditions and restrictions, the following provisions too shall apply to night flights in the aerodrome or airfield zones:

- the aerodrome has to comply with the conditions for night flights;
- runway lights and obstacle lights have to be visible from every part of the aerodrome zone.

5.6 Altimeter setting

Transition Altitude in FIR Sarajevo is 9500 FT.

On VFR flights at and below 9500FT MSL the pilot shall set the altimeter to the QNH value of the controlled aerodrome nearest to the route of flight.

On VFR flights above 9500FT the pilot shall use standard altimeter setting (QNE) and shall be conducted in accordance with cruising levels according to the semi – circular rules.(Appendix 3).

On VFR flights within CTR below 9500FT, the pilot shall set the altimeter to the QNH value of the respective controlled aerodrome.

On VFR flights at uncontrolled aerodrome or airfields, altimeter shall be set in accordance with respective Aerodrome Operating Instructions.

The actual QNH can be obtained from air traffic control units at controlled aerodrome.

5.7 Minimum separation

In the separation of VFR from IFR flights the following minima shall be taken into account:

- minimum separation in airspace classes C, D and E is 300m (1000ft).

5.8 Other regulated airspace

Restricted and danger areas, and other specially regulated areas, with accurate descriptions, lateral and altitude limits, published in a corresponding aeronautical publication (see NOTAM and AIC).

They are active only when notified by NOTAM.

5.9 Flights in Class C and D Airspace

VFR flights within these airspace classes may be conducted as required below:

- Aircraft shall be equipped with appropriate radio navigation equipment;
- Pilot shall be trained for such flights;
- Pilot shall contact the relevant ATC unit at least 5 minutes prior to entering Class C or D Airspace;
- Radio-telephone communication shall be provided in the English language;
- Flights shall be conducted in accordance with ATC instructions and clearances only;
- for a VFR flight conducted through several FIRs or sectors, exchange of information between relevante air traffic control units shall be performed at points and as defined in mutual Letter of Agreements.

5.10 Use of aerodromes

For VFR flights, the following are available:

- international aerodromes with organized customs and passport services;
- public airfields for powered aircraft flights and glider flights;

5.11 Flights at Controlled Aerodromes

At controlled aerodromes, ATC clearances are required for taxiing, take-off/landing, entering into traffic circuit, etc.

All operations shall be conducted in accordance with ATC instructions and clearances only. Controlled aerodromes in Bosnia and Herzegovina do not have defined VFR Approach/Departure Routes with maximum altitudes and reporting points, nor Visual Approach/Departure Charts.

5.12 Flights at Uncontrolled Aerodromes/Airfields

No ATC is provided at such aerodromes/airfields. They are mostly equipped with an air-ground communication station and can be recognised by the call sign "INFO and name of aerodrome/airfield location" (e.g. INFO PRIJEDOR).

A flight manager or another person authorized by a flight organizer shall be responsible for the safe and orderly flow of aerodrome traffic.

Info frequency 124.500MHz.

5.13 Minimum Safe Heights

The following minimum flight altitudes apply to VFR flights:

- over towns, and other densely populated areas and assemblies of persons, at least 300 meters (1000 FT) above the highest obstacle within a 600m radius from the aircraft position;
- in all other cases at least 150m (500 FT) above ground or water.

These provisions do not apply to flights for the purposes of emergency medical assistance, search and rescue flights, and special-purpose flights.

5.14 Regulations for Gliders

Glider flights are permitted:

- during the hours of daylight – day;
- in VMC;
- within uncontrolled airspace;
- within controlled airspace.

Glider flights above Transition Altitude, or 9500FT, shall be approved only if traffic conditions permit so.

5.15 Wave Flying of Gliders

In favourable weather conditions, such flights may be conducted above Class E and G airspace with prior co-ordination with and approval from relevant ATC.

Pilots shall maintain listening watch of a frequency assigned by the relevant ATC and comply with the given instructions.

5.16 Motorglider Operations

The same rules as for power-driven glider flights apply for motor gliders with running engines.

5.17 Hang- and paraglider activity

The operation of hang- and paraglider is permitted:

- during the hours of daylight – day;
- in VMC;
- outside controlled airspace;
- within Class E Airspace ONLY with a special approval by the Civil Aviation Directorate and acceptance by relevant ATC service;

Take off is permissible everywhere except in densely populated areas and off buildings. The approval of the landowner is required.

Organized flying (5 or more hang- or paragliders) is permitted only from registered take-off places.

5.18 Parachute jumping

Parachute jumping is permitted:

- during the hours of daylight – day;
- in VMC;
- outside controlled airspace;
- within controlled airspace ONLY with the approval of relevant ATC.

For off-field landings an approval of Ministry of Communication and Transport, BHDCA is required. Night parachute jumps will be permitted subject to special conditions.

5.19 Free ballooning

Free ballooning is permitted:

- during the hours of daylight - day;
- in VMC;
- outside controlled airspace;
- within controlled airspace ONLY with the approval of relevant ATC and mandatory ascent announcement at least one hour prior to ascent.

Free ballooning during the night is ONLY permitted with the approval of relevant ATC and ascent announcement.

5.20 Ultralight Flights

The operation of ultralight aircraft is permitted:

- during the hours of daylight - day;
- in VMC;
- outside controlled airspace;
- within Class E Airspace ONLY with the approval of relevant ATC.

For flying within controlled airspace class C ,D, and E is required:

- with approval from the Ministry of Communication and Transport, BHDCA;
- with approval of relevant ATC.

Ultralight aircraft shall take off and land at registered airfields only.

5.21 Acrobatic Flights

Acrobatic flights are permitted:

- during the hours of daylight - day;
- in VMC;
- outside controlled airspace;
- within controlled airspace ONLY with the approval of relevant ATC;
- above 500m (1700ft) GND.

Acrobatic flights are not permitted over densely populated areas, fire areas or areas where there is high risk of fire or explosion as well as over open air assemblies of persons.

6 ADDITIONAL REGULATIONS

6.1 Radio and Navigation Equipment

6.1.1 Compulsory and Recommended Equipment:

Class:	C	D	E	G
Radio station	Mandatory	Mandatory	Mandatory	Recommended
VOR	Recommended	Recommended	Recommended	-
SSR Transponder	Mandatory	Mandatory	Recommended	-
GPS receiver	Recommended	Recommended	Recommended	Recommended

SSR Transponder within TMA Sarajevo is mandatory.

6.2 Radio communication

Aircraft, helicopters, motor gliders, gliders, air ships and free balloons with crew shall for VFR flights be equipped with one UKV transceiver covering at least those frequencies in the frequency range from 117.975MHz to 137.000MHz which are required to conduct a planned flight, except for flights by day in uncontrolled airspace and at uncontrolled aerodromes and airfields.

Aircraft conducting flights above FL 195 must be equipped with transceivers with a channel gap of 8.33kHz.

Radio communication is compulsory:

- for flights conducted in Class C and D,
- for flights conducted at night – night flights.

6.3 SSR Transponder

It should have the ability to transmit A and C modes.

Mode A 2000 may be mounted onto the SSR Transponder without request unless the appropriate ATC service has specified a different one:

- for flights arriving at/departing from controlled airports;
- for flights entering the Class C and D airspace;
- for VFR flights crossing FIR boundary – international VFR flights;
- for night flights.

The relevant ATC may instruct the pilot to change the ATC code, or to switch off the transponder.

This procedure does not apply to VFR flights in the aerodrome traffic circuit.

The use of transponder does not imply that VFR flights are radar controlled in class E or G airspace. It is intended to provide traffic information to VFR or IFR flights and flights of military aircraft.

In order to announce emergency situation, an aircraft equipped with an SSR transponder shall set the transponder as follows:

- to Mode A 7700 - emergencies;
- to Mode A 7600 – two-way radio communication failure;
- to Mode A 7500 – hijacking.

6.4 GPS receiver

The use of a GPS receiver is recommended.

6.5 ELT (Emergency Locator Transmitter)

An ELT is recommended on board all VFR aircraft.

Pilots of aircraft equipped with an Emergency Locator Transmitter are responsible to examine the operational status of the device before each take-off and landing in order to avoid false alerts due to mishandling, pilot negligence or hard landing, shock damage during ground manoeuvring, acrobatic flights, etc.

If for some reason, after an emergency landing, the emergency landing location shall be evacuated / abandoned, the passengers must take the ELT with them.

The search for people has priority over the search for aircraft.

7 CONTINGENCIES

7.1 Emergencies (7700)

If a pilot is experiencing in-flight difficulties with the aircraft, he must inform the appropriate ATC (FIC, TWR, APP, ACC) of the type of the problem, degree of danger, actions he is undertaking or going to undertake in order to reduce or eliminate the danger, as well as of the type of assistance if possible and necessary.

The pilots can use frequency 121.500MHz.

7.2 Radio Failure (7600)

- in case of radio communication failure or unsuccessful radio communication with the relevant ATC, a pilot shall continue with the attempts to establish radio communication by using other ground stations or radio stations of other aircraft, emergency frequency;
- continue blind transmission of all planned activities (change of frequency, etc.)
- for flights where maintaining radio communication is compulsory, set the transponder to Code 7600, provided that it exists on board the aircraft;
- if radio failure occurred before the relevant ATC gave clearance to enter controlled airspace, the aircraft shall bypass the controlled airspace, land at an uncontrolled airport or airfield and inform the ATC thereof.
- if radio failure occurs after entering a controlled airspace, the pilot shall continue flight in accordance with the last received and confirmed clearance from the relevant ATC, and, if this is not possible, leave the controlled airspace via the shortest path, taking into account VFR meteo minima;
- aircraft flying by VFR may enter a controlled airspace only if the pilot has previously been given the ATC clearance, or if circumstances do not allow for landing at an uncontrolled airport (lack of fuel, winter weather conditions, etc.);

8 METEOROLOGICAL INFORMATION FOR GENERAL AVIATION

Meteorological information for General aviation is normally supplied upon request by a pilot or its organisation by telephone or as briefing directly in the Meteorological office.

When requesting meteorological information, the pilot is asked to supply the Meteorological office with the following information:

- category of flight (VFR/IFR),
- destination, route and ETD/ETA;
- Altitude (AL)

Information about meteorological situation and weather forecast at the aerodromes and routes are available for the needs of General aviation. Information could be given as briefing or upon request of a pilot, in the written form as documentation.

Meteorological offices are provided at the following aerodromes:

- Sarajevo; Tel: +387 33 472 919; Fax: +387 33 653 431; E-mail: sarajevo.met@fedcad.gov.ba
- Banja Luka; Tel: +387 51 337 573 and 574; Fax: +387 51 337 573; E-mail: meteo@rscad.org
- Mostar; Tel: +387 36 352 689; Fax: NIL - Email: NIL

8.1 Documentation for Flight

Documentation for flight may be prepared in the form of "Significant weather forecast charts" or given in plain language including the following information:

- amount, type and height of clouds, weather, turbulence and freezing level,
- direction and speed of wind at the flight level, temperature at the flight level and altitude isotherm of 0°C;
- horizontal visibility;
- en-route meteo situation.

Documentation is supplemented by the information about meteorological information and forecast for the aerodrome of departure, arrival and alternative aerodrome.

9 SERVICES FOR VFR FLIGHTS

9.1 ARO OFFICE

ARO provides all documents necessary for flight planning and performs flight plan handling and distribution.

Basic documents for pre-flight planning and conduct of VFR flights are:

- Aeronautical Information Publication (AIP)
- AIC
- NOTAM
- AIP SUP
- special regulations

Note: AIP BH is currently in the process of preparation.

9.2 Flight Information Service

Flight information service within the uncontrolled airspace class "G" of FIR Sarajevo has not been established, and therefore no such services are provided.

In class C, D and E controlled airspace flight information services are provided by air traffic control services in accordance with its competences and technical capabilities.

9.3 Alerting Service, Search and Rescue Service

All air traffic control units providing services within FIR Sarajevo shall participate in the provision of alerting services for all flights for which a flight plan has been filed or ATC clearance issued or which are otherwise known to ATC.

The relevant ATC shall, immediately after having learned that the aircraft is in the state of emergency, alert and assists the Search and Rescue Coordination Centre of Banja Luka which shall then declare specific stages of emergency depending on the degree of emergency that the aircraft is experiencing, and initiate a search and rescue operation as required.

9.4 Air Traffic Control Services

For the provision of air traffic control services in FIR Sarajevo are responsible and accountable:

- aerodrome control (TWR);
- approach control service (APP);
- area control service (ACS).

under the conditions and limitations specified in the following tables:

Table 1: Aerodrome control services

UNIT	AREA	FREQUENCY	VERT. LIMITS	TYPE OF SERVICE
SARAJEVO	CTR Sarajevo	118.250MHz	see NOTAM/AIC	TWR, ADV, ADI
BANJA LUKA	CTR Banja Luka	118.950 MHz	see NOTAM/AIC	TWR, ADV, ADI
BANJA LUKA	CTA Banja Luka	118.950 MHz	see NOTAM/AIC	TWR, ADV, ADI
MOSTAR	CTR Mostar	124.200MHz	see NOTAM/AIC	TWR, ADV, ADI

Table 2: Approach control services

UNIT	AREA	FREQUENCY	VERT. LIMITS	TYPE OF SERVICE
SARAJEVO	TMA	136.450MHz	see NOTAM/AIC	APS/RAD
BANJA LUKA	TMA	118.950MHz	see NOTAM/AIC	APP
MOSTAR	TMA	122.700MHz	see NOTAM/AIC	APP

Table 3: Area control services (LOWER Airspace)

UNIT	AREA	FREQUENCY	VERT. LIMITS	TYPE OF SERVICE
ACC Zagreb	FIR Sarajevo	see Croatia AIP	FL100 - FL 285	ACS/RAD

Area control services are provided by the ACC Zagreb in accordance with the Agreement on delegation of responsibility for the provision of air traffic service in the lower airspace within FIR Sarajevo from FL100 to FL285 outside TMAs and CTRs, between BHDCA and Croatia Control Limited.

Table 4: Search and Rescue

UNIT	AREA	FREQUENCY	VERT. LIMITS	TYPE OF SERVICE
RCC Banja Luka	FIR Sarajevo	123,100MHz 121.500MHz	see NOTAM/AIC	Search and Rescue Emergency

10 REPORTING ON THREATS TO AIR TRAFFIC SAFETY AND AIRCRAFT ACCIDENTS

The BH DCA shall be advised of hazardous or potentially hazardous incidents and defects (hereafter referred to as occurrences).

Reports shall be made whenever the safety of the aircraft has been compromised (incident and serious incident) or aircraft accident occur the BHDCA immediately, in written form.

As exception, aircraft proximity and violation of rules and procedures shall be immediately reported to an relevant ATC Unit.

Reports shall be made using the prescribed forms, available in ARO at controlled aerodromes.

11 ABBREVIATIONS

ACC	Area control centre or area control
ACFT	Aircraft
AD	Aerodrome
ADF	Automatic direction finding equipment
AFIL	Flight plan filed in the air
AFTN	Aeronautical fixed telecommunication network
AGL	Above ground level
AIC	Aeronautical information circular
AIP	Aeronautical information publication
AIS	Aeronautical information services
AMSL	Above mean sea level
APP	Approach control office, approach control or approach control service
ARO	Air traffic services reporting office
ATC	Air traffic control (in general)
ATS	Air traffic services
CB	Cumulonimbus
CTA	Control area
CTR	Control zone
EET	Estimated elapsed time
ELT	Emergency locator transmitter
ENR	En route
EOBT	Estimated off-block time
FIC	Flight information centre
FIR	Flight information region
FIS	Flight information service
FL	Flight level
FPL	Filed flight plan
GAC	General aviation centre
GAFOR	Forecast for general aviation
GND	Ground
GPS	Global positioning system

HPA	Hectopascal
ICAO	International civil aviation organization
IAS	indicated air speed
IFR	Instrument flight rules
INFO	Information
KL	Air traffic control service
MTOW	Maximum take off weight
MSL	Mean sea level
NAV	Navigation
NM	Nautical miles
NOTAM	Notice to airman
NVFR	Night visual flight rules
OPR	Operator
PIC	Pilot in command
POB	Persons on board
RWY	Runway
SIGMET	Significant meteorological information
SR	Sunrise
SS	Sunset
SSR	Secondary surveillance radar
SVFR	Special visual flight rules
SUP	AIP Supplement
TMA	Terminal control area
TWR	Aerodrome control tower or aerodrome control
UTC	Co-ordinated universal time
VFR	Visual flight rules
VMC	Visual meteorological conditions
VOLMET	Meteorological information for aircraft in flight
VOR	VHF omnidirectional radio range

APPENDIX 1

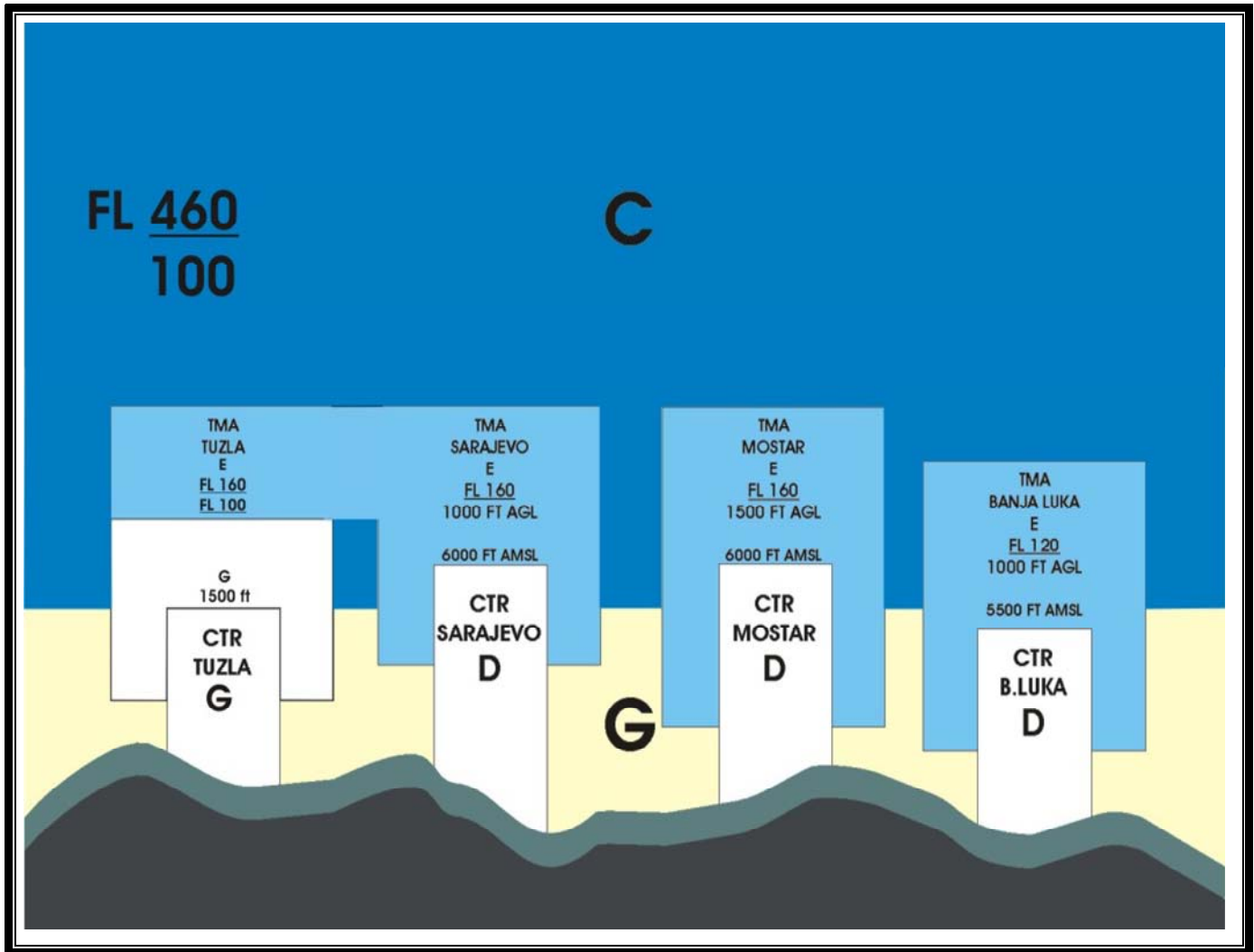
AIRSPACE CLASSES — SERVICES PROVIDED AND FLIGHT REQUIREMENTS

<i>Class</i>	<i>Type of flight</i>	<i>Separation provided</i>	<i>Service provided</i>	<i>Speed limitation*</i>	<i>Radio communication requirement</i>	<i>Subject to an ATC clearance</i>
A	IFR only	All aircraft	Air traffic control service	Not applicable	Continuous two-way	Yes
B	IFR	All aircraft	Air traffic control service	Not applicable	Continuous two-way	Yes
	VFR	All aircraft	Air traffic control service	Not applicable	Continuous two-way	Yes
C	IFR	IFR from IFR IFR from VFR	Air traffic control service	Not applicable	Continuous two-way	Yes
	VFR	VFR from IFR	1) Air traffic control service for separation from IFR; 2) VFR/VFR traffic information (and traffic avoidance advice on request)	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	Yes
D	IFR	IFR from IFR	Air traffic control service, traffic information about VFR flights (and traffic avoidance advice on request)	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	Yes
	VFR	Nil	IFR/VFR and VFR/VFR traffic information (and traffic avoidance advice on request)	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	Yes
E	IFR	IFR from IFR	Air traffic control service and, as far as practical, traffic information about VFR flights	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	Yes
	VFR	Nil	Traffic information as far as practical	250 kt IAS below 3 050 m (10 000 ft) AMSL	No	No
F	IFR	IFR from IFR as far as practical	Air traffic advisory service; flight information service	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	No
	VFR	Nil	Flight information service	250 kt IAS below 3 050 m (10 000 ft) AMSL	No	No
G	IFR	Nil	Flight information service	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	No
	VFR	Nil	Flight information service	250 kt IAS below 3 050 m (10 000 ft) AMSL	No	No

* When the height of the transition altitude is lower than 3 050 m (10 000 ft) AMSL, FL 100 should be used in lieu of 10 000 ft.

APPENDIX 2

CTA, TMAs and CTRs FIR Sarajevo



APPENDIX 3

TABLES OF CRUISING LEVELS

TRACK**											
From 000 degrees to 179 degrees***						From 180 degrees to 359 degrees***					
IFR Flights			VFR Flights			IFR Flights			VFR Flights		
Altitude			Altitude			Altitude			Altitude		
FL	Metres	Feet	FL	Metres	Feet	FL	Metres	Feet	FL	Metres	Feet
-90			-	-	-	0			-	-	-
10	300	1 000	-	-	-	20	600	2 000	-	-	-
30	900	3 000	35	1 050	3 500	40	1 200	4 000	45	1 350	4 500
50	1 500	5 000	55	1 700	5 500	60	1 850	6 000	65	2 000	6 500
70	2 150	7 000	75	2 300	7 500	80	2 450	8 000	85	2 600	8 500
90	2 750	9 000	95	2 900	9 500	100	3 050	10 000	105	3 200	10 500
110	3 350	11 000	115	3 500	11 500	120	3 650	12 000	125	3 800	12 500
130	3 950	13 000	135	4 100	13 500	140	4 250	14 000	145	4 400	14 500
150	4 550	15 000	155	4 700	15 500	160	4 900	16 000	165	5 050	16 500
170	5 200	17 000	175	5 350	17 500	180	5 500	18 000	185	5 650	18 500
190	5 800	19 000	195	5 950	19 500	200	6 100	20 000	205	6 250	20 500
210	6 400	21 000	215	6 550	21 500	220	6 700	22 000	225	6 850	22 500
230	7 000	23 000	235	7 150	23 500	240	7 300	24 000	245	7 450	24 500
250	7 600	25 000	255	7 750	25 500	260	7 900	26 000	265	8 100	26 500
270	8 250	27 000	275	8 400	27 500	280	8 550	28 000	285	8 700	28 500
290	8 850	29 000				300	9 150	30 000			
310	9 450	31 000				320	9 750	32 000			
330	10 050	33 000				340	10 350	34 000			
350	10 650	35 000				360	10 950	36 000			
370	11 300	37 000				380	11 600	38 000			
390	11 900	39 000				400	12 200	40 000			
410	12 500	41 000				430	13 100	43 000			
450	13 700	45 000				470	14 350	47 000			
490	14 950	49 000				510	15 550	51 000			
etc.	etc.	etc.				etc.	etc.	etc.			

* Except when, on the basis of regional air navigation agreements, a modified table of cruising levels based on a nominal vertical separation minimum of 300 m (1 000 ft) is prescribed for use, under specified conditions, by aircraft operating above FL 410 within designated portions of the airspace.

** Magnetic track, or in polar areas at latitudes higher than 70 degrees and within such extensions to those areas as may be prescribed by the appropriate ATS authorities, grid tracks as determined by a network of lines parallel to the Greenwich Meridian superimposed on a polar stereographic chart in which the direction towards the North Pole is employed as the Grid North.

*** Except where, on the basis of regional air navigation agreements, from 090 to 269 degrees and from 270 to 089 degrees is prescribed to accommodate predominant traffic directions and appropriate transition procedures to be associated therewith are specified.

Note.— Guidance material relating to vertical separation is contained in the Manual on Implementation of a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive (Doc 9574).

APPENDIX 4

VMC VISIBILITY AND DISTANCE FROM CLOUD MINIMA

Table 3-1*
(see 4.1)

Altitude band	Airspace class	Flight visibility	Distance from cloud
At and above 3 050 m (10 000 ft) AMSL	A*** B C D E F G	8 km	1 500 m horizontally 300 m (1 000 ft) vertically
Below 3 050 m (10 000 ft) AMSL and above 900 m (3 000 ft) AMSL, or above 300 m (1 000 ft) above terrain, whichever is the higher	A***B C D E F G	5 km	1 500 m horizontally 300 m (1 000 ft) vertically
At and below 900 m (3 000 ft) AMSL, or 300 m (1 000 ft) above terrain, whichever is the higher	A***B C D E	5 km	1 500 m horizontally 300 m (1 000 ft) vertically
	F G	5 km**	Clear of cloud and with the surface in sight

* When the height of the transition altitude is lower than 3 050 m (10 000 ft) AMSL, FL 100 should be used in lieu of 10 000 ft.

** When so prescribed by the appropriate ATS authority:

a) flight visibilities reduced to not less than 1 500 m may be permitted for flights operating:

- 1) at speeds that, in the prevailing visibility, will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision; or
- 2) in circumstances in which the probability of encounters with other traffic would normally be low, e.g. in areas of low volume traffic and for aerial work at low levels.

b) HELICOPTERS may be permitted to operate *in less than 1 500 m* flight visibility, if manoeuvred at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision.

***The VMC minima in Class A airspace are included for guidance to pilots and do not imply acceptance of VFR flights in Class A airspace.