

7 Pursuant to Article 4a paragraph 2, Article 24 paragraph 2 and Article 239 Air Transport Law ("Official Gazette of the Republic of Serbia", No. 73/10, 57/11, 93/12 and 45/15),

Director of the Civil Aviation Directorate of the Republic of Serbia hereby enacts

REGULATION
on rules of the air

Article 1
Scope

This Regulation lays down the rules of the air in general air traffic operated within the airspace of the Republic of Serbia, as well as the content, method for filing, changes to and closure of flight plans pertaining to general air traffic.

Where aircraft registered in the Republic of Serbia are flying within the airspace of another state, the air crew of such aircraft shall comply with the regulations governing rules of the air applicable to the airspace of that State, and where no such regulations exist, it shall comply with the provisions of this Regulation.

Flying of aircraft, registered in the Republic of Serbia above the sea where no states have sovereignty (open seas), is carried out in accordance with the provisions of this Regulation and international acts adopted under the Convention on International Civil Aviation, Chicago, 1944 (hereinafter: the Chicago Convention) regulating the procedure for flying above the open seas, which are also binding on the Republic of Serbia.

The provisions of this Regulation relate to air traffic service providers when operating within the airspace of the Republic of Serbia, as well as to personnel involved in aircraft operations.

Within the remit of this Regulations while adapting it to the law of the Republic of Serbia, Sections 1-5, 11 and 12, as well as Appendices 1-3 and 5 of the Annex to Commission Regulation (EU) No. 923/2012 of 26 September 2012 shall be hereby transposed.

Article 2
Definitions

The terms used in this Regulation have the following meanings:

- 1) Aeroplane means a heavier-than-air motor-powered aircraft, deriving lift mainly by aerodynamic reacting at the surface thereof which remain fixed in the given flight conditions;
- 2) Aircraft address means a unique combination of 24 bits available for assignment to an aircraft for the purpose of air-ground communications, navigation and surveillance;

3) Aerodrome means a defined area (including any buildings, installations and equipment) on land or water or on a fixed, fixed off-shore or floating structure intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft;

4) Aerodrome control tower means a unit established to provide air traffic control service to aerodrome traffic;

5) Aerodrome traffic means all traffic on the manoeuvring area of an aerodrome and all aircraft flying in the vicinity of an aerodrome.

Note: An aircraft operating in the vicinity of an aerodrome includes but is not limited to aircraft entering or leaving an aerodrome traffic circuit;

6) Aerodrome traffic circuit means the specified path to be flown by aircraft operating in the vicinity of an aerodrome;

7) Acrobatic flight means manoeuvres, intentionally performed by an aircraft involving an abrupt change in its attitude, an abnormal attitude, or an abnormal variation in speed, necessary for a regular flight or training for obtaining a licence or rating, excluding an acrobatic rating;

8) Alternate aerodrome means an aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the aerodrome of intended landing. Alternate aerodromes include the following:

(1) Take-off alternate means an alternate aerodrome at which an aircraft can land should this become necessary shortly after take-off and it is not possible to use the aerodrome of departure;

(2) En-route alternate means an aerodrome at which an aircraft would be able to land after experiencing an abnormal or emergency condition while en route;

(3) ETOPS en-route alternate means a suitable and appropriate alternate aerodrome at which an aeroplane would be able to land after experiencing an engine shutdown or other abnormal or emergency condition while en route in an ETOPS operation;

(4) Destination alternate means an alternate aerodrome to which an aircraft may proceed should it become either impossible or inadvisable to land at the aerodrome of intended landing;

9) Altitude means the vertical distance of a level, a point or an object considered as a point, measured from mean sea level (MSL);

10) Air traffic services reporting office means a unit established for the purpose of receiving reports concerning air traffic services and flight plans submitted before departure;

11) ATS route means a specified route designed for channelling the flow of traffic as necessary for the provision of air traffic services;

12) Automatic dependent surveillance - broadcast, ADS-B means a means by which aircraft, aerodrome vehicles and other objects can automatically transmit and/or receive data such as identification, position and additional data, as appropriate, in a broadcast mode via a data link;

13) Ceiling means the height above the ground or water of the base of the lowest layer of cloud below 6 000 m (20 000 ft) covering more than half the sky;

14) Current flight plan means the flight plan, including changes, if any, brought about by subsequent clearances;

15) Aircraft is any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface;

16) Airway means a control area or portion thereof established in the form of a corridor;

- 17) Air traffic means all aircraft in flight or operating on the manoeuvring area of an aerodrome;
- 18) Visibility means visibility for aeronautical purposes which is the greater of:
 - (1) the greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognised when observed against a bright background;
 - (2) the greatest distance at which lights in the vicinity of 1 000 candelas can be seen and identified against an unlit background;
- 19) Ground visibility means the visibility at an aerodrome, as reported by an accredited observer or by automatic;
- 20) Flight visibility means the visibility forward from the cockpit of an aircraft in flight;
- 21) Visual meteorological conditions (VMC) mean meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima;
- 22) Level means a generic term relating to the vertical position of an aircraft in flight and meaning variously, height, altitude or flight level;
- 23) Cruising level means a level maintained during a significant portion of a flight;
- 24) Pressure-altitude means an atmospheric pressure expressed in terms of altitude which corresponds to that pressure in the Standard Atmosphere, as defined in Annex 8, Part 1 to the Chicago Convention;
- 25) Pilot-in-command means the pilot operating the aircraft and charged with the safe conduct of the entirety of a flight;
- 26) Taxiing means movement of an aircraft on the surface of an aerodrome or an operating site under its own power, excluding take-off and landing;
- 27) VFR means the symbol used to designate the visual flight rules;
- 28) VFR flight means a flight conducted in accordance with the visual flight rules;
- 29) Data link communications means a system of communication over which data is transmitted;
- 30) Controller-pilot data link communications, CPDLC mean a means of communication between controller and pilot, using data link for ATC communications;
- 31) Prohibited area means a defined portion of airspace above a certain territory where flying is prohibited;
- 32) Significant point means a specified geographical location used in defining an ATS route or the flight path of an aircraft and for other navigation and ATS purposes;
- 33) Integrated Aeronautical Information Package means a package containing the following elements:
 - (1) AIP;
 - (2) Supplements to the AIP;
 - (3) NOTAM and PIB;
 - (4) AIC;
 - (5) checklists and lists of valid NOTAM;
- 34) IFR is an abbreviation used for indicating instrument flight rules;
- 35) IFR flight means flight conducted in accordance with instrument flight rules;

36) Air traffic services unit is a generic term meaning variously, air traffic control unit, flight information centre, aerodrome flight information service unit or air traffic services reporting office;

37) Air traffic control unit means a generic term meaning variously, area control centre, approach control unit or aerodrome control tower;

38) Sailplane means a heavier-than-air aircraft which is supported in flight by the dynamic reaction of the air against its fixed lifting surfaces, the free flight of which does not depend on an engine, including also hang gliders, paragliders and other comparable craft;

39) Code SSR means a number transmitted by a transponder in mode A or mode C when it is interrogated by a secondary surveillance radar (SSR);

40) Air-ground communication means a two-way communication between aircraft and stations or locations on the surface of the earth;

41) Control zone means a controlled airspace extending upwards from the surface of the earth to a specified upper limit;

42) Control area means a controlled airspace extending upwards from a specified limit above the earth;

43) Controlled aerodrome means an aerodrome at which air traffic control service is provided to aerodrome traffic regardless whether or not a control zone exists;

44) Controlled airspace means an airspace of defined dimensions within which air traffic control service is provided in accordance with the airspace classification;

45) Controlled flight means any flight which is subject to an air traffic control clearance;

46) Heading means the direction in which the longitudinal axis of an aircraft is pointed, usually expressed in degrees from North (true, magnetic, compass or grid);

47) Track means the projection on the earth's surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from North (true, magnetic or grid);

48) Manoeuvring area means that part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons;

49) Surveillance radar means radar equipment used to determine the position of an aircraft in range and azimuth.

Note – azimuth means an angle in a horizontal plane between north direction and direction of the object observed;

50) Flight level means a surface of constant atmospheric pressure which is related to a specific pressure datum, 1 013,2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals;

51) Night means the hours between the end of evening civil twilight and the beginning of morning civil twilight. Note - Civil twilight ends in the evening when the centre of the sun's disc is 6 degrees below the horizon and begins in the morning when the centre of the sun's disc is 6 degrees below the horizon.

52) Flight information region an airspace of defined dimensions within which flight information service and alerting service are provided;

53) Air traffic control clearance means an authorization for an aircraft to proceed under conditions specified by an air traffic control unit;

54) Danger area means an airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times;

55) Operating site means a site selected by the operator or pilot-in-command for landing, take-off and/or hoist operations.

56) Cruise climb means an aeroplane cruising technique resulting in a net increase in altitude as the aeroplane mass decreases;

57) Flight plan means specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft;

58) Apron means a defined area, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance;

59) Movement area means that part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron(s);

60) Landing area means that part of a movement area intended for the landing or take-off of aircraft;

61) Runway-holding position means a designated position intended to protect a runway, an obstacle limitation surface, or an ILS/MLS critical/sensitive area at which taxiing aircraft and vehicles shall stop and hold, unless otherwise authorised by the aerodrome control tower;

62) Runway means a defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft;

58) Aerial work means an aircraft operation in which an aircraft is used for specialised services such as agriculture, construction, photography, surveying, observation and patrol, search and rescue, aerial advertisement, etc.;

59) Instrument approach procedure (IAP) means a series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en-route obstacle clearance criteria apply. Instrument approach procedures are classified as follows:

(1) Non-precision approach (NPA) procedure means an instrument approach procedure which utilises lateral guidance but does not utilise vertical guidance;

(2) Approach procedure with vertical guidance (APV) means an instrument procedure which utilises lateral and vertical guidance but does not meet the requirements established for precision approach and landing operations;

(3) Precision approach (PA) procedure means an instrument approach procedure using precision lateral and vertical guidance with minima as determined by the category of operation;

65) Threshold means the beginning of that portion of the runway usable for landing;

66) Estimated off-block time means the estimated time at which the aircraft will commence movement associated with departure;

67) Estimated elapsed time means the estimated time required to proceed from one significant point to another;

68) Transition altitude means the altitude at or below which the vertical position of an aircraft is controlled by reference to altitudes;

69) Obstacle means all fixed (whether temporary or permanent) and mobile objects, or parts thereof, that:

- are located on an area intended for the surface movement of aircraft, or
- extend above a defined surface intended to protect aircraft in flight, or
- stand outside those defined surfaces and that have been assessed as being a hazard to air navigation;

70) Radar means a radio detection device which provides information on range, azimuth and/or elevation of objects;

71) Height means the vertical distance of a level, a point or an object considered as a point, measured from a specified datum;

72) Taxiway means a defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another, including:

- (1) Aircraft stand taxilane means a portion of an apron designated as a taxiway and intended to provide access to aircraft stands only.
- (2) Apron taxiway means a portion of a taxiway system located on an apron and intended to provide a through taxi route across the apron.
- (3) Rapid exit taxiway means a taxiway connected to a runway at an acute angle and designed to allow landing aeroplanes to turn off at higher speeds than are achieved on other exit taxiways thereby minimising runway occupancy times;

73) Advisory route means a designated route along which air traffic advisory service is available;

74) Air traffic advisory service a service provided within advisory airspace to ensure separation, insofar as practical, between aircraft which are operating on IFR flight plans;

75) Advisory airspace means an airspace of defined dimensions, or designated route, within which air traffic advisory service is available;

76) Aerodrome traffic zone means an airspace of defined dimensions established around an aerodrome for the protection of aerodrome traffic;

77) Secondary surveillance radar (SSR) means a surveillance radar system which uses transmitters/receivers (interrogators) and transponders;

78) Signal area means an area on an aerodrome used for the display of ground signals;

79) Airborne collision avoidance system, ACAS means an aircraft system based on secondary surveillance radar (SSR) transponder signals which operates independently of ground-based equipment to provide advice to the pilot on potential conflicting aircraft that are equipped with SSR transponders;

80) Repetitive flight plan means a flight plan related to a series of frequently recurring, regularly operated individual flights with identical basic features, submitted by an operator for retention and repetitive use by ATS units;

81) Unmanned free balloon means a non-power-driven, unmanned, lighter-than-air aircraft in free flight;

82) Special VFR flight 'VFR flight' means a VFR flight cleared by air traffic control to operate within a control zone in meteorological conditions below VMC;

83) Territory means the land areas and territorial waters adjacent thereto under the sovereignty, suzerainty, protection or mandate of a State;

84) Total estimated elapsed time means:

(1) for IFR flights, the estimated time required from take-off to arrive over that designated point, defined by reference to navigation aids, from which it is intended that an instrument approach procedure will be commenced, or, if no navigation aid is associated with the destination aerodrome, to arrive over the destination aerodrome;

(2) for VFR flights, the estimated time required from take-off to arrive over the destination aerodrome;

85) Restricted area means an airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions;

86) Flight information service (FIS) means a service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights;

87) Air traffic control service means services provided for:

(1) Preventing collisions between: two aircraft and an aircraft and an obstacle on the manoeuvring area; and

(2) Providing expedient and orderly air traffic flow;

88) Alerting service means a service provided to notify appropriate organisations regarding aircraft in need of search and rescue aid, and assist such organisations as required;

89) Air traffic service (ATS) means a generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service);

90) Helicopter means a heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.

Article 3

Compliance with the rules of the air

The operation of an aircraft in flight, on the movement area of an aerodrome or at an operating site, must be in accordance with the general rules of flying, the rules for visual or instrumental flying prescribed by this Regulation and the regulations of the States in whose territory the aircraft is operated.

Article 4

The responsibilities of the pilot-in-command

The pilot-in-command has the responsibility to make ultimate decisions regarding the operation of aircraft while performing the duties of the pilot-in-command.

The pilot-in-command, whether manipulating the controls or not, shall be responsible for the operation of the aircraft in accordance with this Regulation, except that the pilot-in-command may depart from these rules in circumstances that render such departure absolutely necessary in the interests of safety.

Article 5
Pre-flight action

Prior to commencing a flight, the pilot-in-command of an aircraft shall become familiar with all available information appropriate to the intended operation.

When preparing an instrument flight and a flight not carried out in the vicinity of an aerodrome, the pilot-in-command must carefully study current weather reports and forecasts taking into consideration fuel requirements and an alternative course of action if the flight cannot be completed as planned.

Article 6
Protection of persons and property

The aircraft must be operated in such a manner so as to avoid negligence, or reckless manner so as to endanger life or property of others.

Article 7
Minimum heights

Except when necessary for take-off or landing, or except by permission from the Civil Aviation Directorate of the Republic of Serbia (Directorate), aircraft shall not be flown over the congested areas of cities, towns or settlements or over an open-air assembly of persons, unless at such a height as will permit, in the event of an emergency arising, a landing to be made without undue hazard to persons or property on the surface.

Article 8
Cruising levels

The cruising levels at which a flight or a portion of a flight is to be conducted shall be in terms of:

- (a) Flight levels, for flights at or above the lowest usable flight level or, where applicable, above the transition altitude;
- (b) Altitudes, for flights below the lowest usable flight level or, where applicable, at or below the transition altitude.

Article 9
Towing

An airplane intended for aircraft or other objects towing may tow an aircraft or another object using a towing trailer, if the requirements in this Regulation are met, including the regulation on airmen.

One airplane may tow up to two aircraft, where the total length of the trailers towed must not exceed 150 m.

Flight plan must include the information of all aircraft comprising the trailers towed.

Article 10

Parachute descents

Except where aircrew must leave the aircraft in danger or as specifically approved by the Directorate, parachute descents shall not be deployed:

- 1) in the controlled area;
- 2) in the traffic zone of an aerodrome during the working hours of the aerodrome;
- 3) at the height below 400 *m* above terrain or an obstacle;
- 4) in or above clouds, if the distance between the upper edge of the cloud and the height determined for jumping less than 200 *m*;
- 5) In rain, snow, fog and haze.

Article 11

Aerobatic flight

Aerobatic flights shall only be carried out in accordance with the requirements in the aircraft operations manual.

Aerobatic flights are carried out clear of airways in accordance with the visual flight rules (*VFR*).

Aerobatic flights must not be carried out above urban, semi-urban areas, industrial facilities and larger gatherings of people outdoors, including heights less than 450 *m* (1.500 *ft*) above ground.

Notwithstanding paragraph 3 of this Article, the Directorate may approve lower altitudes for aerobatic flights, taking into account the aircraft safety, including the safety of persons and property, while the approval must contain requirements for the aerobatic flight in question.

A pilot performing the aerobatic flight must not perform the flight at air displays unless the pilot performed an aerobatic flight on the same aircraft type or class within the period of 90 days prior to the intended time of air display.

Article 12

Formation flights

Aircraft shall be flown in formation if such flights and the method of conducting are subject to pre-arrangement among the pilots-in-command of the aircraft taking part in the flight.

Formation flights are allowed in *VMC* only.

If formation flights are flown in controlled airspace, the following conditions shall be met including those from the paragraph 1 of this Article:

- 1) one of the pilots-in-command shall be designated as the flight leader;
- 2) the formation operates as a single aircraft with regard to navigation and position reporting;
- 3) separation between aircraft in the flight shall be the responsibility of the flight leader and the pilots-in-command of the other aircraft in the flight and shall include periods of transition when aircraft are manoeuvring to attain their own separation within the formation and during join-up and breakaway;
- 4) a distance not exceeding 1 km (0.5 NM) laterally and longitudinally and 30 m (100 ft) vertically from the flight leader shall be maintained by each aircraft. State aircraft shall maintain maximal horizontal and vertical distance between each aircraft and formation leader as prescribed by Chicago Convention.

Article 13 **Unmanned free balloons**

An unmanned free balloon shall be operated in such a manner as to minimise hazards to persons, property or other aircraft and in accordance with the conditions specified in Appendix 2.

Article 14 **Prohibited areas and restricted areas**

Aircraft shall not be flown in a prohibited area.

Flying of aircraft within the restricted area shall be permitted in accordance with the requirements defined by the competent authority under the provisions of the air transport act.

Prohibited and restricted areas are published in the integrated aeronautical information package.

Article 15 **Avoidance of collisions**

Nothing in this Regulation shall relieve the pilot-in-command of an aircraft from the responsibility of taking such action, including collision avoidance manoeuvres based on resolution advisories provided by ACAS equipment, as will best avert collision.

Article 16 **Proximity**

An aircraft shall not be operated in such proximity to other aircraft as to create a collision hazard.

Article 17

Right-of-way

The aircraft that has the right-of-way shall maintain its heading and speed.

Pilot-in-command shall give way to another aircraft if aware of the fact that the manoeuvring capabilities of another pilot-in-command are impaired.

Pilot-in-command that is obliged by the following rules to keep out of the way of another shall avoid passing over, under or in front of the other aircraft, unless it passes well clear and takes into account the effect of aircraft wake turbulence.

Article 18 Approaching head-on

When two aircraft are approaching head-on or approximately so and there is danger of collision, each shall alter its heading to the right.

Article 19 Converging

When two aircraft are converging at approximately the same level, the aircraft that has the other on its right shall give way, except as follows:

- 1) power-driven heavier-than-air aircraft shall give way to airships, sailplanes and balloons;
- 2) airships shall give way to sailplanes and balloons;
- 3) sailplanes shall give way to balloons;
- 4) Power-driven aircraft shall give way to aircraft which are seen to be towing other aircraft or objects.

Article 20 Overtaking

An overtaking aircraft is an aircraft that approaches another from the rear on a line forming an angle of less than 70 degrees with the plane of symmetry of the latter, i.e. is in such a position with reference to the other aircraft that at night it should be unable to see either of the aircraft's left (port) or right (starboard) navigation lights.

An aircraft that is being overtaken has the right-of-way and the overtaking aircraft, whether climbing, descending or in horizontal flight, shall keep out of the way of the other aircraft by altering its heading to the right, and no subsequent change in the relative positions of the two aircraft shall absolve the overtaking aircraft from the obligation in paragraph (2) until it is entirely past and clear.

A sailplane overtaking another sailplane may alter its course to the right or to the left.

Article 21
Landing, emergency landing and take-off

An aircraft in flight, or operating on the ground or water, shall give way to aircraft landing or in the final stages of an approach to land.

When two or more heavier-than-air aircraft are approaching an aerodrome or an operating site for the purpose of landing, aircraft at the higher level shall give way to aircraft at the lower level, but the latter shall not take advantage of this rule to cut in front of another which is in the final stages of an approach to land, or to overtake that aircraft.

Nevertheless, power-driven heavier-than-air aircraft shall give way to sailplanes. An aircraft that is aware that another is compelled to land shall give way to that aircraft.

An aircraft taxiing on the manoeuvring area of an aerodrome shall give way to aircraft taking off or about to take off.

Article 22
Surface movement of aircraft and manoeuvring area

In case of danger of collision between two aircraft taxiing on the movement area of an aerodrome or equivalent part of an operating site, the following shall apply:

- 1) when two aircraft are approaching head on, or approximately so, each shall stop or where practicable alter its course to the right so as to keep well clear;
- 2) when two aircraft are on a converging course, the one which has the other on its right shall give way;
- 3) an aircraft which is being overtaken by another aircraft shall have the right-of-way and the overtaking aircraft shall keep well clear of the other aircraft.

At a controlled aerodrome an aircraft taxiing on the manoeuvring area shall stop and hold at all runway-holding positions unless an explicit clearance to enter or cross the runway has been issued by the aerodrome control tower.

An aircraft taxiing on the manoeuvring area shall stop and hold at all lighted stop bars and may proceed further in accordance with paragraph 2 of this Article when the lights are switched off.

Article 23
Movement of persons and vehicles at aerodromes

The movement of persons or vehicles, including towed aircraft, on the manoeuvring area of an aerodrome shall be controlled by the aerodrome control tower as necessary to avoid hazard to them or to aircraft landing, taxiing or taking off. In conditions where low visibility procedures are in operation:

- 1) persons and vehicles operating on the manoeuvring area of an aerodrome shall be restricted to the essential minimum, and particular regard shall be given to the requirements to protect the ILS/MLS sensitive area(s) when Category II or Category III precision instrument operations are in progress;
- 2) the minimum separation between vehicles and taxiing aircraft shall be as specified by the Air Navigation Service Provider (ANSP) and approved by the Directorate taking into account the aids available;
- 3) when mixed ILS and MLS Category II or Category III precision instrument operations are taking place to the same runway continuously, the more restrictive ILS or MLS critical and sensitive areas shall be protected.

Emergency vehicles proceeding to the assistance of an aircraft in distress shall be afforded priority over all other surface movement traffic.

Vehicles on the manoeuvring area shall be required to comply with the following rules:

- 1) vehicles and vehicles towing aircraft shall give way to aircraft which are landing, taking off, taxiing or being towed;
- 2) vehicles shall give way to other vehicles towing aircraft;
- 3) vehicles shall give way to other vehicles in accordance with air traffic services unit instructions;
- 4) notwithstanding the provisions of 1-3) above, vehicles and vehicles towing aircraft shall comply with instructions issued by the aerodrome control tower.

Article 24

Mandatory lights to be displayed by aircraft

At night all aircraft in flight shall display:

- 1) anti-collision lights, and
- 2) navigation lights intended to indicate the relative path of the aircraft to an observer and other lights shall not be displayed if they are likely to be mistaken for these lights, or
- 3) in the case of balloons, position lights.

All aircraft shall display at night:

- 1) while moving on the movement area of an aerodrome navigation the lights intended to indicate the relative path of the aircraft to an observer and other lights shall not be displayed if they are likely to be mistaken for these lights;
- 2) on the movement area of an aerodrome, the lights intended to indicate the extremities of their structure, as far as practicable, unless stationary and otherwise adequately illuminated;
- 3) if they are taxiing or being towed on the movement area of an aerodrome the lights intended to attract attention to the aircraft;
- 4) on the movement area of an aerodrome whose engines are running the lights which indicate that fact.

Aircraft in flight and fitted with anti-collision lights shall display them also during the day. All aircraft shall display such lights also during day:

- 1) taxiing or being towed on the movement area of an aerodrome and fitted with anti-collision lights, to meet the requirement of (2)(3) of this Article; or
- 2) on the movement area of an aerodrome and fitted with lights to meet the requirement of (b) (4) of this Article.

Notwithstanding 1-4, a pilot shall be permitted to switch off or reduce the intensity of any flashing lights fitted if they do or are likely to adversely affect the satisfactory performance of duties, or subject an outside observer to harmful dazzle.

Article 25

Simulated instrument flights

An aircraft shall not be flown under simulated instrument flight conditions unless:

- 1) fully functioning dual controls are installed in the aircraft; and
- 2) an additional qualified pilot (in this rule called a safety pilot) occupies a control seat to act as safety pilot for the person who is flying under simulated instrument conditions. The safety pilot shall have adequate vision forward and to each side of the aircraft, or a competent observer in communication with the safety pilot shall occupy a position in the aircraft from which the observer's field of vision adequately supplements that of the safety pilot.

Article 26

Operation on and in the vicinity of an aerodrome

A pilot operating an aircraft on an aerodrome or its vicinity shall:

- 1) observe other aerodrome traffic for the purpose of avoiding collision;
- 2) conform with or avoid the pattern of traffic formed by other aircraft in operation;
- 3) except for balloons, make all turns to the left, when approaching for a landing and after taking off, unless otherwise indicated, or instructed by ATC;
- 4) except for balloons, land and take off into the wind unless safety, the runway configuration, or air traffic considerations determine that a different direction is preferable.

Article 27

Water operations

When two aircraft or an aircraft and a vessel are approaching one another and there is a risk of collision, the aircraft shall proceed with careful regard to existing circumstances and conditions including the limitations of the respective craft.

In case of converging of an aircraft and another aircraft or a vessel right of way shall be given to the aircraft coming from the right, making sure that safe distance is maintained between them.

An aircraft approaching another aircraft or a vessel head-on, or approximately so, shall alter its heading to the right making sure that safe distance is maintained between them.

The aircraft or vessel which is being overtaken has the right of way, and the one overtaking shall alter its heading making sure that safe distance is maintained between them.

Aircraft landing on or taking off from the water shall, in so far as practicable, keep well clear of all vessels and avoid impeding their navigation.

At night all aircraft on the water shall display lights as required by the Convention on the International Regulations for Preventing Collisions at Sea, 1972, unless it is impractical for them to do so, in which case they shall display lights as closely similar as possible in characteristics and position to those required by the International Regulations.

Article 28

Signals

Upon observing or receiving any of the signals given in Appendix 1, aircraft shall take such action as may be required by the interpretation of the signal given in that Appendix.

The signals of Appendix 1 shall, when used, have the meaning indicated therein. They shall be used only for the purpose indicated and no other signals likely to be confused with them shall be used.

A person giving signals (hereinafter signalman/marshaller) shall be responsible for providing standard marshalling signals to aircraft in a clear and precise manner using the signals shown in Appendix 1.

Only persons trained, qualified and approved as required by the relevant Union or national legislation shall carry out the functions of a signalman/marshaller.

The signalman/marshaller shall wear a distinctive fluorescent identification vest to allow the flight crew to identify that he or she is the person responsible for the marshalling operation.

Daylight-fluorescent wands, table-tennis bats or gloves shall be used for all signalling by all participating ground staff during daylight hours. Illuminated wands shall be used at night or in low visibility.

Article 29

Time

Coordinated Universal Time (UTC) shall be used and shall be expressed in hours and minutes and, when required, seconds of the 24-hour day beginning at midnight.

A time check shall be obtained prior to operating a controlled flight and at such other times during the flight as may be necessary.

Wherever time is utilised in the application of data link communications, it shall be accurate to within 1 second of UTC.

Aerodrome control towers shall, prior to an aircraft taxiing for take-off, provide the pilot with the correct time, unless arrangements have been made for the pilot to obtain it from other sources.

Air traffic services units shall, in addition, provide aircraft with the correct time on request. Time checks shall be given at least to the nearest minute.

Article 30

Flight plans

Information relative to an intended flight or portion of a flight, to be provided to air traffic services units, shall be in the form of a flight plan.

Flight plan contains full information for the flight in its entirety or a limited number of information required to obtain clearance for a minor portion of a flight such as to cross an airway, to take off from, or to land at a controlled aerodrome.

Article 31

Flight plan submission

A flight plan shall be submitted prior to operating:

- 1) any flight or portion thereof to be provided with air traffic control service;
- 2) any IFR flight within advisory airspace;
- 3) any flight within or into areas, or along routes designated by the competent authority, to facilitate the provision of flight information, alerting and search and rescue services;
- 4) any flight within or into areas or along routes designated by the competent authority, to facilitate coordination with appropriate military units or with air traffic services units in adjacent States in order to avoid the possible need for interception for the purpose of identification;
- 5) any flight across international borders, unless otherwise prescribed by the States concerned;
- 6) any flight planned to operate at night, if leaving the vicinity of an aerodrome.

A flight plan shall be submitted, before departure, to an air traffic services reporting office or, during flight, transmitted to the appropriate air traffic services unit or air-ground control radio station, unless arrangements have been made for submission of repetitive flight plans.

A flight plan shall be submitted, before departure, to an air traffic services reporting office or, during flight, transmitted to the appropriate air traffic services unit or air-ground control radio station, unless arrangements have been made for submission of repetitive flight plans.

A flight plan for any flight planned to operate across international borders or to be provided with air traffic control service or air traffic advisory service shall be submitted at least sixty minutes before departure, or, if submitted during flight, at a time which will ensure its receipt by the appropriate air traffic services unit at least ten minutes before the aircraft is estimated to reach:

- 1) the intended point of entry into a control area or advisory area; or

- 2) the point of crossing an airway or advisory route.

A flight plan for a flight intended to be operated within the airspace of the republic of Serbia shall be submitted 30 minutes prior to take-off at the latest.

Article 32

Contents of a flight plan

A flight plan shall comprise the following information:

- 1) Aircraft identification;
- 2) Flight rules and type of flight;
- 3) Number and type(s) of aircraft and wake turbulence category;
- 4) Equipment;
- 5) Departure aerodrome or operating site;
- 6) Estimated off-block time;
- 7) Cruising speed(s);
- 8) Cruising level(s);
- 9) Route to be followed;
- 10) Destination aerodrome or operating site and total estimated elapsed time;
- 11) Alternate aerodrome(s) or operating site(s);
- 12) Fuel endurance;
- 13) Total number of persons on board;
- 14) Emergency and survival equipment;
- 15) Other information.

For flight plans submitted during flight, the departure aerodrome or operating site provided shall be the location from which supplementary information concerning the flight may be obtained, if required. Additionally, the information to be provided in lieu of the estimated off-block time shall be the time over the first point of the route to which the flight plan relates.

A flight plan shall contain information in paragraph (1) above for the whole route or portion thereof for which the flight plan is submitted.

Article 33

Changes to a flight plan

All changes to a flight plan submitted for an IFR flight, or a VFR flight operated as a controlled flight, shall be reported as soon as practicable to the appropriate air traffic services unit.

For other VFR flights, significant changes to a flight plan shall be reported as soon as practicable to the appropriate air traffic services unit.

Information submitted prior to departure regarding fuel endurance or total number of persons carried on board, if incorrect at time of departure, constitutes a significant change to the flight plan and as such shall be reported.

Article 34

Closing a flight plan

An arrival report shall be made in person, by radiotelephony, via data link or by other means as prescribed by the competent authority at the earliest possible moment after landing, to the appropriate air traffic services unit at the arrival aerodrome, by any flight for which a flight plan has been submitted covering the entire flight or the remaining portion of a flight to the destination aerodrome.

Submission of an arrival report is not required after landing on an aerodrome where air traffic services are provided on condition that radio communication or visual signals indicate that the landing has been observed.

When a flight plan has been submitted only in respect of a portion of a flight, other than the remaining portion of a flight to destination, it shall, when required, be closed by an appropriate report to the relevant air traffic services unit.

When no air traffic services unit exists at the arrival aerodrome or operating site, the arrival report, when required, shall be made as soon as practicable after landing and by the quickest means available to the nearest air traffic services unit.

When communication facilities at the arrival aerodrome or operating site are known to be inadequate and alternate arrangements for the handling of arrival reports on the ground are not available, the following action shall be taken. Immediately prior to landing the aircraft shall, if practicable, transmit to the appropriate air traffic services unit, a message comparable to an arrival report, where such a report is required. Normally, this transmission shall be made to the aeronautical station serving the air traffic services unit in charge of the flight information region in which the aircraft is operated.

Article 35

VMC visibility and distance from cloud minima

VMC visibility and distance from cloud minima are contained in Table 1 of this Regulation.

Table 1.*

Altitude band	Airspace class	Flight visibility	Distance from cloud
At and above 3 050 m (10 000 ft) AMSL	<i>A**B C D E F G</i>	<i>8 km</i>	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	<i>A**B C D E F G</i>	<i>5 km</i>	1 500 m horizontally 300 m (1 000 ft) vertically
At and below 900 m (3 000 ft) AMSL, or 300 m	<i>A**B C D E</i>	<i>5 km</i>	1 500 m horizontally 300 m (1 000 ft) vertically

(1 000 ft) above terrain, whichever is the higher	<i>F G</i>	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 shall be used in lieu of 10 000 ft.

** 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.

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

- at speeds of 140 kts IAS or less to give adequate opportunity to observe other traffic or any obstacles in time to avoid collision; or

- 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.

(6) Helicopters may be permitted to operate in less than 1 500 m but not less than 800 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. Flight visibilities lower than 800 m may be permitted for special cases, such as medical flights, search and rescue operations and fire-fighting.

Article 36

Visual flight rules

Except when operating as a special VFR flight, VFR flights shall be conducted so that the aircraft is flown in conditions of visibility and distance from clouds equal to or greater than those specified in Table 1.

Except when a special VFR clearance is obtained from an air traffic control unit, VFR flights shall not take off or land at an aerodrome within a control zone, or enter the aerodrome traffic zone or aerodrome traffic circuit when the reported meteorological conditions at that aerodrome are below the following minima:

1) the ceiling is less than 450 m (1 500 ft); or

2) the ground visibility is less than 5 km.

Article 37

VFR flights at night

VFR flights at night may be operated under the following conditions:

1) if leaving the vicinity of an aerodrome, a flight plan shall be submitted in accordance with Article 31, para 1 point 6 of this Regulation;

2) flights shall establish and maintain two-way radio communication on the appropriate ATS communication channel, when available;

3) the VMC visibility and distance from cloud minima as specified in Table 1 shall apply except that:

(1) the ceiling shall not be less than 450 m (1 500 ft);

- (2) except as specified in (4), the reduced flight visibility provisions specified in Table 1(a) and (b) shall not apply;
 - (3) in airspace classes B, C, D, E, F and G, at and below 900 m (3 000 ft) above MSL or 300 m (1 000 ft) above terrain, whichever is the higher, the pilot shall maintain continuous sight of the surface;
 - (4) for helicopters in airspace classes F and G at and below 900 m (3 000 ft) above MSL or 300 m (1 000 ft) above terrain, whichever is the higher, flight visibility shall not be less than 3 km, provided that the pilot maintains continuous sight of the surface and if manoeuvred at a speed that will give adequate opportunity to observe other traffic or obstacles in time to avoid collision; and;
- 4) ceiling, visibility and distance from cloud minima lower than those specified in (3) may be permitted for helicopters in special cases, such as medical flights, search and rescue operations and fire-fighting;
- 5) except when necessary for take-off or landing, or except when specifically authorised by the competent authority, a VFR flight at night shall be flown at a level which is not below the minimum flight altitude established by the State whose territory is overflown, or, where no such minimum flight altitude has been established:
- (1) over high terrain or in mountainous areas, at a level which is at least 600 m (2 000 ft) above the highest obstacle located within 8 km of the estimated position of the aircraft;
 - (2) elsewhere than as specified in i), at a level which is at least 300 m (1 000 ft) above the highest obstacle located within 8 km of the estimated position of the aircraft.

Article 38

VFR – Minimal heights

Except when necessary for take-off or landing, or except by permission from by the Directorate, VFR flights shall not be operated:

- 1) over the congested areas of cities, towns or settlements or over an open-air assembly of persons at a height less than 300 m (1 000 ft) above the highest obstacle within a radius of 600 m from the aircraft;
- 2) elsewhere than as specified in (1), at a height less than 150 m (500 ft) above the ground or water, or 150 m (500 ft) above the highest obstacle within a radius of 150 m (500 ft) from the aircraft.

Article 39

VFR flights at the cruising levels

Except where otherwise indicated in air traffic control clearances or specified by the competent authority, VFR flights in level cruising flight when operated above 900 m (3 000 ft) from the ground or water, or a higher datum as specified by the competent authority, shall be

conducted at a cruising level appropriate to the track as specified in the table of cruising levels in Appendix 3.

VFR flights shall comply with the provisions of the secondary legislation on:

- 1) when operated within Classes B, C and D airspace;
- 2) when forming part of aerodrome traffic at controlled aerodromes, or
- 3) when operated as special VFR flights.

Article 40

Change from IFR flight to VFR flight

Air crew of an aircraft flying under the visual flight rules within or to areas or along the routes as approved by the competent authority in accordance with Article 31. 1. (3) or (4) of this Regulation, must at all times maintain an air-ground voice communication watch on the appropriate communication channel and, as necessary, report its position to the *ATS* unit providing the flight information services.

If the pilot-in-command is flying under the visual flight rules, and wants to make a change from the VFR to IFR, he must:

- 1) call in the changes to be entered into the current flight plan; or
- 2) in accordance with Article 31 (1) of this Regulation, submit the flight plan to the responsible *ATS* unit as soon as practicable and get the clearance prior to continuing the flight under the instrumental flight rules when in controlled airspace.

Article 41

Special VFR in control zones

Special VFR flights may be authorised to operate within a control zone, subject to an ATC clearance.

Conditions under paragraph 1 of this Article shall be applied alongside with the following additional conditions:

1) for pilots:

- (1) clear of cloud and with the surface in sight;
- (2) the flight visibility is not less than 1 500 m or, for helicopters, not less than 800 m;
- (3) the flight to be operated at speed of 140 kts IAS or less to give adequate opportunity to observe other traffic and any obstacles in time to avoid a collision;

2) for ATC:

- (1) during day only, unless otherwise permitted by the competent authority;
- (2) the ground visibility is not less than 1 500 m or, for helicopters, not less than 800 m;
- (3) the ceiling is not less than 180 m (600 ft).

Notwithstanding paragraph 2 of this Article, medical flights, search and rescue operations, flights operated for the firefighting purpose, including the helicopter flights may be operated under the conditions as approved by the Directorate.

Article 42
IFR – aircraft equipment

Aircraft shall be equipped with suitable instruments and with navigation equipment appropriate to the route to be flown and in accordance with the applicable air operations legislation.

Article 43
IFR – Minimum levels

An IFR flight shall be flown at a level which is not below the minimum flight, except when necessary for take-off or landing, or or except when specifically authorised by the Directorate.

Where minimal altitude has not been established, *IFR* flight shall be flown:

- 1) over high terrain or in mountainous areas, at a level which is at least 600 m (2 000 ft) above the highest obstacle located within 8 km of the estimated position of the aircraft;
- 2) elsewhere than as specified in (1), at a level which is at least 300 m (1 000 ft) above the highest obstacle located within 8 km of the estimated position of the aircraft.

Article 44
Change from IFR flight to VFR flight

An aircraft electing to change the conduct of its flight from compliance with the instrument flight rules to compliance with the visual flight rules shall notify the appropriate air traffic services unit specifically that the IFR flight is cancelled and communicate thereto the changes to be made to its current flight plan.

When an aircraft operating under the instrument flight rules is flown in or encounters visual meteorological conditions it shall not cancel its IFR flight unless it is anticipated, and intended, that the flight will be continued for a reasonable period of time in uninterrupted visual meteorological conditions.

Article 45
Rules applicable to IFR flights within controlled airspace

IFR flights shall comply with the provisions of the regulation establishing the provision of the air navigation services when operated in controlled airspace IFR.

An IFR flight operating in cruising flight in controlled airspace shall be flown at a cruising level or, if authorised by ATS unit to employ cruise climb techniques, the IFR may be flown between two flight levels or above the level in the table of cruising levels in Appendix 3 to this Regulation.

The correlation of levels to track prescribed in Appendix 3 to this Regulation shall not apply if otherwise indicated in air traffic control clearances or specified in *AIP*.

Article 46

IFR outside controlled airspace

An IFR flight operating in level cruising flight outside of controlled airspace shall be flown at a cruising level appropriate to its track as specified in the table of cruising levels in Appendix 3, except when otherwise specified by the competent authority for flight at or below 900 m (3 000 ft) above mean sea level.

Article 47

Communications

An IFR flight operating outside controlled airspace but within or into areas, or along routes, designated by the competent authority in accordance with Article 31. 1. (3) or (4) of this Regulation, shall maintain an air-ground voice communication watch on the appropriate communication channel and establish two-way communication, as necessary, with the air traffic services unit providing flight information service.

Article 48

Position reports

An IFR flight operating outside controlled airspace and required by the competent authority to maintain an air-ground voice communication watch on the appropriate communication channel and establish two-way communication, as necessary, with the air traffic services unit providing flight information service, shall report position.

Article 49

Unlawful interference

An aircraft which is being subjected to unlawful interference shall endeavour to set the transponder to Code 7500 and notify the appropriate ATS unit of, any significant circumstances associated therewith and any deviation from the current flight plan necessitated by the circumstances, in order to enable the ATS unit to give priority to the aircraft and to minimise conflict with other aircraft.

If an aircraft is subjected to an act of unlawful interference, the pilot-in-command shall attempt to land as soon as practicable at the nearest suitable aerodrome or at a dedicated aerodrome assigned by the competent authority unless considerations aboard the aircraft dictate otherwise.

If an on ground aircraft is subjected to an act of unlawful interference, the aircrew shall terminate all action regarding take-off until the act of an unlawful interference stops, unless considerations aboard the aircraft dictate otherwise.

Article 50

Aircraft interception

Interception of aircraft within the airspace of the Republic of Serbia, as a radical measure, shall be carried out:

- 1) for the purpose of the identification of an aircraft;
- 2) if necessary to escort the intercepted aircraft to its planed route;
- 3) if necessary to escort the intercepted aircraft outside the limits of the airspace of the Republic of Serbia;
- 4) if necessary to escort the intercepted aircraft away from the restricted, prohibited or danger area, or densely populated area; or
- 5) if necessary to escort the intercepted aircraft to land on the intended aerodrome.

Interception and escorting of aircraft may be carried out at the request of the aircrew of an aircraft in distress.

Interception exercise may be carried out with prior arrangement made with the pilot-in-command and if the responsible ATC unit is notified accordingly.

Instruction for proceeding with the flight and other appropriate information are transmitted to the intercepted aircraft by way of radio-link if it can be established.

If it is required from aircraft to land in the territory of the Republic of Serbia, the aerodrome intended for landing must be such as to enable safe landing for that particular type of aircraft.

Article 51

Responsibilities of PIC

The pilot-in-command of the intercepted aircraft shall:

- 1) immediately follow the instructions given by the intercepting aircraft, interpreting and responding to visual signals in accordance with the specifications in tables 2 and 3 of the Regulation;
- 2) notify, if possible, the appropriate air traffic services unit;

- 3) attempt to establish radio-communication with the intercepting aircraft or with the appropriate intercept control unit, by making a general call on the emergency frequency 121,5 MHz, giving the identity of the intercepted aircraft and the nature of the flight; and if no contact has been established and if practicable, repeating this call on the emergency frequency 243 MHz;
- 4) if equipped with SSR transponder, select Mode A, Code 7700, unless otherwise instructed by the appropriate air traffic services unit;
- 5) if equipped with ADS-B or ADS-C, select the appropriate emergency functionality, if available, unless otherwise instructed by the appropriate air traffic services unit.

Table 2
Signals initiated by intercepting aircraft and responses by intercepted aircraft

Series	INTERCEPTING Aircraft Signals	Meaning	INTERCEPTED Aircraft Responds	Meaning
1.	DAY or NIGHT — Rocking aircraft and flashing navigational lights at irregular intervals	You have been intercepted. Follow me.	DAY or NIGHT — Rocking aircraft,	Understood, will comply.
	(and landing lights in the case of a helicopter) from a position slightly above and ahead of, and normally to the left of, the intercepted aircraft (or to the right if the intercepted aircraft is a helicopter) and, after acknowledgement, a slow level turn, normally to the left (or to the right in the case of a helicopter) on the desired heading. Note 1 Meteorological conditions or terrain may require the intercepting aircraft to reverse the positions and direction of turn given above in Series 1. Note 2 If the intercepted aircraft is not able to keep pace with the intercepting aircraft, the latter is expected to fly a series of		flashing navigational lights at irregular intervals and following.	

	race-track patterns and to rock the aircraft each time it passes the intercepted aircraft.			
2.	DAY or NIGHT — An abrupt breakaway manoeuvre from the intercepted aircraft consisting of a climbing turn of 90 degrees or more without crossing the line of flight of the intercepted aircraft.	You may proceed.	DAY or NIGHT — Rocking the aircraft	Understood, will comply.
3.	DAY or NIGHT — Lowering landing gear (if fitted), showing steady landing lights and overflying runway in use or, if the intercepted aircraft is a helicopter, overflying the helicopter landing area. In the case of helicopters, the intercepting helicopter makes a landing approach, coming to hover near to the landing area.	Land at this aerodrome.	DAY or NIGHT — Lowering landing gear, (if fitted), showing steady landing lights and following the intercepting aircraft and, if, after overflying the runway in use or helicopter landing area, landing is considered safe, proceeding to land.	Understood, will comply.

Table 3
Signals initiated by intercepted aircraft and responses by intercepting aircraft

Series	INTERCEPTED Aircraft Signals	Meaning	INTERCEPTING Aircraft Responds	Meaning
4.	DAY or NIGHT — Raising landing gear (if fitted) and flashing landing lights while passing over runway in use or helicopter landing area at a height exceeding 300 m (1 000 ft) but not exceeding 600 m (2 000 ft) (in the case of a helicopter, at a height exceeding 50 m (170 ft) but not exceeding 100 m (330 ft)) above the aerodrome level, and continuing to circle runway in use or helicopter landing area. If unable to flash landing lights, flash any other lights available.	Aerodrome you have designated is inadequate.	DAY or NIGHT — If it is desired that the intercepted aircraft follow the intercepting aircraft to an alternate aerodrome, the intercepting aircraft raises its landing gear (if fitted) and uses the Series 1 signals prescribed for intercepting aircraft. 1 If it is decided to release the intercepted aircraft, the intercepting aircraft uses the Series 2 signals prescribed for intercepting aircraft.	Understood, follow me. Understood, you may proceed.
5.	DAY or NIGHT — Regular switching on and off of all available lights but in such a manner as to be distinct from flashing lights.	Cannot comply.	DAY or NIGHT — Use Series 2 signals prescribed for intercepting aircraft.	Understood.
6.	DAY or NIGHT — Irregular flashing of all available lights.	In distress.	DAY or NIGHT — Use Series 2 signals prescribed for intercepting aircraft.	Understood.

Article 52

Explanation of instructions received by radio

If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual signals, the intercepted aircraft shall request immediate clarification while continuing to comply with the visual instructions given by the intercepting aircraft.

If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by radio, the intercepted aircraft shall request immediate clarification while continuing to comply with the radio instructions given by the intercepting aircraft.

If radio contact is established during interception but communication in a common language is not possible, attempts shall be made to convey instructions, acknowledgement of instructions and essential information by using the phrases and pronunciations in Tables 4 and 5 of this Regulation, and transmitting each phrase twice.

Table 4

Phrases for use by INTERCEPTING aircraft		
Phrase	Pronunciation ¹	Meaning
<i>CALL SIGN</i>	KOL SA-IN	What is your call sign?
<i>FOLLOW</i>	FOL-LO	Follow me.
<i>DESCEND</i>	DEE-SEND	Descend for landing.
<i>YOU LAND</i>	YOU LAAND	Land at this aerodrome.
<i>PROCEED</i>	PRO-SEED	You may proceed.

Table 5

Phrases for use by INTERCEPTED aircraft		
Phrase	Pronunciation ¹	Meaning
<i>CALL SIGN</i> (<i>call sign</i>) ²	<u>KOL</u> SA-IN	My call sign is (call sign).
<i>WILCO</i>	<u>VILL</u> -KO	Understood, will comply.
<i>CANNOT</i>	<u>KANN</u> NOTT	Unable to comply.
<i>REPEAT</i>	<u>REE-PEET</u>	Repeat your instruction.
<i>AM LOST</i>	<u>AM LOSST</u>	Position unknown.
<i>MAYDAY</i>	MAYDAY	I am in distress.
<i>HIJACK</i> ³	<u>HI-JACK</u>	I have been hijacked.
<i>LAND</i> (<i>place name</i>)	LAAND	I request to land at (place name).
<i>DESCEND</i>	DEE-SEND	I require descent.

1. In the second column, syllables to be emphasised are underlined.
2. The call sign required to be given is that used in radiotelephony communications with air traffic services units and corresponding to the aircraft identification in the flight plan.
3. Circumstances may not always permit, nor make desirable, the use of the phrase 'HIJACK'.

Article 53

Procedure to be followed by ATS unit during interception

As soon as an air traffic services unit learns that an aircraft is being intercepted in its area of responsibility, it shall take such of the following steps as are appropriate in the circumstances:

- 1) attempt to establish two-way communication with the intercepted aircraft via any means available, including the emergency radio frequency 121,5 MHz, unless such communication already exists;
- 2) inform the pilot of the intercepted aircraft of the interception;
- 3) establish contact with the intercept control unit maintaining two-way communication with the intercepting aircraft and provide it with available information concerning the aircraft;
- 4) relay messages between the intercepting aircraft or the intercept control unit and the intercepted aircraft, as necessary;
- 5) in close coordination with the intercept control unit take all necessary steps to ensure the safety of the intercepted aircraft;
- 6) inform air traffic services units serving adjacent flight information regions if it appears that the aircraft has strayed from such adjacent flight information regions.

As soon as an air traffic services unit learns that an aircraft is being intercepted outside its area of responsibility, it shall take such of the following steps as are appropriate in the circumstances:

- 1) inform the air traffic services unit serving the airspace in which the interception is taking place, providing this unit with available information that will assist in identifying the aircraft and requesting it to take action in accordance with paragraph 1 of this Article;
- 2) relay messages between the intercepted aircraft and the appropriate air traffic services unit, the intercept control unit or the intercepting aircraft.

Article 54

Types of meteorological observations from aircraft

Aircrew shall perform special and other non-routine observations during any phase of flight.

Article 55

Special aircraft observations

Special observations shall be made and reported by all aircraft whenever the following conditions are encountered or observed:

- 1) moderate or severe turbulence;
- 2) moderate or severe icing;

- 3) severe mountain wave;
- 4) thunderstorms, without hail, that are obscured, embedded, widespread or in squall lines;
- 5) thunderstorms, with hail, that are obscured, embedded, widespread or in squall lines;
- 6) heavy dust storm or heavy sandstorm;
- 7) volcanic ash cloud;
- 8) pre-eruption volcanic activity or a volcanic eruption.

Article 56

Other non-routine aircraft observations

When other meteorological conditions not listed under Article 55, e.g. wind shear, are encountered and which, in the opinion of the pilot-in-command, may affect the safety or markedly affect the efficiency of other aircraft operations, the pilot-in-command shall advise the appropriate air traffic services unit as soon as practicable.

Article 57

Reporting on aircraft observations by voice communication

Aircraft observations shall be reported during flight at the time the observation is made or as soon thereafter as is practicable.

Aircraft observations shall be reported as air-reports and shall comply with the technical specifications in Appendix 4 of this Regulation.

Article 58

Exchange of air-reports

ATS units shall transmit, as soon as practicable, special and non-routine air-reports to:

- 1) other aircraft concerned;
- 2) the associated meteorological watch office (MWO);
- 3) other ATS units concerned.

Transmission of reports to aircraft shall be repeated at a frequency and continued for a period of time which shall be determined by the ATS unit concerned.

Article 59

Repealing of other regulations

On the day of entering into force of this Regulation, the Regulation on flying of aircraft (Official Gazette of SFRY, No. 10/79, 4/83 and Official Gazette of SFRY No. 40/95) shall cease to be in

force, including the provision on flight plan clearance of the Regulation on the method of issuing clearances for operation of aircraft (Official Gazette of SFRY, No 43/82).

Article 60
Entering into force

This Regulation shall enter into force on the eighth day of its publication in the Official Gazette of the Republic of Serbia.

Reg. No. 4/2-01-0009/2011-0003

In Belgrade, 16 June 2015

Director,

Mirjana Cizmarov, signed

Appendix 1

SIGNALS

1. DISTRESS AND URGENCY SIGNALS

1.1. General

1.1.1. Notwithstanding the provisions in 1.2 and 1.3, an aircraft in distress shall use any means at its disposal to attract attention, make known its position and obtain help.

1.1.2. The telecommunication transmission procedures for the distress and urgency signals shall be in accordance with Volume II of Annex 10 to the Chicago Convention.

1.2.1. The following signals, used either together or separately, mean that grave and imminent danger threatens, and immediate assistance is requested:

a signal made by radiotelegraphy or by any other signalling method consisting of the group SOS (.. — — — . . . in the Morse Code);

a radiotelephony distress signal consisting of the spoken word MAYDAY;

a distress message sent via data link which transmits the intent of the word MAYDAY;

rockets or shells throwing red lights, fired one at a time at short intervals;

a parachute flare showing a red light;

setting of the transponder to Mode A Code 7700.

1.3. Urgency signals

1.3.1. The following signals, used either together or separately, mean that an aircraft wishes to give notice of difficulties which compel it to land without requiring immediate assistance:

the repeated switching on and off of the landing lights; or

the repeated switching on and off of the navigation lights in such manner as to be distinct from flashing navigation lights.

1.3.2. The following signals, used either together or separately, mean that an aircraft has a very urgent message to transmit concerning the safety of a ship, aircraft or other vehicle, or of some person on board or within sight:

a signal made by radiotelegraphy or by any other signalling method consisting of the group XXX (—..— —..— —..— in the Morse Code);

a radiotelephony urgency signal consisting of the spoken words PAN, PAN;

an urgency message sent via data link which transmits the intent of the words PAN, PAN.

VISUAL SIGNALS USED TO WARN AN UNAUTHORISED AIRCRAFT FLYING IN OR ABOUT TO ENTER A RESTRICTED, PROHIBITED OR DANGER AREA

2.1. When visual signals are used to warn unauthorised aircraft flying in or about to enter a restricted, prohibited or danger area by day and by night, a series of projectiles discharged from the ground at intervals of 10 seconds, each showing, on bursting, red and green lights or stars shall indicate to an unauthorised aircraft that it is flying in or about to enter a restricted, prohibited or danger area, and that the aircraft is to take such remedial action as may be necessary.

SIGNALS FOR AERODROME TRAFFIC

3.1. Light and pyrotechnic signals

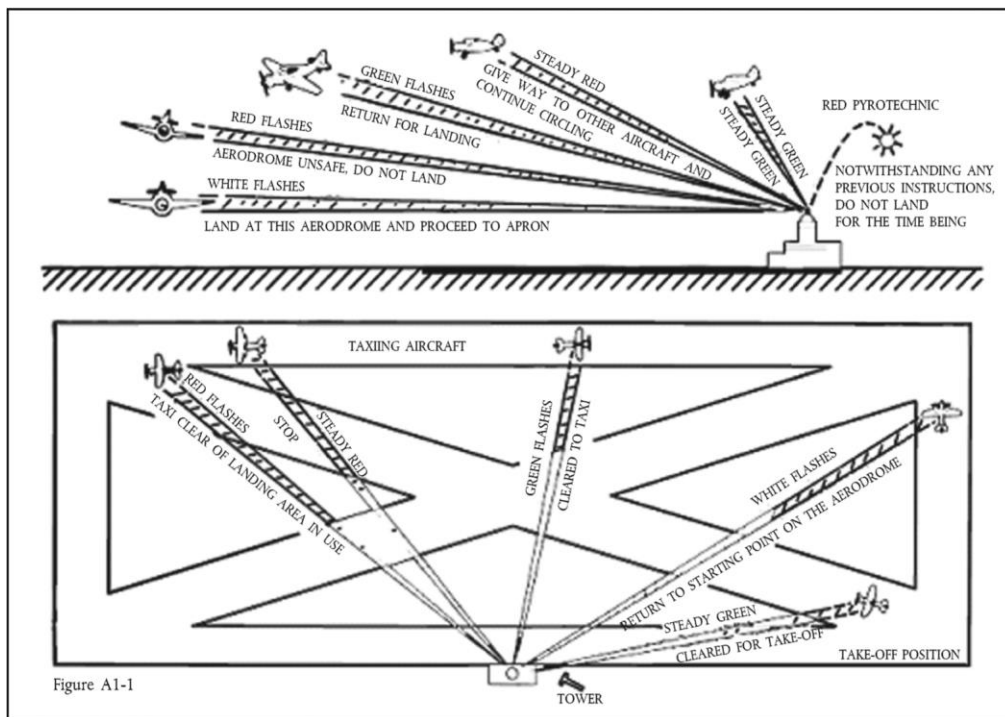
3.1.1. Instructions

Table AP 1 - 3

<i>Light</i>		From Aerodrome Control to:	
		<i>Aircraft in flight</i>	<i>Aircraft on the ground</i>
Directed towards aircraft Concerned (see Figure A1-1)	Steady green	Cleared to land	Cleared for take-off
	Steady red	Give way to other aircraft and continue circling (*)	Stop
	Series of green flashes	Return for landing (*)	Cleared to taxi
	Series of red flashes	Aerodrome unsafe, do not land	Taxi clear of landing area in use
	Series of white flashes	Land at this aerodrome and proceed to apron (*)	Return to starting point on the aerodrome
Red pyrotechnic		Notwithstanding any previous instructions, do not land for the time being	

* Clearances to land and to taxi will be given in due course.

(*) Clearances to land and to taxi will be given in due course.



3.1.2. Acknowledgement by an aircraft (a) When in flight:
during the hours of daylight:

— by rocking the aircraft's wings, except for the base and final legs of the approach;

during the hours of darkness:

— by flashing on and off twice the aircraft's landing lights or, if not so equipped, by switching on and off twice its navigation lights.

(b) When on the ground:

during the hours of daylight:

— by moving the aircraft's ailerons or rudder;

during the hours of darkness:

— by flashing on and off twice the aircraft's landing lights or, if not so equipped, by switching on and off twice its navigation lights.

3.2. Visual ground signals

3.2.1. Prohibition of landing

3.2.1.1. A horizontal red square panel with yellow diagonals (Figure A1-2) when displayed in a signal area indicates that landings are prohibited and that the prohibition is liable to be prolonged



Figure A1-2

3.2.2. Need for special precautions while approaching or landing

3.2.2.1. A horizontal red square panel with one yellow diagonal (Figure A1-3) when displayed in a signal area indicates that owing to the bad state of the manoeuvring area, or for any other reason, special precautions must be observed in approaching to land or in landing.



Figure A1-3

3.2.3. Use of runways and taxiways

3.2.3.1. A horizontal white dumb-bell (Figure A1-4) when displayed in a signal area indicates that aircraft are required to land, take off and taxi on runways and taxiways only.



Figure A1-4

3.2.3.2. The same horizontal white dumb-bell as in 3.2.3.1 but with a black bar placed perpendicular to the shaft across each circular portion of the dumb-bell (Figure A1-5) when displayed in a signal area indicates that aircraft are required to land and take off on runways only, but other manoeuvres need not be confined to runways and taxiways.

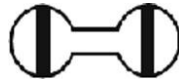


Figure A1-5

3.2.4. Closed runways or taxiways

3.2.4.1. Crosses of a single contrasting colour, yellow or white (Figure A1-6), displayed horizontally on runways and taxiways or parts thereof indicate an area unfit for movement of aircraft.

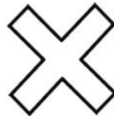


Figure A1-6

3.2.5. Directions for landing or take-off

3.2.5.1. A horizontal white or orange landing T (Figure A1-7) indicates the direction to be used by aircraft for landing and take-off, which shall be in a direction parallel to the shaft of the T towards the cross arm. When used at night, the landing T shall be either illuminated or outlined in white lights.

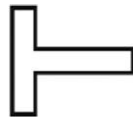


Figure A1-7

3.2.5.2. A set of two digits (Figure A1-8) displayed vertically at or near the aerodrome control tower indicates to aircraft on the manoeuvring area the direction for take-off, expressed in units of 10 degrees to the nearest 10 degrees of the magnetic compass.



Figure A1-8

3.2.6. Right-hand traffic

3.2.6.1. When displayed in a signal area, or horizontally at the end of the runway or strip in use, a right-hand arrow of conspicuous colour (Figure A1-9) indicates that turns are to be made to the right before landing and after take-off.

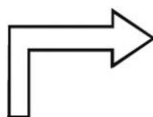


Figure A1-9

3.2.7. Air traffic services reporting office

3.2.7.1. The letter C displayed vertically in black against a yellow background (Figure A1-10) indicates the location of the air traffic services reporting office.



Figure A1-10

3.2.8. Sailplane flights in operation

3.2.8.1. A double white cross displayed horizontally (Figure A1-11) in the signal area indicates that the aerodrome is being used by sailplanes and that sailplane flights are being performed.

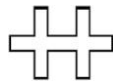


Figure A1-11

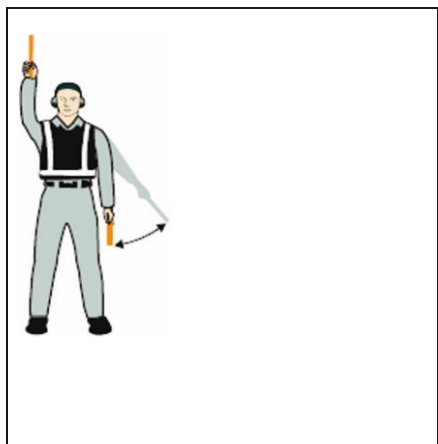
4. MARSHALLING SIGNALS





4.1. From a signalman/marshaller to an aircraft


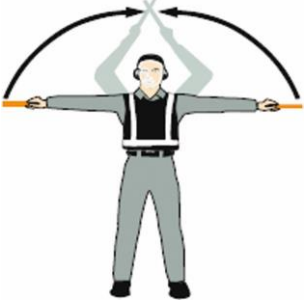
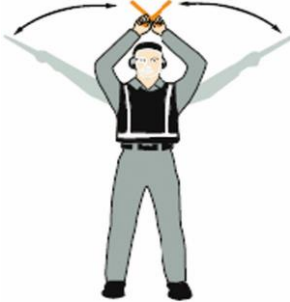

4.1.1. The signals for use by the signalman/marshaller, with hands illuminated as necessary to facilitate observation by the pilot, and facing the aircraft in a position shall be:


- (a) for fixed-wing aircraft, on left side of aircraft, where best seen by the pilot; and
- (b) for helicopters, where the signalman/marshaller can best be seen by the pilot.


4.1.2. Prior to using the following signals, the signalman/marshaller shall ascertain that the area within which an aircraft is to be guided is clear of objects which the aircraft, in complying with SERA.3301 (a), might otherwise strike.


	<p>1. Wingwalker/guide (*) Raise right hand above head level with wand pointing up; move left-hand wand pointing down toward body.</p> <hr/> <p>(*) This signal provides an indication by a person positioned at the aircraft wing tip, to the pilot/marshaller/push-back operator, that the aircraft movement on/off a parking position would be unobstructed.</p>
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	<p>2. Identify gate Raise fully extended arms straight above head with wands pointing up.</p>
	<p>3. Proceed to next signalman/marshaller or as directed by tower/ground control Point both arms upward; move and extend arms outward to sides of body and point with wands to direction of next signalman/marshaller or taxi area.</p>
	<p>4. Straight ahead Bend extended arms at elbows and move wands up and down from chest height to head.</p>
	<p>5(a) Turn left (from pilot's point of view) With right arm and wand extended at a 90-degree angle to body, make 'come ahead' signal with left hand. The rate of signal motion indicates to pilot the rate of aircraft turn.</p>



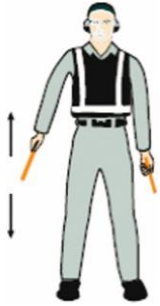

	<p>5(b) Turn right (from pilot's point of view) With left arm and wand extended at a 90-degree angle to body, make 'come ahead' signal with right hand. The rate of signal motion indicates to pilot the rate of aircraft turn.</p>
	<p>6(a) Normal stop Fully extend arms and wands at a 90-degree angle to sides and slowly move to above head until wands cross.</p>
	<p>6(b) Emergency stop Abruptly extend arms and wands to top of head, crossing wands.</p>
	<p>7(a) Set brakes Raise hand just above shoulder height with open palm. Ensuring eye contact with flight crew, close hand into a fist. Do not move until receipt of 'thumbs up' acknowledgement from flight crew.</p>





	<p>7(b) Release brakes</p> <p>Raise hand just above shoulder height with hand closed in a fist. Ensuring eye contact with flight crew, open palm. Do not move until receipt of 'thumbs up' acknowledgement from flight crew.</p>
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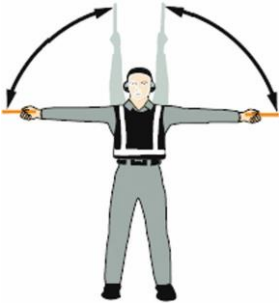



	<p>8(a) Chocks inserted</p> <p>With arms and wands fully extended above head, move wands inward in a 'jabbing' motion until wands touch. Ensure acknowledgement is received from flight crew.</p>
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	<p>8(b) Chocks removed</p> <p>With arms and wands fully extended above head, move wands outward in a 'jabbing' motion. Do not remove chocks until authorised by flight crew.</p>
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	<p>9. Start engine(s)</p> <p>Raise right arm to head level with wand pointing up and start a circular motion with hand; at the same time, with left arm raised above head level, point to engine to be started.</p>
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	<p>10. Cut engines</p> <p>Extend arm with wand forward of body at shoulder level; move hand and wand to top of left shoulder and draw wand to top of right shoulder in a slicing motion across throat.</p>
	<p>11. Slow down</p> <p>Move extended arms downwards in a 'patting' gesture, moving wands up and down from waist to knees.</p>
	<p>12. Slow down engine(s) on indicated side</p> <p>With arms down and wands toward ground, wave either right or left wand up and down indicating engine(s) on left or right side respectively should be slowed down.</p>
	<p>13. Move back</p> <p>With arms in front of body at waist height, rotate arms in a forward motion. To stop rearward movement, use signal 6(a) or 6(b).</p>

	<p>14(a) Turns while backing (for tail to starboard) Point left arm with wand down and bring right arm from overhead vertical position to horizontal forward position, repeating right-arm movement.</p>
	<p>14(b) Turns while backing (for tail to port) Point right arm with wand down and bring left arm from overhead vertical position to horizontal forward position, repeating left-arm movement.</p>
	<p>15. Affirmative/all clear (*) Raise right arm to head level with wand pointing up or display hand with ‘thumbs up’; left arm remains at side by knee.</p> <hr/> <p>(*) This signal is also used as a technical/servicing communication signal.</p>
	<p>16. Hover (*) Fully extend arms and wands at a 90-degree angle to sides.</p> <hr/> <p>(*) For use to hovering helicopters.</p>

	<p>17. Move upwards (*) Fully extend arms and wands at a 90-degree angle to sides and, with palms turned up, move hands upwards. Speed of movement indicates rate of ascent.</p> <hr/> <p>(*) For use to hovering helicopters.</p>
	<p>18. Move downwards (*) Fully extend arms and wands at a 90-degree angle to sides and, with palms turned down, move hands downwards. Speed of movement indicates rate of descent.</p> <hr/> <p>(*) For use to hovering helicopters.</p>
	<p>19(a) Move horizontally left (from pilot's point of view) (*) Extend arm horizontally at a 90-degree angle to right side of body. Move other arm in same direction in a sweeping motion.</p> <hr/> <p>(*) For use to hovering helicopters.</p>
	<p>19(b) Move horizontally right (from pilot's point of view) (*) Extend arm horizontally at a 90-degree angle to left side of body. Move other arm in same direction in a sweeping motion.</p> <hr/> <p>(*) For use to hovering helicopters.</p>

	<p>20. Land (*) Cross arms with wands downwards and in front of body.</p> <hr/> <p>(*) For use to hovering helicopters.</p>
	<p>21. Hold position/stand by Fully extend arms and wands downwards at a 45-degree angle to sides. Hold position until aircraft is clear for next manoeuvre.</p>
	<p>22. Dispatch aircraft Perform a standard salute with right hand and/or wand to dispatch the aircraft. Maintain eye contact with flight crew until aircraft has begun to taxi.</p>
	<p>23. Do not touch controls (technical/servicing communication signal) Extend right arm fully above head and close fist or hold wand in horizontal position; left arm remains at side by knee.</p>

	<p>24. Connect ground power (technical/servicing communication signal)</p> <p>Hold arms fully extended above head; open left hand horizontally and move finger tips of right hand into and touch open palm of left hand (forming a 'T'). At night, illuminated wands can also be used to form the 'T' above head.</p>
	<p>25. Disconnect power (technical/servicing communication signal)</p> <p>Hold arms fully extended above head with finger tips of right hand touching open horizontal palm of left hand (forming a 'T'); then move right hand away from the left. Do not disconnect power until authorised by flight crew. At night, illuminated wands can also be used to form the 'T' above head.</p>
	<p>26. Negative (technical/servicing communication signal)</p> <p>Hold right arm straight out at 90 degrees from shoulder and point wand down to ground or display hand with 'thumbs down'; left hand remains at side by knee.</p>
	<p>27. Establish communication via interphone (technical/ servicing communication signal)</p> <p>Extend both arms at 90 degrees from body and move hands to cup both ears.</p>

	<p>28. Open/close stairs (technical/servicing communication signal) (*)</p> <p>With right arm at side and left arm raised above head at a 45-degree angle, move right arm in a sweeping motion towards top of left shoulder.</p> <hr/> <p>(*) This signal is intended mainly for aircraft with the set of integral stairs at the front.</p>
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4.2. From the pilot of an aircraft to a signalman/marshaller

4.2.1. These signals shall be used by a pilot in the cockpit with hands plainly visible to the signalman/marshaller, and illuminated as necessary to facilitate observation by the signalman/marshaller.

4.2.1.1. Brakes

Brakes engaged: raise arm and hand, with fingers extended, horizontally in front of face, then clench fist.

Brakes released: raise arm, with fist clenched, horizontally in front of face, then extend fingers.

4.2.1.2. Chocks

Insert chocks: arms extended, palms outwards, move hands inwards to cross in front of face.

Remove chocks: hands crossed in front of face, palms outwards, move arms outwards.

4.2.1.3. Ready to start engine(s)

(a) Raise the appropriate number of fingers on one hand indicating the number of the engine to be started.




4.3. Technical/servicing communication signals


4.3.1. Manual signals shall only be used when verbal communication is not possible with respect to technical/servicing communication signals.

4.3.2. Signalmen/marshalls shall ensure that an acknowledgement is received from the flight crew with respect to technical/servicing communication signals.

STANDARD EMERGENCY HAND SIGNALS

5.1. The following hand signals are established as the minimum required for emergency communication between the ARFF incident commander/ARFF firefighters and the cockpit and/or cabin crews of the incident aircraft. ARFF emergency hand signals should be given from the left front side of the aircraft for the cockpit crew.

	<p>1. Recommend evacuation Evacuation recommended based on aircraft rescue and fire-fighting and Incident Commander's assessment of external situation. Arm extended from body, and held horizontal with hand upraised at eye level. Execute beckoning arm motion angled backward. Non-beckoning arm held against body. Night — same with wands.</p>
	<p>2. Recommend stop Recommend evacuation in progress be halted. Stop aircraft movement or other activity in progress. Arms in front of head — Crossed at wrists Night — same with wands.</p>
	<p>3. Emergency contained No outside evidence of dangerous conditions or 'all-clear.' Arms extended outward and down at a 45 degree angle. Arms moved inward below waistline simultaneously until wrists crossed, then extended outward to starting position. Night — same with wands.</p>

 An illustration of a person in a light-colored uniform with a dark vest and a dark belt. The person is standing and facing forward. Their right arm is raised, with the hand open and fingers spread, moving from the shoulder area down towards the knee. Their left hand is pointing towards the right side of the frame. The person is wearing a dark cap and dark shoes. A shadow is cast on the ground behind them.	<p>4. Fire</p> <p>Move right-hand in a 'fanning' motion from shoulder to knee, while at the same time pointing with left hand to area of fire.</p> <p>Night — same with wands.</p>
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Unmanned free balloons

CLASSIFICATION OF UNMANNED FREE BALLOONS

Unmanned free balloons shall be classified as (see Figure AP2-1):

light: an unmanned free balloon which carries a payload of one or more packages with a combined mass of less than 4 kg, unless qualifying as a heavy balloon in accordance with (c)(2),(3) or (4); or

medium: an unmanned free balloon which carries a payload of two or more packages with a combined mass of 4 kg or more, but less than 6 kg, unless qualifying as a heavy balloon in accordance with (c)(2), (3) or (4) below; or

heavy: an unmanned free balloon which carries a payload which:

has a combined mass of 6 kg or more; or

includes a package of 3 kg or more; or

includes a package of 2 kg or more with an area density of more than 13 g per square centimetre, determined by dividing the total mass in grams of the payload package by the area in square centimetres of its smallest surface; or

uses a rope or other device for suspension of the payload that requires an impact force of 230 N or more to separate the suspended payload from the balloon.

GENERAL OPERATING RULES

An unmanned free balloon shall not be operated without authorisation from the State from which the launch is made.

An unmanned free balloon, other than a light balloon used exclusively for meteorological purposes and operated in the manner prescribed by the competent authority, shall not be operated across the territory of another State without authorisation from the other State concerned.

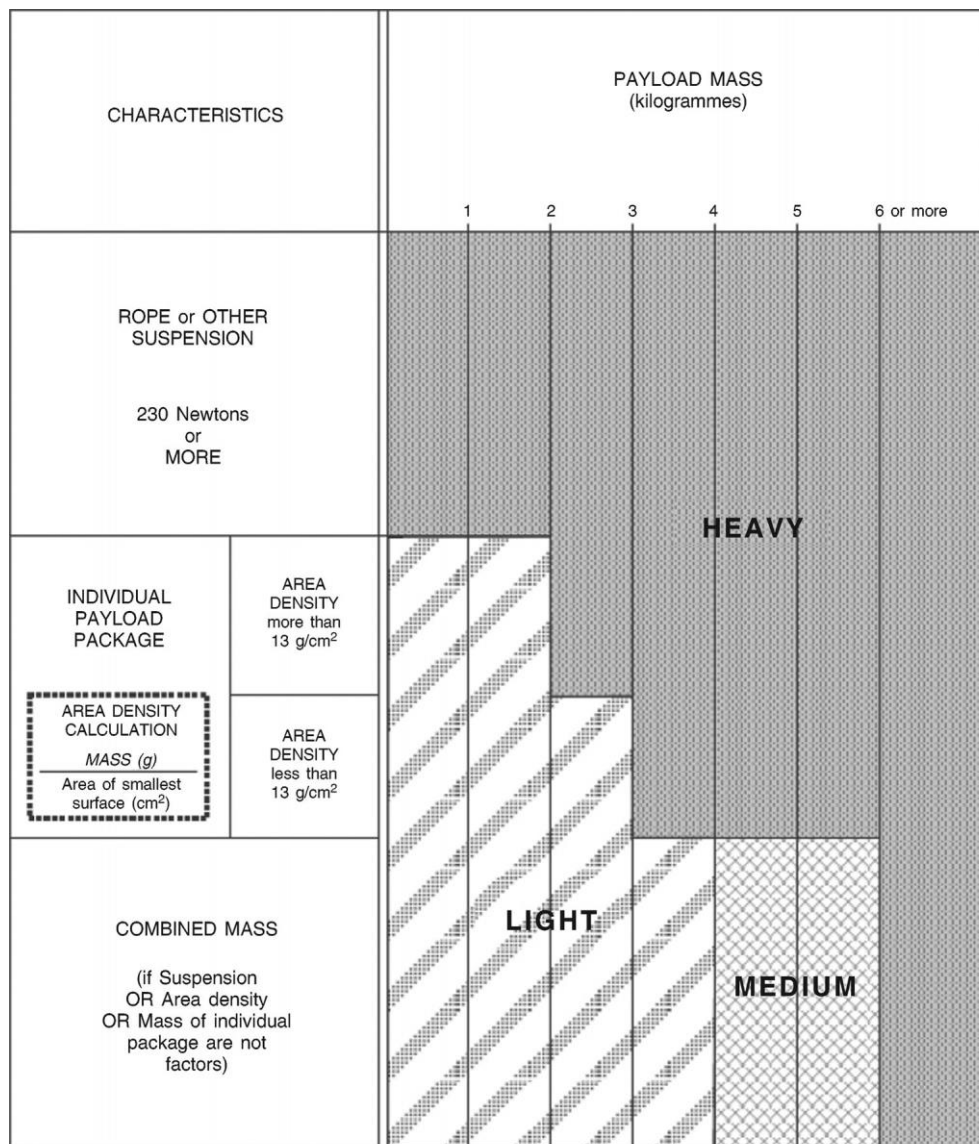
The authorisation referred to in 2.2 shall be obtained prior to the launching of the balloon if there is reasonable expectation, when planning the operation, that the balloon may drift into airspace over the territory of another State. Such authorisation may be obtained for a series of balloon flights or for a particular type of recurring flight, e.g. atmospheric research balloon flights.

An unmanned free balloon shall be operated in accordance with conditions specified by the State of Registry and the State(s) expected to be overflown.

An unmanned free balloon shall not be operated in such a manner that impact of the balloon, or any part thereof, including its payload, with the surface of the earth, creates a hazard to persons or property.

A heavy unmanned free balloon shall not be operated over the high seas without prior coordination with the ANSP(s).

Figure AP2-1



OPERATING LIMITATIONS AND EQUIPMENT REQUIREMENTS

A heavy unmanned free balloon shall not be operated without authorisation from the ANSP(s) at or through any level below 18 000 m (60 000 ft) pressure-altitude at which:

there are clouds or obscuring phenomena of more than four oktas coverage; or (b) the horizontal visibility is less than 8 km.

A heavy or medium unmanned free balloon shall not be released in a manner that will cause it to fly lower than 300 m (1 000 ft) over the congested areas of cities, towns or settlements or an open-air assembly of persons not associated with the operation.

A heavy unmanned free balloon shall not be operated unless:
it is equipped with at least two payload flight-termination devices or systems, whether automatic or operated by telecommand, that operate independently of each other;
for polyethylene zero-pressure balloons, at least two methods, systems, devices, or combinations thereof, that function independently of each other are employed for terminating the flight of the balloon envelope;
the balloon envelope is equipped with either a radar reflective device(s) or radar reflective material that will present an echo to surface radar operating in the 200 MHz to 2 700 MHz frequency range, and/or the balloon is equipped with such other devices as will permit continuous tracking by the operator beyond the range of ground-based radar.

A heavy unmanned free balloon shall not be operated under the following conditions:
in an area where ground-based SSR equipment is in use, unless it is equipped with a secondary surveillance radar transponder, with pressure-altitude reporting capability, which is continuously operating on an assigned code, or which can be turned on when necessary by the tracking station;
or
in an area where ground-based ADS-B equipment is in use, unless it is equipped with an ADS-B transmitter, with pressure-altitude reporting capability, which is continuously operating or which can be turned on when necessary by the tracking station.

An unmanned free balloon that is equipped with a trailing antenna that requires a force of more than 230 N to break it at any point shall not be operated unless the antenna has coloured pennants or streamers that are attached at not more than 15 m intervals.

A heavy unmanned free balloon shall not be operated below 18 000 m (60 000 ft) pressure-altitude at night or during any other period prescribed by the competent authority, unless the balloon and its attachments and payload, whether or not they become separated during the operation, are lighted.

A heavy unmanned free balloon that is equipped with a suspension device (other than a highly conspicuously coloured open parachute) more than 15 m long shall not be operated during night below 18 000 m (60 000 ft) pressure-altitude unless the suspension device is coloured in alternate bands of high conspicuous colours or has coloured pennants attached.

TERMINATION

The operator of a heavy unmanned free balloon shall activate the appropriate termination devices required by 3.3(a) and (b):
when it becomes known that weather conditions are less than those prescribed for the operation;
if a malfunction or any other reason makes further operation hazardous to air traffic or to persons or property on the surface; or
prior to unauthorised entry into the airspace over another State's territory.

FLIGHT NOTIFICATION

5.1. Pre-flight notification

5.1.1. Early notification of the intended flight of an unmanned free balloon in the medium or heavy category shall be made to the appropriate air traffic services unit not less than seven days before the date of the intended flight.

5.1.2. Notification of the intended flight shall include such of the following information as may be required by the appropriate air traffic services unit:

balloon flight identification or project code name;

balloon classification and description;

SSR code, aircraft address or NDB frequency as applicable;

operator's name and telephone number;

launch site;

estimated time of launch (or time of commencement and completion of multiple launches);

number of balloons to be launched and the scheduled interval between launches (if multiple launches);

expected direction of ascent;

cruising level(s) (pressure-altitude);

the estimated elapsed time to pass 18 000 m (60 000 ft) pressure-altitude or to reach cruising level if at or below 18 000 m (60 000 ft), together with the estimated location. If the operation consists of continuous launchings, the time to be included shall be the estimated time at which the first and the last in the series will reach the appropriate level (e.g. 122136Z–130330Z);

the estimated date and time of termination of the flight and the planned location of the impact/recovery area. In the case of balloons carrying out flights of long duration, as a result of which the date and time of termination of the flight and the location of impact cannot be forecast with accuracy, the term 'long duration' shall be used. If there is to be more than one location of impact/recovery, each location shall be listed together with the appropriate estimated time of impact. If there is to be a series of continuous impacts, the time to be included shall be the estimated time of the first and the last in the series (e.g. 070330Z–072300Z).

5.1.3. Any changes in the pre-launch information notified in accordance with paragraph 5.1 shall be forwarded to the air traffic services unit concerned not less than 6 hours before the estimated time of launch, or in the case of solar or cosmic disturbance investigations involving a critical time element, not less than 30 minutes before the estimated time of the commencement of the operation.

5.2. Notification of launch

5.2.1. Immediately after a medium or heavy unmanned free balloon is launched the operator shall notify the appropriate air traffic services unit of the following:

balloon flight identification;

launch site;
actual time of launch;
estimated time at which 18 000 m (60 000 ft) pressure-altitude will be passed, or the estimated time at which the cruising level will be reached if at or below 18 000 m (60 000 ft), and the estimated location; and
any changes to the information previously notified in accordance with 5.1.2(g) and (h).

5.3. Notification of cancellation

5.3.1. The operator shall notify the appropriate air traffic services unit immediately it is known that the intended flight of a medium or heavy unmanned free balloon, previously notified in accordance with paragraph 5.1, has been cancelled.

POSITION RECORDING AND REPORTS

The operator of a heavy unmanned free balloon operating at or below 18 000 m (60 000 ft) pressure-altitude shall monitor the flight path of the balloon and forward reports of the balloon's position as requested by air traffic services. Unless air traffic services require reports of the balloon's position at more frequent intervals, the operator shall record the position every 2 hours.

The operator of a heavy unmanned free balloon operating above 18 000 m (60 000 ft) pressure-altitude shall monitor the flight progress of the balloon and forward reports of the balloon's position as requested by air traffic services. Unless air traffic services require reports of the balloon's position at more frequent intervals, the operator shall record the position every 24 hours.

If a position cannot be recorded in accordance with 6.1 and 6.2, the operator shall immediately notify the appropriate air traffic services unit. This notification shall include the last recorded position. The appropriate air traffic services unit shall be notified immediately when tracking of the balloon is re-established.

One hour before the beginning of planned descent of a heavy unmanned free balloon, the operator shall forward to the appropriate ATS unit the following information regarding the balloon:

the current geographical position;
the current level (pressure-altitude);
the forecast time of penetration of 18 000 m (60 000 ft) pressure-altitude, if applicable;
the forecast time and location of ground impact.

The operator of a heavy or medium unmanned free balloon shall notify the appropriate air traffic services unit when the operation is ended.

Cruising levels Table

1.1. The cruising levels to be observed are as follows:

TRACK (*)

From 000 degrees to 179 degrees						From 180 degrees to 359 degrees					
IFR Flights			VFR Flights			IFR Flights			VFR Flights		
Level			Level			Level			Level		
FL	Feet	Metres	FL	Feet	Metres	FL	Feet	Metres	FL	Feet	Metres
010	1 000	300	—	—	—	020	2 000	600	—	—	—
030	3 000	900	035	3 500	1 050	040	4 000	1 200	045	4 500	1 350
050	5 000	1 500	055	5 500	1 700	060	6 000	1 850	065	6 500	2 000
070	7 000	2 150	075	7 500	2 300	080	8 000	2 450	085	8 500	2 600
090	9 000	2 750	095	9 500	2 900	100	10 000	3 050	105	10 500	3 200
110	11 000	3 350	115	11 500	3 500	120	12 000	3 650	125	12 500	3 800
130	13 000	3 950	135	13 500	4 100	140	14 000	4 250	145	14 500	4 400
150	15 000	4 550	155	15 500	4 700	160	16 000	4 900	165	16 500	5 050
170	17 000	5 200	175	17 500	5 350	180	18 000	5 500	185	18 500	5 650
190	19 000	5 800	195	19 500	5 950	200	20 000	6 100	205	20 500	6 250
210	21 000	6 400	215	21 500	6 550	220	22 000	6 700	225	22 500	6 850
230	23 000	7 000	235	23 500	7 150	240	24 000	7 300	245	24 500	7 450
250	25 000	7 600	255	25 500	7 750	260	26 000	7 900	265	26 500	8 100
270	27 000	8 250	275	27 500	8 400	280	28 000	8 550	285	28 500	8 700

290	29 000	8 850				300	30 000	9 150		
310	31 000	9 450				320	32 000	9 750		
330	33 000	10 050				340	34 000	10 350		
350	35 000	10 650				360	36 000	10 950		
370	37 000	11 300				380	38 000	11 600		
390	39 000	11 900				400	40 000	12 200		
410	41 000	12 500				430	43 000	13 100		
450	45 000	13 700				470	47 000	14 350		
490	49 000	14 950				510	51 000	15 550		
etc.	etc.	etc.				etc.	etc.	etc.		

* 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 competent 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.

Appendix 4

Requirements regarding air navigation services

Technical specifications on aircraft observations and voice communication reporting

1.1.1. The elements contained in special air-reports shall be:

Message type designator

Section 1 (Position information)

Aircraft identification

Position or latitude and longitude
Time
Level or range of levels
Section 3 (Meteorological information)

Condition prompting the issuance of a special air-report, to be selected from the list presented in Article 55 of the Regulation.

SPECIFIC PROVISIONS RELATED TO REPORTING WIND SHEAR AND VOLCANIC ASH

2.1.1. When reporting aircraft observations of wind shear encountered during the climb-out and approach phases of flight, the aircraft type shall be included.

2.1.2. Where wind shear conditions in the climb-out or approach phases of flight were reported or forecast but not encountered, the pilot-in-command shall advise the appropriate air traffic services unit as soon as practicable unless the pilot-in-command is aware that the appropriate air traffic services unit has already been so advised by a preceding aircraft.

2.2. Post-flight reporting of volcanic activity

2.2.1. On arrival of a flight at an aerodrome, the completed report of volcanic activity shall be delivered by the aircraft operator or a flight crew member, without delay, to the aerodrome meteorological office, or if such office is not easily accessible to arriving flight crew members, the completed form shall be dealt with in accordance with local arrangements made by the meteorological authority and the aircraft operator.

2.2.2. The completed report of volcanic activity received by a meteorological office shall be transmitted without delay to the meteorological watch office responsible for the provision of meteorological watch for the flight information region in which the volcanic activity was observed.