



# RULES OF THE AIR

## 1. Summary

This article presents the rules of the air applicable to all aircraft.

## 2. Applicability of the rules of the air

### 2.1. Flight rules

The operation of an aircraft either in flight or on the movement area of an aerodrome shall be in compliance with the general rules and, in addition, when in flight, must comply with either visual flight rules or instrument flight rules.

**VFR** is the acronym of Visual Flight Rules.

**IFR** is the acronym of Instrument Flight Rules.

A pilot may elect to fly in accordance with instrument flight rules in visual meteorological conditions or may be required to do so by the appropriate ATS authority.

### 2.2. Responsibility of the pilot in command

The pilot-in-command of an aircraft shall, whether manipulating the controls or not, be responsible for the operation of the aircraft in accordance with the rules of the air.

The pilot-in-command may depart from these rules in circumstances that render such departure **absolutely necessary in the interest of safety**.

The pilot-in-command of an aircraft shall have **final authority** as to the disposition of the aircraft while in command.

Rules of the air	Version 1.2	18 October 2015	Page 1
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## 2.3. Pre-flight action

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

Pre-flight action for flights away from the vicinity of an aerodrome, and for all IFR flights, shall include a careful study of:

- Current **weather reports and forecasts**
- **Fuel requirements** and an alternative course of action if the flight cannot be completed as planned.

## 3. General Rules

### 3.1. Minimum height, altitude and flight Level

Except for take-off or landing, aircraft shall not be flown over the congested areas of cities, towns or settlements or over an open-air assembly of persons.

The cruising levels/altitudes at which a flight to be conducted shall be in terms of:

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

### 3.2. Formation flight

Aircraft shall not be flown in formation except by prearrangement among the pilots-in-command of the aircraft taking part in the flight and in accordance with the conditions prescribed by an air traffic controller.

These conditions shall include all the following:

- **The formation operates as a single aircraft** with regard to navigation and position reporting.
- **The 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
- **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

### 3.3. Prohibited areas

Aircraft shall not be flown in a prohibited area, or in a restricted area, the particulars of which have been duly published, except in accordance with the conditions of the restrictions or by permission of the State over whose territory the areas are established.

Rules of the air	Version 1.2	18 October 2015	Page 2
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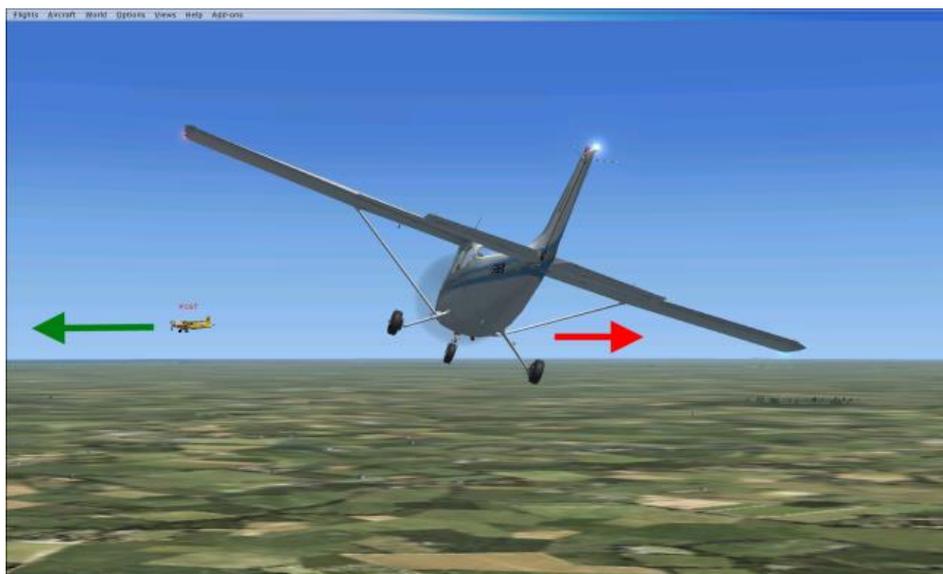
## 3.4. Avoidance of collisions

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

### 3.4.1. Right priority

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

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



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

The exceptions are:

- **Power-driven** heavier-than-air aircraft shall give way to airships, gliders and balloons
- **Airships** shall give way to gliders and balloons
- **Gliders** shall give way to balloons
- Power driven aircraft shall give way to aircraft which are seen to be towing other aircraft or objects.

Rules of the air	Version 1.2	18 October 2015	Page 3
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### 3.4.2. Overtaking priorities

An overtaking aircraft is an aircraft that approaches another from the rear on a line forming an angle of less than 70 degrees.

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.

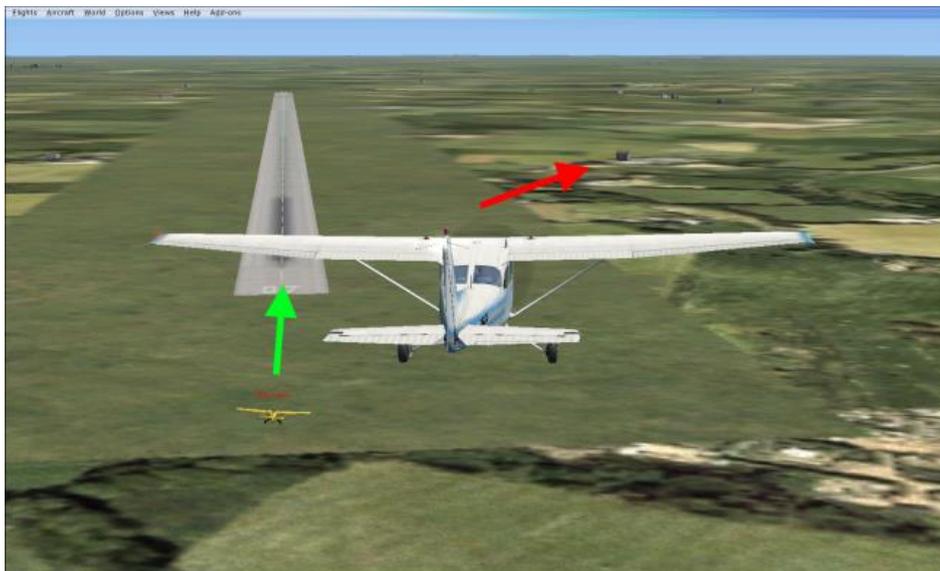
### 3.4.3. Landing and take-off priorities

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.

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

An aircraft that is aware that another is compelled to make an emergency landing shall give way to that aircraft.

When two or more aircraft are approaching an aerodrome 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 gliders.



Rules of the air	Version 1.2	18 October 2015	Page 4
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### 3.4.4. Ground movements

In case of danger of collision between two aircraft taxiing on the movement area of an aerodrome the following shall apply:

- 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 of each other
- When two aircraft are on a converging course, **the one which has the other on its right shall give way**
- 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.

An aircraft taxiing on the manoeuvring area shall stop and hold at all runway-holding positions and all lighted stop bars unless otherwise authorized by the aerodrome control tower.

Note for IVAO, if the airfield is not controlled, the aircraft shall stop before all runways and send the required information on frequency of its intention to use the runway.

### 3.5. Lights to be displayed by aircraft

All aircraft in flight or on the movement area of an aerodrome fitted with anti-collision lights shall display these lights.

From sunset to sunrise or during any other period which may be prescribed by the appropriate authority all aircraft shall display:

- Anti-collision lights intended to attract attention to the aircraft **in flight**
- Navigation lights intended to indicate the relative path of the aircraft **in flight** to an observer and other lights shall not be displayed if they are likely to be mistaken for these lights.
- Navigation lights intended to indicate the relative path of the aircraft on the movement area of an aerodrome to an observer and other lights shall not be displayed if they are likely to be mistaken for these lights

Unless stationary or in an adequately illuminated area, all aircraft on the movement area of an aerodrome shall display lights intended to indicate the extremities of their structure.

All aircraft operating on the movement area of an aerodrome shall display lights intended to attract attention to the aircraft and all aircraft on the movement area of an aerodrome whose engines are running shall display lights which indicate that fact.

A pilot shall be permitted to switch off or reduce the intensity of any flashing lights if they do or are likely to adversely affect the satisfactory performance of duties or may subject an outside observer to harmful glare.

Rules of the air	Version 1.2	18 October 2015	Page 5
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### 3.6. Flight plan

All 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.

You must fill a flight plan for any flight performed, IFR or VFR, in the IVAO network.

This flight plan helps the network recognizes your connection; get your aircraft representation, your call sign, your departure and arrival airport, your flight rule.

Note that a VFR flight plan route is not mandatory (except in special cases).

All flight plans shall be submitted before departure.

A flight plan shall be submitted prior to operating:

- Any IFR flight
- Any flight along designated routes, when so required by the appropriate ATS authority to facilitate the provision of flight information, alerting and search and rescue services
- Any flight across international borders.

A flight plan shall include the following:

- Aircraft identification
- Flight rules and type of flight
- Number and type(s) of aircraft and wake turbulence category
- Equipment
- Departure aerodrome
- Estimated off-block time
- Cruising speed
- Cruising level
- Route to be followed
- Destination aerodrome and total estimated elapsed time
- Alternate aerodrome(s)
- Fuel endurance
- Total number of persons on board
- Emergency and survival equipment
- Other information

### 3.7. Time

Only 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.

Rules of the air	Version 1.2	18 October 2015	Page 6
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## 3.8. Air traffic control service

### 3.8.1. Air traffic control clearances

An air traffic control clearance shall be obtained prior to operating a controlled flight, or a portion of a flight as a controlled flight.

An aircraft operated on a controlled aerodrome shall not taxi on the manoeuvring area without clearance from the aerodrome control tower and shall comply with any instructions given by that unit.

Such clearance shall be requested through the submission of a flight plan to an air traffic control unit.

A controlled flight shall, except when landing at a controlled aerodrome, advise the appropriate ATC unit as soon as it ceases to be subject to air traffic control service.

### 3.8.2. Inadvertent changes

If your flight inadvertently deviates from its current flight plan, the following action shall be taken:

- **If the aircraft is off track**, action shall be taken forthwith to **adjust the heading of the aircraft to regain track as soon as practicable**.
- If the **average true airspeed** at cruising level between reporting points **varies or is expected to vary by  $\pm 5\%$**  of the true airspeed (given in the flight plan), the appropriate air traffic services unit shall **be so informed**.
- If the **time estimate for the next applicable reporting point**, flight information region boundary or destination aerodrome, is found to be in error **in excess of 3 minutes** from that notified to air traffic services a revised estimated time **shall be notified as soon as possible to the appropriate air traffic services unit**.

### 3.8.3. Communication

An aircraft operated as a controlled flight shall maintain continuous voice communication and establish two-way communication with the appropriate air traffic control unit.

Note that in IVAO, the pilot must use text mode if voice communication is not possible.

Rules of the air	Version 1.2	18 October 2015	Page 7
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### 3.9. Weather deterioration below the VMC during a VFR flight

When it becomes evident that flight in VMC conditions and in accordance with its current flight plan **will not be practicable**, a VFR flight operated as a controlled flight shall follow one of the following options:

- Request an amended clearance enabling the aircraft to continue in VMC conditions to its destination (other route) or to an alternative aerodrome, or to leave the airspace within which an ATC clearance is required
- If no clearance can be obtained, continue to operate in VMC conditions and notify the appropriate ATC unit of the action being taken either to leave the airspace concerned or to land at the nearest suitable aerodrome
- If operated within a control zone, request authorization to operate as a special VFR flight if the local regulation permits that.
- Request clearance to operate in accordance with instrument flight rules (IFR).

Altitude band	Airspace class	Minimum flight visibility	Minimum distance from clouds
<b>At and above</b> 3050m (10000ft) AMSL	A, B, C, D, E, F, G	8 km	1500 m horizontally 300m (1000ft) vertically
<b>Below</b> 3050m (10000ft) AMSL <b>And above,</b> 900m (3000ft) AMSL <u>or</u> 300m (1000ft) above terrain, whichever is the <u>higher</u>	A, B, C, D, E, F, G	5 km	1500 m horizontally 300m (1000ft) vertically
<b>At or below</b> 900m (3000ft) AMSL <u>or</u> 300m (1000ft) above terrain, whichever is the <u>higher</u>	A, B, C, D, E	5 km	1500 m horizontally 300m (1000ft) vertically
	F, G	5 km (*)	Clear of cloud and with the surface in sight

#### Remark (\*):

Where flight visibility has been reduced to not less than 1500m, flights may be permitted at speeds that give adequate opportunity to observe other traffic or any obstacles in time to avoid collision.

1. When the height of the transition altitude is lower than 3050m (10000ft) AMSL, FL100 should be used.
2. Helicopters **may be permitted to operate in less than 1500m flight visibility** if they can observe other traffic and any obstacles in time to avoid collision. (Depends on your country regulation).
3. 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 automatically.

Rules of the air	Version 1.2	18 October 2015	Page 8
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