

ATTACHMENT 13 Lights to be displayed by Airplanes

This attachment was established in accordance with Article 125, 256 of this AOR proper, and referred to ICAO Annex 6, Part I, Appendix 1.

1. Terminology

When the following terms are used in this attachment, they have the following meanings:

Angles of coverage.

- a) Angle of coverage A is formed by two intersecting vertical planes making angles of 70 degrees to the right and 70 degrees to the left respectively, looking aft along the longitudinal axis to a vertical plane passing through the longitudinal axis.
- b) Angle of coverage F is formed by two intersecting vertical planes making angles of 110 degrees to the right and 110 degrees to the left respectively, looking forward along the longitudinal axis to a vertical plane passing through the longitudinal axis.
- c) Angle of coverage L is formed by two intersecting vertical planes, one parallel to the longitudinal axis of the airplane, and the other 110 degrees to the left of the first, when looking forward along the longitudinal axis.
- d) Angle of coverage R is formed by two intersecting vertical planes, one parallel to the longitudinal axis of the airplane, and the other 110 degrees to the right of the first, when looking forward along the longitudinal axis.

Horizontal plane. The plane containing the longitudinal axis and perpendicular to the plane of symmetry of the airplane.

Longitudinal axis of the airplane. A selected axis parallel to the direction of flight at a normal cruising speed, and passing through the centre of gravity of the airplane.

Making way. An airplane on the surface of the water is “making way” when it is under way and has a velocity relative to the water.

Under command. An airplane on the surface of the water is “under command” when it is able to execute manoeuvres as required by the International Regulations for Preventing Collisions at Sea for the purpose of avoiding other vessels.

Under way. An airplane on the surface of the water is “under way” when it is not aground or moored to the ground or to any fixed object on the land or in the water.

Vertical planes. Planes perpendicular to the horizontal plane.

Visible. Visible on a dark night with a clear atmosphere.

2. Navigation lights to be displayed in the air

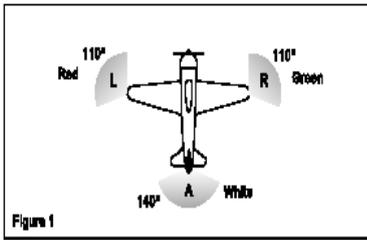
Note.— The lights specified herein are intended to meet the requirements of Annex 2 for navigation lights.

As illustrated in Figure 1, the following unobstructed navigation lights shall be displayed:

2.1 a red light projected above and below the horizontal plane through angle of coverage L;

2.2 a green light projected above and below the horizontal plane through angle of coverage R;

2.3 a white light projected above and below the horizontal plane rearward through angle of coverage A.



3. Lights to be displayed on the water

3.1 General

Note.— The lights specified herein are intended to meet the requirements of Annex 2 for lights to be displayed by airplanes on the water.

The International Regulations for Preventing Collisions at Sea require different lights to be displayed in each of the following circumstances:

3.1.1 when under way.

3.1.2 when towing another vessel or airplane.

3.1.3 when being towed.

3.1.4 when not under command and not making way.

3.1.5 when making way but not under command.

3.1.6 when at anchor.

3.1.7 when aground.

The lights required by airplanes in each case are described below.

3.2 When under way

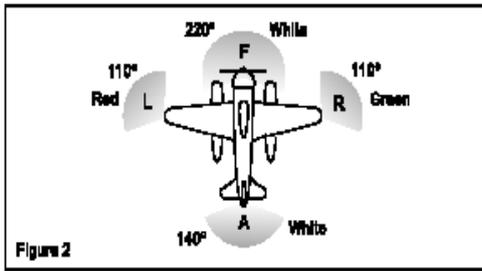
As illustrated in Figure 2, the following appearing as steady unobstructed lights:

3.2.1 a red light projected above and below the horizontal through angle of coverage L.

3.2.2 a green light projected above and below the horizontal through angle of coverage R.

3.2.3 a white light projected above and below the horizontal through angle of coverage A.

3.2.4 a white light projected through angle of coverage F.



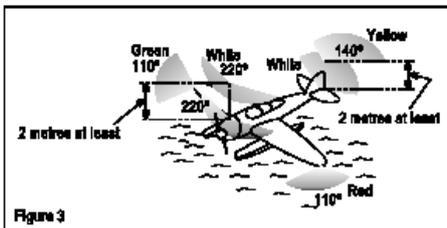
The lights described in 3.2.1, 3.2.2 and 3.2.3 should be visible at a distance of at least 3.7 km (2 NM). The light described in 3.2.4 should be visible at a distance of 9.3 km (5 NM) when fitted to an airplane of 20 m or more in length or visible at a distance of 5.6 km (3 NM) when fitted to an airplane of less than 20 m in length.

3.3 When towing another vessel or airplane as illustrated in Figure 3, the following appearing as steady, unobstructed lights:

3.3.1 the lights described in 3.2.

3.3.2 a second light having the same characteristics as the light described in 3.2 d) and mounted in a vertical line at least 2 m above or below it.

3.3.3 a yellow light having otherwise the same characteristics as the light described in 3.2 c) and mounted in a vertical line at least 2 m above it.

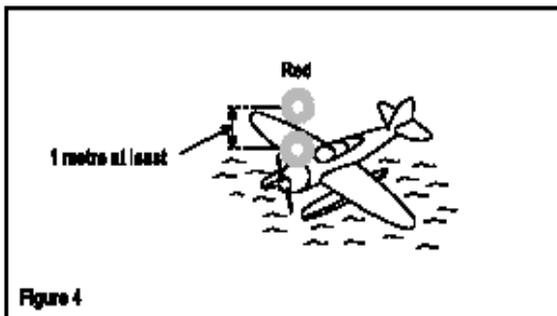


3.4 When being towed

The lights described in 3.2.1, 3.2.2 and 3.2.3 appearing as steady, unobstructed lights.

3.5 When not under command and not making way

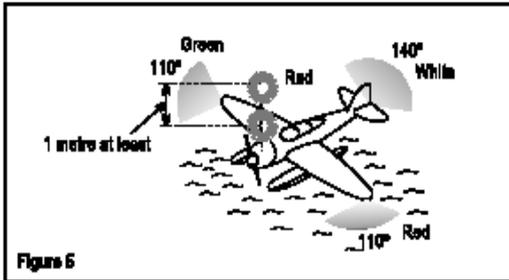
As illustrated in Figure 4, two steady red lights placed where they can best be seen, one vertically over the other and not less than 1 m apart, and of such a character as to be visible all around the horizon at a distance of at least 3.7 km (2 NM).



3.6 When making way but not under command

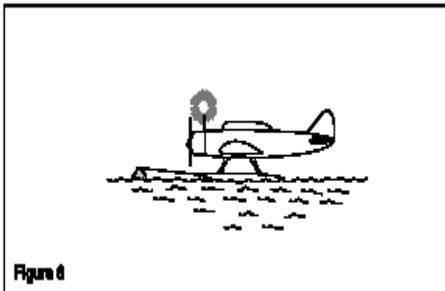
As illustrated in Figure 5, the lights described in 3.5 plus the lights described in 3.2.1, 3.2.2 and 3.2.3.

Note.— The display of lights prescribed in 3.5 and 3.6 is to be taken by other aircraft as signals that the airplane showing them is not under command and cannot therefore get out of the way. They are not signals of airplanes in distress and requiring assistance.

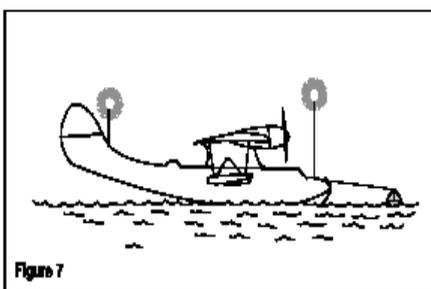


3.7 When at anchor

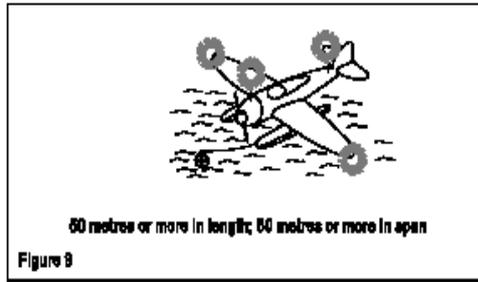
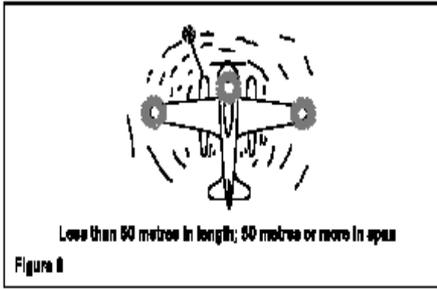
3.7.1 If less than 50 m in length, where it can best be seen, a steady white light (Figure 6), visible all around the horizon at a distance of at least 3.7 km (2 NM).



3.7.2 If 50 m or more in length, where they can best be seen, a steady white forward light and a steady white rear light (Figure 7) both visible all around the horizon at a distance of at least 5.6 km (3 NM).



3.7.3 If 50 m or more in span a steady white light on each side (Figures 8 and 9) to indicate the maximum span and visible, so far as practicable, all around the horizon at a distance of at least 1.9 km (1 NM).



3.8 When aground

The lights prescribed in 3.7 and in addition two steady red lights in vertical line, at least 1 m apart so placed as to be visible all around the horizon.