

Oxygen masks for flight crew

Background

Oxygen masks for flight crew should be a personal issue to each crewmember.

The optimum smoke protection design is a full-face, quick-donning mask which should be constructed so as to enable the wearer to purge any smoke which has accumulated on the inside. It should fit the wearer correctly and be able to accommodate glasses (spectacles).

Mask requirements

Weight and size

The mask should be of minimum weight and size commensurate with a firm attachment that will not allow the mask to leave the face in the event of a sudden loss of pressure. In the absence of masks and stowage facilities suitable for the above requirements, specified crew members should wear the available masks at flight altitudes above 20,000 feet. When operating at flight altitudes above 41,000 feet, the crewmembers referred to in this paragraph should wear an oxygen mask at all times, regardless of whether the mask is a full-face, quick-donning type or not.

Equipment

The mask should be provided with full radio/inter-communication facilities, automatically connected to the normal systems and available for immediate use without further manipulation of switches. These facilities should be capable of operation under low cabin pressure conditions.

Oxygen supply

The mask should be connected to the oxygen supply by a lightweight system allowing the wearer to carry out all his duties with the minimum of discomfort, and without significant interference.

Flight crews and passengers should be supplied from separate sources. If this is not possible, the supply system should readily permit the separation of supplies to the crew and the passengers. The oxygen supply system should contain a positive indication (e.g. a flow meter) of the oxygen flow to the individual mask.

When the storage system consists of liquid oxygen, the delivery system should ensure that the temperature of the oxygen at each mask is physiologically acceptable.

Oxygen supply lines to each mask should be of a length such that all controls, switches and emergency equipment on the flight deck can be accessed and operated by each flight crew member without removing their mask, disconnecting the supply line, or having the mask unseal from the flight crew member's face. The supply to each mask should be controllable.

