



#### **CIVIL AVIATION DEPARTMENT**

# AIR SAFETY CIRCULAR

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## **FUELLING WITH PASSENGERS ON BOARD**

#### 1.0 INTRODUCTION

While fuelling of an aeroplane is a routine activity it may nonetheless result in a major catastrophe with passengers on board if adequate care and precautions are not taken by the operator.

#### 2.0 APPLICABILITY

This Air Safety Circular is applicable to all such operators who intend to undertake refuelling of an aeroplane with passengers embarking, on board or disembarking.

#### 3.0 REQUIREMENT

Aeroplanes may be fuelled with passengers embarking, on board or disembarking, under the following conditions:

- a) the refuelling is properly attended by qualified personnel ready to initiate and direct an evacuation of the aeroplane by the most practical and expeditious means available.
- in order to ensure that crew members receive prompt notification of a situation threatening safety such as major fuel spill or a fire, two way communication is maintained between the ground crew supervising the fuelling and the qualified personnel on board the aeroplane so that the aeroplane can be deplaned or evacuated as necessary;
- a means of communication among the qualified personnel on board the aeroplane, ground/maintenace crews and fuelling agencies is determined and established and the procedures are provided to the appropriate personnel;

- d) the aeroplane engines are not running unless the aircraft incorporates a propeller brake and the brake is set. The Aircraft Flight Manual must refer to the propeller brake/engine as an auxilliary power unit (APU);
- e) fire extinguishing equipment suitable for at least initial intervention in the event of a fuel fire
  and personnel trained in its use shall be readily available and there shall be a means of
  quickly summoning the rescue and fire fighting service in the event of a fire or major fuel
  spill;
- f) during the fuelling process:
  - (i) aeroplane ground power generators or other electrical ground power supplies are not being connected or disconnected;
  - (ii) combustion heaters installed on the aeroplane (e.g. wing and tail surface heaters, integral cabin heaters) are not operated;
  - (iii) known high energy equipment such as High Frequency (HF) radios are not operated, unless in accordance with the aeroplane manufacturer's approved flight manual where the manual contains procedures for the use of this equipment during fuelling;
  - (iv) weather-mapping radar equipment in the aeroplane is not operated unless in accordance with the manufacturer's approved aeroplane flight manual where the manual contains procedures for use during fuelling;
  - (v) aeroplane batteries are not being removed or installed;
  - (vi) external battery charges are not being connected, operated or disconnected;
  - (vii) aeroplane-borne auxiliary power units which have an efflux discharging into the zone are not started after filler caps are removed or fuelling connections are made;
  - (viii) if an auxilliary power unit (APU) is stopped for any reason during fuelling it shall not be restarted until the flow of fuel has ceased and there is no risk of igniting fuel vapours, however, the APU may be operated in accordance with the manufaturer's approved aeroplane flight manual if the manual contains procedures for starting the APU during fuelling;
  - (ix) electric tools or similar tools likely to produce sparks or arcs are not being used, and;
  - (x) photographic equipment is not used within 10ft. (3m) of the fuelling equipment or the fill or vent points of the aeroplane fuel systems.
- g) fuelling is immediately suspended when there are lightning discharges within 8 km of the aerodrome:
- h) the aeroplane is fuelled in accordance with manufacturer's procedures for that type of aeroplane;
- i) the aeroplane emergency lighting system is armed or on;

- j) "No smoking" signs on board the aeroplane are illuminated, as applicable;
- k) procedures are established to ensure that passengers do not smoke, operate portable electronic devices or otherwise produce sources of ignition;
- I) "seat belt ON" signs are kept "OFF"
- m) a minimum of two exits are designated evacuation exits during fuelling; one of which must be the entry doors through which the passengers embarked;
- n) the designated evacuation exits during fuelling are identified by aeroplane type and published in the company operations manual, and are clear and available for immediate use by passengers and crew members should an evacuation be required;
- the air operator has procedures in place to ensure that there is a ready escape route from each designated evacuation exit during fuelling, and that designated evacuation exits which are equipped with slides have the slides armed or a crew member is in the immediate vicinity to arm the slides if required;
- p) all exits and passages are clear of obstructions e.g. passenger hand baggage, food service carts etc:
- a means of evacuation such as a deployed integral stair a loading stair or stand, a loading bridge or a passenger transfer vehicle (PTV) is in place at the aeroplane door used for the embarking and disembarking of passengers and is free of obstruction and available for immediate use by the aeroplane occupants if necessary;
- r) for aeroplanes requiring a minimum cabin crew of more than one,a qualified person trained in the operation and use of emergency exits and in emergency evacuation procedures who is ready to initiate and direct an evacuation is at or near the passenger entry door;
- s) for aeroplanes requiring a minimum cabin crew of more than one, at least the minimum number of cabin crews for the aeroplane type or the number of passengers on board whichever is greater, are on board and positioned at or near each designated evacuation exit during fuelling. Cabin Crew may be replaced by an equivalent number of other staff provided that they have successfully completed the air operator's approved emergency evacuation procedures training for the aeroplane type;
- t) flight crew members inform the in-charge cabin crew when they are leaving the aeroplane;
- where desirable for climatic reasons, and provided a flight crew member is on board or a
  means of communication is available to the cabin crew, an aeroplane embarking door, that
  is inward opening or that can be fully opened to the exterior without repositioning of loading
  stairs or stand, may be closed and latched if necessary to keep it closed, but may not be
  locked;
- v) procedures are established to ensure that cabin crew or qualified persons replacing cabin crew in accordance with paragraph (s) are made aware of when fuelling will take place.

### 4.0 EFFECTIVITY

This Air Safety Circular becomes effective on 1st May 2000. In the interim period no fuelling is to be done with passengers embarking, on board or disembarking unless the operator has procedures in place and the same are incorporated in the Operations and Maintenance Manuals.

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**DIRECTOR GENERAL OF CIVIL AVIATION**