

PR-003

Calculation of PCC for Firefighting Aircraft

Standard

Version 2023.1.01

June 2023



1 Background

This Standard provides parameters to calculate the Passenger Carrying Capacity (PCC) of a firefighting aircraft tendered for passenger carriage operations. The PCC number is calculated by the operator.

This calculation is for procurement evaluation and may be used by aircraft management units in mission planning. It does not prescribe the number of passengers an aircraft must carry on operations.

2 Calculation

Aircraft have a PCC number of zero if:

- The operator does not have the relevant approvals under the CASR
- The aircraft does not have a Standard Certificate of Airworthiness or equivalent recognised by CASA

The PCC number calculation must utilise the following parameters:

- standard weight of 86kg per person for passengers and crew
- take-off and landing at Mean Sea Level
- International Standard Atmosphere (ISA) plus 25°C conditions
- crew includes pilots, flight engineers, flight attendants, loadmasters, etc.
- crew complement includes the maximum required by:
 - regulatory requirements
 - the Operator's Operations Manual / exposition
 - contract specifications.
- each person must occupy a compliant seat as per *NAFC Standard OPS-010 Seating, Seatbelts, and Safety Harnesses*
- aircraft empty weight including:
 - equipment for Visual Flight Rules passenger carrying operations as per CASR
 - fire operations equipment as specified in contracts and the NAFC Standards
 - sufficient headset, helmets, or hearing protectors for passengers
 - special operations and/or mission equipment required by contract
 - 30kg of additional equipment
- economic power/cruise speed settings
- fixed wing aircraft must include sufficient fuel for:
 - take-off
 - climb to cruise at 3000 feet Above Mean Sea Level
 - landing
 - endurance of 180 minutes flight time, including reserves.
- rotary wing aircraft must include sufficient fuel for:
 - take-off
 - climb to cruise at 1,500 feet Above Mean Sea Level
 - landing
 - endurance of 90 minutes, including reserves



The PCC number calculation excludes:

- seats designated for crew, even when not utilised
- limitations to passenger numbers caused by:
 - enroute or surface conditions
 - landing area / runway specifications
- weight of suppressant or retardant, or other additives
- weight of sling load equipment e.g., cables, long-lines, firebombing bucket, etc.

Where passenger carrying approval is affected by mission equipment (i.e. aircraft is Restricted category) but reversion to Standard category is achieved through 'in-field' removal, a PCC number is to be followed by 'Q' for 'qualified'. E.g. if an aircraft operationally fitted with a firebombing tank can legally carry 10 passengers with the tank removed, the PCC is 10Q.

Operators must provide NAFC and Members with written information on qualified PCC numbers.