Fuel Calculation	minute	lb	kg	litre
Taxi fuel				
Trip fuel				
Contingency fuel				
Dest. alternate fuel				
Final reserve fuel				
Additional fuel				
Holding fuel				
Fuel required				
Discretionary fuel				
Margin fuel				
Endurance				
From				

Fuel required = ∑ { Taxi fuel, Trip fuel, Contingency fuel, Dest. alternate fuel, Fixed fuel reserve, Additional fuel, Holding fuel }
Endurance   = ∑ { Fuel required, Descretionary fuel, Margin fuel }

Source: AC 91-15 v1.1

BRIEFING **1800805150**   CENSAR **1800814931**

Term	Meaning	Legacy

Taxi fuel	the amount of fuel expected to be used by an aircraft before take-off, taking into account:
	    a) local conditions at the departure aerodrome, including taxi time and traffic congestion; and
	    b) APU consumption (if applicable)
	Note: For rotorcraft operations requiring a take-off prior to taxi, such as hover taxi from a confined helipad, taxi fuel is expected to be consumed prior to the commencement of the departure.
	Note: This definition applies only to Part 91 operations.	

Trip fuel	the amount of fuel required to enable an aircraft to fly from any point along a route until landing at a destination aerodrome including (as applicable) the following:
	fuel for take-off and climb from departure aerodrome elevation to initial
	    a) cruising level or altitude, taking into account the expected departure routing;
	    b) fuel for cruise from top of climb to top of descent, including any step climb or descent;
	    c) fuel from top of descent to the point where the approach is initiated, taking into account the expected arrival procedure;
	    d) fuel for executing an approach and landing at the planned destination aerodrome.	

Contingency fuel	the amount of fuel required to compensate for unforeseen factors, and which must not be less than:
	  ◆ the percentage (if any) of the planned trip fuel for the flight, as specified in column 4 of the same item or
	  ◆ in the event of in-flight replanning — the percentage (if any) of the trip fuel for the replanned flight, as specified in column 4 of the same item.
		Variable fuel reserve

Destination alternate fuel	the amount of fuel required to enable an aircraft to do the following in a sequence:
	perform a missed approach at the destination aerodrome;
	    a) climb to the expected cruising altitude;
	    b) fly the expected routing to the destination alternate aerodrome;
	    c) descend to the point where the expected approach is initiated;
	    d) conduct the approach;
	    e) land at the destination alternate aerodrome.
		Alternate fuel

Final reserve fuel	the calculated amount of fuel that:
	  ◆ is required to fly an aircraft:
	    ◆ at 1 500 ft above aerodrome elevation in ISA conditions for the period of time specified for the flight in column 3 of Table 2
	    ◆ for an aircraft that is a rotorcraft conducting IFR flight or VFR flight by night, or an aeroplane, or an airship — at holding speed
	    ◆ for an aircraft that is a rotorcraft conducting a VFR flight by day — at range speed
	    ◆ at the aircraft's estimated weight on arrival at the destination alternate aerodrome or the planned destination aerodrome when no destination alternate aerodrome is required (the relevant aerodrome) to the relevant aerodrome.
	  ◆ is usable fuel remaining in the fuel tanks on completion of the final landing at the relevant aerodrome.
		Fixed fuel reserve

Additional fuel	the supplementary amount of fuel required to allow an aircraft that suffers engine failure, or loss of pressurisation at the most critical point along the route, whichever results in the greater subsequent fuel consumption, to:
	    a) proceed to an alternate aerodrome (or, for a rotorcraft, a suitable
	    b) rotorcraft landing site), and
	    c) fly for 15 minutes at the holding speed for the aircraft at 1,500 ft above the aerodrome elevation in ISA conditions, and
	    d) make an approach and landing.
	Note: For a rotorcraft, an alternate rotorcraft landing site would constitute the alternate aerodrome.
	Note: Fuel planning in accordance with Chapter 19 of the Part 91 MOS may place an aircraft in a fuel emergency situation if a failure or loss were to occur as described above. In that case, additional fuel must be carried.	

Holding fuel	the amount of fuel an aircraft requires to fly for the period of time anticipated for holding (taking into account the operating conditions) calculated at the holding fuel consumption rate established for the aircraft for the anticipated meteorological conditions, or ISA. **Note**: See also the definition of established in the Part 91 MOS.	
Discretionary fuel	an extra amount of fuel to be carried at the discretion of the PIC.	
Margin fuel	the amount of usable fuel in excess of the fuel required	

Source: AC 91-15 v1.1