

FlitePrep Suite ERJ-145LR

FlitePrep Suite ERJ-145LR - Weight definitions

via FSUIPC: Values that can be changed at any time, when connected to FSUIPC

AIRCRAFT.CFG, ERJ.INI: Values that can be changed before ERJ-145 aircraft is loaded into FS

FP-ERJ145.INI: Values that can be changed before FlitePrep Suite ERJ-145LR is run

		Description	File	Field	Default value	Min...Max value
Basic Operating Weight	BOW	Weight of the aircraft ready to fly without pilots, flight attendants, passengers, cargo, fuel	AIRCRAFT.CFG FP-ERJ145.INI	WEIGHT_AND_BALANCE EMPTY_WEIGHT STANDARDS BOW	27337	
No. of Pilots		must be two, no choice	FP-ERJ145.INI	CREW PILOTS	2	2
Weight of Pilots		Weight of each pilot including his/her	FP-ERJ145.INI	CREW PILOTS WEIGHT	190	
Pilot's baggage weight		Weight of baggage for each pilot	FP-ERJ145.INI	CREW PILOTS BAGGAGE	20	
No. of Flight Attendants		Legally required is 1 flight attendant, if more than 19 passengers are carried. FPS calculates automatically: 0 pax -> 0 flight attendants 1-([Flight Attendants]\Passenger for two)-1 -> 1 flight attendant more than that -> 2 flight attendants If you want to assign a fixed number than enter in {CREWFAS}, otherwise leave open	FP-ERJ145.INI	CREW FAS	2	0..2
Weight of Flight Attendants		Weight of each flight attendant including his/her baggage	FP-ERJ145.INI	CREW FAS WEIGHT	140	
Flight Attendants baggage weight		Weight of baggage for each flight	FP-ERJ145.INI	CREW FAS BAGGAGE	20	
Basic Operating Weight (FMS)	BOW FMS	This value is shown in the FMS only and does include BOW, pilots and flight attendants and their baggage. The default value in the FMS reflects the BOW, 2 pilots and 2 flight attendants and their baggage (+3 lbs of drinks)	ERJ.INI	FMS.PERF BOW	28000 (should be 27997)	
No. of Passengers		can be selected between 0 and 50; passengers are placed so, that the standard takeoff trim (3-4) will not be affected	FP-ERJ145.INI	PAYLOAD PAX		0...50

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Weight of Passenger		Weight of each passenger including his/her baggage	ERJ.INI FP-ERJ145.INI	FMS.PERF PAXWEIGHT STANDARDS PAX	190	
Passenger baggage weight		Weight of baggage for each passenger	FP-ERJ145.INI	PAX BAGGAGE	20	
Extra cargo weight		Extra cargo load in the baggage compartment. This is in addition to the baggage of the crew and the passengers.	AIRCRAFT.CFG FP-ERJ145.INI *.FLT	WEIGHT_AND_BALANCE STATION_LOAD.6 PAYLOAD CARGO PAYLOAD.0 PAYLOADLIST	1500	
Baggage/cargo weight	BCW	Total load in baggage compartment. The aggregate of pilot's, flight attendant's, passenger baggage and extra cargo load may not exceed the maximum load in the baggage compartment	FP-ERJ145.INI	MAX.WEIGHTS BULK		2676
Payload	PL	Total load from passengers and their baggage plus extra cargo load	*.FLT	PAYLOAD.0 PAYLOADLIST		MPL
Maximum Payload	MPL	The maximum payload	FP-ERJ145.INI	MAX.WEIGHTS PAYLOAD	12755	
Gross Weight (FMS)	GW FMS	Synonym for payload in the FMS				MPL
Zero fuel weight	ZFW	The aggregate of BOW and passenger load and extra cargo load.				MZFW
Maximum Zero fuel weight	MZFW	The maximum zero fuel weight	FP-ERJ145.INI	MAX.WEIGHTS ZFW	39462	
Takeoff taxi fuel	TOTF	Fuel required for APU run and from start-up of the airplane until start of take-off run	ERJ.INI	FMS.PERF TOFUEL	360 (45 mins idle)	
Trip fuel	TF	Fuel required for take-off run and to fly the flight planned route until end of landing run				
Alternate fuel	ALTF	Fuel required to go around, fly to and land at the alternate airport. The calculation scheme is the same as for Trip fuel.				

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Reserve fuel	RESF	Fuel required as reserve according to the fuel reserve scheme applicable for the flight	FP-ERJ145.INI ERJ.INI	FUEL ALTN INT FUEL ALTN DOM FUEL ALTN NBAA FUEL NO ALTN FMS.PERF FUELRESERVETYPE + FUELRESERVEWEI GHT + FUELRESERVETIME		
Extra fuel	EXF	Fuel at the pilot's discretion	FP-ERJ145.INI	FUEL EXTRA		
Landing taxi fuel	LDTF	Fuel to taxi from the landing runway to the parking position including APU run (will be added to fuel calculation automatically)	ERJ.INI	FMS.PERF LANDFUEL	200 (25 mins idle)	
Unusable fuel	UUF	Fuel that cannot be used because it is inaccessible to the fuel pumps (will be added to fuel calculation automatically)	FP-ERJ145.INI	FUEL UNUSABLE	80 (fixed)	
Total fuel	TOTF	TOTF+TF+ALTF+RESF+EXF+LDTF+UUF; this amount will be ordered from the gas station; must be less than maximum fuel		via FSUIPC		MF
Maximum fuel	MF	Maximum capacity of the airplane's 2 fuel tanks	AIRCRAFT: CFG FP-ERJ145.INI	FUEL LEFTMAIN + RIGHTMAIN MAX.WEIGHTS FUEL	11398	
Maximum fuel unbalance		Maximum difference between the two fuel tanks (caution after excessive APU runs or single engine flights, use crossfeed)	FP-ERJ145.INI	FUEL MAX UNBALANCE		800
Ramp weight - or- Block weight	RW	ZFW+Total fuel; Gross weight of the airplane with pilots, flight attendants, passenger and cargo load plus full fuel configuration before APU start/engine start/taxi to takeoff.				MRW
Maximum ramp weight	MRW	The maximum permissible weight the airplane may carry on its undercarriage under any condition	FP-ERJ145.INI	MAX.WEIGHTS BLOCK	48721	
Take off weight	TOW	RW-TOTF or TF+ALTF+RESF+EXF+LDTF; Gross weight of the airplane when starting take-off run, i.e. after some taxi fuel has been burnt. The TOW may be higher than planned when the planned TOTF has not been burned during start-up/taxi. Check take-off speeds.				MTOW
Maximum take-off weight	MTOW	The maximum permissible weight the airplane may weigh when starting take-off run.	AIRCRAFT. CFG FP-ERJ145.INI	WEIGHT_AND_BALA NCE MAX_GROSS_WEIG HT MAX.WEIGHTS TOW	48501	

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Landing weight	LW	TOW-TF or ALTF+RESF+EXF+LDTF; Actual gross weight of the airplane when touching down on the runway. The actual LW may differ from the planned LW. Check landing speeds.				MLW
Maximum landing weight	MLW	The maximum permissible weight of the airplane when touching down on the landing runway. Caution when returning after take-off or when distant alternate is used. MLW can be exceeded easily with this airplane.	FP-ERJ145.INI	MAX.WEIGHTS LW	42549	

FlitePrep Suite ERJ145 - Reserve fuel definitions

FAA DOM		FAA rule for Part 121 domestic operations: <i>Alternate Fuel.</i> That fuel necessary for a flight to fly from the point of completion of the missed approach at the destination airport to the most distant alternate airport, make an IFR approach (if the forecast indicates such conditions will exist), and then complete a landing <i>Domestic Reserve Fuel.</i> That fuel necessary for a flight to fly for 45 minutes at normal cruising fuel consumption. This rule is also automatically applied by FPS when you select origin and destination airports within the same country. This selection can be altered manually.			
FAA INT		FAA rule for Part 121 international operations: <i>Alternate Fuel.</i> That fuel necessary for a flight to fly from the point of completion of the missed approach at the destination airport to the most distant alternate airport, make an IFR approach (if the forecast indicates such conditions will exist), and then complete a landing. <i>En Route Reserve.</i> That fuel necessary for the flight to fly for a period of time equal to 10 percent* of the en route time, which includes and approach and landing. This fuel requirement is computed at the weight at which the flight is expected to arrive over the destination airport. <i>International Reserve Fuel.</i> That fuel necessary thereafter, for the flight to fly for 30 minutes at holding speed at 1,500 feet above the alternate airport, or the destination airport if no alternate is required under § 121.621(a)(1). International fuel reserves are computed under standard temperature conditions. *A special regulation exists under which this rule may be altered to 5 percent. This is adopted within FPS.			
NBAA		NBAA rule for Part 91 operations: Fuel for go-around at destination airport + climb to 500 ft. and hold for 5 minutes + fly to and land at alternate airport 200 NM away + fuel to hold at 5000 ft. for 30 minutes.			

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NO ALTERNATE		<i>Required Fuel Supplies for Flights for which An Alternate Airport is Not Available Within the Fuel Range of the Aircraft.</i> A turbojet-powered airplane released according to §§ 121.621(a)(1) or 121.623(b) to an airport for which an alternate airport is not available must have enough fuel on board at takeoff to fly to that airport, to make an approach and to land, along with 2 hours flight time at normal cruising fuel consumption.			
all		<i>Contingency Fuel.</i> That fuel necessary for a flight to compensate for any known traffic delays and to compensate for any other condition that may delay the landing of the flight (called PILOT'S EXTRA in FPS)			

Other parameters

Wind at Cruise Level (Origin to Dest)		Wind component enroute from top of climb until top of descent.	ERJ.INI FP-ERJ145.INI	FMS.PERF CRZWINDDIR + CRZWINDSTRENGTH + CRZWINDALT WINDS WCDEST + DEST
Transition Altitude		Altitude that will generate an alert after departure	ERJ.INI FP-ERJ145.INI	FMS.PERF TRANSALT ALERT ALTITUDE