

## Boeing Classic 747 Limitations

Altitude Max	45100	ft
APU / Ext Pwr Max Load	250	a
APU EGT Continuous 657-	670	c
APU EGT Starting 900 -	990	c
APU In Flight Use Below (electrical power & icing not permitted)	15000	ft
APU InFlight Start Max Alt	20000	ft
APU Starting 1 min ON 5 min OFF per hour	3	hr
APU Starting 61-90 seconds ON 15 min OFF per hour	2	hr
Battery Volts Acft / TR 25 -	32	vdc
Battery Volts APU 25 -	36	vdc
Battery Volts Min	22	vdc
Door Opened Wind	65	kts
Door Operating Wind	40	kts
EGT Acceleration -CF6	960	c
EGT Acceleration A	915	c
EGT Acceleration F	950	c
EGT Acceleration J	985	c
EGT Cont -CF6	910	c
EGT Cont A	875	c
EGT Cont F	910	c
EGT Cont J	925	c
EGT Starting -CF6	750	c
EGT Starting A	650	c
EGT Starting F	650	c
EGT Starting J	650	c
EGT TO -CF6	945	c
EGT TO A	915	c
EGT TO F	950	c
EGT TO J	985	c
Gen 1 Isolated	54	kw
Gen 2 parallel total	81	kw
Gen 3 or 4 parallel each	51	kw
Gen AC 115V +/- 5	400	hz
Hyd 1 & 4 min svc	7.5	qts
Hyd 2 & 3 min svc	4	qts
Hyd Air Driven Pump	2600	psi
Hyd Brake Accum	750	psi
Hyd Press Low	1200	psi
Hyd Press Norm 2800 -	3200	psi
Hyd Press Relief 3450 -	3650	psi
N1 Min (no high stage bleed)	70	%
N1 Min At or Above 10,000	50	%
N1 Min Below 10,000	45	%
O2 Masks Drop	14000	ft
Oil Min Qty CF6 Enroute	3.25	gal
Oil Min Qty CF6 Maint full or	22	qts
Oil Min Qty JT9 Enroute ½ full or	4	gal

Oil Min Qty JT9 Maint full or	7	gal
Oil Temp Yellow CF6	15	min
Oil Temp Yellow JT9	20	min
Runway Slope + -	2	%
Speed Mmo	.92	m
Speed Mmo RVSM	.90	m
Speed Mmo RVSM Below 520,000	.87	m
Speed Turb Air (100) 280-290 .82 - .85	290	kts
Speed Turb Air (200) 290-310 .82 - .85	310	kts
Speed Vmo Sea Level	378	kts
Starter max operation CF6	5	min
Starter max operation JT9 3 attempts in 10 min	10 on 10 off 15 on 15 off	min
TO & LDG Max Alt	10000	msl
TR 30 Min	93	a
TR 5 Min	113	a
TR Cont	75	a
TR No Cool	54	a
Vle .82	320	kts
Vlo .82	270 & 250	kts
Xwind	10	kts
Xwind Autoland Not Authorized	15	kts
Xwind Demonstrated	30	kts