



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80E1A3
UNIQUE ID NUMBER: 5GE085
ENGINE TYPE: TF

BYPASS RATIO: 5.1
PRESSURE RATIO (π_{00}): 35.7
RATED OUTPUT (F_{00}) (kN): 304.8

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{00} (g/kN) or SN	12.6	46.7	65.8	10.8
AS % OF ORIGINAL LIMIT	64.3 %	39.6 %	59.1 %	61.9 %
AS % OF CAEP/2 LIMIT (NOx)			73.8 %	
AS % OF CAEP/4 LIMIT (NOx)			83.9 %	
AS % OF CAEP/6 LIMIT (NOx)			93.5 %	
AS % OF CAEP/8 LIMIT (NOx)			107.0 %	

DATA STATUS

- PRE-REGULATION
x CERTIFICATION
- REVISED (SEE REMARKS)

TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES
- DEDICATED ENGINES TO PRODUCTION STANDARD
- OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
(ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
- OUT OF PRODUCTION
- OUT OF SERVICE

MEASURED DATA

MODE	POWER SETTING (% F_{00})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	2.989	0.07	0.34	45.63	10.1
CLIMB OUT	85	2.2	2.387	0.07	0.31	31.74	8.6
APPROACH	30	4.0	0.755	0.18	1.23	10.29	0
IDLE	7	26.0	0.227	9.53	37.02	4.69	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			976	3438	13473	19254	-
NUMBER OF ENGINES				6	6	6	6
NUMBER OF TESTS				11	11	11	11
AVERAGE D_p/F_{00} (g/kN) or AVERAGE SN (MAX)				11.28	44.2	63.15	10.1
SIGMA (D_p/F_{00} in g/kN, or SN)				-	-	-	-
RANGE (D_p/F_{00} in g/kN, or SN)				-	-	-	-

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
STAGE BLEED 0 % CORE FLOW AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.61 - 98.15
TEMPERATURE (K)	279 - 293
ABS HUMIDITY (kg/kg)	.00457 - .00743

FUEL

SPEC	Jet A
H/C	1.94
AROM (%)	15.3

MANUFACTURER: GE
TEST ORGANIZATION: CF6 Eval Engineering
TEST LOCATION: Site IIIB, PTO Peebles
TEST DATES: FROM 13 Jan 95 TO 17 Jan 95

REMARKS

- Ref. GE Reports R84AEB152, R90AEB188, R95AEB272-2
- Standard combustor
- Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
- NOx levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements:

0 ('x' if complies, PR if pre-regulation)