



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80E1A2
UNIQUE ID NUMBER: 1GE033
ENGINE TYPE: TF

BYPASS RATIO: 5.1
PRESSURE RATIO (π_{oo}): 33.08
RATED OUTPUT (F_{oo}) (kN): 287

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	15.3	61.9	62.1	11.6
AS % OF ORIGINAL LIMIT	78.2 %	52.4 %	58.5 %	65.5 %
AS % OF CAEP/2 LIMIT (NOx)			73.1 %	
AS % OF CAEP/4 LIMIT (NOx)			84.8 %	
AS % OF CAEP/6 LIMIT (NOx)			95.3 %	
AS % OF CAEP/8 LIMIT (NOx)			110.3 %	

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_{oo})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	2.767	0.05	0.38	39.29	9.9
CLIMB OUT	85	2.2	2.245	0.07	0.34	28.02	7.2
APPROACH	30	4.0	0.724	0.14	1.61	9.91	0
IDLE	7	26.0	0.228	9.37	42.67	4.53	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			942	3384	15602	16203	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				11.78	54.29	56.44	9.9
SIGMA (D_p/F_{oo} in g/kN, or SN)				4.8	6.2	1.3	2.8
RANGE (D_p/F_{oo} in g/kN, or SN)				7.4-16.0	46.3-57.3	54.7-57.3	7.5-12.7

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.66-97.99
TEMPERATURE (K)	292 - 296
ABS HUMIDITY (kg/kg)	.012-.015

FUEL

SPEC	Jet A
H/C	1.89
AROM (%)	16.4

MANUFACTURER: GE Aircraft Engines
TEST ORGANIZATION: CF6 Evaluation Engineering
TEST LOCATION: Sites IIIC & IIID, Peebles Test Facility
TEST DATES: FROM 08 Jun 92 TO 04 Aug 92

REMARKS

1. Ref GE Report R90AEB188.
2. Engine S/N's 810-101/1 and 810-104/1.
3. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
4. 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)