



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80C2B1
UNIQUE ID NUMBER: 1GE022
ENGINE TYPE: TF

BYPASS RATIO: 5.1
PRESSURE RATIO (π_{00}): 30.08
RATED OUTPUT (F_{00}) (kN): 249

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{00} (g/kN) or SN	15.5	63.1	46.0	8.3
AS % OF ORIGINAL LIMIT	78.9 %	53.4 %	45.9 %	45.2 %
AS % OF CAEP/2 LIMIT (NOx)			57.3 %	
AS % OF CAEP/4 LIMIT (NOx)			68.4 %	
AS % OF CAEP/6 LIMIT (NOx)			77.7 %	
AS % OF CAEP/8 LIMIT (NOx)			91.5 %	

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)
x OUT OF PRODUCTION (DATE: -)
- 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	2.285	0.08	0.58	28.11	7.1
CLIMB OUT	85	2.2	1.873	0.09	0.55	21.26	4.5
APPROACH	30	4.0	0.616	0.21	2.37	8.83	2.3
IDLE	7	26.0	0.196	9.46	43.22	3.73	3
LTO TOTAL FUEL (kg) or EMISSIONS (g)			797	2953	13757	10400	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{00} (g/kN) or AVERAGE SN (MAX)				11.89	55.35	41.79	7.1
SIGMA (D_p/F_{00} in g/kN, or SN)				1.31	2.97	2.02	1.1
RANGE (D_p/F_{00} in g/kN, or SN)				10.77-13.2	52.78-57.98	40.17-44.18	5.7-7.6

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.40-97.82
TEMPERATURE (K)	287 - 296
ABS HUMIDITY (kg/kg)	.0084-.0140

FUEL

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

MANUFACTURER: GE Aircraft Engines
TEST ORGANIZATION: CF6 Evaluation Engineering
TEST LOCATION: Site IIIC, PTO, Peebles, Ohio
TEST DATES: FROM 29 May 85 TO 03 Jun 85

REMARKS

1. Ref GE Report R84AEB152, Addendum 1 (Dec 1986).
2. Engine S/N's 690105 and 690005/2.

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

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