



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80C2A1
UNIQUE ID NUMBER: 1GE014
ENGINE TYPE: TF

BYPASS RATIO: 5.1
PRESSURE RATIO (π_{oo}): 30.96
RATED OUTPUT (F_{oo}) (kN): 257.4

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	14.7	60.4	52.9	9.6
AS % OF ORIGINAL LIMIT	75.2 %	51.2 %	51.9 %	52.6 %
AS % OF CAEP/2 LIMIT (NOx)			64.9 %	
AS % OF CAEP/4 LIMIT (NOx)			76.8 %	
AS % OF CAEP/6 LIMIT (NOx)			86.9 %	
AS % OF CAEP/8 LIMIT (NOx)			101.7 %	

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_{oo})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	2.400	0.08	0.56	32.22	8.2
CLIMB OUT	85	2.2	1.953	0.09	0.54	24.85	4.9
APPROACH	30	4.0	0.636	0.2	2.19	9.76	2.3
IDLE	7	26.0	0.199	9.19	42.24	3.99	3
LTO TOTAL FUEL (kg) or EMISSIONS (g)			822	2915	13643	12382	-
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)				11.32	53.04	48.12	8.2
SIGMA (D_p/F_{oo} in g/kN, or SN)				1.27	3.04	0.53	1.2
RANGE (D_p/F_{oo} in g/kN, or SN)				10.24-12.65	50.41-55.78	47.41-48.43	6.0-8.2

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.
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)