ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80A
UNIQUE ID NUMBER: 1GE010
ENGINE TYPE: TF

BYPASS RATIO: 5
PRESSURE RATIO (π_{oo}): 29
RATED OUTPUT (F_{oo}) (kN): 208.8

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	12.1	43.6	61.6	15.6
AS % OF ORIGINAL LIMIT	61.7 %	36.9 %	62.9 %	80.6 %
AS % OF CAEP/2 LIMIT (NOx)			78.6 %	
AS % OF CAEP/4 LIMIT (NOx)			94.2 %	
AS % OF CAEP/6 LIMIT (NOx)			107.0 %	
AS % OF CAEP/8 LIMIT (NOx)			126.5 %	

DATA STATUS

x PRE-REGULATION
- 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) HC	CO	NOx	SMOKE NUMBER
TAKE-OFF	100	0.7	2.145	0.29	1	29.8	12
CLIMB OUT	85	2.2	1.795	0.29	1.1	25.6	10
APPROACH	30	4.0	0.615	0.47	3.1	10.3	2
IDLE	7	26.0	0.150	6.29	28.2	3.4	2
LTO TOTAL FUEL (kg) or EMISSIONS (g)			709	1636	7407	11066	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	1
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				7.84	35.5	53.1	12
SIGMA (D_p/F_{oo} in g/kN, or SN)				0.95	0.4	3	-
RANGE (D_p/F_{oo} in g/kN, or SN)				7.17-8.93	35.0-35.9	49.6-55.4	-

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	99.08-99.78
TEMPERATURE (K)	275 - 277
ABS HUMIDITY (kg/kg)	0.002

FUEL

SPEC	Jet A
H/C	1.93
AROM (%)	17.1

MANUFACTURER: GE Aircraft Engines
TEST ORGANIZATION: Production Engine Test
TEST LOCATION: Production Test Cells M35
TEST DATES: FROM 11 Nov 83 TO 12 Nov 83

REMARKS

1. Ref GE Report no R83AEB635.
2. Engine S/N 580214.
3. Smoke from Engine S/N 580005, report R81AEG513.
4. With approval of US FAA, idle power data were only acquired at the engine design setting of 3.69%.

If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements: 0 ('x' if complies, PR if pre-regulation)