ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80A2
UNIQUE ID NUMBER: 1GE012
ENGINE TYPE: TF

BYPASS RATIO: 5
PRESSURE RATIO (π_{oo}): 30.1
RATED OUTPUT (F_{oo}) (kN): 216.5

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	11.7	42.0	64.3	15.6
AS % OF ORIGINAL LIMIT	59.7 %	35.6 %	64.2 %	81.4 %
AS % OF CAEP/2 LIMIT (NOx)			80.2 %	
AS % OF CAEP/4 LIMIT (NOx)			95.7 %	
AS % OF CAEP/6 LIMIT (NOx)			108.7 %	
AS % OF CAEP/8 LIMIT (NOx)			127.8 %	

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	2.254	0.3	1	29.6	12
CLIMB OUT	85	2.2	1.885	0.37	1.1	26.6	10
APPROACH	30	4.0	0.641	0.45	2.8	10.8	2
IDLE	7	26.0	0.150	6.28	28.2	3.4	2
LTO TOTAL FUEL (kg) or EMISSIONS (g)			731	1659	7398	11878	-
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)				7.58	34.2	55.5	12
SIGMA (D_p/F_{oo} in g/kN, or SN)				0.96	0.4	2.9	-
RANGE (D_p/F_{oo} in g/kN, or SN)				6.91-8.69	33.8-34.5	52.4-58.1	-

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)