ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION:	CF6-80A3	BYPASS RATIO:	5
UNIQUE ID NUMBER:	1GE013	PRESSURE RATIO (π_{oo}):	30.1
ENGINE TYPE:	TF	RATED OUTPUT (F_{oo}) (kN):	217.8

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	11.6	41.7	64.0	15.6
AS % OF ORIGINAL LIMIT	59.2 %	35.3 %	63.9 %	81.6 %
AS % OF CAEP/2 LIMIT (NOx)			79.8 %	
AS % OF CAEP/4 LIMIT (NOx)			95.2 %	
AS % OF CAEP/6 LIMIT (NOx)			108.2 %	
AS % OF CAEP/8 LIMIT (NOx)			127.2 %	

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)				7.53	34	55.2	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)				6.87-8.64	33.6-34.3	52.1-57.7	-

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)