



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80A1
UNIQUE ID NUMBER: 1GE011
COMBUSTOR:
ENGINE TYPE: TF

BYPASS RATIO: 5.0
PRESSURE RATIO (π_{00}): 29.0
RATED THRUST (F_{00}) (kN): 209.0

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	12.1	43.6	61.4	15.6
AS % OF ORIGINAL LIMIT	61.7	36.9	62.7	80.7
AS % OF CAEP/2 LIMIT (NO _x)			78.3	
AS % OF CAEP/4 LIMIT (NO _x)			93.9	
AS % OF CAEP/6 LIMIT (NO _x)			106.7	
AS % OF CAEP/8 LIMIT (NO _x)			126.1	

DATA STATUS

x PRE-REGULATION
- CERTIFICATION
x 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 (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	2.145	0.29	1.00	29.80	12.0
CLIMB OUT	85	2.2	1.795	0.29	1.10	25.60	10.0
APPROACH	30	4.0	0.615	0.47	3.10	10.30	2.0
IDLE	7	26.0	0.150	6.29	28.20	3.40	2.0
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 ₀₀ (g/kN) or AVERAGE SN (MAX)				7.8	35.5	53.0	12.0
SIGMA (D _p /F ₀₀ in g/kN, or SN)				1.0	0.4	3.0	
RANGE (D _p /F ₀₀ in g/kN, or SN)				7.16-8.92	35-35.9	49.6-55.3	

ACCESSORY LOADS

POWER EXTRACTION 0 (kW)
STAGE BLEED 0 (% CORE FLOW)

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	99.1-99.8
TEMPERATURE (K)	275-277
ABS HUMIDITY (kg/kg)	0.002

FUEL

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

MANUFACTURER: General Electric Company
TEST ORGANIZATION: Production Engine Test
TEST LOCATION: Production Test Cells M35
TEST DATES: 11/11/1983-12/11/1983

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%.

Compliance with Fuel Venting requirements:

- ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)