



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80C2D1F
UNIQUE ID NUMBER: 1GE031
ENGINE TYPE: TF

BYPASS RATIO: 5.1
PRESSURE RATIO (π_{oo}): 32.86
RATED OUTPUT (F_{oo}) (kN): 269.96

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	13.6	56.1	51.8	9.6
AS % OF ORIGINAL LIMIT	69.4 %	47.5 %	49.0 %	53.3 %
AS % OF CAEP/2 LIMIT (NOx)			61.2 %	
AS % OF CAEP/4 LIMIT (NOx)			71.2 %	
AS % OF CAEP/6 LIMIT (NOx)			80.1 %	
AS % OF CAEP/8 LIMIT (NOx)			92.8 %	

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	2.596	0.07	0.52	32.65	8.2
CLIMB OUT	85	2.2	2.065	0.08	0.52	24.02	5.6
APPROACH	30	4.0	0.657	0.2	1.94	9.16	2.3
IDLE	7	26.0	0.196	9.03	41.78	3.8	3.5
LTO TOTAL FUEL (kg) or EMISSIONS (g)			845	2822	13279	12714	-
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)				10.46	49.21	47.1	8.2
SIGMA (D_p/F_{oo} in g/kN, or SN)				1.21	2.83	2.16	1.4
RANGE (D_p/F_{oo} in g/kN, or SN)				9.43-11.73	46.76-51.89	45.47-49.65	6.35-8.85

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 R88AEB266 Rev A (Jan 91).
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)