



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80C2D1F  
UNIQUE ID NUMBER: 1GE031  
COMBUSTOR:  
ENGINE TYPE: TF  
BYPASS RATIO: 5.1  
PRESSURE RATIO ( $\pi_{00}$ ): 32.9  
RATED THRUST ( $F_{00}$ ) (kN): 270.0

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (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 (NO <sub>x</sub> )			61.2	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			71.2	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			80.1	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			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 (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
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	0.20	1.94	9.16	2.3
IDLE	7	26.0	0.196	9.03	41.78	3.80	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 <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				10.5	49.2	47.1	8.2
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				1.2	2.8	2.2	1.4
RANGE (D <sub>p</sub> /F <sub>00</sub> 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)  
STAGE BLEED 0 (% CORE FLOW)

AT - POWER SETTINGS  
AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.4-97.8
TEMPERATURE (K)	287-296
ABS HUMIDITY (kg/kg)	0.0084-0.014

### FUEL

SPEC	Jet A
H/C	1.94
AROM (%)	15.3

MANUFACTURER: General Electric Company  
TEST ORGANIZATION: CF6 Eval Engineering  
TEST LOCATION: Site IIIC, PTO, Peebles, Ohio  
TEST DATES: 29/05/1985-03/06/1985

### REMARKS

1. Ref GE Report R88AEB266 Rev A (Jan 91).
2. Engine S/N's 690105 and 690005/2.

Compliance with Fuel Venting requirements:

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