



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80C2A5  
UNIQUE ID NUMBER: 1GE020  
COMBUSTOR:  
ENGINE TYPE: TF

BYPASS RATIO: 5.1  
PRESSURE RATIO ( $\pi_{00}$ ): 31.6  
RATED THRUST ( $F_{00}$ ) (kN): 267.3

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	14.5	59.6	54.2	9.1
AS % OF ORIGINAL LIMIT	73.8	50.5	52.5	50.6
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			65.6	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			77.2	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			87.2	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			101.7	

### DATA STATUS

- 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 <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	2.581	0.07	0.52	34.38	7.8
CLIMB OUT	85	2.2	2.082	0.08	0.52	22.86	5.4
APPROACH	30	4.0	0.687	0.20	1.93	9.11	2.3
IDLE	7	26.0	0.207	8.99	41.65	3.79	3.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			871	2966	13967	12735	-
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)				11.1	52.4	49.3	7.8
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				1.3	3.0	2.2	1.3
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				10.02-12.49	49.73-55.2	46.22-49.73	6.1-8.4

### 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 R84AEB152.
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)