



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80C2B8F BYPASS RATIO: 5.1  
UNIQUE ID NUMBER: 8GE101 PRESSURE RATIO ( $\pi_{00}$ ): 31.37  
ENGINE TYPE: TF RATED OUTPUT ( $F_{00}$ ) (kN): 267

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{00}$ (g/kN) or SN	1.7	22.7	48.4	6.4
AS % OF ORIGINAL LIMIT	8.8 %	19.2 %	47.1 %	35.5 %
AS % OF CAEP/2 LIMIT (NOx)			58.8 %	
AS % OF CAEP/4 LIMIT (NOx)			69.3 %	
AS % OF CAEP/6 LIMIT (NOx)			78.4 %	
AS % OF CAEP/8 LIMIT (NOx)			91.5 %	

### 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)  
- OUT OF PRODUCTION  
- OUT OF SERVICE

### MEASURED DATA

MODE	POWER SETTING (% $F_{00}$ )	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	2.583	0.04	0.03	26.85	5.84
CLIMB OUT	85	2.2	2.106	0.04	0.02	20.84	4.21
APPROACH	30	4.0	0.685	0.09	1.69	12.42	0
IDLE	7	26.0	0.205	1.14	16.69	4.59	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			870	394	5615	12213	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				7	7	7	7
AVERAGE $D_p/F_{00}$ (g/kN) or AVERAGE SN (MAX)				1.48	21	45.65	5.84
SIGMA ( $D_p/F_{00}$ in g/kN, or SN)				-	-	-	-
RANGE ( $D_p/F_{00}$ in g/kN, or SN)				-	-	-	-

### ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT All POWER SETTINGS  
STAGE BLEED 0 % CORE FLOW AT All POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97-98
TEMPERATURE (K)	279.8-293
ABS HUMIDITY (kg/kg)	0.00434-0.00743

### FUEL

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

MANUFACTURER: GE  
TEST ORGANIZATION: CF6 Eval Engineering  
TEST LOCATION: PTO Site 3B Peebles  
TEST DATES: FROM 13 Jan 96 TO 16 Mar 96

### REMARKS

1. Ref GE Report R98AEB212
2. Engine S/N 704234, 704233 and 704378
3. 1862M39 Combustor
4. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
5. NOx levels in accordance with Part III, Chapter 2, 2.3.2 e)

If REVISED, this data supersedes databank UID  
Compliance with fuel venting requirements:

x ('x' if complies, PR if pre-regulation)