



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80C2A8  
UNIQUE ID NUMBER: 2GE040  
ENGINE TYPE: TF

BYPASS RATIO: 5.1  
PRESSURE RATIO ( $\pi_{oo}$ ): 30.45  
RATED OUTPUT ( $F_{oo}$ ) (kN): 257.37

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{oo}$ (g/kN) or SN	2.7	28.9	49.1	8.2
AS % OF ORIGINAL LIMIT	13.8 %	24.5 %	48.6 %	44.9 %
AS % OF CAEP/2 LIMIT (NOx)			60.8 %	
AS % OF CAEP/4 LIMIT (NOx)			72.3 %	
AS % OF CAEP/6 LIMIT (NOx)			82.0 %	
AS % OF CAEP/8 LIMIT (NOx)			96.2 %	

### 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	2.444	0.05	0.05	26.42	6.97
CLIMB OUT	85	2.2	1.989	0.05	0.04	20.45	4.7
APPROACH	30	4.0	0.651	0.12	2.05	12.43	0
IDLE	7	26.0	0.201	1.59	19.76	4.68	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			835	536	6532	11491	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				4	4	4	4
AVERAGE $D_p/F_{oo}$ (g/kN) or AVERAGE SN (MAX)				2.08	25.35	44.63	7
SIGMA ( $D_p/F_{oo}$ in g/kN, or SN)				0.233	1.18	0.312	0.739
RANGE ( $D_p/F_{oo}$ in g/kN, or SN)				1.94-2.45	24.3-27.1	44.2-44.9	6.0-7.8

### ACCESSORY LOADS

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

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.61-98.15
TEMPERATURE (K)	279-293
ABS HUMIDITY (kg/kg)	.00457-.00743

### FUEL

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

MANUFACTURER: GE  
TEST ORGANIZATION: CF6 Eval Engineering  
TEST LOCATION: Site IIIB, PTO Peebles  
TEST DATES: FROM 13 Jan 95 TO 17 Jan 95

### REMARKS

1. Ref GE report TM95-17.
2. Engine S/N 704/233 & 704/234
3. 1862M39 combustor

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

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