



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80C2A2  
UNIQUE ID NUMBER: 2GE037  
ENGINE TYPE: TF

BYPASS RATIO: 5.1  
PRESSURE RATIO ( $\pi_{00}$ ): 27.79  
RATED OUTPUT ( $F_{00}$ ) (kN): 233.35

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{00}$ (g/kN) or SN	3.4	34.0	44.0	6.8
AS % OF ORIGINAL LIMIT	17.1 %	28.8 %	46.0 %	36.2 %
AS % OF CAEP/2 LIMIT (NOx)			57.5 %	
AS % OF CAEP/4 LIMIT (NOx)			69.3 %	
AS % OF CAEP/6 LIMIT (NOx)			78.8 %	
AS % OF CAEP/8 LIMIT (NOx)			93.6 %	

### 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 (% $F_{00}$ )	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	2.152	0.05	0.04	22.35	5.8
CLIMB OUT	85	2.2	1.771	0.05	0.05	18.37	3.2
APPROACH	30	4.0	0.590	0.12	2.56	11.86	0
IDLE	7	26.0	0.192	1.9	21.97	4.49	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			765	602	6958	9339	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				4	4	4	4
AVERAGE $D_p/F_{00}$ (g/kN) or AVERAGE SN (MAX)				2.58	29.81	40.01	5.8
SIGMA ( $D_p/F_{00}$ in g/kN, or SN)				0.293	1.33	0.236	0.63
RANGE ( $D_p/F_{00}$ in g/kN, or SN)				2.37-2.99	28.7-31.5	39.7-40.3	5.1-6.6

### 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)