



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80C2B5F  
UNIQUE ID NUMBER: 3GE057  
ENGINE TYPE: TF

BYPASS RATIO: 5.1  
PRESSURE RATIO ( $\pi_{oo}$ ): 32.82  
RATED OUTPUT ( $F_{oo}$ ) (kN): 272.53

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{oo}$ (g/kN) or SN	2.2	24.8	53.0	8.7
AS % OF ORIGINAL LIMIT	11.2 %	21.0 %	50.2 %	48.4 %
AS % OF CAEP/2 LIMIT (NOx)			62.7 %	
AS % OF CAEP/4 LIMIT (NOx)			73.0 %	
AS % OF CAEP/6 LIMIT (NOx)			82.0 %	
AS % OF CAEP/8 LIMIT (NOx)			95.1 %	

### 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 (% $F_{oo}$ )	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	2.685	0.05	0.05	28.58	7.4
CLIMB OUT	85	2.2	2.162	0.05	0.04	21.76	5.2
APPROACH	30	4.0	0.697	0.11	1.83	12.74	0
IDLE	7	26.0	0.206	1.31	17.45	4.91	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			887	459	5931	13142	-
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)				1.67	21.75	48.22	7.4
SIGMA ( $D_p/F_{oo}$ in g/kN, or SN)				-	-	-	-
RANGE ( $D_p/F_{oo}$ in g/kN, or SN)				-	-	-	-

### 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)	.0046-.0074

### FUEL

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

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

### REMARKS

1. GE Report TM95-17.
2. Engine S/N 704/223 & 704/234
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:

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