

# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

# **SUBSONIC ENGINES**

ENGINE IDENTIFICATION: CF6-80C2B4 BYPASS RATIO: 5.1 PRESSURE RATIO  $(\pi_{\circ\circ})$ : 30.14 UNIQUE ID NUMBER: 2GE043 RATED OUTPUT  $(F_{\circ \circ})$  (kN): ENGINE TYPE: TF 254.35

### REGULATORY DATA

CHARACTERISTIC VALUE:	НС	СО	NOx	SMOKE NUMBER
$D_p/F_{oo}$ (g/kN) or SN	2.7	29.3	48.5	8.1
AS % OF ORIGINAL LIMIT	13.9 %	24.8 %	48.4 %	44.2 %
AS % OF CAEP/2 LIMIT (NOx)			60.5 %	
AS % OF CAEP/4 LIMIT (NOx)			72.1 %	
AS % OF CAEP/6 LIMIT (NOx)			81.9 %	
AS % OF CAEP/8 LIMIT (NOx)			96.2 %	

### DATA STATUS

PRE-REGULATION

CERTIFICATION

REVISED (SEE REMARKS)

DATA CORRECTED TO REFERENCE (ANNEX 16 VOLUME II)

### TEST ENGINE STATUS

NEWLY MANUFACTURED ENGINES x

DEDICATED ENGINES TO PRODUCTION STANDARD

OTHER (SEE REMARKS)

#### CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)

OUT OF PRODUCTION OUT OF SERVICE

### MEASURED DATA

EMISSIONS STATUS

	POWER	TIME	FUEL FLOW	EMI	SSIONS INDICES	(g/kg)	
MODE	SETTING	minutes	kg/s	HC	CO	NOx	SMOKE NUMBER
	(%F <sub>00</sub> )						
TAKE-OFF	100	0.7	2.409	0.05	0.05	25.93	6.9
CLIMB OUT	85	2.2	1.965	0.05	0.04	20.17	4.5
APPROACH	30	4.0	0.641	0.12	2.12	12.37	0
IDLE	7	26.0	0.201	1.59	19.76	4.68	0
LTO TOTAL FUEL (kg) or EMISSIONS (g) 828			535	6538	11226	_	
NUMBER OF ENGINES			2	2	2	2	
NUMBER OF TESTS			4	4	4	4	
AVERAGE D <sub>p</sub> /F <sub>oo</sub> (g/kN) or AVERAGE SN (MAX)			2.1	25.68	44.12	6.9	
SIGMA ( $D_p/F_{oo}$ in $g/kN$ , or $SN$ )			0.235	1.2	0.304	0.624	
RANGE $(D_p/F_{oo} \text{ in } g/kN, \text{ or } SN)$			1.96-2.48	24.6-27.4	43.7-44.4	6.2-7.7	

# ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AΤ POWER SETTINGS % CORE FLOW POWER SETTINGS

# ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.61-98.15
TEMPERATURE (K)	279-293
ABS HUMIDITY (kg/kg)	.0045700743

FUEL

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

MANUFACTURER:

TEST ORGANIZATION: CF6 Eval Engineering TEST LOCATION: Site IIIB, PTO Peebles

FROM 13 Jan 95 TO 17 Jan 95 TEST DATES:

# REMARKS

1. Ref GE report TM95-17.

2. Engine S/N 704/233 & 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:

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