



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF34-8C1 Block 1      BYPASS RATIO: 5.13  
UNIQUE ID NUMBER: 6GE096      PRESSURE RATIO ( $\pi_{00}$ ): 22.15  
ENGINE TYPE: TF      RATED OUTPUT ( $F_{00}$ ) (kN): 56.36

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{00}$ (g/kN) or SN	0.5	52.5	40.9	6.7
AS % OF ORIGINAL LIMIT	2.6 %	44.5 %	48.5 %	24.2 %
AS % OF CAEP/2 LIMIT (NOx)			60.6 %	
AS % OF CAEP/4 LIMIT (NOx)			71.3 %	
AS % OF CAEP/6 LIMIT (NOx)			70.3 %	
AS % OF CAEP/8 LIMIT (NOx)			78.4 %	

### 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	0.608	0.02	0.59	13.82	5.2
CLIMB OUT	85	2.2	0.479	0.03	0.57	12	1.25
APPROACH	30	4.0	0.170	0.07	4.67	9.85	0
IDLE	7	26.0	0.070	0.13	19.73	4.03	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			239	20	2406	1956	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE $D_p/F_{00}$ (g/kN) or AVERAGE SN (MAX)				0.3	42.8	35.2	5.2
SIGMA ( $D_p/F_{00}$ in g/kN, or SN)				-	-	-	-
RANGE ( $D_p/F_{00}$ in g/kN, or SN)				0.3 - 0.4	41.5 - 44.5	35.0 - 35.7	2.5 - 7.2

### ACCESSORY LOADS

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

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.1 - 98.1
TEMPERATURE (K)	284 - 292
ABS HUMIDITY (kg/kg)	0.00470 - 0.00727

### FUEL

SPEC	Jet A
H/C	1.937
AROM (%)	18

MANUFACTURER: GE Aircraft Engines  
TEST ORGANIZATION: Peebles Test Operation  
TEST LOCATION: Peebles, Ohio  
TEST DATES: FROM 27 Jan 02 TO 28 Jan 02

### REMARKS

1. GE Report R2001AE078
2. Engine S/N 193111
3. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
4. 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)