



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80C2B2  
UNIQUE ID NUMBER: 1GE025  
ENGINE TYPE: TF

BYPASS RATIO: 5.1  
PRESSURE RATIO ( $\pi_{00}$ ): 27.74  
RATED OUTPUT ( $F_{00}$ ) (kN): 231.1

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{00}$ (g/kN) or SN	19.2	73.7	41.9	6.8
AS % OF ORIGINAL LIMIT	97.9 %	62.4 %	43.9 %	36.1 %
AS % OF CAEP/2 LIMIT (NOx)			54.8 %	
AS % OF CAEP/4 LIMIT (NOx)			66.1 %	
AS % OF CAEP/6 LIMIT (NOx)			75.1 %	
AS % OF CAEP/8 LIMIT (NOx)			89.3 %	

### 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	2.131	0.08	0.57	23.89	5.8
CLIMB OUT	85	2.2	1.761	0.1	0.55	18.65	3.9
APPROACH	30	4.0	0.577	0.22	2.65	8.77	2.4
IDLE	7	26.0	0.192	11.17	48.02	3.7	3.1
LTO TOTAL FUEL (kg) or EMISSIONS (g)			760	3407	14929	8796	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				3	3	3	3
AVERAGE $D_p/F_{00}$ (g/kN) or AVERAGE SN (MAX)				14.75	64.67	38.08	5.8
SIGMA ( $D_p/F_{00}$ in g/kN, or SN)				1.25	2.94	1.84	0.95
RANGE ( $D_p/F_{00}$ in g/kN, or SN)				13.68-16.01	62.12-67.28	36.70-40.37	4.6-6.3

### ACCESSORY LOADS

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

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.40-97.82
TEMPERATURE (K)	287 - 296
ABS HUMIDITY (kg/kg)	.0084-.0140

### FUEL

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

MANUFACTURER: GE Aircraft Engines  
TEST ORGANIZATION: CF6 Evaluation Engineering  
TEST LOCATION: Site IIIC, PTO, Peebles, Ohio  
TEST DATES: FROM 29 May 85 TO 03 Jun 85

### REMARKS

1. Ref GE Report R86AEB589.
2. Engine S/N's 690105 and 690005/2.

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

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