



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80C2B2
UNIQUE ID NUMBER: 2GE042
ENGINE TYPE: TF

BYPASS RATIO: 5.1
PRESSURE RATIO (π_{oo}): 27.53
RATED OUTPUT (F_{oo}) (kN): 231.08

REGULATORY DATA

| CHARACTERISTIC VALUE: | HC | CO | NOx | SMOKE NUMBER |
|----------------------------|--------|--------|--------|--------------|
| D_p/F_{oo} (g/kN) or SN | 3.5 | 34.7 | 43.7 | 6.6 |
| AS % OF ORIGINAL LIMIT | 17.7 % | 29.4 % | 45.9 % | 34.9 % |
| AS % OF CAEP/2 LIMIT (NOx) | | | 57.4 % | |
| AS % OF CAEP/4 LIMIT (NOx) | | | 69.2 % | |
| AS % OF CAEP/6 LIMIT (NOx) | | | 78.7 % | |
| AS % OF CAEP/8 LIMIT (NOx) | | | 93.7 % | |

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 | 2.124 | 0.05 | 0.04 | 22.02 | 5.6 |
| CLIMB OUT | 85 | 2.2 | 1.756 | 0.05 | 0.05 | 18.25 | 3.1 |
| APPROACH | 30 | 4.0 | 0.585 | 0.12 | 2.61 | 11.79 | 0 |
| IDLE | 7 | 26.0 | 0.190 | 1.97 | 22.41 | 4.45 | 0 |
| LTO TOTAL FUEL (kg) or EMISSIONS (g) | | | 758 | 617 | 7024 | 9169 | - |
| 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) | | | | 2.67 | 30.46 | 39.7 | 5.6 |
| SIGMA (D_p/F_{oo} in g/kN, or SN) | | | | 0.34 | 1.48 | 0.234 | 0.608 |
| RANGE (D_p/F_{oo} in g/kN, or SN) | | | | 2.43-3.15 | 29.3-32.4 | 39.4-40.0 | 5.0-6.4 |

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
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)