



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION:GENx-2B67/P

UNIQUE ID NUMBER:17GE181

ENGINE TYPE:TF

BYPASS RATIO:8.0

PRESSURE RATIO ( $\pi_{oo}$ ):43.6

RATED OUTPUT ( $F_{oo}$ ) (kN):299.8

REGULATORY DATA

| CHARACTERISTIC VALUE:                        | HC    | CO     | NOx    | SMOKE NUMBER |
|--|-------|--------|--------|--------------|
| D <sub>p</sub> /F <sub>oo</sub> (g/kN) or SN | 0.8   | 21.3   | 48.4   | 0.8          |
| AS % OF ORIGINAL LIMIT                       | 4.0 % | 18.0 % | 38.1 % | 4.0 %        |
| AS % OF CAEP/2 LIMIT (NOx)                   |       |        | 47.6 % |              |
| AS % OF CAEP/4 LIMIT (NOx)                   |       |        | 51.4 % |              |
| AS % OF CAEP/6 LIMIT (NOx)                   |       |        | 56.2 % |              |
| AS % OF CAEP/8 LIMIT (NOx)                   |       |        | 62.6 % |              |

DATA STATUS

-PRE-REGULATION

x-CERTIFICATION

-REVISED (SEE REMARKS)

TEST ENGINE STATUS

x-NEWLY MANUFACTURED ENGINES

x-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<br>SETTING<br>(%F <sub>oo</sub> ) | TIME<br>minutes | FUEL FLOW<br>kg/s | EMISSIONS INDICES (g/kg) |             |             | SMOKE NUMBER |
|--|---|-----------------|-------------------|--------------------------|-------------|-------------|--------------|
|  |   |                 |                   | HC                       | CO          | NOx         |              |
| TAKE-OFF   | 100                                     | 0.7             | 2.453             | 0.02                     | 0.07        | 34.21       | 0.47         |
| CLIMB OUT  | 85                                      | 2.2             | 2.009             | 0.02                     | 0.17        | 21.1        | 0.47         |
| APPROACH   | 30                                      | 4.0             | 0.642             | 0.04                     | 1.78        | 11.11       | 0.54         |
| IDLE   | 7                                       | 26.0            | 0.219             | 0.41                     | 14.28       | 4.92        | 0.54         |
| LTO TOTAL FUEL (kg) or EMISSIONS (g)                               |   |                 | 864               | 154                      | 5201        | 12509       | -            |
| NUMBER OF ENGINES  |   |                 |                   | 1                        | 1           | 1           | 1            |
| NUMBER OF TESTS  |   |                 |                   | 3                        | 3           | 3           | 3            |
| AVERAGE D <sub>p</sub> /F <sub>oo</sub> (g/kN) or AVERAGE SN (MAX) |   |                 |                   | 0.51                     | 17.35       | 41.72       | 0.58         |
| SIGMA (D <sub>p</sub> /F <sub>oo</sub> in g/kN, or SN)             |   |                 |                   | 0.03                     | 0.021       | 0.262       | 0.34         |
| RANGE (D <sub>p</sub> /F <sub>oo</sub> in g/kN, or SN)             |   |                 |                   | 0.48-0.55                | 17.32-17.36 | 41.46-41.98 | 0.35-0.97    |

ACCESSORY LOADS

POWER EXTRACTION0(kW)ATALLPOWER SETTINGS

STAGE BLEED0% CORE FLOWATALLPOWER SETTINGS

ATMOSPHERIC CONDITIONS

|                      |                  |
|----------------------|------------------|
| BAROMETER (kPa)      | 98.1 - 98.5      |
| TEMPERATURE (K)      | 295.1 to 298.8   |
| ABS HUMIDITY (kg/kg) | .01189 to .01439 |

FUEL

|          |       |
|----------|-------|
| SPEC     | JET A |
| H/C      | 1.89  |
| AROM (%) | 15.4  |

MANUFACTURER:GE Aviation

TEST ORGANIZATION:GE Aviation

TEST LOCATION:PTO, Ohio, USA

TEST DATES:FROM 19 Jun 12TO 21 Jun 12

REMARKS

1. Ref. GE REPORT R2011AE578
2. Engine S/N 956-101/4
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) (CAEP/8)

If REVISED, this data supersedes databank UID

Compliance with fuel venting requirements:x('x' if complies, PR if pre-regulation)