ENGINE IDENTIFICATION:    ALF 502R-3          BYPASS RATIO:              5.7
UNIQUE ID NUMBER:         1TL002              PRESSURE RATIO ($\pi_{oo}$):   11.4
ENGINE TYPE:              TF                  RATED OUTPUT ($F_{oo}$) (kN):  29.8

REGULATORY DATA

| CHARACTERISTIC VALUE: | HC | CO | NOx | SMOKE NUMBER |
|---|---|---|---|---|
| $D_p/F_{oo}$ (g/kN) or SN | 17.5 | 117.9 | 32.5 | 14.3 |
| AS % OF ORIGINAL LIMIT | 89.3 % | 99.9 % | 51.8 % | 43.4 % |
| AS % OF CAEP/2 LIMIT (NOx) | | | 64.7 % | |
| AS % OF CAEP/4 LIMIT (NOx) | | | 65.5 % | |
| AS % OF CAEP/6 LIMIT (NOx) | | | 65.8 % | |
| AS % OF CAEP/8 LIMIT (NOx) | | | 69.8 % | |

DATA STATUS                                  TEST ENGINE STATUS

    -    PRE-REGULATION                       x    NEWLY MANUFACTURED ENGINES
    x    CERTIFICATION                        -    DEDICATED ENGINES TO PRODUCTION STANDARD
    -    REVISED (SEE REMARKS)                -    OTHER (SEE REMARKS)

EMISSIONS STATUS                             CURRENT ENGINE STATUS

    x    DATA CORRECTED TO REFERENCE         (IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
         (ANNEX 16 VOLUME II)                 x    OUT OF PRODUCTION (DATE:  - )
                                              -    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 | 0.348 | 0.056 | 0.433 | 11.2 | 12.63 |
| CLIMB OUT | 85 | 2.2 | 0.288 | 0.053 | 0.5 | 9.94 | 12 |
| APPROACH | 30 | 4.0 | 0.103 | 0.287 | 8.43 | 6.15 | 5.47 |
| IDLE | 7 | 26.0 | 0.043 | 6.51 | 44.67 | 3.3 | 2.133 |
| LTO TOTAL FUEL (kg) or EMISSIONS (g) | | | 145 | 449 | 3244 | 915 | - |
| NUMBER OF ENGINES | | | | 3 | 3 | 3 | 3 |
| NUMBER OF TESTS | | | | 3 | 3 | 3 | 3 |
| AVERAGE $D_p/F_{oo}$ (g/kN) or AVERAGE SN (MAX) | | | | 15 | 109 | 30.7 | 13 |
| SIGMA ($D_p/F_{oo}$ in g/kN, or SN) | | | | 3.25 | 10.62 | 0.795 | 2.39 |
| RANGE ($D_p/F_{oo}$ in g/kN, or SN) | | | | 11.9-18.4 | 100.2-120.8 | 29.9-31.45 | 10.2-14.4 |

ACCESSORY LOADS

            POWER EXTRACTION      0      (kW)              AT      -      POWER SETTINGS
                   STAGE BLEED   20      % CORE FLOW       AT    8.41kN   POWER SETTINGS

ATMOSPHERIC CONDITIONS                                   FUEL

| BAROMETER (kPa) | 101.3-102.4 |
|---|---|
| TEMPERATURE (K) | 288 - 293 |
| ABS HUMIDITY (kg/kg) | 0.0088-0.0108 |

| SPEC | 0.81 |
|---|---|
| H/C | 1.925 |
| AROM (%) | 19.7 |

MANUFACTURER:          Textron Lycoming
TEST ORGANIZATION:     Textron Lycoming
TEST LOCATION:         Stratford, CT
TEST DATES:         FROM   07 Sep 82          TO 20 Sep 82

REMARKS

If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements:              0     ('x' if complies, PR if pre-regulation)