ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80C2A8   BYPASS RATIO: 5.1
UNIQUE ID NUMBER: 1GE021   PRESSURE RATIO (π_{oo}):   31
ENGINE TYPE: TF   RATED OUTPUT (F_{oo}) (kN):   257.4

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	15.1	62.0	50.4	9.6
AS % OF ORIGINAL LIMIT	77.0 %	52.5 %	49.4 %	52.6 %
AS % OF CAEP/2 LIMIT (NOx)			61.7 %	
AS % OF CAEP/4 LIMIT (NOx)			73.0 %	
AS % OF CAEP/6 LIMIT (NOx)			82.6 %	
AS % OF CAEP/8 LIMIT (NOx)			96.7 %	

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)
- 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	2.507	0.08	0.52	33.5	8.2
CLIMB OUT	85	2.2	1.953	0.09	0.52	22	4.9
APPROACH	30	4.0	0.655	0.2	2.05	9	2.3
IDLE	7	26.0	0.205	9.2	42.3	3.7	3
LTO TOTAL FUEL (kg) or EMISSIONS (g)			840	3005	14039	11797	–
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				11.6	54.4	45.8	8.2
SIGMA (D_p/F_{oo} in g/kN, or SN)				1.31	3.09	1.75	–
RANGE (D_p/F_{oo} in g/kN, or SN)				10.52-13.00	51.75-57.31	44.33-47.72	–

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 R90AEB379. 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)