ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF34-10E6
UNIQUE ID NUMBER: 10GE131
ENGINE TYPE: TF

BYPASS RATIO: 5.09
PRESSURE RATIO (π_{oo}): 25.6
RATED OUTPUT (F_{oo}) (kN): 77.4

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	16.9	107.3	42.5	14.6
AS % OF ORIGINAL LIMIT	86.2 %	90.9 %	46.6 %	57.5 %
AS % OF CAEP/2 LIMIT (NOx)			58.3 %	
AS % OF CAEP/4 LIMIT (NOx)			68.1 %	
AS % OF CAEP/6 LIMIT (NOx)			75.2 %	
AS % OF CAEP/8 LIMIT (NOx)			87.4 %	

DATA STATUS

- \- PRE-REGULATION
- x CERTIFICATION
- \- REVISED (SEE REMARKS)

TEST ENGINE STATUS

- \- 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 SETTING ($\%F_{oo}$)	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg) HC	CO	NOx	SMOKE NUMBER
TAKE-OFF	100	0.7	0.789	0.047	0.59	18.66	11.33
CLIMB OUT	85	2.2	0.650	0.08	0.35	15.54	5.22
APPROACH	30	4.0	0.221	0.136	3.77	8.08	0.11
IDLE	7	26.0	0.084	6.391	49.98	3.51	0.39
LTO TOTAL FUEL (kg) or EMISSIONS (g)			303	848	6761	2836	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				10.97	87.4	36.7	11.3
SIGMA (D_p/F_{oo} in g/kN, or SN)				0.6	1.9	0.42	0.6
RANGE (D_p/F_{oo} in g/kN, or SN)				10.3-11.4	85.7-89.4	36.2-37.0	10.8-12.0

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.2-97.9
TEMPERATURE (K)	296-300
ABS HUMIDITY (kg/kg)	0.0099 - 0.0127

FUEL

SPEC	Jet A1
H/C	1.92
AROM (%)	16.3-17.4

MANUFACTURER: GE Transportation
TEST ORGANIZATION: Peebles Test Operation
TEST LOCATION: Site 4D
TEST DATES: FROM 05 Sep 06 TO 10 Sep 06

REMARKS

1. GE Report R2006AE716
2. Block 2 Engines
3. Engine 994-251/1
4. Engines with 2253M21 combustor produced beginning August 2007
5. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
6. 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: x ('x' if complies, PR if pre-regulation)