ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION:	CFM56-7B22	BYPASS RATIO:		5.3
UNIQUE ID NUMBER:	3CM031	PRESSURE RATIO (π_{oo}):		24.41
ENGINE TYPE:	TF	RATED OUTPUT (F_{oo}) (kN):		100.97

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	6.4	48.6	52.4	15.4
AS % OF ORIGINAL LIMIT	32.7 %	41.2 %	59.0 %	65.2 %
AS % OF CAEP/2 LIMIT (NOx)			73.7 %	
AS % OF CAEP/4 LIMIT (NOx)			90.3 %	
AS % OF CAEP/6 LIMIT (NOx)			102.6 %	
AS % OF CAEP/8 LIMIT (NOx)			124.0 %	

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) HC	CO	NOx	SMOKE NUMBER
TAKE-OFF	100	0.7	1.021	0.1	0.5	23.1	12
CLIMB OUT	85	2.2	0.844	0.1	0.6	19	10.5
APPROACH	30	4.0	0.298	0.1	2.5	10	0
IDLE	7	26.0	0.105	2.5	22.8	4.5	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			390	432	4002	4560	–
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)				4.22	39.58	45.16	12
SIGMA (D_p/F_{oo} in g/kN, or SN)				–	–	–	–
RANGE (D_p/F_{oo} in g/kN, or SN)				–	–	–	–

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.8-98.0
TEMPERATURE (K)	294-297
ABS HUMIDITY (kg/kg)	.0100-.0157

FUEL

SPEC	Jet A
H/C	1.86-1.97
AROM (%)	16.9-17.7

MANUFACTURER:	GE
TEST ORGANIZATION:	CFM56-7B Eval Engineering
TEST LOCATION:	Peebles Test Operation, Peebles, Ohio, USA
TEST DATES:	FROM Jul 96 TO -

REMARKS

1. FAA Certification Report CR-997, Dec 96.
2. Engine S/N 874-101/01

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