ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION:	CFM56-5B8/P	BYPASS RATIO:	5.9
UNIQUE ID NUMBER:	7CM048	PRESSURE RATIO (π_{oo}):	22.6
ENGINE TYPE:	TF	RATED OUTPUT (F_{oo}) (kN):	94.7

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	16.6	66.8	41.0	6.9
AS % OF ORIGINAL LIMIT	84.7 %	56.6 %	48.1 %	28.7 %
AS % OF CAEP/2 LIMIT (NOx)			60.2 %	
AS % OF CAEP/4 LIMIT (NOx)			74.4 %	
AS % OF CAEP/6 LIMIT (NOx)			84.5 %	
AS % OF CAEP/8 LIMIT (NOx)			103.3 %	

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	0.875	0.1	0.8	19.7	5.4
CLIMB OUT	85	2.2	0.729	0.1	0.8	16.7	1.5
APPROACH	30	4.0	0.262	0.9	3.9	8.4	0.3
IDLE	7	26.0	0.094	6.5	32.9	3.4	0.6
LTO TOTAL FUEL (kg) or EMISSIONS (g)			342	1023	5176	3358	–
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)				10.8	54.4	35.4	5.4
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)	98.2 – 99.6
TEMPERATURE (K)	281.5 – 283.6
ABS HUMIDITY (kg/kg)	0.0065 – 0.0075

FUEL

SPEC	Jet A
H/C	1.92
AROM (%)	19

MANUFACTURER:	CFM International
TEST ORGANIZATION:	CFM56 Evaluation Engineering
TEST LOCATION:	Techspace Aero, Liege, Belgium
TEST DATES:	FROM Nov 95 TO –

REMARKS

1. FAA Certificiaction Report CR 0797/P, June 1995 and Certification Report CR-700 S3, October 2001
2. Engine S/N 779-194/1

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