ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION:	CFM56-5B4/2P	BYPASS RATIO:	5.9
UNIQUE ID NUMBER:	3CM021	PRESSURE RATIO (π_{oo}):	27.7
COMBUSTOR:	DAC-II		
ENGINE TYPE:	TF	RATED THRUST (F_{oo}) (kN):	120.1

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO_X	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	12.0	96.5	34.9	2.3
AS % OF ORIGINAL LIMIT	61.2	81.8	36.6	10.2
AS % OF CAEP/2 LIMIT (NO_X)			45.7	
AS % OF CAEP/4 LIMIT (NO_X)			55.1	
AS % OF CAEP/6 LIMIT (NO_X)			62.6	
AS % OF CAEP/8 LIMIT (NO_X)			74.4	

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)

- x   OUT OF PRODUCTION (DATE: -   )
-     OUT OF SERVICE   (DATE: -   )

MEASURED DATA

MODE	POWER SETTING (%F_{oo})	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO_X	
TAKE-OFF	100	0.7	1.140	0.10	1.40	18.40	0.3
CLIMB OUT	85	2.2	0.950	0.20	3.60	13.60	0.3
APPROACH	30	4.0	0.340	5.30	29.10	6.50	0.5
IDLE	7	26.0	0.120	3.60	40.10	3.90	2.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			442	1136	10400	3847	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				4	4	4	4
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				9.2	84.7	31.7	2.0
SIGMA (D_p/F_{oo} in g/kN, or SN)							
RANGE (D_p/F_{oo} in g/kN, or SN)				8.2-10.1	79-90.4	31.1-32.4	1.8-2.2

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	98.5-99.7
TEMPERATURE (K)	284.6-292.4
ABS HUMIDITY (kg/kg)	0.0081-0.0115

FUEL

SPEC	Jet A
H/C	1.93
AROM (%)	17.33

MANUFACTURER:	CFM International
TEST ORGANIZATION:	GEAE Peebles + Techspace Aero (CFMI)
TEST LOCATION:	Peebles Ohio, USE + Liers, Belgium
TEST DATES:	01/08/1996-01/09/1996

REMARKS

    1. DAC-II Combustor P/N 1968M99G04

Compliance with Fuel Venting requirements: -   ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)