ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION:	CFM56-5B4/2	BYPASS RATIO:	5.7
UNIQUE ID NUMBER:	2CM018	PRESSURE RATIO (π_{oo}):	27.1
COMBUSTOR:	DAC		
ENGINE TYPE:	TF	RATED THRUST (F_{oo}) (kN):	117.9

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO_X	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	14.6	106.5	34.6	5.6
AS % OF ORIGINAL LIMIT	74.5	90.3	36.7	24.8
AS % OF CAEP/2 LIMIT (NO_X)			45.9	
AS % OF CAEP/4 LIMIT (NO_X)			55.5	
AS % OF CAEP/6 LIMIT (NO_X)			63.1	
AS % OF CAEP/8 LIMIT (NO_X)			75.2	

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   (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	1.180	0.10	1.60	16.61	0.5
CLIMB OUT	85	2.2	0.975	0.10	4.90	12.58	0.5
APPROACH	30	4.0	0.335	11.40	43.80	6.13	2.3
IDLE	7	26.0	0.121	2.20	37.10	4.49	3.5
LTO TOTAL FUEL (kg) or EMISSIONS (g)			447	1350	11234	3783	-
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)				11.2	93.5	31.5	4.8
SIGMA (D_p/F_{oo} in g/kN, or SN)							
RANGE (D_p/F_{oo} in g/kN, or SN)				10.4-12	87.6-99.3	31-31.9	4.5-5

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100.7-101
TEMPERATURE (K)	293-299
ABS HUMIDITY (kg/kg)	0.0114-0.0129

FUEL

SPEC	Jet A
H/C	1.93
AROM (%)	16.8

MANUFACTURER:	CFM International
TEST ORGANIZATION:	CFM56 Evaluation Engineering
TEST LOCATION:	PTO Site IIIC
TEST DATES:	15/06/1994-01/07/1994

REMARKS

1. Ref GE Report CR-797/2.
2. Engine S/N 779131/001 & 779132/001
3. DAC combustor

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

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