ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CFM56-5C4   BYPASS RATIO: 6.6
UNIQUE ID NUMBER: 2CM015   PRESSURE RATIO (π_{oo}): 31.15
ENGINE TYPE: MTF   RATED OUTPUT (F_{oo}) (kN): 151.25

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	9.9	51.1	66.7	16.2
AS % OF ORIGINAL LIMIT	50.5 %	43.3 %	65.2 %	76.7 %
AS % OF CAEP/2 LIMIT (NOx)			81.5 %	
AS % OF CAEP/4 LIMIT (NOx)			96.2 %	
AS % OF CAEP/6 LIMIT (NOx)			108.9 %	
AS % OF CAEP/8 LIMIT (NOx)			127.2 %	

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

MEASURED DATA

MODE	POWER SETTING (%F_{oo})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	1.456	0.008	1	37.67	12.6
CLIMB OUT	85	2.2	1.195	0.008	0.85	29.05	9.8
APPROACH	30	4.0	0.386	0.065	1.4	10.67	1
IDLE	7	26.0	0.124	5	30.93	4.28	1.1
LTO TOTAL FUEL (kg) or EMISSIONS (g)			505	975	6308	8702	-
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)				6.4	41.6	57.5	12.6
SIGMA (D_p/F_{oo} in g/kN, or SN)				0.44	1.37	0.33	1.4
RANGE (D_p/F_{oo} in g/kN, or SN)				5.95-6.83	39.7-42.4	57.2-57.9	10.7-13.6

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.77-98.11
TEMPERATURE (K)	286 - 295
ABS HUMIDITY (kg/kg)	.0061-.0074

FUEL

SPEC	Jet A
H/C	1.95
AROM (%)	17.3

MANUFACTURER: CFMI
TEST ORGANIZATION: CFM56 Evaluation Engineering
TEST LOCATION: PTO Site IVD
TEST DATES: FROM   04 Jun 91   TO 05 Jun 91

REMARKS

1. Ref GE Report R91AEB471
2. Engine S/N 740-105.
3. Core engine Smoke Numbers reported

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