ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CFM56-7B20
UNIQUE ID NUMBER: 3CM030
ENGINE TYPE: TF

BYPASS RATIO: 5.4
PRESSURE RATIO (π_{oo}): 22.61
RATED OUTPUT (F_{oo}) (kN): 91.63

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	8.4	58.0	48.5	14.7
AS % OF ORIGINAL LIMIT	42.9 %	49.2 %	56.9 %	60.6 %
AS % OF CAEP/2 LIMIT (NOx)			71.1 %	
AS % OF CAEP/4 LIMIT (NOx)			87.9 %	
AS % OF CAEP/6 LIMIT (NOx)			99.9 %	
AS % OF CAEP/8 LIMIT (NOx)			122.1 %	

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	0.913	0.1	0.6	20.5	11.4
CLIMB OUT	85	2.2	0.761	0.1	0.5	17.4	8
APPROACH	30	4.0	0.274	0.1	3.2	9.5	0
IDLE	7	26.0	0.100	3.1	25.9	4.3	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			361	504	4324	3829	-
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)				5.44	47.21	41.83	11.4
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)	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)