ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CFM56-5B2/P
UNIQUE ID NUMBER: 3CM024
ENGINE TYPE: TF

BYPASS RATIO: 5.6
PRESSURE RATIO (π_{oo}): 31.57
RATED OUTPUT (F_{oo}) (kN): 137.9

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	7.9	33.4	64.9	7.0
AS % OF ORIGINAL LIMIT	40.3 %	28.3 %	62.9 %	32.3 %
AS % OF CAEP/2 LIMIT (NOx)			78.7 %	
AS % OF CAEP/4 LIMIT (NOx)			92.5 %	
AS % OF CAEP/6 LIMIT (NOx)			104.5 %	
AS % OF CAEP/8 LIMIT (NOx)			121.9 %	

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	1.361	0.1	0.8	35.1	4.8
CLIMB OUT	85	2.2	1.099	0.2	0.9	27.4	5.1
APPROACH	30	4.0	0.356	0.5	1.9	10.9	0.2
IDLE	7	26.0	0.113	3.6	19.5	4.6	0.5
LTO TOTAL FUEL (kg) or EMISSIONS (g)			464	712	3776	7723	-
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)				5.13	27.18	56	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)	.0065-.0075

FUEL

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

MANUFACTURER: GE
TEST ORGANIZATION: CFM56-5B Eval Engineering
TEST LOCATION: Techspace-Aero Facility, Liege, Belgium
TEST DATES: FROM Nov 95 TO -

REMARKS

1. FAA Certification Report CR-797/P, June 95.
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)