ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: GE90-77B
UNIQUE ID NUMBER: 3GE059
COMBUSTOR: DAC I
ENGINE TYPE: TF

BYPASS RATIO: 8.6
PRESSURE RATIO (π_{oo}):   35.2

RATED THRUST (F_{oo}) (kN):   363.4

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO_X	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	6.2	63.0	62.1	11.2
AS % OF ORIGINAL LIMIT	31.6	53.4	56.3	67.4
AS % OF CAEP/2 LIMIT (NO_X)			70.3	
AS % OF CAEP/4 LIMIT (NO_X)			80.2	
AS % OF CAEP/6 LIMIT (NO_X)			89.5	
AS % OF CAEP/8 LIMIT (NO_X)			102.6	

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) HC	CO	NO_X	SMOKE NUMBER
TAKE-OFF	100	0.7	2.840	0.07	0.09	45.53	0.0
CLIMB OUT	85	2.2	2.320	0.06	0.13	35.68	0.0
APPROACH	30	4.0	0.770	0.80	6.39	12.46	0.0
IDLE	7	26.0	0.300	3.83	43.32	5.73	9.8
LTO TOTAL FUEL (kg) or EMISSIONS (g)			1071	1938	21173	21308	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				5.3	58.2	58.6	10.2
SIGMA (D_p/F_{oo} in g/kN, or SN)							
RANGE (D_p/F_{oo} in g/kN, or SN)				4.58-5.92	55.7-60.1	57.5-60.5	9.4-10.2

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.4-98.6
TEMPERATURE (K)	274-299
ABS HUMIDITY (kg/kg)	0.001-0.0073

FUEL

SPEC	Jet A
H/C	1.94
AROM (%)	17.2

MANUFACTURER: General Electric Company
TEST ORGANIZATION: GE90 Eval Engineering
TEST LOCATION: Site IVD & 6, PTO, Peebles, Ohio
TEST DATES: 24/02/1995-28/07/1995

REMARKS

1. GE Report TM95-17.
2. Engine S/N 704/223 & 704/234
3. DAC I combustor

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