



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION:GENx-1B76A/P2

UNIQUE ID NUMBER:16GE169

ENGINE TYPE:TF

BYPASS RATIO:8.6

PRESSURE RATIO ( $\pi_{oo}$ ):47.5

RATED OUTPUT ( $F_{oo}$ ) (kN):349.2

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D <sub>p</sub> /F <sub>oo</sub> (g/kN) or SN	0.6	17.5	57.3	0.8
AS % OF ORIGINAL LIMIT	3.2 %	14.8 %	42.4 %	4.4 %
AS % OF CAEP/2 LIMIT (NOx)			53.0 %	
AS % OF CAEP/4 LIMIT (NOx)			56.1 %	
AS % OF CAEP/6 LIMIT (NOx)			60.9 %	
AS % OF CAEP/8 LIMIT (NOx)			67.3 %	

DATA STATUS

-PRE-REGULATION

x-CERTIFICATION

-REVISED (SEE REMARKS)

TEST ENGINE STATUS

xNEWLY MANUFACTURED ENGINES

xDEDICATED ENGINES TO PRODUCTION STANDARD

-OTHER (SEE REMARKS)

EMISSIONS STATUS

xDATA CORRECTED TO REFERENCE  
(ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)

-OUT OF PRODUCTION

-OUT OF SERVICE

MEASURED DATA

MODE	POWER SETTING (%F <sub>oo</sub> )	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	2.790	0.03	0.05	46.9	0.2
CLIMB OUT	85	2.2	2.262	0.02	0.09	26.78	0.16
APPROACH	30	4.0	0.709	0.04	1.53	11.78	0.43
IDLE	7	26.0	0.223	0.36	13.44	5.04	0.07
LTO TOTAL FUEL (kg) or EMISSIONS (g)			934	140	4980	17251	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D <sub>p</sub> /F <sub>oo</sub> (g/kN) or AVERAGE SN (MAX)				0.4	14.26	49.4	0.58
SIGMA (D <sub>p</sub> /F <sub>oo</sub> in g/kN, or SN)				0.02	0.02	0.33	0.34
RANGE (D <sub>p</sub> /F <sub>oo</sub> in g/kN, or SN)				0.38 to 0.4	14.2 to 14.3	49.1 to 49.7	.0 to .97

ACCESSORY LOADS

POWER EXTRACTION0(kW)ATALLPOWER SETTINGS

STAGE BLEED0% CORE FLOWATALLPOWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	98.1 to 98.5
TEMPERATURE (K)	295.1 to 298.8
ABS HUMIDITY (kg/kg)	0.01189 to 0.01439

FUEL

SPEC	JET A
H/C	1.89
AROM (%)	15.4

MANUFACTURER:GE Aviation

TEST ORGANIZATION:GE Aviation

TEST LOCATION:PTO, Ohio, USA

TEST DATES:FROM19 Jun 12TO21 Jun 12

REMARKS

1. Ref. GE REPORT R2016AE118/Rev. 0
2. Certification in accordance with Part III, Chapter 2, of Amendment 8 of ICAO Annex 16 Vol. II.
3. NOx levels in accordance with Part III, Chapter 2, 2.3.2 e) (CAEP/8)

If REVISED, this data supersedes databank UID

Compliance with fuel venting requirements:x('x' if complies, PR if pre-regulation)