ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION:	PS-90A	BYPASS RATIO:	4.48
UNIQUE ID NUMBER:	13AA006	PRESSURE RATIO (π_{oo}):	30.8
ENGINE TYPE:	MTF	RATED OUTPUT (F_{oo}) (kN):	154.6

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	4.7	33.0	57.4	8.6
AS % OF ORIGINAL LIMIT	23.8 %	28.0 %	56.5 %	40.9 %
AS % OF CAEP/2 LIMIT (NOx)			70.6 %	
AS % OF CAEP/4 LIMIT (NOx)			83.7 %	
AS % OF CAEP/6 LIMIT (NOx)			94.8 %	
AS % OF CAEP/8 LIMIT (NOx)			111.0 %	

DATA STATUS

-      PRE-REGULATION
- x   CERTIFICATION
-      REVISED (SEE REMARKS)

TEST ENGINE STATUS

- x   NEWLY MANUFACTURED ENGINES
- x   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)
-      OUT OF PRODUCTION
-      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	1.532	0.1	0.41	30.52	6.75
CLIMB OUT	85	2.2	1.279	0.13	0.45	23.33	7.82
APPROACH	30	4.0	0.511	0.79	1.2	8.96	5.06
IDLE	7	26.0	0.168	1.32	15.18	4.92	0.23
LTO TOTAL FUEL (kg) or EMISSIONS (g)			617	470	4216	8287	-
NUMBER OF ENGINES				4	4	4	4
NUMBER OF TESTS				4	4	4	4
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				3.04	27.27	53.6	7.82
SIGMA (D_p/F_{oo} in g/kN, or SN)				-	-	-	-
RANGE (D_p/F_{oo} in g/kN, or SN)				1.64-6.61	25.44-30.30	52.25-54.81	6.84 - 9.37

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.84-98.68
TEMPERATURE (K)	289.2-294.8
ABS HUMIDITY (kg/kg)	0.00595-0.01297

FUEL

SPEC	TS-1
H/C	1.95
AROM (%)	14,9

MANUFACTURER:	Aviadvigatel
TEST ORGANIZATION:	OJSC Aviadgatel
TEST LOCATION:	Perm City
TEST DATES:	FROM 05 Jul 07 TO 30 Aug 07

REMARKS

1. NOx levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

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