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PERFORMANCE OF THE ALTIMETER SYSTEM AND ALTITUDE REPORTING SYSTEMS TESTS AND INSPECTIONS REQUIRED BY FAR PART 91.411 SHALL COMPLY WITH THE FOLLOWING:

- (A) NO PERSON MAY OPERATE AN AIRPLANE, OR HELICOPTER, IN CONTROLLED AIRSPACE UNDER IFR UNLESS-
 - (1) WITHIN THE PRECEDING 24 CALENDAR MONTHS, EACH STATIC PRESSURE SYSTEM, EACH ALTIMETER INSTRUMENT, AND EACH AUTOMATIC PRESSURE ALTITUDE REPORTING SYSTEM HAS BEEN TESTED AND INSPECTED AND FOUND TO COMPLY WITH APPENDICES E AND F OF PART 43 OF THIS CHAPTER;
 - (2) EXCEPT FOR THE USE OF SYSTEM DRAIN AND ALTERNATE STATIC PRESSURE VALVES, FOLLOWING ANY OPENING AND CLOSING OF THE STATIC PRESSURE SYSTEM, THAT SYSTEM HAS BEEN TESTED AND INSPECTED AND FOUND TO COMPLY WITH PARAGRAPH (A), APPENDIX E, OF PART 43 OF THIS CHAPTER; AND
 - (3) FOLLOWING INSTALLATION OR MAINTENANCE ON THE AUTOMATIC PRESSURE ALTITUDE REPORTING SYSTEM OF THE ATC TRANSPONDER WHERE DATA CORRESPONDENCE ERROR COULD BE INTRODUCED, THE INTEGRATED SYSTEM HAS BEEN TESTED, INSPECTED, AND FOUND TO COMPLY WITH PARAGRAPH (C), APPENDIX E, OF PART 43 OF THIS CHAPTER.

[Docket No. 18334, 54 FR 34308, Aug. 18, 1989, as amended by Amdt. 91–269, 66 FR 41116, Aug. 6, 2001; 72 FR 7739, Feb. 20, 2007]

ALTIMETERS	TESTED TO			14,000	FT.	
LH MAKE	MENTS,		MODEL	5934P-3	S/N:	416349
RH MAKE	-		MODEL		S/N:	-
STANDBY ALT	TIMETER	NOT I	NSTALLER		FT.	
MAKE			MODEL	-	S/N:	_
AIR DATA CON TESTED TO	/PUTER	NOT	INSTALL	50	Ft.	
NO. 1 MAKE	_		MODEL	All the second second	S/N:	_
NO. 2 MAKE			MODEL	<u>-</u>	S/N:	_
AIRCRAFT REG	GISTRATION	N 83	72 K	AIRCRAFT TYPE	R44	4
				AIRCRAFT S/NO.	109	9
JAME			SIGN & APP	ROVAL	DAT	Ē
M. JA	mir			(MOD6)	/	6 NOV 2022
				1514		



8,000

22.225

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*NOTE: THE DATA IN THE FOLLOWING ATTACHMENTS IS FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE ENGINEER TO REVIEW ALL DATA FROM RELEVANT REFERENCES BEFORE CARRYING OUT THIS TASK.

14 CFR E43.1. APPENDIX E. PARAGRAPH (A) - STATIC PRESSURE SYSTEM

		YES	NO
(1)	ENSURE FREEDOM FROM ENTRAPPED MOISTURE AND RESTRICTIONS	~	
(2)	DETERMINE THAT LEAKAGE IS WITHIN THE TOLERANCES ESTABLISHED IN SEC 23.1325 OR SEC 25.1325 WHICHEVER IS APPLICABLE.	~	
	(Refer FAR Part 23 Sub-Part F Section 23-1325 & FAR Part 25 Sub-Part F Section 25-1325)	•	

	(Note: 1711 Art 20 Gub Fart Foodish 25-1525 & FART art 25 Gub-Fart Foodish 25-1525)					
UN	PRESSURIZED A	AIRCRAFT	46.44			
CLC	INCREASE ALTITUDE IN STATIC SYSTEM TO AN ALTITUDE OF 1000 FT ABOVE THE AIRCRAFT ELEVATION. CLOSE STATIC CONTROL VALVE AND VENT VALVE. RECORD VALUE - VALUE SHOULD NOT EXCEED ALTITUDE DROP OF 100 FT IN THE PERIOD OF ONE MINUTE.					
LEA	LEAK TEST ALTITUDE 2000 PT LEAK RATE 50 ft / min					
PR	PRESSURIZED AIRCRAFT					
100 (14) USIN	INCREASE ALTITUDE IN STATIC SYSTEM TO AN ALTITUDE OF MAXIMUM CABIN DIFFERENTIAL. CLOSE STATIC CONTROL VALVE AND VENT VALVE. RECORD LEAK RATE - RATE SHOULD NOT EXCEED 2% OF EQUIVALENT ALTITUDE OF THE MAXIMUM CABIN DIFFERENTIAL OR 100 FT/MIN (14.7 – Max Cabin Diff) x 2.036 = ins Hg USING FORMULA ABOVE DETERMINE THE LEAK TEST HEIGHT IN ALTITUDE. (RECORD VALUE IN ins Hg. SEE CONVERSION TABLE FOR ins Hg TO ALTITUDE RELATIONSHIP).					
CO	NVERSION TABL	<u>E</u>				
	Altitude	Pressure (ins Hg)		Altitude	Pressure (ins Hg)	
	-1,000	31.018		14,000	17.577	
	0	29.921		16,000	16.216	
	500	29.385		18,000	14.942	
	1,000	28.856		20,000	13.750	
	1,500	28.335		22,000	12.636	
	2,000	27.821		25,000	11.104	
	3,000	26.817		30,000	8.885	
	4,000	25.842		35,000	7.041	
	6,000	23.978		40,000	5.538	

10,000	20.577	50,000	3.425
12,000	19.029		
LEAK TEST ALTITUDE		LEAK RATE	ft / min

45,000

4.355

		YES	NO
(3)	DETERMINE THAT THE STATIC PORT HEATER, IF INSTALLED, IS OPERATIVE INSTALLED		
(4)	ENSURE THAT NO ALTERATIONS OR DEFORMATIONS OF THE AIRFRAME SURFACE HAVE BEEN MADE THAT WOULD AFFECT THE RELATIONSHIP BETWEEN AIR PRESSURE IN THE STATIC PRESSURE SYSTEM AND TRUE AMBIENT STATIC AIR PRESSURE FOR ANY FLIGHT CONDITION.	/	



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NO. 1 ALTIMETER STATIC SYSTEM TEST AND INSPECTION RECORD

MAKE INSTRUMENTS INC

MODEL 5934P-3

P/N

5934P-3

S/N

416 349

SCALI	E ERROF

ALTITUDE (FT) (FT) (FT) (FT) ALTITUDE AL CHAING (FT) (FT) ALTITUDE AL CHAING (FT) (FT) (FT) ALTITUDE AL CHAING (FT) (FT) (FT) (FT) (FT) (FT) (FT) (FT)	-
CHAN OVI (FT) -1000 -/000 20	C.
OV (FT OV OV (FT OV OV OV OV OV OV OV O	T.
CFT	
-1000 -/000 20	
0 0 20 0 - 500 500 20 20 500 - 1000 7000 20 7000 - 1500 7500 25 7500 - 2000 2000 30 2000 - 3000 3000 30 3000 - 4000 4000 35 4000 - 6000 6000 40 6000 - 8000 8000 60 8000 -	[]
500 500 20 500 - 1000 700 20 700 - 1500 7500 25 7500 - 2000 2000 30 2000 - 3000 3000 30 2000 - 4000 4000 35 4000 - 6000 6000 40 6000 - 8000 8000 60 8000 - 10 000 70,000 80 70,000 -	
1000 /000 20 /000 - 1500 /500 25 /500 - 2000 2000 30 2000 - 3000 3000 30 3000 - 4000 4000 35 4000 - 6000 6000 40 6000 - 8000 8000 60 8000 - 10 000 /0,000 80 /0,000 -	
1500 /500 25 /500 - 2000 2000 30 2000 - 3000 3000 30 3000 - 4000 4000 35 4000 - 6000 6000 40 6000 - 8000 8000 60 8000 - 10 000 /0,000 80 /0,000 -	
2000 3000 30 3000 - 3000 3000 30 3000 - 4000 4000 35 4000 - 6000 6000 40 6000 - 8000 8000 60 8000 - 1000 70,000 80 70,000 -	
3000 3000 30 3000 - 4000 4000 35 4000 - 6000 6000 40 6000 - 8000 8000 60 8000 - 10 000 70,000 80 70,000 -	
4000 4000 35 4000 - 6000 6000 40 6000 - 8000 8000 60 8000 - 10 000 70,000 80 70,000 -	
6000 6000 40 6000 - 8000 8000 60 8000 - 10 000 10,000 80 10,000 -	
8000 8000 60 8000 - 10 000 70,000 80 70,000 -	
10 000 10,000 80 10,000 -	
10.000	
12 000 12,000 90 12,000 -	
14 000 14,000 100 14,000 -	
16 000	
18 000 120	
20 000 130	
22 000	
25 000 155	
30 000	
35 000 205	
40 000 230	
45 000 255	
50 000 280	
55 000 300	

FRICTION TEST					
ALTITUDE (FT)	READING (FT)	TOLERANCE (FT)			
1000	1000	70			
2000	2000	70			
3000	3000	70			
6000	6000	70			

1000	1000	70
2000	2000	70
3000	3000	70
6000	8000	70
10 000	10,000	80
16 000		90
20 000		100
25 000		120
30 000		140
35 000		160
40 000		180
50 000		250

BAROMETRIC SCALE ERROR

		ole 1
SURE	READING	TOLERANCE
mb	(ft)	(ft)
951.67	-1710	25
965.21	-1330	25
982.15	-250	25
999.08		25
1013.31	0	25
1032.95	520	25
1046.50	890	25
1049.54	990	25
	mb 951.67 965.21 982.15 999.08 1013.31 1032.95 1046.50	mb (ft) 951.67 -/7/0 965.21 -/330 982.15 - 20 1013.31 0 1032.95 520 1046.50 890

TEST TOLERANCE

LEAK RATE	READING	TOLERANCE
(ft)	(ft)	(ft)
50	18,000	100ft/min

AFTER EFFECT

AMBIENT	READING	TOLERANCE
PRESSURE	(FT)	(FT)
RESIDUE	250	30

HYSTERESIS TEST

	READING (ft)	TOLERANCE (ft)
50% of MAX ALT	7000	75
40% of MAX ALT	5600	75

REMARKS:

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	NO. 2 AL	TIMETER S	TATIC SY	STEM TE	ST AN	ND INSPE	CTION	RECORD	. /
MAKE		MODEL		P/	N		5	6/N	
SCALE ER	ROR						FRICT	ION TEST	
ALTITUDE	READING	TOLERANCE	ENCODED	ENC.		ALTI	TUDE	READING	TOLERANC
(FT)	(FT)	(FT)	ALTITUDE	ALT. CHANGE OVER		(F	T)	OFT)	(FT)
- 1000		20				10	00 /		70
0		20				20	00		70
500		20				30	00		70
1000	2000	20			7	60	00		70
1500		25				10/	500		80
2000		30				160	000		90
3000		30			1	20 (000		100
4000		35			1	25 (000		120
6000		40			1	30 (000		140
8000		60			1 /	35 (000		160
10 000		80				40 (000		180
12 000		90				50 (000		250
14 000		100							
16 000		110			1		BARON	AETRIC SO	CALE ERROR
18 000		120						* refer to ta	
20 000		130				PRESS	SURE	READING	TOLERANCE
22 000		140				In Hg	mb	(ft)	(ft)
25 000		155	/			28.10	951.67		25
30 000 35 000		180 205		-	_	28.50	965.21		25
40 000		230			1	29.00	982.15		25
45 000		255			-	29.50 29.92	999.08		25
50 000		280	_		1	30.50	1013.31		25
55 000		300	-			30.90	1032.95		25
33 000		300]	30.90	1046.50		25
							1049.54		25
TEST TOLI	ERANCE					HYSTERE:	SIS TEST		
LEAK RAT	E READ	ING TOLE	RANCE				READII	NG TOLF	RANCE
(ft)	(ft)) (1	ft)				(ft)	and the second second	(ft)
	18,0	00 100f	t/min		50% of	MAX ALT			75
					40% of	MAX ALT			75
AFTER EFF	FECT				2	REMARKS	:		
AMBIENT	READ	ING TOLER	LANCE		~ `	ALTIM	K57573	MOT 14	TAILER
PRESSURE			College and the college of the colle	'	. J	ALIIM	51516	1-01 1100	" Jule D
ESIDUE		Sill a second a second	0						



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MAKE		MODEL		P	/N		S/N		
SCALE ER	ROR						FRICT	ION TEST/	
ALTITUDE (FT)	READING (FT)	TOLERANCE (FT)	ENCODED ALTITUDE	ENC. ALT. CHANGE OVER		ALTII		READING (FT)	TOLERANC (FT)
- 1000		20		O I DAT	1	100	00 /		70
0		20	AHS			200			70
500		20	S. S. Star 1947 - N. S.			300			70
1000		20			_	600			70
1500		25				10/	000		80
2000		30		-		160			90
3000		30				20 (100
4000		35			7	25 (000		120
6000		40			7	30 (140
8000		60			١,	35 (160
10 000		80			7	40 0			180
12 000		90			/	50 0			250
14 000		100		/	4				250
16 000		110					BARON	TETRIC SC.	ALE ERROR
18 000		120					2111011	* refer to tab	
20 000		130				PRESS	URE	READING	TOLERANCI
22 000		140				In Hg	mb	(ft)	(ft)
25 000		155				28.10	951.67		25
30 000		180				28.50	965.21		25
35 000		205			_	29.00	982.15		25
40 000 45 000		230			4	29.50	999.08		25
50 000		255 280	/		-	29.92	1013.31		25
55 000					-	30.50	1032.95		25
33 000		300				30.90	1046.50		25
						30.99	1049.54		25
TEST TOLE	ERANCE					HYSTERES	SIS TEST		
LEAK RAT			RANCE				READIN	10 (Care)	A STATE OF THE PARTY OF THE PAR
(ft)	(ft)		t/min	Г	F00/	CMANATE	(ft)	(f	
	18,0	00 1001	/min	-		of MAX ALT		7	
					40% 0	of MAX ALT		7	5
AFTER EFF	ECT					REMARKS	:		
AMBIENT PRESSURE			ANCE T)		STA	MOBY.	ALTIM	ETER ,	NOT
RESIDUE		3			14157	291150			



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NOTE

- AN ALTITUDE REPORTING SYSTEM TEST MUST BE PERFORMED AFTER ANY ADJUSTMENTS OR INSTALLATION IS MADE WHICH MAY AFFECT THE ALTITUDE REPORTING SYSTEM. PERFORM ALTITUDE REPORTING SYSTEM TEST IF IT IS DUE AND REQUESTED BY THE CUSTOMER.
- 2. FOR AIRCRAFT HAVING MODE S ADDRESSES WITHIN THE BLOCK OF ADDRESSED ASSIGNED TO CIVILIAN US AIRCRAFT, THE REGISTRATION NUMBER OF THE AIRCRAFT WILL BE DISPLAYED.
- 3. FOR NON US REGISTERED AND MILITARY AIRCRAFT THE MODE S ADDRESS WILL APPEAR AS AT HEXADECIMAL CODE. REFER TO AIRCRAFT LOG BOOK FOR MODE S TRANSPONDER ADDRESS STRAPPING (OR AIRCRAFT SPECIFIC WIRING DIAGRAM). ALL REGISTRATION IS PROCEEDED BY THE LETTER N.
- 4. IF A HEXADECIMAL CODE IS DISPLAYED BY A US CIVILREGISTERED AIRCRAFT, THIS IS AN INDICATION OF INCORRECTLY STRAPPED MODE S TRANSPONDER.

TABLE 1 -- PRESSURE-ALTITUDE DIFFERENCE

PRESS	ALTITUDE DIFFERENCE	
INCHES OF HG	INCHES OF HG MILLIBAR	
28.10	951.67	(FEET) -1727
28.50	965.21	-1340
29.00	982.15	-863
29.50	999.08	-392
29.92	1013.31	0
30.50	1032.95	+531
30.90	1046.50	+893
30.99	1049.54	+974