

INCH-POUND

MIL-STD-859B  
09 October 2015

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SUPERSEDING  
MIL-STD-859A  
13 November 1968

**DEPARTMENT OF DEFENSE  
TEST METHOD STANDARD**

**STANDARD CALIBRATION TABLE FOR AERONAUTICAL  
PRESSURE MEASURING EQUIPMENT**



AMSC N/A

FSC MISC

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## MIL-STD-859B

### FOREWORD

1. This standard is approved for use by all Departments and Agencies of the Department of Defense.
2. This revision is being issued to bring up-to-date this standard with the current formatting requirements of MIL-STD-962, but the most significant ones are:
  - a. Incorporation of stand-alone change notice with all changes being fully integrated into the standard (Reference “Revision A Notice 1 dated 01-FEB-1979”).
  - b. Removal of the canceled International Standardization Agreements (ISA).
  - c. Elimination of the DD Form 1426.
3. Comments, suggestions, or questions on this document should be addressed to:  
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### 1. SCOPE

1.1 Scope. This standard establishes the static pressure (P) in inches of mercury for values of pressure altitude (H) in geopotential feet to be used in the design and calibration of all aircraft equipment whose operation is a function of atmospheric pressure.

#### 1.2 Examples of applicable documents.

SAE AS942 - Pressure Altimeters, System Minimum Safe Performance Standard

(Copies of this document are available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096 or online at <http://www.sae.org>.)

### 2. APPLICABLE DOCUMENTS

2.1 This section is not applicable to this standard.

### 3. DEFINITIONS

3.1 This section is not applicable to this standard.

### 4. GENERAL REQUIREMENTS

4.1 This section is not applicable to this standard.

### 5. DETAILED REQUIREMENTS

5.1 General. The detailed requirements define baseline performance criteria for the design and calibration of all aircraft equipment whose operation is a function of atmospheric pressure.

5.2 Calibration table. The following values shall be used for calibration in Table I:

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**TABLE I. Static pressure (P) in inches of mercury for values of pressure altitude (H) in geopotential feet.**

Pressure Altitude, (H) geopotential feet	0	100	200	300	400	500	600	700	800	900
-1,100	31.1300	31.2418	31.3539	31.4664	31.5792	31.6923	31.8057	31.9195	32.0336	32.1480
-1,100	31.0185									
-0		30.0295	30.1381	30.2471	30.3563	30.4659	30.5757	30.6859	30.7965	30.9073
0	29.9213	29.8133	29.7056	29.5983	29.4913	29.3846	29.2782	29.1721	29.0663	28.9608
1,000	28.8557	28.7508	28.6463	28.5421	28.4382	28.3345	28.2312	28.1282	28.0255	28.9231
2,000	27.8210	27.7193	27.6178	27.5166	27.4157	27.3151	27.2148	27.1148	27.0152	27.9158
3,000	26.8167	26.7179	26.6194	26.5211	26.4232	26.3256	26.2283	26.1312	26.0345	26.9380
4,000	25.8418	25.7460	25.6504	25.5551	25.4600	25.3653	25.2709	25.1767	25.0828	25.9892
5,000	24.8959	24.8029	24.7101	24.6177	24.5255	24.4336	24.3420	24.2506	24.1593	24.0687
6,000	23.9782	23.8880	23.7980	23.7083	23.6189	23.5298	23.4409	23.3523	23.2640	23.1759
7,000	23.0881	23.0006	22.9133	22.8264	22.7397	22.6532	22.5670	22.4811	22.3955	22.3101
8,000	22.2250	22.1401	22.0555	21.9712	21.8871	21.8033	21.7197	21.6364	21.5534	21.4706
9,000	21.3881	21.3059	21.2238	21.1421	21.0606	20.9794	20.8984	20.8177	20.7372	20.6569
10,000	20.5770	20.4972	20.4178	20.3385	20.2596	20.1808	20.1024	20.0241	19.9461	19.8684
11,000	19.7909	19.7137	19.6367	19.5599	19.4834	19.4071	19.3311	19.2553	19.1797	19.1044
12,000	19.0294	18.9545	18.8799	18.8056	18.7315	18.6576	18.5839	18.5105	18.4374	18.3644
13,000	18.2917	18.2192	18.1470	18.0750	18.0032	17.9317	17.8603	17.7893	17.7184	17.6478
14,000	17.5774	17.5072	17.4373	17.3675	17.2981	17.2288	17.1597	17.0909	17.0223	16.9540
15,000	16.8858	16.8179	16.7502	16.6827	16.6154	16.5484	16.4816	16.4150	16.3486	16.2824
16,000	16.2164	16.1507	16.0852	16.0199	15.9548	15.8899	15.8252	15.7608	15.6966	15.6325
17,000	15.5687	15.5051	15.4417	15.3785	15.3156	15.2528	15.1903	15.1279	15.0658	15.0038
18,000	14.9421	14.8806	14.8193	14.7582	14.6973	14.6366	14.5761	14.5158	14.4557	14.3958
19,000	14.3361	14.2766	14.2173	14.1582	14.0993	14.0406	13.9821	13.9238	13.8657	13.8078
20,000	13.7501	1.06926	13.6353	13.5782	13.5212	13.4645	13.4079	13.3516	13.2954	13.2395
21,000	13.1837	13.1281	13.0727	13.0175	12.9625	12.9076	12.8530	12.7985	12.7443	12.6902
22,000	12.6363	12.5826	12.5291	12.4757	12.4226	12.3696	12.3168	12.2642	12.2118	12.1595
23,000	12.1075	12.0556	12.0039	11.9524	11.9010	11.8499	11.7989	11.7481	11.6974	11.6470
24,000	11.5967	11.5466	11.4967	11.4469	11.3974	11.3480	11.2987	11.2497	11.2008	11.1521
25,000	11.1035	11.0552	11.0070	10.9589	10.9111	10.8634	10.8159	10.7685	10.7213	10.6743
26,000	10.6275	10.5808	10.5343	10.4879	10.4417	10.3957	10.3499	10.3042	10.2587	10.2133
27,000	10.1681	10.1230	10.0782	10.0335	9.98889	9.94450	9.90026	9.85619	9.81227	9.76851
28,000	9.72491	9.68147	9.63818	9.59505	9.55208	9.50926	9.46660	9.42410	9.38174	9.33955
29,000	9.29750	9.25561	9.21388	9.17229	9.13086	9.08958	9.04845	9.00747	8.96665	8.92597
30,000	8.88544	8.84506	8.80483	8.76475	8.72481	8.68502	8.64539	8.60589	8.56654	8.52734
31,000	8.48829	8.44938	8.41061	8.37199	8.33351	8.29517	8.25698	8.21893	8.18102	8.14326
32,000	8.10563	8.06815	8.03081	7.99360	7.95654	7.91961	7.88283	7.84618	7.80967	7.77330
33,000	7.73707	7.70097	7.66501	7.62919	7.59350	7.55794	7.52253	7.48724	7.45209	7.41708
34,000	7.38219	7.34744	7.31283	7.27834	7.24399	7.20977	7.17568	7.14172	7.10789	7.07419
35,000	7.04062	7.00716	6.97386	6.94066	6.90762	6.87468	6.84189	6.80920	6.77667	6.74423
36,000	6.71195	6.67977	6.64775		6.58415		6.52116		6.45878	
37,000	6.39699		6.33579		6.27518		6.21515		6.15569	
38,000	6.09680		6.03847		5.98071		5.92349		5.86682	

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**TABLE I. Static pressure (P) in inches of mercury for values of pressure altitude (H) in geopotential feet – Continued.**

Pressure Altitude, (H) geopotential feet	0	100	200	300	400	500	600	700	800	900
39,000	5.81070		5.75511		5.70005		5.64552		5.59151	
40,000	5.53802		5.48504		5.43257		5.38060		5.32912	
41,000	5.27814		5.22765		5.17763		5.12810		5.07904	
42,000	5.03045		4.98233		4.93466		4.88746		4.84070	
43,000	4.79439		4.74852		4.70310		4.65810		4.61354	
44,000	4.56941		4.52569		4.48240		4.43951		4.39704	
45,000	4.35498		4.31332		4.27205		4.23118		4.19070	
46,000	4.15061		4.11091		4.07158		4.03263		3.99405	
47,000	3.95584		3.91800		3.88051		3.84339		3.80662	
48,000	3.77020		3.73414		3.69841		3.66303		3.62799	
49,000	3.59328		3.55891		3.52486		3.49114		3.45774	
50,000	3.42466		3.39190		3.35945		3.32731		3.29548	
51,000	3.26395		3.23273		3.20180		3.17117		3.14083	
52,000	3.11079		3.08103		3.05155		3.02236		2.99344	
53,000	2.96481		2.93644		2.90835		2.88053		2.85297	
54,000	2.82568		2.79865		2.77187		2.74535		2.71909	
55,000	2.69308		2.66731		2.64180		2.61652		2.59149	
56,000	2.56670		2.54215		2.51783		2.49374		2.46988	
57,000	2.44625		2.42285		2.39967		2.37672		2.35398	
58,000	2.33146		2.30916		2.28706		2.26519		2.24351	
59,000	2.22205		2.20079		2.17974		2.15889		2.13823	
60,000	2.11778		2.09752		2.07745		2.05758		2.03789	
61,000	2.01840		1.99909		1.97996		1.96102		1.94226	
62,000	1.92368		1.90528		1.88705		1.86900		1.85112	
63,000	1.83341		1.81587		1.79850		1.78129		1.76425	
64,000	1.74737		1.73066		1.71410		1.69770		1.68146	
65,000	1.66537		1.64944		1.63366		1.61803		1.60256	
66,000	1.58723		1.57206		1.55703		1.54216		1.52742	
67,000	1.51284		1.49840		1.48410		1.46994		1.45591	
68,000	1.44203		1.42828		1.41467		1.40119		1.38784	
69,000	1.37463		1.36154		1.34858		1.33578		1.32304	
70,000	1.31046		1.29800		1.28567		1.27345		1.26135	
71,000	1.24938		1.23751		1.22577		1.21414		1.20262	
72,000	1.19122		1.17992		1.16874		1.15767		1.14670	
73,000	1.13584		1.12509		1.11444		1.10389		1.09345	
74,000	1.08311		1.07287		1.06273		1.05269		1.04274	
75,000	1.03290		1.02314		1.01349		1.00392		0.99453	
76,000	0.985074		0.975787		0.966589		0.957481		0.948461	
77,000	0.939529		0.930682		0.921922		0.913248		0.904656	
78,000	0.896148		0.887722		0.879377		0.871114		0.862931	

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**TABLE I. Static pressure (P) in inches of mercury for values  
of pressure altitude (H) in geopotential feet – Continued.**

Pressure Altitude, (H) geopotential feet	0	100	200	300	400	500	600	700	800	900
79,000	0.854826		0.846799		0.838851		0.830979		0.823183	
80,000	0.815462		0.807816		0.800243		0.792744		0.785317	
81,000	0.777962		0.770677		0.763463		0.756317		0.749241	
82,000	0.742233		0.735293		0.728419		0.721612		0.714870	
83,000	0.708192		0.701579		0.695029		0.688543		0.682119	
84,000	0.675756		0.669454		0.663213		0.657031		0.650910	
85,000	0.644846		0.638841		0.632893		0.627003		0.621169	
86,000	0.615390		0.609667		0.603999		0.598385		0.592824	
87,000	0.587317		0.581862		0.576460		0.571109		0.565809	
88,000	0.560560		0.555361		0.550212		0.545112		0.540060	
89,000	0.535056		0.530101		0.525192		0.520330		0.515515	
90,000	0.510745		0.506021		0.501342		0.496707		0.492117	
91,000	0.487570		0.483066		0.478605		0.474187		0.469810	
92,000	0.465475		0.461182		0.456928		0.452716		0.448543	
93,000	0.444410		0.440316		0.436261		0.432244		0.428265	
94,000	0.424324		0.420421		0.416554		0.412724		0.408930	
95,000	0.405172		0.401449		0.397762		0.394110		0.390492	
96,000	0.386908		0.383358		0.379842		0.376358		0.372908	
97,000	0.369490		0.366105		0.362751		0.359429		0.356138	
98,000	0.352879		0.349650		0.346451		0.343283		0.340144	
99,000	0.337035		0.333955		0.330904		0.327882		0.324888	
100,000	0.321922		0.318984		0.316074		0.313191		0.310335	
101,000	0.307506		0.304703		0.301927		0.299177		0.296453	
102,000	0.293754		0.291080		0.288431		0.285807		0.283208	
103,000	0.280633		0.278082		0.275555		0.273052		0.270572	
104,000	0.268115		0.265681		0.263270		0.260882		0.258516	
105,000	0.256171					0.250410				
106,000	0.244788					0.239303				
102,000	0.293754		0.291080		0.288431		0.285807		0.283208	
103,000	0.280633		0.278082		0.275555		0.273052		0.270572	
104,000	0.268115		0.265681		0.263270		0.260882		0.258516	
105,000	0.256171					0.250410				
106,000	0.244788					0.239303				
107,000	0.233950					0.228727				
108,000	0.223629					0.218654				
109,000	0.213799					0.209060				
110,000	0.204435					0.199920				
111,000	0.195513					0.191211				

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**TABLE I. Static pressure (P) in inches of mercury for values of pressure altitude (H) in geopotential feet – Continued.**

Pressure Altitude, (H) geopotential feet	0	100	200	300	400	500	600	700	800	900
112,000	0.187011					0.182911				
113,000	0.178908					0.174999				
114,000	0.171183					0.167456				
115,000	0.163817					0.160264				
116,000	0.156793					0.153404				
117,000	0.150094					0.146862				
118,000	0.143704					0.140620				
119,000	0.137607					0.134664				
120,000	0.131789					0.128980				
121,000	0.126236					0.123555				
122,000	0.120935					0.118376				
123,000	0.115875					0.113431				
124,000	0.111042					0.108708				
125,000	0.106427					0.104203				

## 6. NOTES:

(This section contains information of a general explanatory nature that may be helpful, but is not mandatory.)

6.1 Key words.

Atmospheric pressure  
 Geopotential  
 Pressure altitude  
 Static pressure

6.2 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.



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CONCLUDING MATERIAL

Custodian:

Army - PT  
Navy - AS  
Air Force - 184

Preparing Activity:

Air Force – 184

Reviewer:

Army - AV  
Navy - SA  
Air Force - 99

Agent:

Air Force – 99  
(Project MISC-2014-001)

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