After entering a randomly selected east coast location of lat = 39° 49.00’N, 75° 26.00’W we get the following screen after pressing Show Stations. It shows the 10 closest stations with online pressure data and provides range and bearing to each along with a link to the data.

Here are the 10 closest stations to your barometer that offer accurate pressure data.

#	Distance (nmi)	Bearing (True)	Position	Elev (m)	Link to Weather	ID	Type	Avg	Plot	Omit
1	9.7	072	39° 52.0´ N, 75° 14.0´ W	18	PHILADELPHIA	KPHL	metar	☐	☐	☐
2	11.8	221	39° 40.0´ N, 75° 36.0´ W	28	WILMINGTON	KILG	metar	☐	☐	☐
3	15.8	064	39° 56.0´ N, 75° 07.5´ W	n/a	Philadelphia	8545240	co-op	☐	☐	☐
4	15.8	207	39° 34.9´ N, 75° 35.3´ W	n/a	Delaware City	8551762	co-op	☐	☐	☐
5	16.8	203	39° 33.5´ N, 75° 34.4´ W	n/a	Reedy Point	8551910	co-op	☐	☐	☐
6	20.5	022	40° 08.0´ N, 75° 16.0´ W	92	PHILLY WINGS F	KLOM	metar	☐	☐	☐
7	22.3	297	39° 59.0´ N, 75° 52.0´ W	201	COATESVILLE	K40N	metar	☐	☐	☐
8	24.6	225	39° 31.6´ N, 75° 48.6´ W	n/a	Chesapeake City	8573927	co-op	☐	☐	☐
9	25.0	050	40° 05.0´ N, 75° 01.0´ W	28	PHILADELPHIA/NE	KPNE	metar	☐	☐	☐
10	25.6	348	40° 14.0´ N, 75° 33.0´ W	92	POTTSTOWN	KPTW	metar	☐	☐	☐

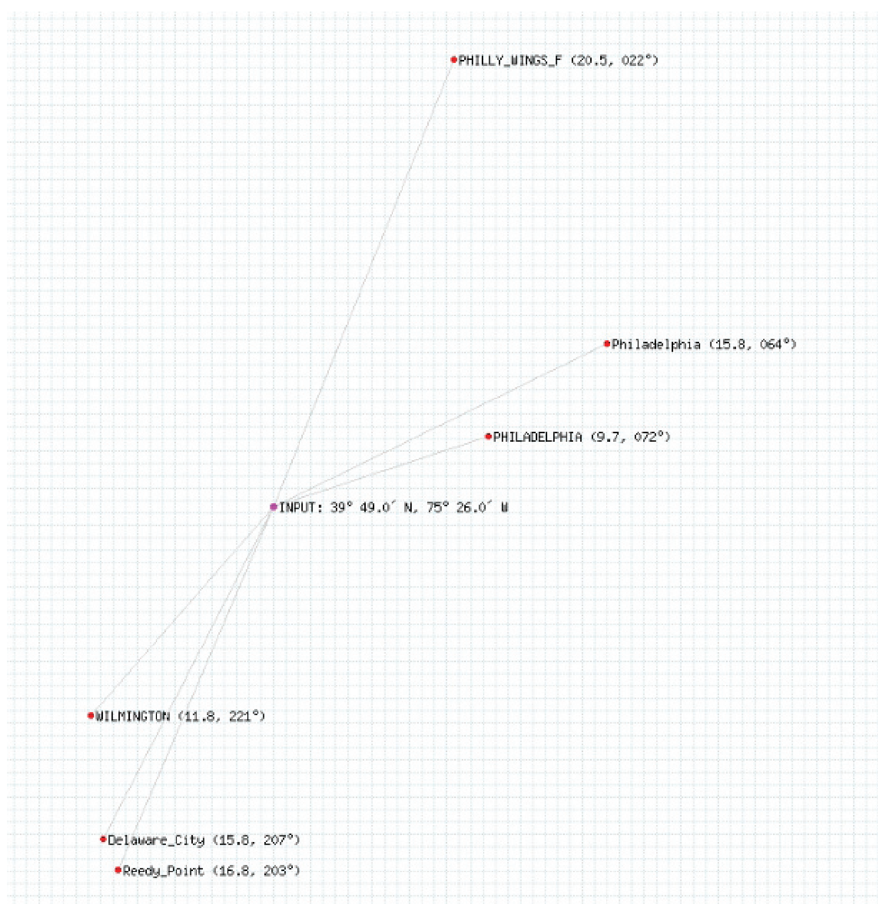
Draw Plot | Average Pressure | Omit Selected and Recompute

Input position: 39° 49.0´ N, 75° 26.0´ W
Elevation = 49.00 ft,
Add 1.79 mb to your elevated pressure to read sea level pressure

A quick check of the links of the nearest 6 stations shows that they all have data at this time, so we will use these 6 stations. Put a check in the Plot box and press Draw Plot to see the distribution of their locations about our desired point.

We note that “Philly Wings” is the farthest off, but the others should give a good east-west and north-south measure of the pressure surface slope.

Next put a check in these 6 boxes for Avg (means include them in the average), and then press Average Pressure to get the screen on the next page.



This is a Print Preview of the Average Pressure pages. This is set up for printing, so you can print this page, then go back to the main data page and click each of the individual links to find two pressures spanning the time you care about. Then fill in this paper form, and return to this page to input the data, as shown below.

Station #	Name	Range	Bearing	Time 1	Pressure 1	Time 2	Pressure 2
1	PHILADELPHIA	009.691	072				
2	WILMINGTON	011.838	221				
3	Philadelphia	015.822	064				
4	Delaware City	015.841	207				
5	Reedy Point	016.808	203				
6	PHILLY WINGS F	020.488	022				
7							

Get Pressure

These are the data obtained from the links on the previous page after filling in the form, just before submitting it. Note that it is up to you to choose data at times that span the time you care about, the program will then find an average time that is common to all stations that you can use.

Station #	Name	Range	Bearing	Time 1	Pressure 1	Time 2	Pressure 2
1	PHILADELPHIA	009.691	072	1854	1020.6	1954	1020.3
2	WILMINGTON	011.838	221	1851	1021.1	1951	1021.1
3	Philadelphia	015.822	064	1900	1020.0	2000	1019.7
4	Delaware City	015.841	207	1900	1020.5	2000	1020.5
5	Reedy Point	016.808	203	1900	1020.7	2000	1020.6
6	PHILLY WINGS F	020.488	022	1900	1019.4	2000	1019.4
7							

Get Pressure

#	Name	R	B	T1	P1	T2	P2	Tavg	Pavg	Pcomputed	delta
1	PHILADELPHIA	9.69	72.00	1854	1020.6	1954	1020.3	1927	1020.43	1019.95	0.48
2	WILMINGTON	11.84	221.00	1851	1021.1	1951	1021.1	1927	1021.10	1020.33	0.77
3	Philadelphia	15.82	64.00	1900	1020.0	2000	1019.7	1927	1019.86	1020.17	-0.30
4	Delaware City	15.84	207.00	1900	1020.5	2000	1020.5	1927	1020.50	1021.03	-0.53
5	Reedy Point	16.81	203.00	1900	1020.7	2000	1020.6	1927	1020.65	1021.03	-0.37
6	PHILLY WINGS F	20.49	22.00	1900	1019.4	2000	1019.4	1927	1019.40	1021.55	-2.15
							Results:	1927	1020.3		

The above screen is the result of the average, and a check for consistency. Namely we find an average time of all the data input and use it (1927 in this case), and then compute from the slope of the pressure at each station what the value the station would have at that time (Pavg). From these average values we compute an analytical pressure surface from a least squares fit, and then evaluate the pressure at the input location. With this method, the input location can be amongst the set of reference points or even outside of all of them.

To evaluate the procedure we then move from point to point among the input stations to evaluate what the computed pressure surface is at that location (Pcomputed) and compare this to the reported pressure at that time from that station. The differences are listed in the output; delta = Pavg - Pcomputed. In the above example, we see we are well within 1 mb for all stations except the farthest at Philly Wings. On the next page we repeat the computation, removing this one station.

#	Name	R	B	T1	P1	T2	P2	Tavg	Pavg	Pcomputed	delta
1	PHILADELPHIA	9.69	72.00	1854	1020.6	1954	1020.3	1927	1020.44	1020.12	0.32
2	WILMINGTON	11.84	221.00	1851	1021.1	1951	1021.1	1927	1021.10	1021.12	-0.02
3	Philadelphia	15.82	64.00	1900	1020.0	2000	1019.7	1927	1019.87	1020.28	-0.42
4	Delaware City	15.84	207.00	1900	1020.5	2000	1020.5	1927	1020.50	1020.80	-0.30
5	Reedy Point	16.81	203.00	1900	1020.7	2000	1020.6	1927	1020.66	1020.29	0.36
							Results:	1927	1021.0		

With the Philly Wings station removed, we get better results now within 0.5 mb with a random scatter about it. We can feel confident that the proper pressure at the input lat-lon was 1021.0 mb at 1927 (on Jan 31, 2010).

With this tool we hope accurate pressure can be established in most locations to be used for barometer calibrations. We will appreciate any comments or suggestions at helpdesk@starpath.com.

The next step will be to allow users to input a time of choice to be used for the averaging.

Part 2. Barometer Calibration

This form and our online weather station finder service is donated to the maritime community and other interested users by the folks at the Starpath Online Classroom, www.starpath.com. One of the main subjects we teach is marine weather, and there is no more crucial observation than barometric pressure. We also devote much time to explaining the great value of knowing accurate, absolute pressures (not just relative values and trends), and for this you need a calibrated barometer. And regardless of manufacturer's specifications, it is important to go through this checking process to be sure your instrument is right.

Instructions

The goal of this form and station finder service is to help you set your barometer to the right pressure using data from the nearest official weather stations. These stations tell you the right pressure at their locations corrected to sea level. Your barometer at an elevated position will read a lower pressure than the sea level pressure, even when it is set properly. You have to decide if you want your barometer to read sea level pressure or station pressure. You can set it either way. Also even once set properly to sea level, your instrument will read somewhat different than the reference stations periodically depending on how far away it is and the orientation of the local pressure pattern.

The process starts at www.starpath.com/barometers, which includes the weather station locator function and the archive of these instructions and a blank for actual work.

Specific instructions for each column of the form follow here. Enter your latitude and longitude and the elevation of your barometer. Then Summit to find the 10 closest stations to you and compute the elevation correction. Then start filling in the attached form using the closest couple stations. If you have a station within a few miles of you, then chances are you will get good data from that one alone after you average data from several days. The longer you do this the better the correction becomes. If you have stations on opposite sides of you roughly the same distance off, then an average of the two might be best. If one is closer than the other, then give it more weight.

The first step is not to worry about elevation, but just keep your barometer at the same location and gather as much data as you can over as a pressure range as you can. After you see what is available and read through these notes you will see there are two ways to do this. One ay is step by step, meaning read your own barometer then find the corresponding correct pressure and record that. The other way is just to record your barometer reading every few hours for a few days, then go to the closest sights to check the archived correct pressures and fill in the form that way.

Notes on the columns.

(1) Find your lat and lon from a GPS (best bet) or type your address into Google Earth, find your building, and read the lat lon from the status bar. You can also get your elevation that way. When you enter your position in the weather station finder you can use dd mm.mm format (ie 47° 32.60') or dd.dddd format (ie 47.5434°), and leave minutes blank.

(2) Enter your digital time zone (called Zone Description) see www.time.gov

(3) The elevation of your barometer, which includes the elevation of the land plus the height above the land. Try to get this as accurate as you can, but if you are going to set your barometer to sea level pressure it will not matter what this is, since we can calibrate directly to sea level pressure. In some barometers you can only set the pressure by changing the elevation, so it helps to know this in any event. You can get the your local elevation from a topo map and then estimate or measure the height in the building or vessel. Or again, type your address in at Google Earth and read off the elevation that way.

(4) Enter your elevation correction. This comes from the Station Finder page. It is recorded on the from just as a reminder. You only have to compute this once.

(5) Local date of the pressure reading. The date your watch says.

(6) Local watch time (WT) when you read your barometer or recorded the Reference pressure. Ideally these would be the same time, they don't have to be if you get a lot of data. You can interpolate for the times using the tendency data we record. You will learn soon what times they have available reference pressures and those are the times you need for recording. Reference pressures are typically updated every hour, some are more frequent, and some are always on the whole hour, but not all.

(7) UTC (same as GMT). UTC = WT + ZD. In east longitudes, ZD will be negative. To check your time, use bottom right UTC link at www.time.gov. If UTC > 24h, then subtract 24 h and increase the UTC date by 1 day.

(8) UTC date. Note all stations use UTC time and date to identify the data.

(9) Station identifier given by Station Finder.

(10) Distance and direction to the station recorded. The output from the Station Finder gives distance in nautical miles and direction as true bearing. Generally you will use just the closest station or two.

(11) The sea level pressure (SLP) from the reference station, accurate to 0.1mb. Some air port stations list two pressures. We want the one marked SLP for sea level pressure if available. A pressure listed as SLP221 that means 1022.1. Some airports only show an "altimeter" pressure, which is another computation of the sea level pressure expressed in inches of mercury. If the air port is not too high, you might be able to use that one. Later we will add notes on how to convert altimeter to sea level pressure depending on the altitude of the airport and the average temperature there over the past 12 hours.

The NDBC stations show the default data as inches of mercury using what they call "English" units. If you change that to "metric" units and then press "Select" it gives the data in mb, which is the same as hPa. You can also get the data for the past 24h on this page, or find a link below to get it for the past 45 days. If you are using a METAR (airport) station, then you can only get data for the past 36h.

(12) "Recent change" records how the reference station pressure has been changing. This is called the pressure tendency. Some stations give this as change as mb change per 3h (the standard tendency interval), some do not give it but you can see pressures from past reports and figure it out. We need this if we are to interpolate the reference pressures for times between official reports.

(13) Your barometer reading. If you have an anlog dial (as most aneroid devices do) then tap the device gently and record the pressure to the nearest tenth of a mb or hundredth of an inch. If your digital device does not give tenths of mb, then just record what you have. Tenths are better, but with enough data you will get the unit set right even if you cannot see tenths. If you notice that the unit just changed by 1 mb, then you can safely assume that is has just crossed the 0.5 level. That is, when 1016 first changes to 1017 you could record that as 1016.6. Or 1020 goes to 1019 means at that moment the pressure is likely close to 1019.4. In other words, if you have an electronic unit that does not show tenths, and you accidentally happen to spot it changing by 1 mb, then that would be a good time to make a form entry as in this unique moment you have a good estimate of the tenths.

(14) This is the difference between your baro reading and the proper sea level pressure at the nearest station. If you have your readings and ref readings at the same time you can just subtract them to get this difference. If not, then interpolate the reference data for the time of your baro and then find the difference.

If you have a good digital barometer then you should find that the differences are about the same regardless of the pressure, though they could still change some with temperature. There will be some spread in the values if you are not close to a station and do not have tenths showing on your dial. For aneroid devices, however, there will typically be some differences in the corrections for different pressures. In these cases it is best to start a master table where you collect the corrections for each pressure range... ie you may find that at 1010 to 1020 you add 2 mb, but 1020 to 1030 it is add 3 mb and for 1000 to 1010 it is add 1 mb. The only way to learn how your instrument works is to start collecting data on it. Remember that in most cases the manufacturers or sellers of the units cannot help you with this, unless the baro comes with specific accuracy standards..

1. Your Latitude	1. Your Longitude	2. Time zone (ZD)	3. Your elevation	4. Elevation correction
47.6743° N	122.4063° W	+7	157 ft	5.7 mb

5. Local Date	6. Local Time	7. UTC time	8. UTC date	9. Ref. ID	10. Range and bearing	11. Ref. Sea level Pressure	12. Recent change	13. Your Baro Pressure	14. Difference
		0153	9/28/08	KPAE	15.4 @ 019	1022.4	-0.3 mb / 1h		
	1853	0153	9/28/08	KBFI	8.3 @ 154	1021.3	-0.2mb / 1hr		
9/27/08	1918	0218	9/28/08			(1021.9)		1019	-2.9 mb
9/27/08	1900			WPOW1	1.6 @ 238	1021.9	-0.3mb / 3h		
9/28/08	1000	1700	9/28/08	WPOW1		1022.6	+0.3mb / 3h	1020	-2.6 MB
9/28/08	1900			WPOW1		1018.9	-1.0 mb / 3h		
	1940					(1019.0)		1017	-2.0 mb
	2000			WPOW1		1019.2	0.0	1017	-2.2 mb
	2100			WPOW1		1019.3	+0.4 mb / 3h	1017	-2.2 mb

In this sample we have very limited data, but the average is - 2.4 mb (2.9+2.6+2+2.2+2.2)/5. This barometer at 157 feet is reading 2.4 mb less than sea level. In other words, it is not right in any regard since the attitude correction is -5.7 mb. So if we want this baro to read the proper sea level pressure from where it sits now, we have to take the 1017 reading and raise it to 1019.4 mb or to 1019 if we don't have tenths to work with. Then when we look at this baro in the future it should show the same as the WPOW1 station.... but still we might collect data on it to confirm that. If we want it to read the actual pressure at our elevation , we need to first get it right at sea level, that is go from 1017 to 1019.3 to get it right at sea level, then take off 5.7 mb to account for your elevation to get 1013.6. So adjust it from the 1017 showing till it reads 1013.6 and it is correct. Then, by the way, if you put this barometer on your boat or take it to sea level anywhere it should read the right sea level pressure. It is philosophy to decide what you want. We think it is best to set it at sea level at home so you can compare with weather reports and maps, then when you move it to the boat, test it again for the new elevation. You know in this case that the change will be very close to 5.7 mb. For more information and a convenient way to do this calibration with readily available weather maps, see *Modern Marine Weather* by David Burch. That book also explains ways to get this data by telephone.

Another example follows for another unit, done in automatic mode over a 48h period. It is with a higher quality instrument than the the one above.

Barometer calibration from using the Station Finder and instructions at www.starpath.com/barometers

6. Local Time	11. Ref. Sea level Pressure	13. Your Baro Pressure	14. Difference
2000	995.3	996.1	-0.8
1900	996.0	995.8	0.2
1800	996.7	996.9	-0.2
1700	997.3	998.0	-0.7
1600	998.6	998.6	0
1500	999.3	998.8	0.5
1400	1000.3	999.6	0.7
1300	1001.3	1000.6	0.7
1200	1002.1	1001.8	0.3
1100	1002.6	1002.3	0.3
1000	1003.0	1002.7	0.3
0900	1003.9	1003.3	0.6
0800	1004.7	1004.1	0.6
0700	1005.3	1004.9	0.4
0600	1006.0	1005.7	0.3
0500	1006.4	1006.2	0.2
0400	1006.9	1006.7	0.2
0300	1007.4	1007.3	0.1
0200	1008.0	1007.8	0.2
0100	1008.2	1008.0	0.2
0000	1008.1	1008.2	-0.1
2300	1008.3	1008.2	0.1
2200	1008.4	1008.4	0
2100	1008.3	1008.5	-0.2
2000	1008.2	1008.4	-0.2
1900	1008.4	1008.4	0
1800	1008.2	1008.3	-0.1
1700	1008.1	1008.0	0.1
1600	1008.2	1008.1	0.1
1500	1008.3	1008.1	0.2
1400	1008.5	1008.2	0.3
1300	1008.9	1008.4	0.5
1200	1008.8	1008.7	0.1
1100	1009.2	1009.1	0.1
1000	1009.5	1009.2	0.3
0900	1009.3	1009.4	-0.1
0800	1008.5	1009.0	-0.5
0700	1008.1	1008.3	-0.2
0600	1007.5	1008.0	-0.5
0500	1007.8	1007.7	0.1
0400	1008.2	1008.2	0
0300	1008.4	1008.4	0
0200	1008.2	1008.5	-0.3
0100	1008.9	1008.5	0.4
0000	1009.1	1009.1	0
2300	1009.3	1009.0	0.3
2200	1009.6	1009.5	0.1
2100	1010.3	1009.9	0.4

In the above example, which starts at 8 PM, Oct 3, 2008 PDT at station WPOW1, we have taken a different digital barometer and just once set it to the right sea level pressure, and let it go. That is, we kept this barometer at a fixed location, that we estimated to be at an elevation of about 157 feet, and then simply looked online to the current pressure at the West Point Lighthouse (1.6 miles away) and set the barometer to read that value. If the elevation were spot on, and the barometer had no inherent error, then this means we should have added 5.7 mb to its reading, but that is not how we did it, nor did we note at the time what correction was really made. This just illustrates that if you are going to set your barometer to sea level with this method, you do not rely on knowing your elevation, which in essentially every case over a hundred fee or so is going to have some uncertainty to it on the order of as much as 1 mb. In other words, unless you are on the water, your elevation uncertainly could dominate your calibration unless you do it this way.

This barometer automatically records pressure every whole hour, being (we believe) an average of the values measured every 6 seconds over the 30m before and after the indicated hour. (In a sense, this type of device might better be called an “electronic barograph,” but this terminology is not yet used.) So we can then just step back through the history and record these 48 values and then go online to WPOW1 and also tabulate the corresponding 48 reference values, then subtract them to get the differences, which are shown above.

We see that any one of the hourly averages could have been off by as much as 0.7mb, but it was more likely to be closer, and in fact the average difference is only 0.1 mb. Thus you can feel confident that this instrument will be reading the proper pressure to within ± 1 mb, conservatively. Put another way, we have no indication from this data that we should do anything more to this unit, other than call it right and suspect that the pressure it shows is correct to about half a millibar, most of the time. Notice that it is significant that there are about as many differences higher as lower than the references station. Had they all been on one side, it is more likely that the setting is not quite right—though not guaranteed. This could depend on the orientation of the isobars, but it will eventually show up if not centered.

On the next page is another 48h calibration using this same barometer, but moved to a lower elevation.

Another example using same barometer, different elevation, different pressure range

7. UTC time	8. UTC date	11. Ref. Sea level Pressure	13. Your Baro Pressure	14. Difference	Avg minus Diff
03	8	1028.6	1033.2	4.6	0.3
02	8	1027.9	1032.7	4.8	0.1
01	8	1027.8	1032.4	4.6	0.3
00	8	1027.3	1031.8	4.5	0.4
23	7	1026.5	1031.2	4.7	0.2
22	7	1025.9	1030.6	4.7	0.2
21	7	1025.3	1030.1	4.8	0.1
20	7	1025.2	1030.0	4.8	0.1
19	7	1024.7	1029.2	4.5	0.4
18	7	1023.8	1028.5	4.7	0.2
17	7	1023.2	1027.2	4.0	0.9
16	7	1021.8	1026.2	4.4	0.5
15	7	1020.0	1024.5	4.5	0.4
14	7	1018.5	1023.3	4.8	0.1
13	7	1017.6	1022.3	4.7	0.2
12	7	1016.8	1021.7	4.9	0
11	7	1015.8	1020.7	4.9	0
10	7	1014.6	1019.4	4.8	0.1
09	7	1013.3	1018.4	5.1	-0.2
08	7	1012.2	1017.0	4.8	0.1
07	7	1011.5	1016.5	5.0	-0.1
06	7	1011.3	1016.3	5.0	-0.1
05	7	1011.6	1016.5	4.9	0
04	7	1012.0	1017.0	5.0	-0.1
03	7	1012.3	1018.0	5.7	-0.8
02	7	1013.0	1018.1	5.1	-0.2
01	7	1013.3	1019.2	5.9	-1
00	7	1014.7	1020.1	5.4	-0.5
23	6	1015.1	1020.5	5.4	-0.5
22	6	1015.4	1020.6	5.2	-0.3
21	6	1015.7	1021.3	5.6	-0.7
20	6	1016.5	1021.7	5.2	-0.3
19	6	1016.7	1021.9	5.2	-0.3
18	6	1017.2	1022.3	5.1	-0.2
17	6	1017.4	1022.3	4.9	0
16	6	1017.2	1022.3	5.1	-0.2
15	6	1017.3	1022.3	5.0	-0.1
14	6	1017.3	1022.4	5.1	-0.2
13	6	1017.4	1022.1	4.7	0.2
12	6	1017.1	1022.1	5.0	-0.1
11	6	1017.1	1022.1	5.0	-0.1
10	6	1017.1	1022.3	5.2	-0.3
09	6	1017.3	1022.0	4.7	0.2
08	6	1017.1	1021.9	4.8	0.1
07	6	1016.8	1021.5	4.7	0.2
06	6	1016.7	1021.3	4.6	0.3
05	6	1016.5	1021.2	4.7	0.2
04	6	1016.2	1020.8	4.6	0.3

Here we have another example starting 8PM PDT on Oct 7 and going back 48hr. Thus the first data point is at 0300z on Oct 8, 2008. This barometer had been set to read proper sea level pressure at an estimated altitude of 157 feet and for these two days was down closer to the water at an elevation that is crudely estimated to be about 23 feet above the zero tide line, ie on a 4 foot table, on the second floor (10ft) of a building located at an elevation of 9 feet according to Google Earth. The location is about 1.5 mi NE of West Point Lighthouse, station ID WPOW1.

This measurement shows that at this location, this barometer reads too high by 4.9 mb with a standard deviation of 0.12 mb. Again, this shows that this is a very good unit for the price (about $190), and certainly accurate to within about 1 mb. To do much better one would need to do more testing, which might show this a bit better, or spend quite a bit more to get to a higher quality instrument.

If you compare pressures very carefully, you will see that this unit reflects even very local and short term variations. Thus even if this instrument out of the box was off by 3 or 4 mb, after a calibration like this you can count on it for higher accuracy. Some of the units that might have only a ±2 mb absolute accuracy, may have a linearity of ± 0.2 mb, which means if you set it carefully at any one pressure it will be right to whatever level you can achieve your calibration. We feel that this can with modest care be pushed to ±1 mb, as shown here, but it takes more work to be convinced it is much better.

In passing, if you use the elevation correction computer we offer (or anyone else's!) you find that the elevation correction at 157 feet is + 5.74 mb and the elevation correction at 23 feet is +0.84 mb, which is a difference of 4.9 mb. Thus we would expect a barometer that is set to read proper sea level pressure at an elevation of 157 feet (as this one was) should be off by 4.9 mb when brought down to an elevation of 23 ft. I must admit to being a bit surprised that it worked out so closely, since both elevations are just good estimates, but on the other hand, the reason we do all of this is because it is supposed to work. It is difficult to improve the 157 ft estimate as it agrees with topo maps and with Google, but we can in fact measure the 23 ft value (with some effort) and will try to do so at first opportunity. There are tall pylons (dolphins) near by from which we estimate the water height with a level on shore and use tide table to figure the elevation and then hang down a line to that level.

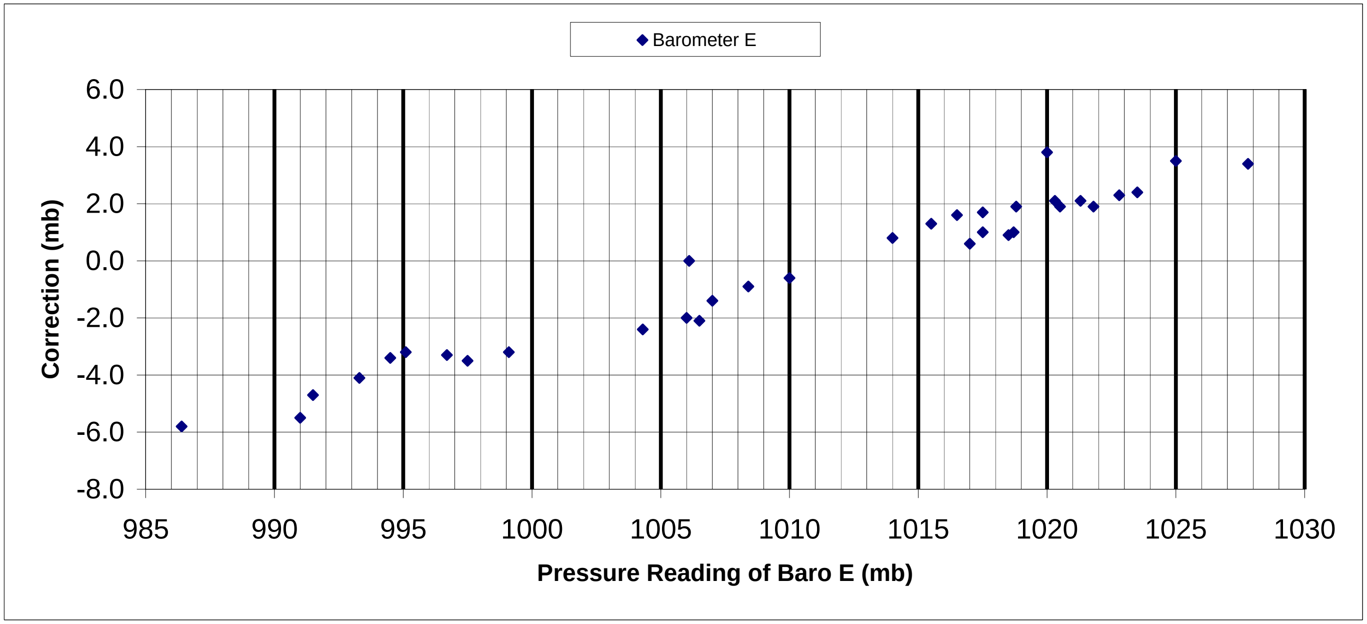
Barometer calibration from using the Station Finder and instructions at www.starpath.com/barometers

1. Your Latitude	1. Your Longitude	2. Time zone (ZD)	3. Your elevation	4. Elevation correction

5. Local Date	6. Local Time	7. UTC time	8. UTC date	9. Ref. ID	10. Range and bearing	11. Ref. Sea level Pres-sure	12. Recent change	13. Your Baro Pressure	14. Differ-ence

Reference	Baro E	Correction
980.6	986.4	-5.8
985.5	991.0	-5.5
986.8	991.5	-4.7
989.2	993.3	-4.1
991.1	994.5	-3.4
991.9	995.1	-3.2
993.4	996.7	-3.3
994.0	997.5	-3.5
995.9	999.1	-3.2
1001.9	1004.3	-2.4
1004.0	1006.0	-2.0
1006.1	1006.1	0.0
1004.4	1006.5	-2.1
1005.6	1007.0	-1.4
1007.5	1008.4	-0.9
1009.4	1010.0	-0.6
1014.8	1014.0	0.8
1016.8	1015.5	1.3
1018.1	1016.5	1.6
1017.6	1017.0	0.6
1019.2	1017.5	1.7
1018.5	1017.5	1.0
1019.4	1018.5	0.9
1019.7	1018.7	1.0
1020.7	1018.8	1.9
1023.8	1020.0	3.8
1022.4	1020.3	2.1
1022.4	1020.5	1.9
1023.4	1021.3	2.1
1023.7	1021.8	1.9
1025.1	1022.8	2.3
1025.9	1023.5	2.4
1028.5	1025.0	3.5
1031.2	1027.8	3.4

Compliments of www.starpath.com/barometers



Note that this is a low quality barometer (*but not inexpensive*), which means it has large corrections. Nevertheless, with this type of curve made from Internet data you could still get accurate pressures to about ± 2mb. As you get more data on such a curve you will learn more on its limits or possiblities.

To print the graph once you have made one, just click the graph, then select Print preview, then print it..

Download the MS Excel spread sheet to make your own graph