This document identifies data that are present in the meteorological data set (1982-1996), but may be compromised in quality. Entries found under the “Weather Log” heading (see below), were made in the Climatronics Meteorological System Log by the weather technician on the date indicated. They were included in this document at the data reviewer’s discretion in an attempt to make the user aware of any potential problems with data quality. Clarification comments made by the data reviewer in this section are found in parenthesis. It is important to remember that the Weather Log is the only documentation available for use in checking for errors and anomalous data. There is no further documentation regarding what specific steps were taken by technicians to remove or correct anomalous data. Entries found under the “Data Review” heading below were made by the data reviewer in 2001. They include the date and time of the suspect reading. All entries should be taken into consideration before the relevant data is utilized. For a complete log of problems and maintenance on the weather station, see the Climatronics Meteorological System Log notebook, which is held in a fireproof cabinet in the data management office at the Baruch Field Lab in Georgetown, SC. A copy of this log is also provided on-line along with the data set.

**1982**

**Weather Log:**
* There are no weather log entries for this year.

**Data Review:**

**Air Temperature:**
- Suspect readings of the same value, 18.4. The repeated suspect readings were all of the same value, which probably indicates that the value is given as a default of some kind when an error occurs. Valid data (or what appears to be) in this time frame where interspersed with these suspect readings, which varied from the readings surrounding them by an amount that made them unbelievable. In addition, the same error occurred in 1983 and 1984, with the same value. The suspect readings occurred at the following dates and times:
  - 6/4 @ 1500
  - 6/5 @ 800
  - 6/12 @ 1000 and 1100
  - 6/15 @ 400, 800, and 2400
  - 7/24 @ 900
  - 7/25 @ 2100
  - 7/30 @ 400
  - 8/4 @ 2300
  - 8/13 @ 1700
  - 8/16 @ 2300
  - 8/19 @ 1200 and 1600
  - 8/24 @ 300 and 400
  - 9/8 @ 1500 and 2200
  - 9/12 @ 1200
  - 9/28 @ 1200
  - 10/9 @ 2000
- Suspect readings from 12/9 @ 2000 to 12/10 @ 800. These readings are very high for the time of year, time of day, and compared to those around them.
- Suspect readings from 12/29 through the end of December. The last few days of the month the air temperature readings drifted to extremely high levels. In 1983, the air temperature readings are censored for the beginning of the year, indicating that there may have been a problem with air temperature sensor at the end of 1982 as well.

**Water Temperature:**
- Suspect reading on 6/8 @ 1000. Reading is very low compared to those around it.
• Suspect readings of the same value, 25.6. The repeated suspect readings were all of the same value, which probably indicates that the value is given as a default of some kind when an error occurs. Valid data (or what appears to be) in this time frame where interspersed with these suspect readings, which varied from the readings surrounding them by an amount that made them unbelievable. The suspect readings occurred at the following dates and times:
  - 7/24 @ 2100
  - 7/31 @ 400
  - 8/4 @ 1000
  - 8/12 @ 800
  - 8/23 @ 2200 and 2300
  - 8/25 @ 2000 and 2200
  - 8/26 @ 2000
  - 8/30 @ 1500 and 1600
  - 9/2 @ 900
  - 9/7 @ 1700
  - 9/12 @ 1400
  - 9/19 @ 1500
  - 10/6 @ 1300
  - 10/13 @ 900 and 1900

• Suspect readings of the same value, 6.4. The repeated suspect readings were all of the same value, which probably indicates that the value is given as a default of some kind when an error occurs. Valid data (or what appears to be) in this time frame where interspersed with these suspect readings, which varied from the readings surrounding them by an amount that made them unbelievable. The suspect readings occurred at the following dates and times:
  - 10/26 @ 1400
  - 11/16 @ 400
  - 12/12 @ 1600 and 1700
  - 12/17 @ 900 and 1100
  - 12/23 @ 1800
  - 12/30 @ 800

Barometric Pressure:
• Suspect readings on 12/17 @ 2000 and 2100. These readings are very low relative to those surrounding them.

1983

Weather Log:
3/1/83 Water Level averaging time reset to 360 seconds from 3600 seconds at 1600 hours.
3/7/83 Malfunction in CHAN 0-40 max values, test conducted on 3/15/83 pointed to a faulty recorder – disconnected.
4/7/83 Attempted re-installation of recorder – instantaneous values of Air Temp, Water Temp, and Conductivity were affected.
4/8/83 Disconnected power to recorder – instantaneous values of Air Temp, Water Temp, Conductivity, and Barometric Pressure were affected (max 1040).
5/24/83 Noticed water temp high = 49.9
*** Water temp fluctuated wildly through 6/16/83, temps ranging from 49 to 20. Not sure on dates but especially from 5/25 – 6/7. Problem seemed to correct itself.***
7/25/83 Air Temp voltage high (all others fine), wind speed seems to be reading high. Censored data resulting from questionable readings first noticed on 10/12/83.
10/12/83  System test - Barometric Pressure questionable.

11/22/83  Noticed low reading for Barometric Pressure at 940, will continue to monitor.

Date Review:

Wind Velocity:

- Suspect reading on 3/15 @ 1100. Reading is very high and follows a period of missing data.

Air Temperature:

- Suspect readings of the same value, 18.4. The repeated suspect readings were all of the same value, which probably indicates that the value is given as a default of some kind when an error occurs. Valid data (or what appears to be) in this time frame where interspersed with these suspect readings, which varied from the readings surrounding them by an amount that made them unbelievable. In addition, the same error occurred in 1982 and 1984, with the same value. The suspect readings occurred at the following dates and times:
  - 6/16 @ 1600
  - 6/18 @ 1800
  - 6/19 @ 1000, 1100, 1500, 1700, 1800
  - 6/22 @ 1400
  - 6/23 @ 1300
  - 6/29 @ 2400
  - 7/8 @ 2000
  - 7/16 @ 700
  - 7/18 @ 700
  - 7/19 @ 600
  - 7/25 @ 400 and 500
  - 7/30 @ 2400
  - 8/6 @ 700
  - 8/8 @ 2300
  - 8/10 @ 600
  - 8/16 @ 1100
  - 8/19 @ 200
  - 8/22 @ 500
  - 8/26 @ 700
  - 9/11 @ 500
  - 9/13 @ 2100

- Suspect reading on 7/19 @ 1300. Reading is very high relative to reading preceding it and is followed by missing data. The weather log notes that there were some questionable readings that were censored during this time.

- Suspect reading on 7/22 @ 1500. Reading is high relative to readings following it and is preceded by missing data. The weather log notes that there were some questionable readings that were censored during this time.

- Suspect reading on 10/29 @ 1900. Reading is very high relative to those surrounding it, the time of day, and the time of year.

Water Temperature:

- Suspect reading on 3/15 @ 1100. Reading seems very high and follows a period of missing data. This reading also corresponds to the suspect solar radiation reading noted below and a weather log note stating that a system test was performed on this day.

- The weather log notes wild fluctuation in water temperatures in May and early June. Suspect readings from this time include:
  - 5/13 @ 1500 to 2400
  - 5/14 @ 600 to 1400
Solar Radiation:
- Suspect reading on 3/15 @ 1100. Reading seems very high and follows a period of missing data. Also corresponds to suspect water temperature reading and a weather log note stating that a system test was performed on this day.
- Suspect reading on 11/16 @ 1500. Reading seems very high for the time of year and precedes a period of missing data.

Barometric Pressure:
- Suspect readings on 9/16 @ 200 and 700. Both readings are very low and drastic changes from their surrounding readings.
- Suspect reading on 11/2 @ 200. Reading is very low. Barometric pressure readings noted as questionable in weather log as well.
- Suspect reading on 12/28 @ 900. Reading is very low. Weather log notes questionable readings in October and November.

1984

Weather Log:
1/3/84 Barometric Pressure seems high at 1028.
1/20/84 Barometric Pressure seems high: Instant=1028, High=1032 – weather is overcast and cold.
1/23/84 Barometric Pressure is high at 1033 instantaneous.
7/16/84 Water Temp not functioning.
11/15/84 System ran rails on some probes for a short while and then depowered test points on all cards tested at remote site (mainframe) while setting to Zero, Span, Span 540, and Operate. While at zero the zero reading on the Wind Direction card was 5.68 originally, and then went down to 0.0 on the second check. (could indicate problems with calibration for wind direction)

Data Review:
Air Temperature:
- Suspect readings from 7/17 @ 2200 to 7/18 @ 800. Readings fluctuate wildly and do not make sense for the time of year.
- Suspect readings of the same value, 18.4. The repeated suspect readings were all of the same value, which probably indicates that the value is given as a default of some kind when an error occurs. Valid data (or what appears to be) in this time frame where interspersed with these suspect readings, which varied from the readings surrounding them by an amount that made them unbelievable. In addition, the same error occurred in 1982 and 1983, with the same value. The suspect readings occurred at the following dates and times:
  • 7/22 @ 1800
  • 7/23 @ 2200
  • 7/27 @ 2200
  • 7/31 @ 700
  • 8/1 @ 400
  • 8/10 @ 1900

Water Temperature:
- Suspect readings of the same value, 0.0. The zero readings were all preceded and followed by readings that were substantially larger. It is unlikely that there was such an abrupt change in temperature. The suspect readings occurred at the following dates and times:
  • 1/3 @ 1100
  • 1/4 @ 900
• 1/20 @ 1700
• 2/7 @ 1100
• 2/9 @ 1300
• 2/10 @ 1000
• 3/1 @ 600

• Suspect readings of the same value, 6.4. The repeated suspect readings were all of the same value, which probably indicates that the value is given as a default of some kind when an error occurs. Valid data (or what appears to be) in this time frame where interspersed with these suspect readings, which varied from the readings surrounding them by an amount that made them unbelievable. In addition, the same error occurred in 1982, with the same value. The suspect readings occurred at the following dates and times:
  • 2/13 @ 1900
  • 2/14 @ 800
  • 2/15 @ 1100
  • 2/16 @ 300
  • 2/17 @ 400 and 2400
  • 2/19 @ 800
  • 2/22 @ 1800 and 2100
  • 2/23 @ 2000
  • 2/25 @ 900
  • 2/28 @ 1200
  • 3/8 @ 1300
  • 3/12 @ 2000
  • 3/15 @ 900

• Suspect readings of the same value, 12.8. The repeated suspect readings were all of the same value, which probably indicates that the value is given as a default of some kind when an error occurs. Valid data (or what appears to be) in this time frame where interspersed with these suspect readings, which varied from the readings surrounding them by an amount that made them unbelievable. In addition, the same type of error occurred in 1982 as well. The suspect readings occurred at the following dates and times:
  • 4/2 @ 1800
  • 4/15 @ 100
  • 4/18 @ 1600
  • 4/20 @ 2200
  • 4/22 @ 1600

• Suspect readings from 7/17 @ 2400 to 7/18 @ 800. The readings appear to be very low and show a great deal of fluctuation. The weather log mentions that the water temp probe is down on 7/16, with no indication of when it was fixed, but the missing data ends on 7/17. These readings also correspond to the suspect air temperature readings mentioned above.

• Suspect readings of the same value, 25.6. The repeated suspect readings were all of the same value, which probably indicates that the value is given as a default of some kind when an error occurs. Valid data (or what appears to be) in this time frame where interspersed with these suspect readings, which varied from the readings surrounding them by an amount that made them unbelievable. In addition, the same error occurred in 1982, with the same value. The suspect readings occurred at the following dates and times:
  • 7/19 @ 1500
  • 8/2 @ 800
  • 8/4 @ 2400
  • 8/9 @ 300

Solar Radiation:
• Suspect reading from 7/17 @ 2400. Reading is extremely high for the time of day and corresponds with the timing of other suspect readings in July.

Conductivity:
• Readings from 7/17 @ 2200 to 7/18 @ 800 could be affected by the same problem as the air and water temperature parameters. There does appear to be a great deal of variation in this time period.

Barometric Pressure:
• The weather log notes that readings appeared high at the beginning of the year. These data should be used with caution.
• Suspect reading on 7/31 @ 800. Reading is very low relative to preceding and following readings.

1985

Weather Log:
5/16/85  Checked met station. Possible calibration problem.
7/24/85  Hurricane Bob – 110mm rain.
8/5/85   Wind Velocity down at 0600. (missing data starts on 8/8)
9/3/85   Wind direction down until 1515, out of alignment until 10/4/85 – measurements off approx. 90-100 degrees.

Data Review:
Air Temperature, Water Temperature, Conductivity, and Barometric Pressure:
• The weather log notes a possible calibration problem on 5/16/85. It appears that for the listed parameters there was a calibration problem beginning on 5/3 @ 1500 and ending on 5/17 @ 1500. Missing data follows this time period.

Wind Velocity:
• The weather log notes that the wind velocity sensor was down on 8/5 @ 600, missing data did not begin until 8/8. This may indicate the presence of some anomalous data between 8/5 and 8/8.

Wind Direction:
• The weather log indicates that the wind direction sensor was out of alignment by approximately 90-100 degrees from 9/3 to 10/4. There is no indication as to whether or not these data were corrected.

Water Temperature:
• Suspect reading on 9/3 @ 2300. Reading seems high relative to preceding and following readings.

Water Level:
• Suspect readings from 10/11 @ 500 to 10/14 @ 1000. There is very little variation in these readings, they should be fluctuating a great deal with the tide. The readings also seem low and follow closely after a period of missing data.

Barometric Pressure:
• Suspect reading on 4/6 @ 2200. Reading is low relative to preceding and following readings.

1986

Weather Log:
5/1/86   Changed tape – ran out so there is some missing data
         System problems evident at IMP – frequent pegs of numerous channels.
5/13/86  Not receiving signal as of 1900 5/12. Switched transmitter cards at 0930, system receiving signal, looks ok.
6/30 – 7/01/86  System up and down parts of each day – possibly some bad data.

7/18/86  SYSTEM DOWN IMP 803 printout indicating erroneous data – channels maxing out. May be some bad data.

Data Review:
All Parameters:
- The weather log reports that there was no signal as of 1900 on 5/12, and that the system was not up and running until 930 on 5/13. There is no data missing for this period, so the data that is present may be suspect.

Air Temperature, Water Temperature, Conductivity, and Barometric Pressure:
- Suspect readings on 5/8 @ 800 and 900. Readings for mentioned parameters all show drastic changes for these 2 hours, and then return immediately to readings similar to those before 800.
- Suspect readings on 5/13 @ 800 and 900. Readings for mentioned parameters all show drastic changes for these 2 hours, and then return immediately to readings similar to those before 800. This also occurred at the same time of day several days earlier (5/13). These readings also follow directly after the system problems reported on 5/12 and 5/13 in the weather log.

Air Temperature, Water Temperature, and Conductivity:
- Suspect readings from 6/8 @ 1800 through 6/29 @ 1000. There appears to be a great deal of variation and missing data in this time period. Barometric Pressure data is missing for this period.

Water Temperature:
- Suspect readings from 4/6 @ 1400 through 2200. Readings are fairly high for water temperatures and differ from those preceding and following by a fair amount.
- Suspect readings from 5/1 @ 1300 through 1900. Readings are fairly high for water temperatures and differ from those preceding and following by a fair amount.

Conductivity:
- Suspect readings on 5/21 @ 1700 and on 5/27 @ 1200. Both readings appear to have misplaced decimal points. The reading on 5/21 is 4.2 when readings taken on the same day are all in the 40’s. This reading is also surrounded by missing data. The reading on 5/27 is 4.1, the preceding and following readings are 41.4.

1987

Weather Log:
3/2/87  System was down over the weekend – accidentally unplugged.

3/26/87  Conductivity printout was “0” at 0930. Was reading 3.0 on card for a moment, then started reading ok again. Power problems? Will keep an eye on.

6/22/87  Power loss due to storm on Friday. Came back on 6/21 (Sun.) for about 8 hours. Stopped receiving data Sunday night. Replaced transmitter card. System handles ok.

8/10/87  Reinstalled tape transport and reprogrammed IMP 803 at 1435, not reading 6 min. reading on mag tape.

8/11/87  Met printer was accidentally turned off last night and tape was not working. Lost data. Up and running again.

8/13/87  Sending tape reader to Memodyne? with tape.
8/23/87 Re-platinized conductivity probe. Probe was running high – bad data???

8/24/87 No Conductivity reading on print out since 8/23. Was showing 0.0 on print out. Started good readings again on 8/23 at 1800.

8/27/87 Conductivity went down again on 8/26. Changed connections, looks ok.

8/31/87 Changed all connector cards at tower. May be some phantom readings, some values seem high, will check cards for replacement tomorrow.

9/4/87 Conductivity probe having problems, values are jumping up and down (before 9/3 when signal was lost.). No signal since 1500 on 9/3. Switched transmitter and receiver card, nothing worked. SYSTEM DOWN.

10/28/87 Lost Conductivity reading yesterday, discovered this a.m. Cleaned all gold connectors on cards, looks ok now.

11/10/87 Bad storm this a.m., bad data coming in. Breaker was tripped.

12/13/87 Print out looks bad from 1800 to 0600 on 12/14. May be bad data, started working again on its own.

12/16/87 Stopped receiving signal last night. Cleaned transmitter, started receiving a signal again. Conductivity is reading negative values on test point on card and receives no signal at the lab when this happens. Problem is corrected by turning something on and off. Don’t know what causes the problem.

Data Review:
Wind Velocity:
• Reading on 12/29 @ 2400 was –3.4. The reading the hour before was 3.3 and the following hour was 3.0. The reading was changed to 3.4, it seemed apparent that the negative sign was misplaced.

Air Temperature:
• Suspect reading on 12/21 @ 1600. Reading is high and follows missing data.

Water Temperature:
• Suspect reading on 2/15 @ 300, reading is extremely high.
• Suspect readings on 12/16 @ 1000 and 12/21 @ 1600. Both readings are high and follow periods of missing data.

Solar Radiation:
• Suspect readings from 12/11 @ 200 to 900. Readings are very high, occur during the night/early morning, and there are data missing periodically from the data set in this part of December.

Water Level:
• Suspect reading on 6/30 @ 1900, reading is extremely high and precedes missing data.

Conductivity:
• The weather log recorded problems with the conductivity readings throughout the year. Some data were censored, however, it is likely that anomalous data still exists in this data set.
• Suspect readings from 6/22 – 6/30. There were power outages during this time due to a storm. The readings appear to be very high.
The weather log notes problems with the system in early to mid August and data are missing from this period. Suspect conductivity readings occurred at this time as well:
  - 8/11 @ 2200 to 8/12 @ 800 (follows missing data)

The weather log notes problems with conductivity in late August and the possibility of “phantom” readings at this time. This note correlates with the following suspect readings:
  - 8/30 @ 1400
  - 8/31 @ 300 and 800 (both are surrounded by missing data)
  - 9/1 @ 400 (precedes missing data) and 800 (follows missing data)

The weather log notes problems with conductivity in September as well. There are also data missing from this time. Suspect readings include:
  - 9/16 @ 2000 to 2400 (surrounded by missing data)
  - 9/17 @ 700 to 900 (follows missing data)

Suspect reading on 11/21 @ 1600. This reading seems very high and is surrounded by missing data.

Barometric Pressure:
  - Suspect readings on 11/11 @ 900 (preceded by missing data) and @ 1200 (surrounded by missing data). Both readings are very low.
  - Suspect reading on 12/19 @ 800 (surrounded by missing data). Readings is very low.

1988

Weather Log:
1/5/88 Lost signal last night at 2100, conductivity reading -.35. Turned system off and reset conductivity. Started receiving signal again.

2/3/88 SYSTEM DOWN Discovered not receiving any signal, transmitters not sending signal. Never got system up with either card.

3/22/88 Conductivity has been turned on and off many times over the past four weeks due to work on the sea water pumps.

4/6/88 Conductivity looks high


6/13/88 Conductivity down this morning. Reset breaker and card. Probe went down on 6/6 and stayed down until 6/13.

6/16/88 Re-platinized Conductivity probe, everything looks ok.

8/4/88 Conductivity down due to power problems about 1315 through 8/5 at 1200.

10/3/88 Conductivity down since 9/30 at 1200, up at 10/3 1600, put in new probe.

10/17/88 Conductivity down from 1200 – 1500.

11/23/88 Breaker tripped at 2300 on 11/21, reset at 1000 on 11/22.

Data Review:
Wind Velocity:
  - Suspect reading on 6/4 @ 800. Reading is very high in comparison to the adjacent readings, and suspect reading on the same date and time for water and air temperature.
Air Temperature:
- Suspect reading on 2/2 @ 1400. Reading is very high and there were suspect readings for conductivity and water temperature at the same time. There were also problems with the system noted in the weather log.
- Suspect reading on 6/4 @ 800. Reading is very high and there were suspect readings for water temperature and wind velocity at this time as well.

Water Temperature:
- Suspect readings on 2/2 @ 1400 and 2/3 @ 1300. Both readings are very high in comparison to adjacent readings. There were also problems with the system resulting in missing data on these days.
- Suspect reading on 6/4 @ 800. Reading is very high in comparison to the adjacent readings and there are suspect readings at this time for wind velocity and air temperature as well.

Conductivity:
- There were several problems with conductivity for this year noted in the weather log. There may be more anomalous data for this year than are noted here.
- Suspect reading on 2/2 @ 1400. Reading is very high relative to other readings on that day, problems were noted with the system, and there were suspect readings for water and air temperature as well.
- The weather log notes problems with conductivity in late March and early April. Most of the readings from this time period are missing. The few that remain are relatively high and therefore suspect. They include 4/1 1000-2300, 4/2 900-2200, and 4/3 1100-1800.
- Some of readings before and after the missing data from 6/5 to 6/13 look suspect.
- Suspect reading on 11/13 @ 2100. Reading is very high relative to readings on the same date.
- Suspect reading on 11/22 @ 1000. Reading is very high, and is preceded by missing data. The weather log noted that the breaker was tripped the night before and reset at 1000 on 11/22.

Barometric Pressure:
- Suspect reading on 11/4 @ 2100. Reading is very high relative to other readings on that day.

1989

Weather Log:
1/5/89   Conductivity showing bad numbers. Could have been as early as 1/3 or before. Tried to re-platinize, but couldn’t get a signal afterwards.
1/17/89  Bad minimum air temp for this day, showing a negative number.
1/24/89  Air temp showing bad readings again: max of 34.7, min of –2.8, both are bad.
1/24/89  Air temp showing bad readings again: max of 34.7, min of –2.8, both are bad.
2/1/89   Bad max value for air temp.
2/7/89   Bad min value for air temp.
2/13/89  Bad max and min values for air temp.
2/14/89  Bad max and min values for air temp.
2/20/89  Bad max and min values for air temp.
2/21/89  Bad max and min values for air temp.
3/7/89  Bad min value for air temp.
       Conductivity low at the same time.

3/15/89  Conductivity bad, re-platinized probe.

3/30/89  Bad min value for air temp.

4/11/89  Bad max and min values for air temp.

4/30/89  Bad maximum values for Conductivity.

5/1/89   Bad max and min values for air temp.
       Bad max value for Conductivity.

5/8/89   Breaker tripped on 5/6 due to a storm.
       Bad max and min values for air temp.

5/10/89  Bad max and min values for air temp.
       Bad max value for conductivity.

5/12/89  Bad max and min values for air temp.
       Bad max value for conductivity.

5/17/89  Continued problems with air temp.

5/26/89  Air temp still giving off bad readings, changed cards but did not help.
6/19/89  Breaker tripped over the weekend, lost some conductivity data.

6/30/89  Re-platinized conductivity probe.

7/16/89  Some problems with conductivity over the past week, reset today.

7/17/89  Bad max values for conductivity, air temp, and water temp.

8/7/89   Re-platinized conductivity probe.

Data Review:
All Parameters:
  • Hurricane Hugo destroyed the met station on 9/21/89. On 10/14/89 a temporary met station on loan from the National Center for Atmospheric Research in Boulder, Colorado was installed. Caution should be used when utilizing data from different met stations.

Air Temperature:
  • There were numerous problems with the maximum and minimum readings for this year.

Solar Radiation:
  • Suspect readings:
    • 12/24 @ 1300
    • 12/25 @ 2000
    • 12/27 @ 500

Water Level:
  • Reading on 6/29 @ 100 is suspect. It indicates a very high level, but the surrounding readings indicate that the water is nearly at low tide.
Conductivity:
- Numerous problems were noted with the conductivity probe throughout the year. The graph of this data illustrates a large amount of variability, as a result suspect readings are difficult to pick out. This data should be used with care.

Barometric Pressure:
- Suspect Readings:
  - 12/25 @ 1200
  - 12/25 @ 2000
  - 12/27 @ 500

1990

Weather Log:
12/4/90 New met station with the following sensors has been installed: wind direction, wind speed, air temp, solar radiation, barometric pressure. There are no sensors for water level, conductivity, and water temp at this time.
Loaded program and set calendar.
System is up and running.

Data Review:
All Parameters:
- Data from different met stations should be used with care.
- Large amounts of data are missing from this year. The National Center for Atmospheric Research in Boulder, Colorado was responsible for data collection during this time. As a result, there are no entries in the weather log to help explain the absences. This lack of information also makes it more difficult to identify anomalous data with accuracy.

Air Temperature:
- Readings on 6/8 @ 800 and 900 are suspect and are preceded by missing data.
- Reading on 8/9 @ 2000 is suspect and is surrounded by missing data.
- Reading on 8/29 @ 400 is suspect, it is the last value before missing data and is possibly in error due to a misplaced decimal point. The reading is 2.7, the reading for the preceding hour was 27.5.

Solar Radiation:
- Readings on 11/17 @ 2100 and 2400 were determined to be anomalous and altered. Both were very high readings (1.8) in mid-November in the middle of the night. All other readings for that night were 0.0. The readings were both changed to 0.0 as well.

Barometric Pressure:
- Suspect readings:
  - 1/14 @ 1500 and 1600
  - 1/15 @ 1100
  - 1/16 @ 2100 and 2300
  - 1/17 @ 900
  - 1/19 @ 1600
  - 1/22 @ 1500
  - 6/6 @ 500
  - 11/17 @ 2400

1991

Weather Log:
1/22/91 Removed storage module on 1/7, notified of slight problems with program on 1/10. Corrected problems and loaded new program on 1/10. Hooked up module on 1/11. Should be running ok.
2/2/91 Changed program for BP.

2/6/91 Checked BP, numbers not at 1070. Signal wire loose, tightened.

2/8/91 New BP calibration is off 45mb. Should be at 905.51, but is reading 950.51. Corrected, but need to subtract 45 from BP in the last few days.

2/8/91 New BP calibration is off 45mb. Should be at 905.51, but is reading 950.51. Corrected, but need to subtract 45 from BP in the last few days. (anomalous data appears to have been corrected, data begins on 2/6)

3/18/91 Installed updated program, should give data in same format as old met data.

4/1/91 Read first met file from new program. Program is not giving max wind velocity or water level.

4/12/91 Received new program and loaded.

Data Review:
All Parameters:
- Start-up problems associated with the new met station and data collection programs don’t appear to have affected data, but there is a possibility that quality was compromised.

Water Level:
- Particular care should be used with the water level readings from the new met station. The new measurement apparatus could not be constructed to the exact specifications of the first apparatus because the pier structure was destroyed. Therefore, this data is best used as a measurement of relative change, not for direct comparisons or exact water levels.

Barometric Pressure:
- There were some difficulties with the barometric pressure program from 2/6 to 2/8, the data appears to have been corrected, but should be treated with care.

1992

Weather Log:
3/21/92 Trouble with changing Conductivity probe. Down for a little while. (no data were censored from this period)

8/20/92 Discovered bad data for Water Level. Changed sensor, looks ok, but lost about 10 days. (anomalous data were censored from this period)

11/12/92 Read tape, discovered problem with conductivity over last several days. Bad data appears to start around 11/6. (anomalous data were censored beginning on 11/3)

11/16/92 Replaced conductivity sensor. Data looks ok, but decimal place is wrong. Can’t get the multiplier to work properly, will change it in excel. Sent other sensor in for repair, will reinstall it when it is returned. (data appear to have been adjusted appropriately)

Data Review:
Water Level:
- Suspect reading on 7/31 @ 2200.

Conductivity:
- There were some ongoing problems with conductivity readings as indicated above.
- The new sensor (post-hurricane Hugo) was installed on 1/31.
• Reading on 5/17 @ 2100 appears suspect.

1993

Weather Log:
3/18/93 Replaced water temp sensor, was reading bad lows. Looks ok now. (no data was censored from this period)

9/1/93 Corrected Wind Direction sensor. It was bent by a bird sitting on it. Data was bad from 8/25 at 1500 to 9/1 at 1500. (censored anomalous data only goes through 8/30 @ 1000)

Data Review:
Water Level:
• Data from approximately 7/3 to 8/1 appear suspect (see corresponding graph).

Conductivity:
• Data from approximately 6/5 to 9/5 appear suspect (see corresponding graph).

1994

Weather Log:
4/18/94 Problems with clock, set itself to day 0, hr 0. Reset. Due to error max and min readings were lost for days 4/11 through 4/17.


Data Review:
Water Level:
• The weather log indicates that bad data were collected from 4/27 to 5/20. It also states that data will be taken from another source to supplement the data that were lost. There is very little data missing from this period, so we assume that the data were replaced with valid data, however, we do not know for sure.

1995

Weather Log:
9/18/85 Changed water level gauge.

10/18/95 Water Level appears to have dropped when new sensor was installed on 2/27. There appears to be a difference of 29-30cm lower. All values between 7/28 @1000 and 9/18 @ 1500 were adjusted by lowering them by 40 cm. The values between 9/18 @ 1500 and 10/18 were increased by 30 cm to reflect the difference after the new sensor was calibrated.

12/11/95 Power outage. Reset data logger and clock with pc clock.

Data Review:
Solar Radiation (Licor):
• Censored suspect reading on 6/25 @ 1400. Reading (6999.0) was extremely high, the highest reading registered to that date was 2272.0. The suspect reading was removed and replaced with a “.” to signify missing data so that it wouldn’t affect the annual average.
• Suspect readings in mid-January and in mid-April. Lowest value registering seems to have drifted upward in these time periods. This is best illustrated by viewing the graphic provided.
1996

Weather Log:
* There are no weather log entries for this year.

Data Review:
* No anomalous data were found for this year.