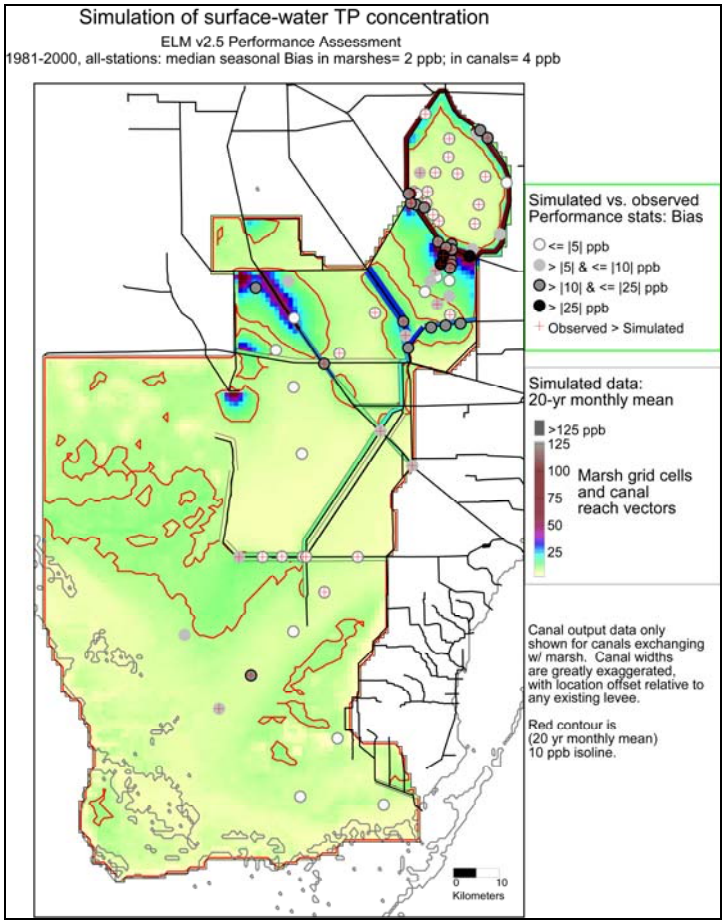
Documentation of the Everglades Landscape Model: ELM v2.5

Chapter 6: Model Performance – Appendices B, C, & E



http://my.sfwmd.gov/elm

July 10, 2006

6.10 Appendix B: Time series & CFDs: TP

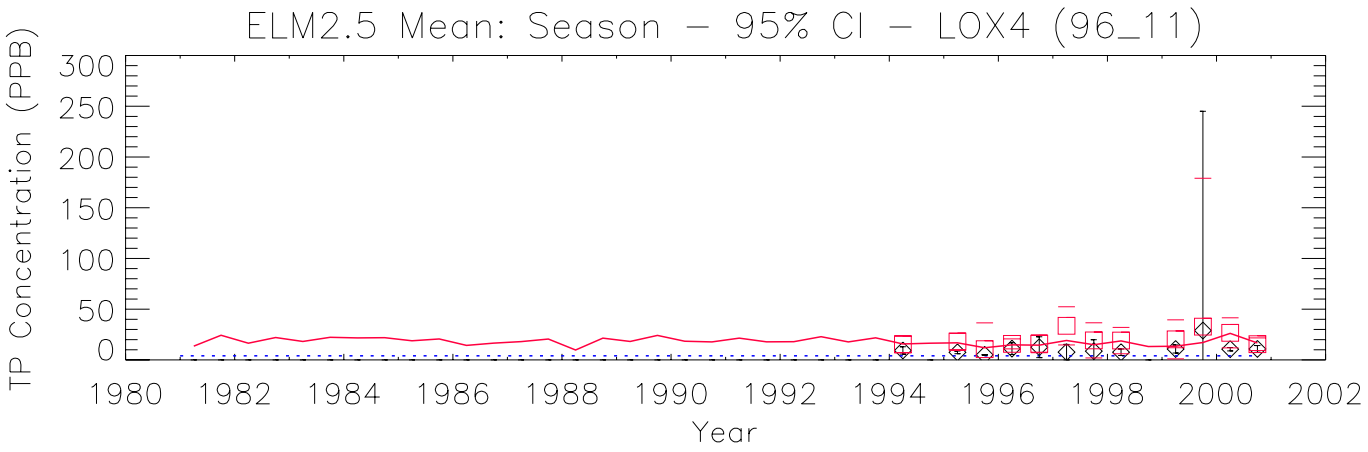
Figures B.1 – B.78. Time series plots of water column total phosphorus (TP) concentration and their associated Cumulative Frequency Distributions (CFD) for the period of record 1981-2000 at each monitoring location. The sequence of the figures is based on geographic location of marsh sites, starting in northwest, moving towards the southeast; following the set of plots of all marsh sites, the canal monitoring sites are similarly sequenced. A map of all sites is provided in the Model Performance Chapter.

The constant dashed line indicates the TP field sampling Detection Limit (DL = 4 ug l^{-1} for the model period of record), which was the minimum value used for observed data in plots and statistics. To enable equivalent comparisons, any simulated value which was below the DL was set equal to the DL. The model grid cell column and row locations (col_row) or canal reach identifier (single integer) are shown in parentheses of each plot's title.

a) All data were aggregated into arithmetic mean values by wet and dry seasons within water years; the continuous lines pass through mean of all daily data points for each season; the mean of paired simulated and observed values are shown in red boxes and black diamonds, respectively; the 95% Confidence Interval (CI) of the paired means are shown by the "__" symbols in the red for the model and black for the observed data.

b) All data aggregated into arithmetic mean values by water year, with the same treatment as in plot a).

c) The CFDs of the simulated and observed (raw, un-aggregated) data; the 95% confidence interval for observed data is shown in the dashed black lines. Note that only paired simulated and observed data points are used.


ELM2.5 Mean: Season – 95% CI – LOX4 (96_11)
TP Concentration (PPB)
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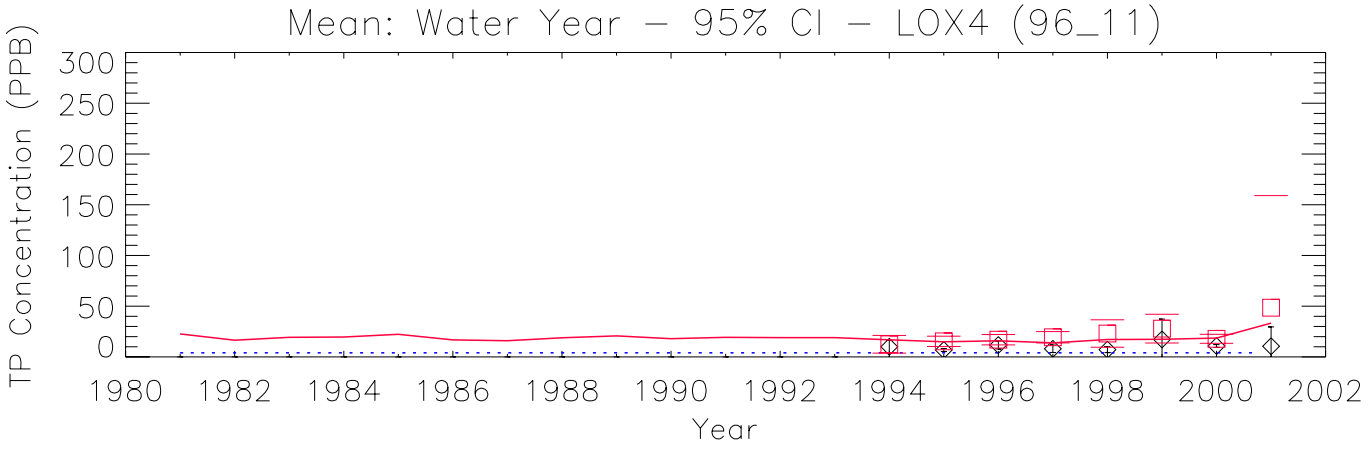
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – LOX4 (96_11)
TP Concentration (PPB)
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50
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1982
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1986
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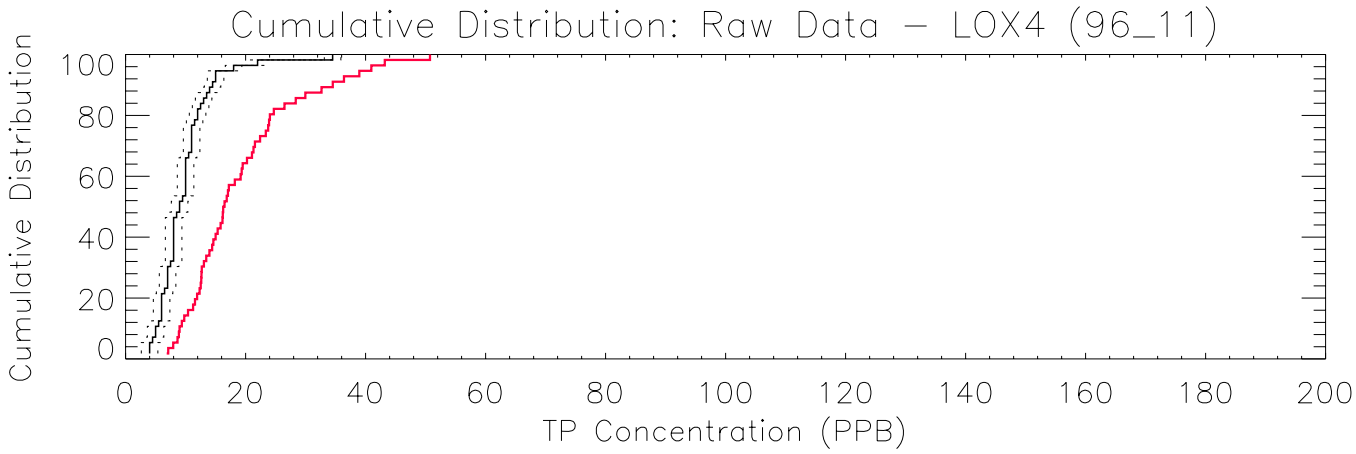
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – LOX4 (96_11)
Cumulative Distribution
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60
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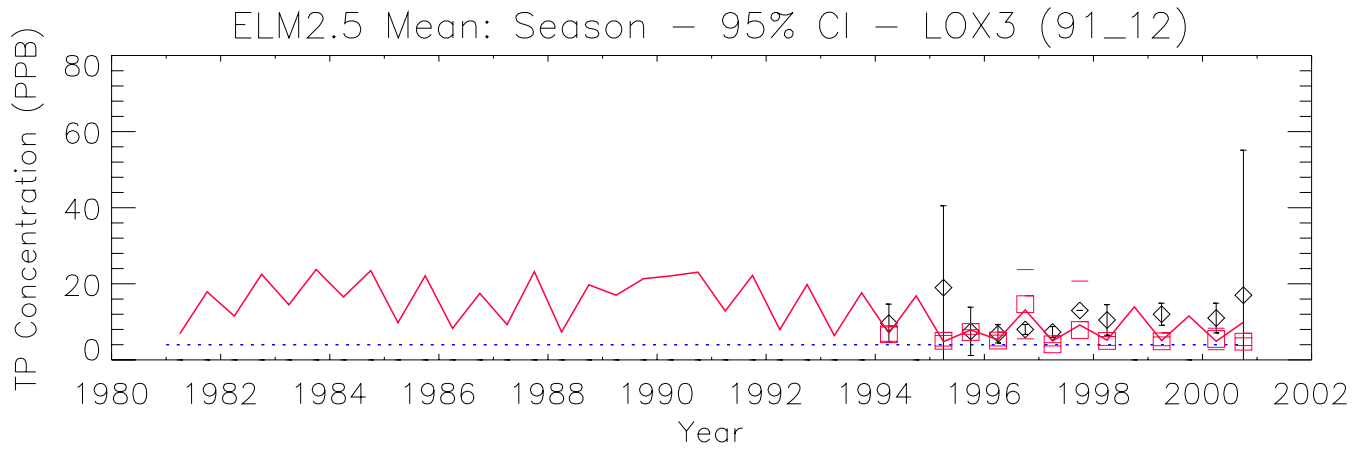
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – LOX3 (91_12)
TP Concentration (PPB)
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80
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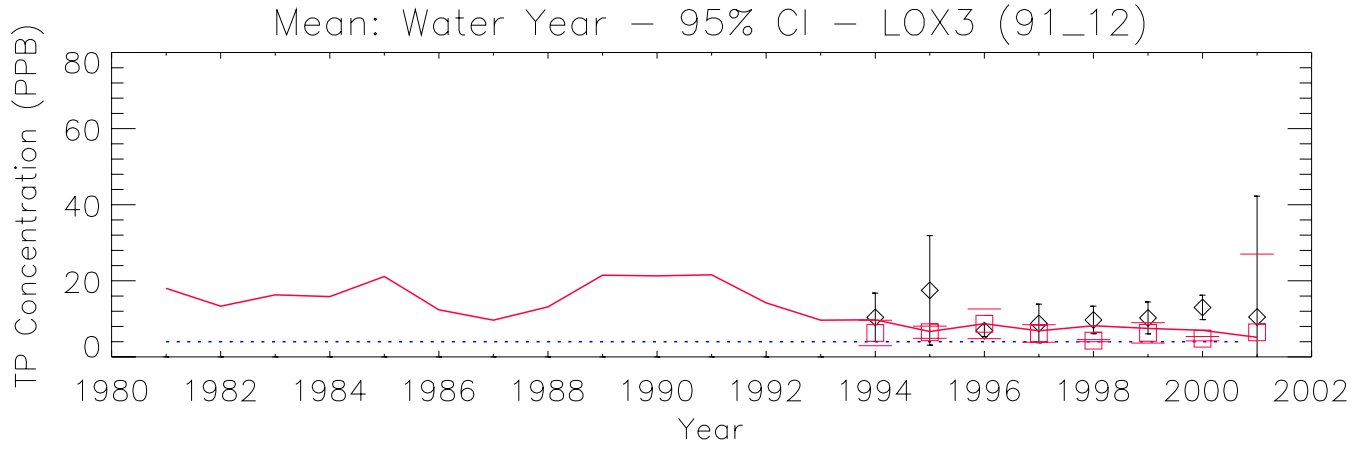
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – LOX3 (91_12)
TP Concentration (PPB)
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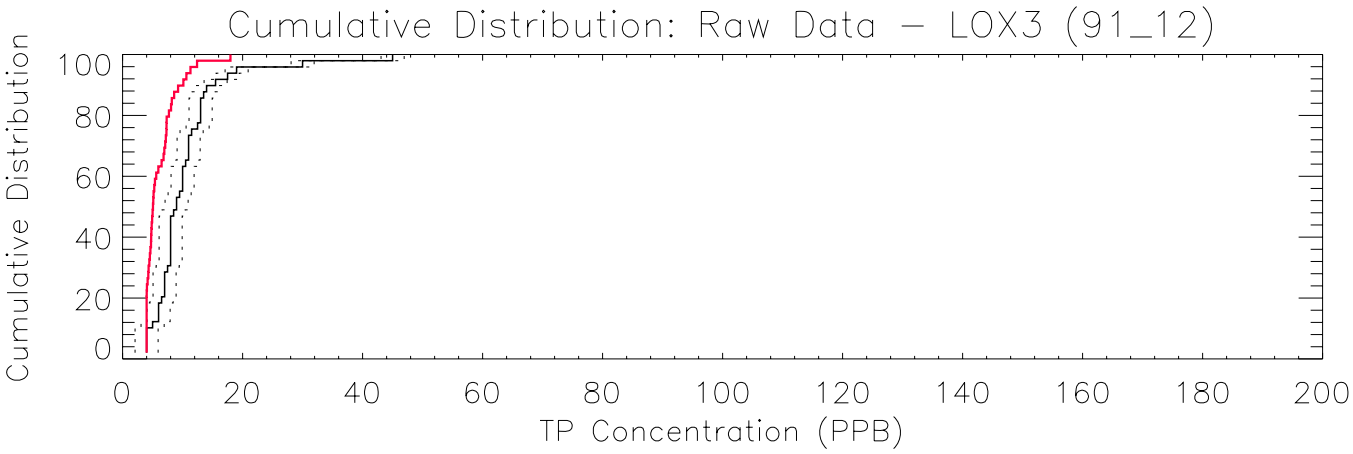
40
60
80
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – LOX3 (91_12)
Cumulative Distribution
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100
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20
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60
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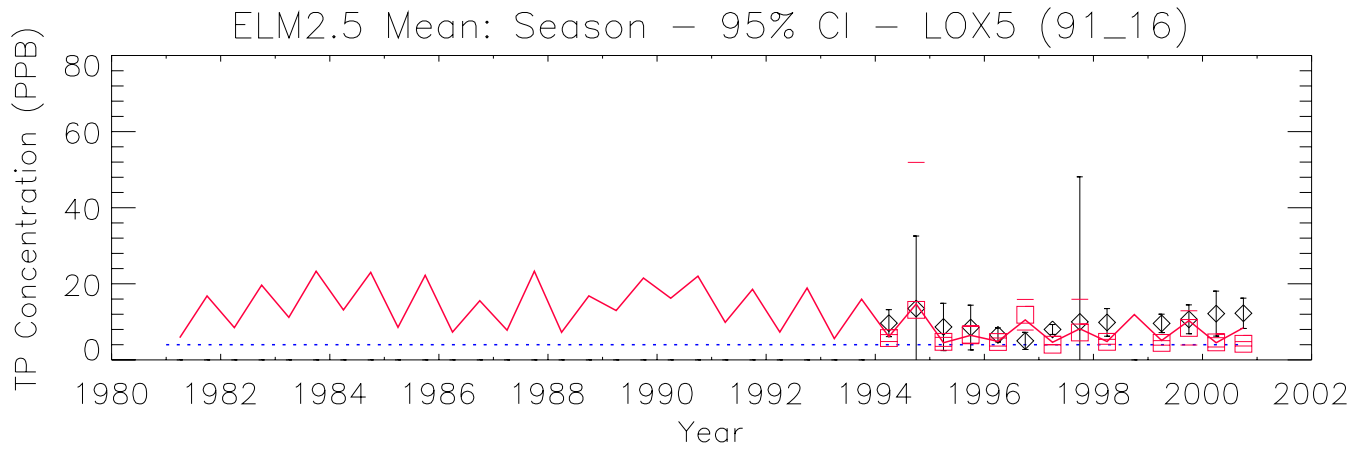
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – LOX5 (91_16)
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60
80
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1982
1984
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1990
1992
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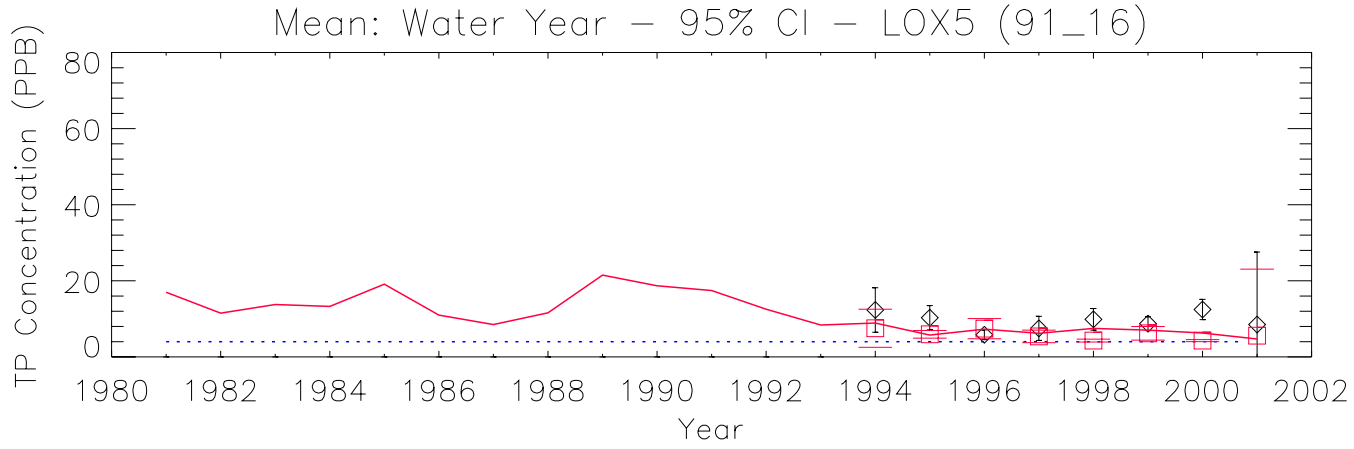
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – LOX5 (91_16)
TP Concentration (PPB)
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1980
1982
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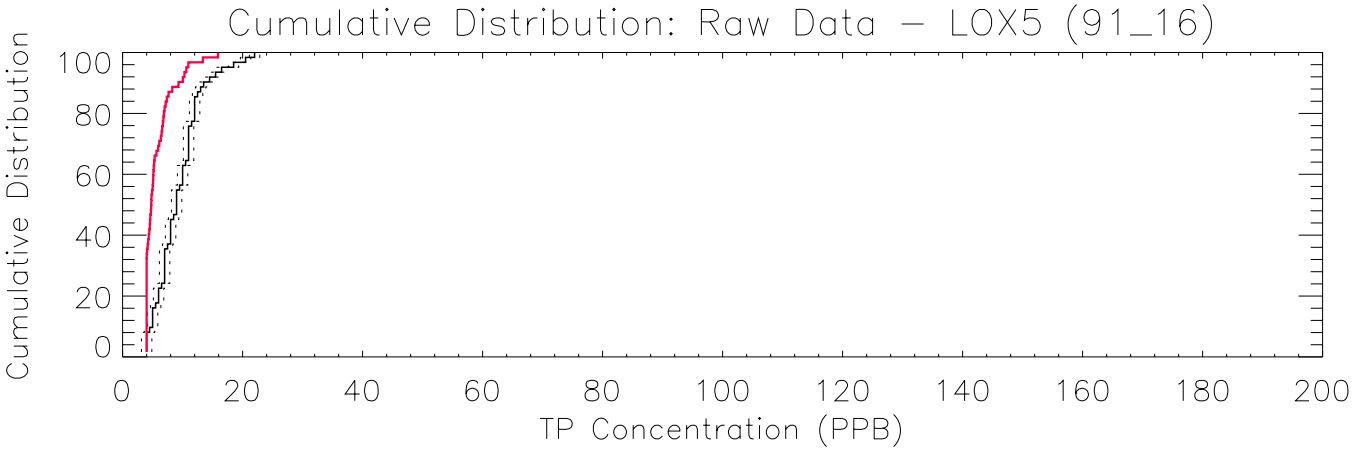
1998
2000
2002
Year


Cumulative Distribution: Raw Data – LOX5 (91_16)
Cumulative Distribution
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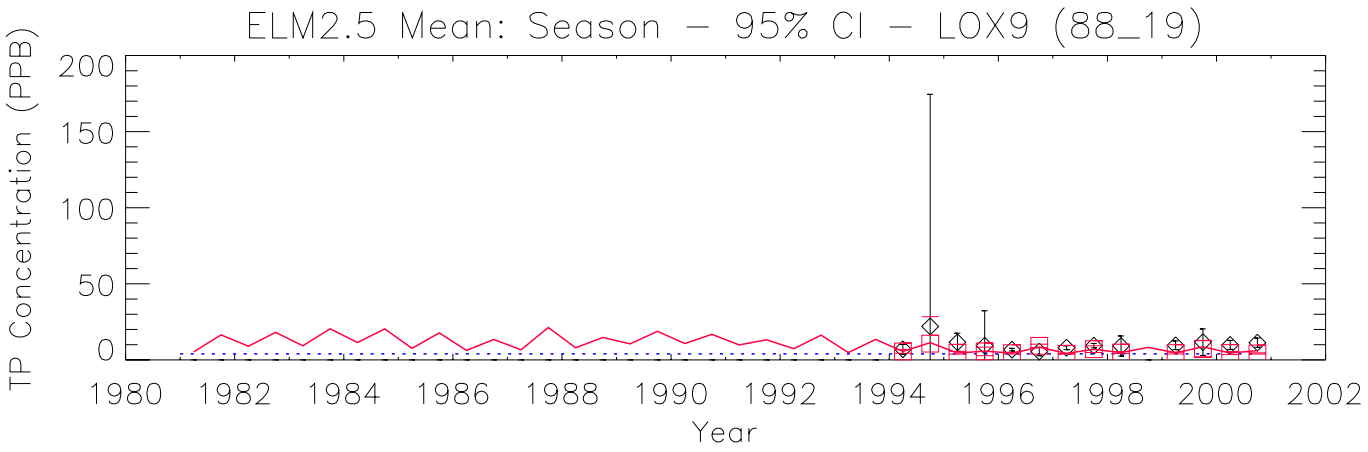
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – LOX9 (88_19)
TP Concentration (PPB)
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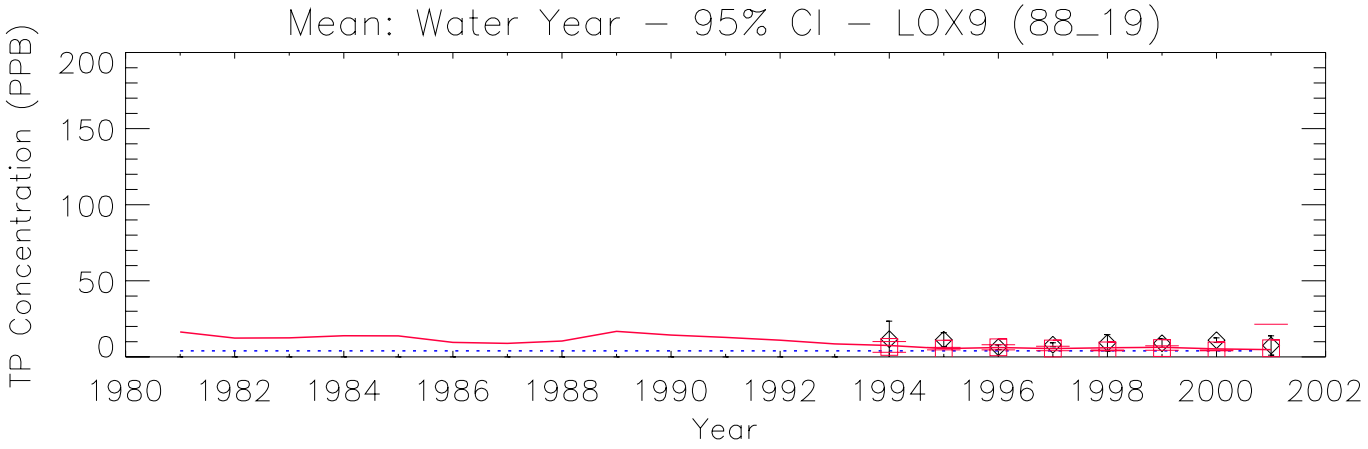
1998
2000
2002
Year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1982
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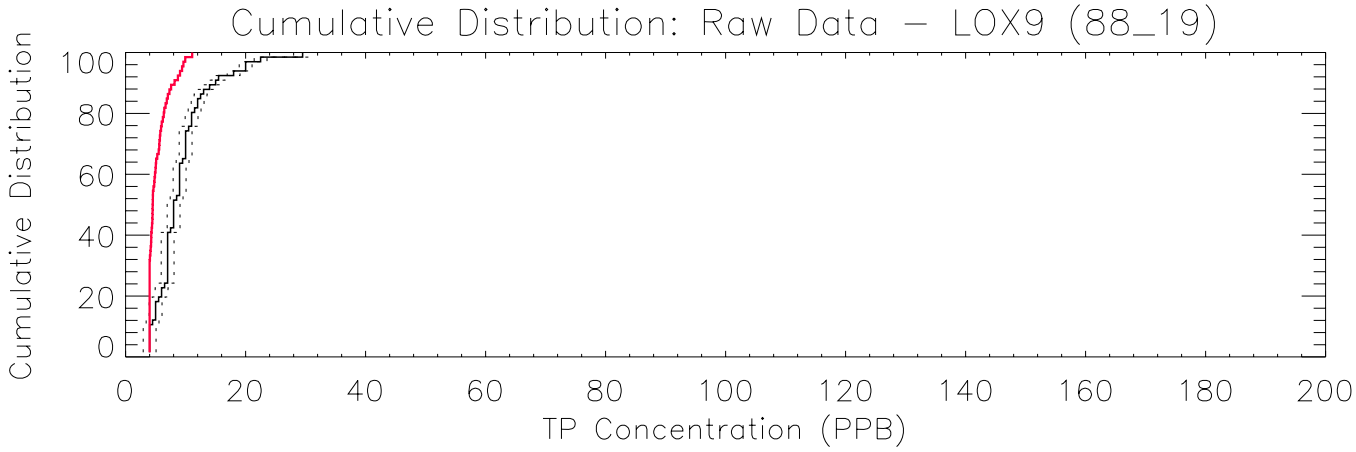
1998
2000
2002
Year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Cumulative Distribution
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20
40
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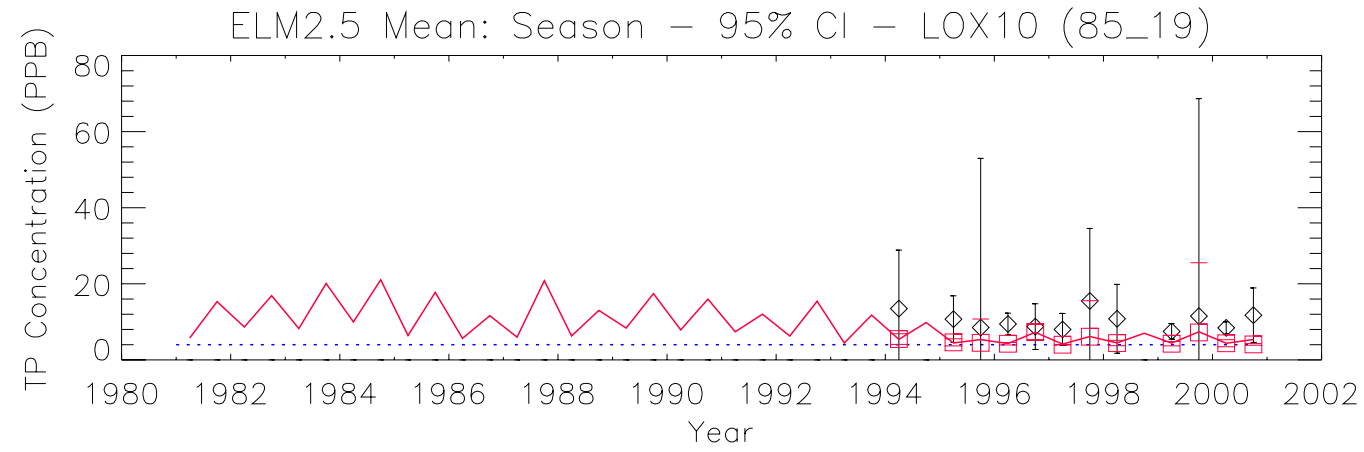
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – LOX10 (85_19)
TP Concentration (PPB)
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1992
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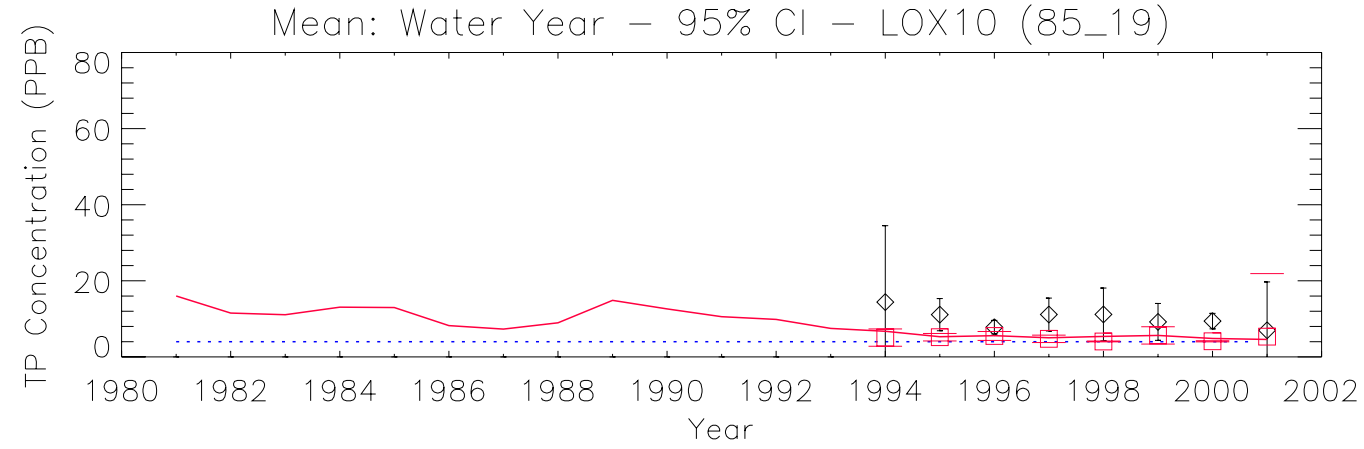
1998
2000
2002
Year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TP Concentration (PPB)
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1982
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1990
1992
1994
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1998
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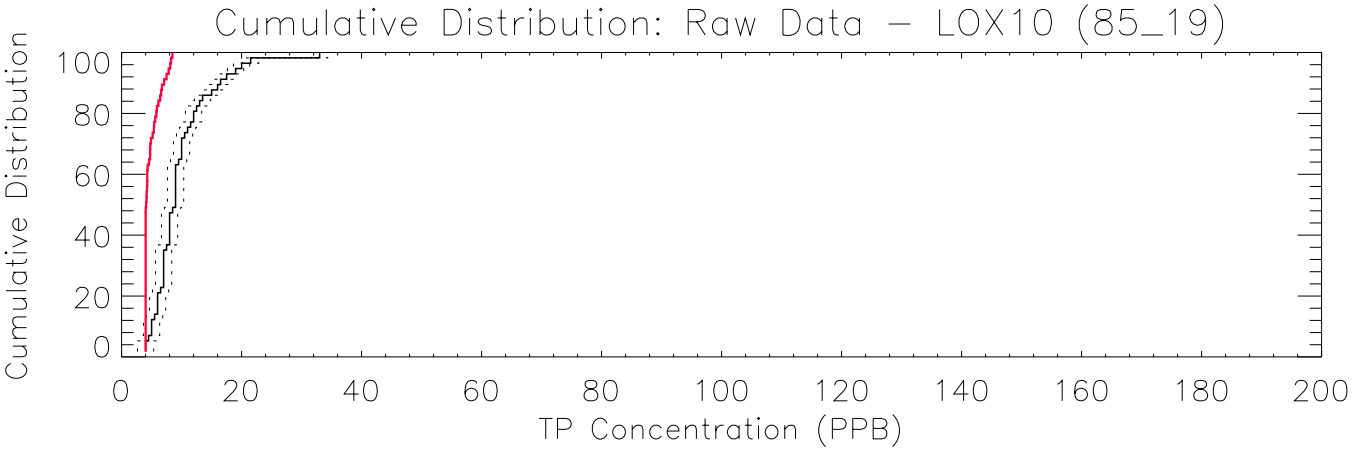
2002
Year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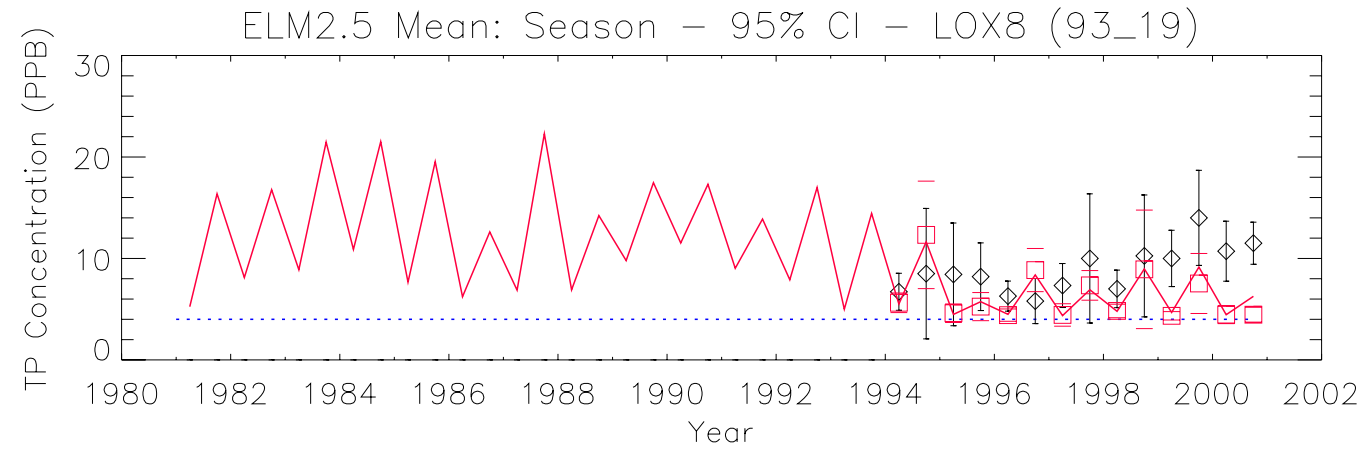
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – LOX8 (93_19)
TP Concentration (PPB)
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20
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1980
1982
1984
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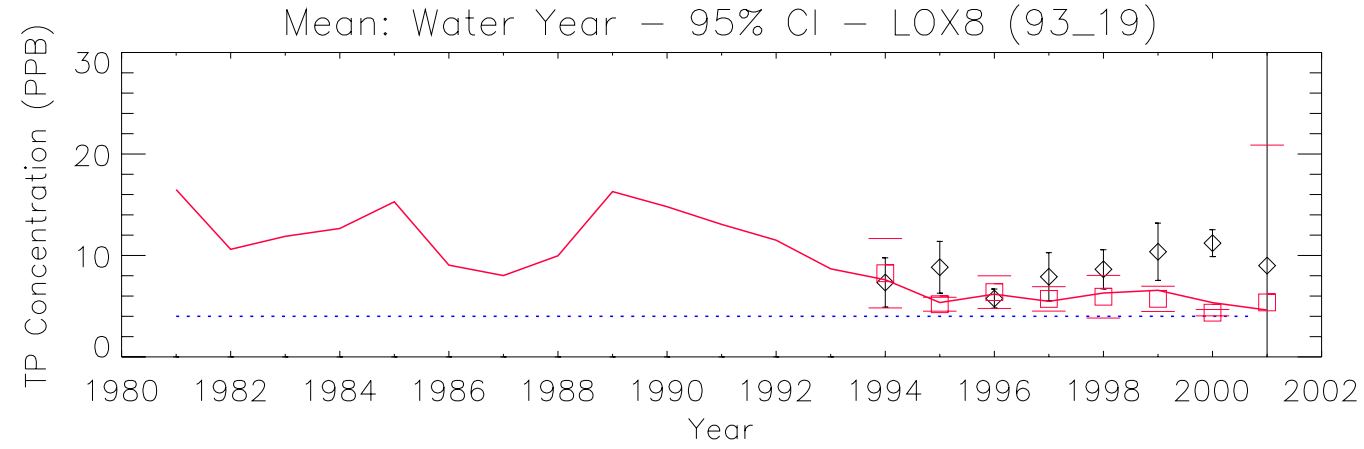
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – LOX8 (93_19)
TP Concentration (PPB)
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1982
1984
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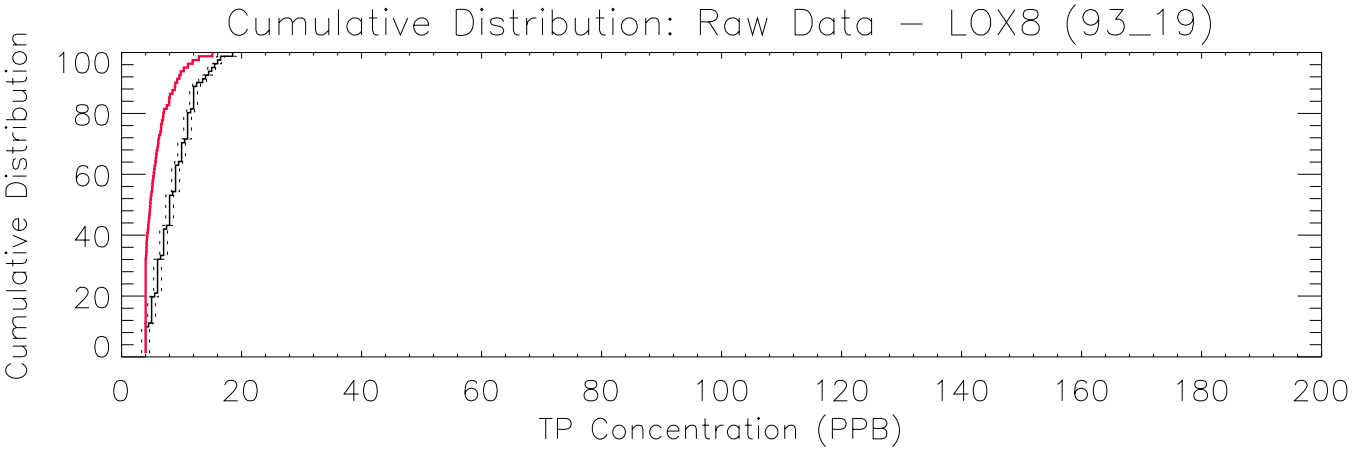
1998
2000
2002
Year


Cumulative Distribution: Raw Data – LOX8 (93_19)
Cumulative Distribution
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100
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20
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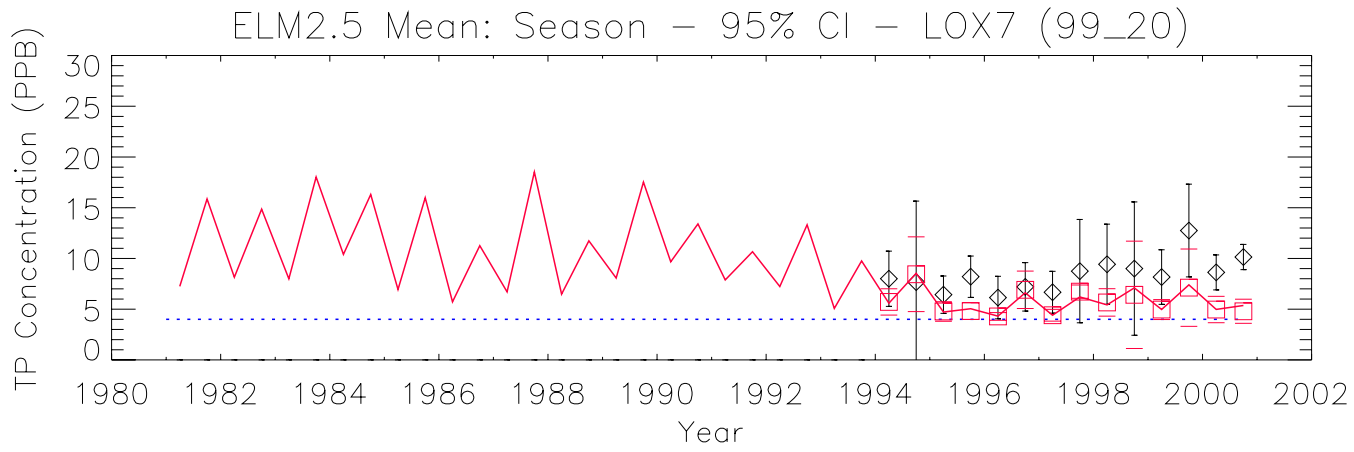
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – LOX7 (99_20)
TP Concentration (PPB)
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10
15
20
25
30
1980
1982
1984
1986
1988
1990
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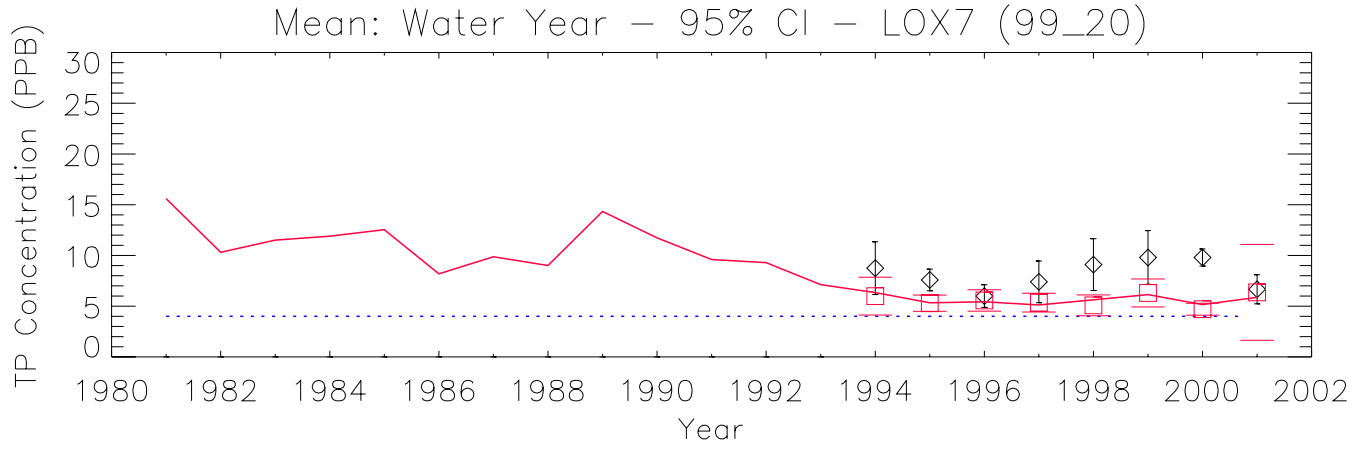
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – LOX7 (99_20)
TP Concentration (PPB)
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25
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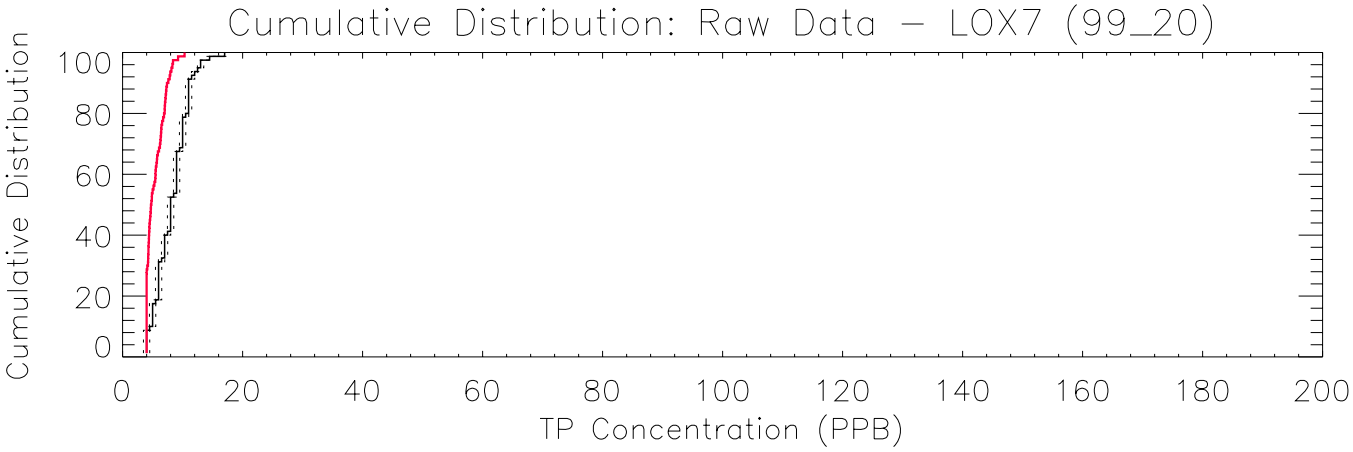
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year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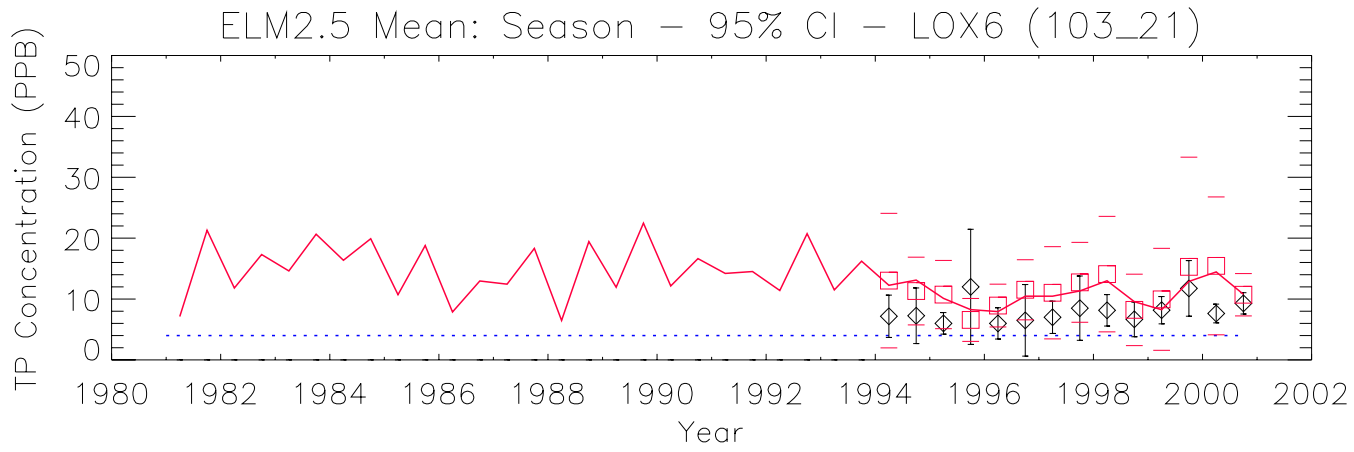
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – LOX6 (103_21)
TP Concentration (PPB)
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2000
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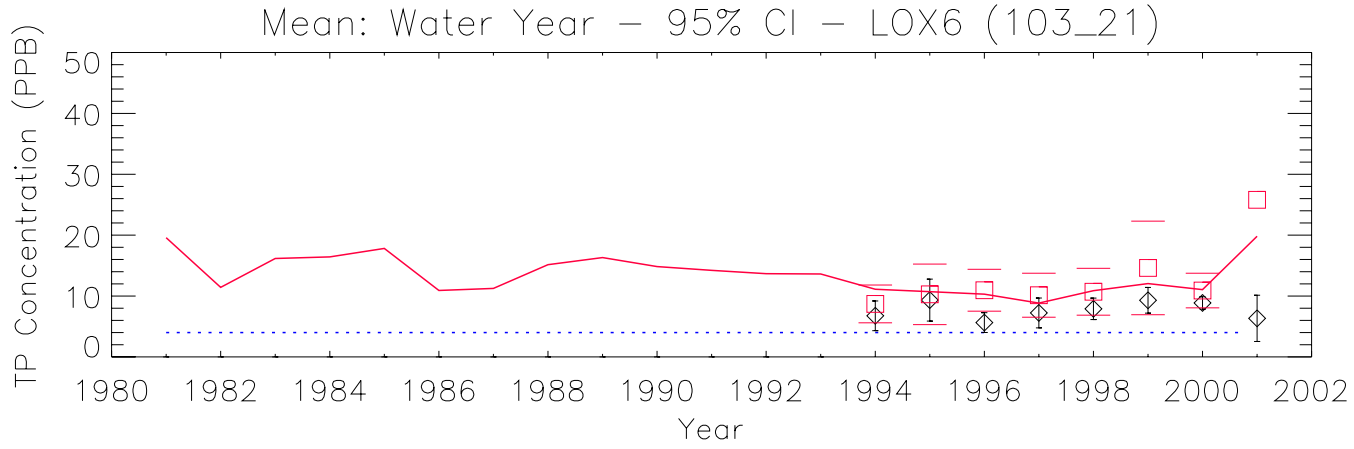
Year


Mean: Water Year – 95% CI – LOX6 (103_21)
TP Concentration (PPB)
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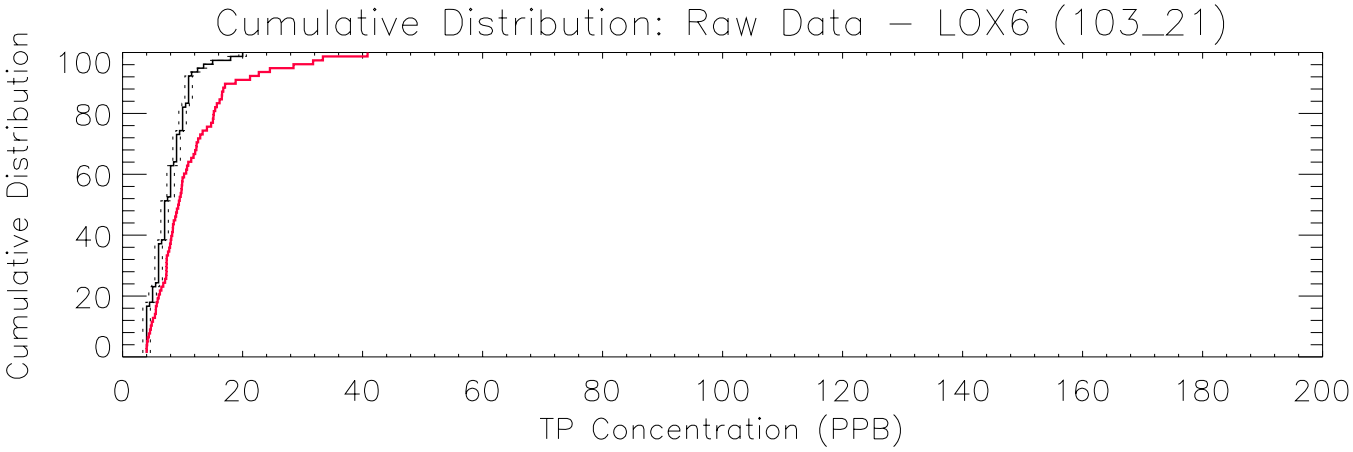
2002
Year


Cumulative Distribution: Raw Data – LOX6 (103_21)
Cumulative Distribution
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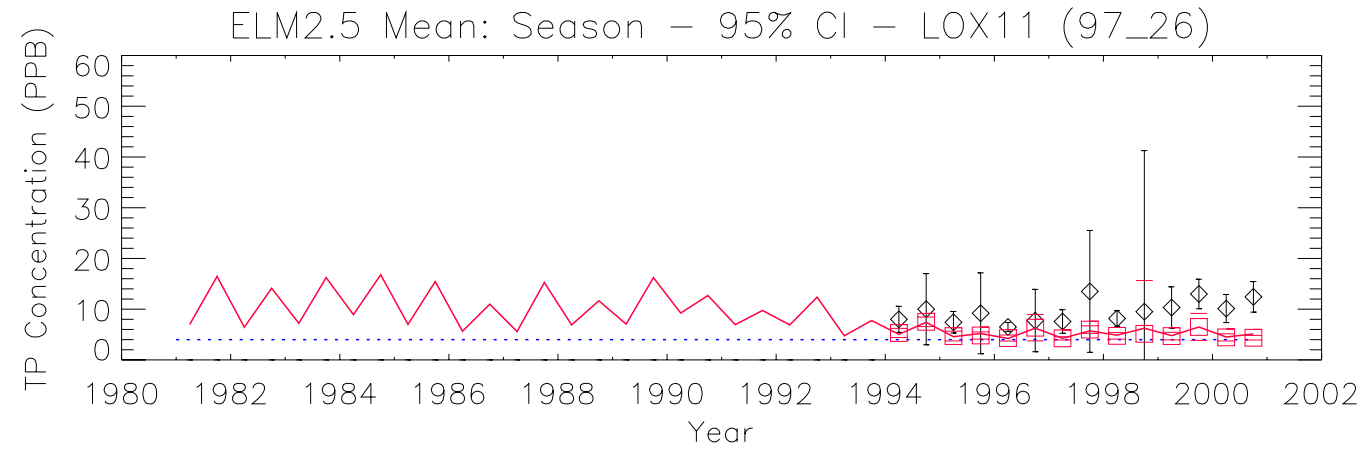
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – LOX11 (97_26)
TP Concentration (PPB)
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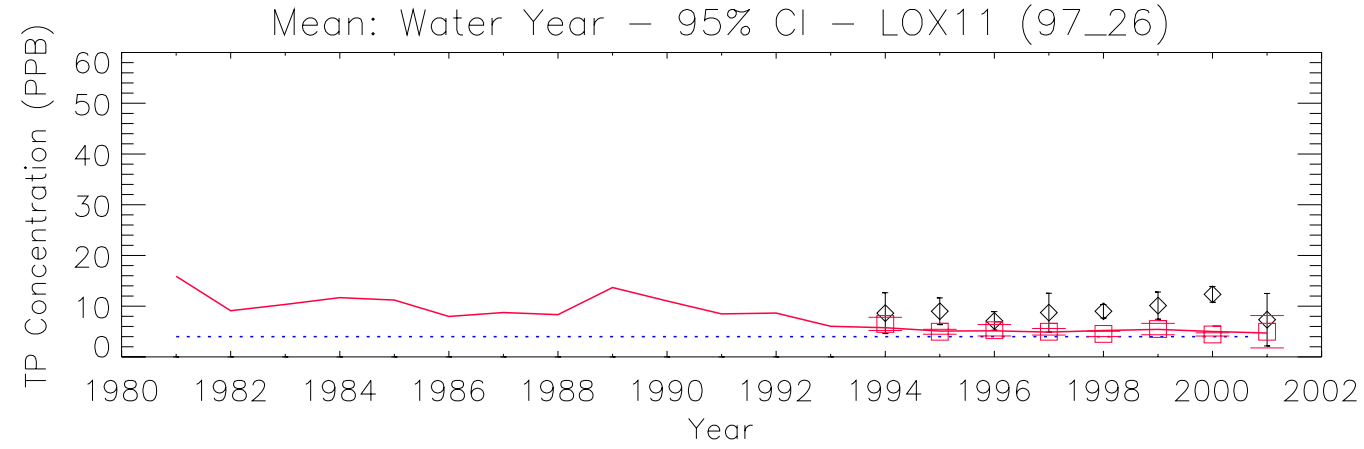
2002
Year


Mean: Water Year – 95% CI – LOX11 (97_26)
TP Concentration (PPB)
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2002
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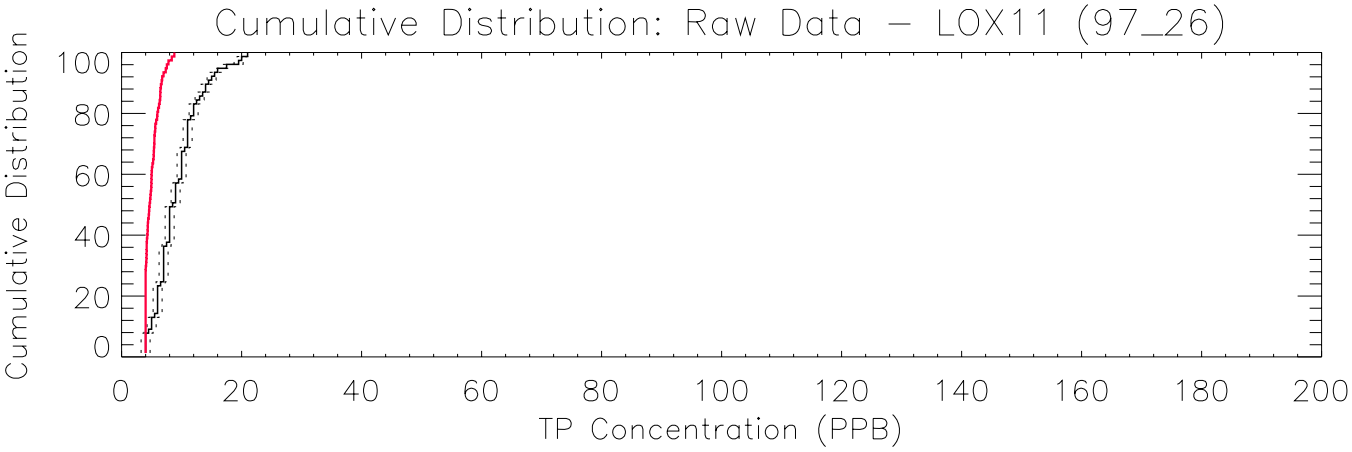
Cumulative Distribution: Raw Data – LOX11 (97_26)
Cumulative Distribution
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100
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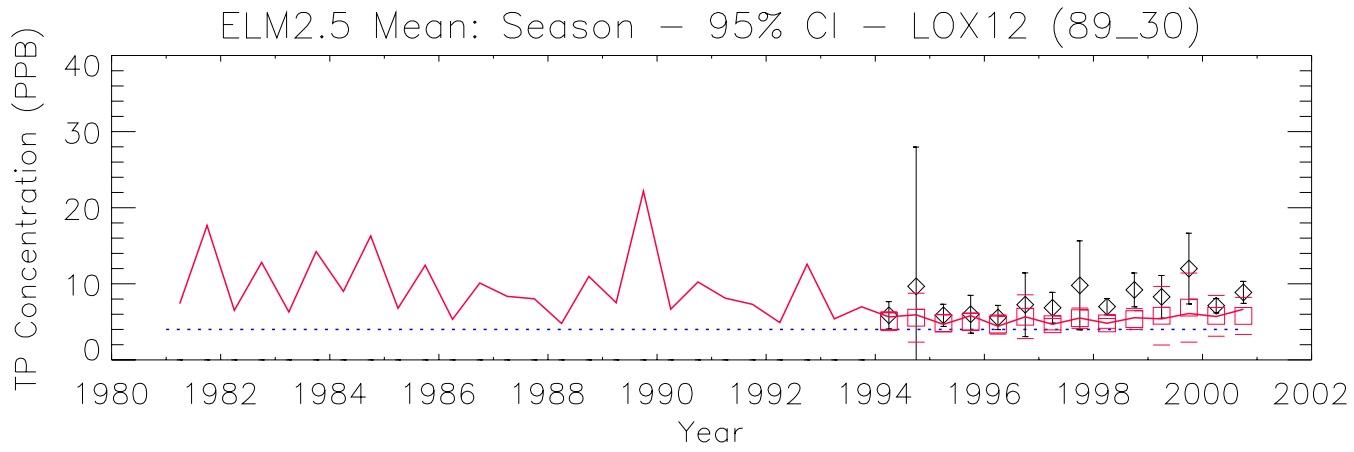
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – LOX12 (89_30)
TP Concentration (PPB)
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20
30
40
1980
1982
1984
1986
1988
1990
1992
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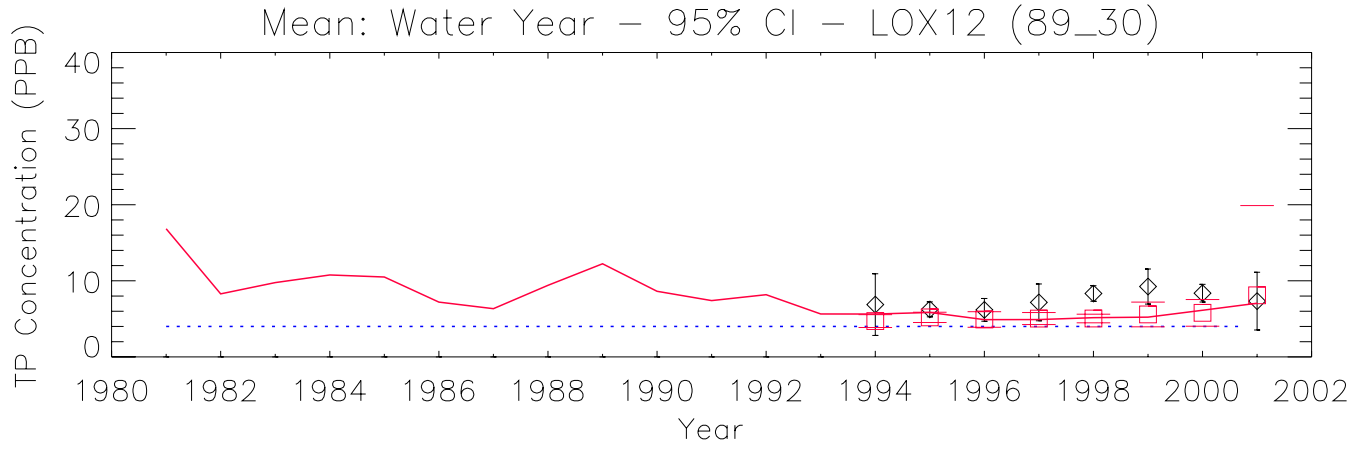
1998
2000
2002
Year


Mean: Water Year – 95% CI – LOX12 (89_30)
TP Concentration (PPB)
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1980
1982
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1998
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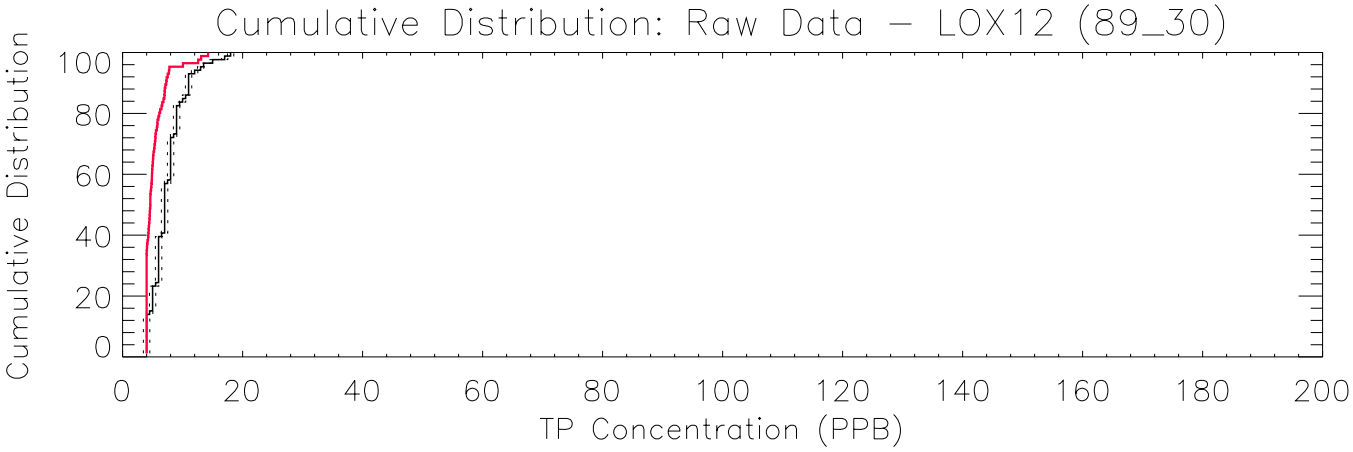
2002
Year


Cumulative Distribution: Raw Data – LOX12 (89_30)
Cumulative Distribution
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60
80
100
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20
40
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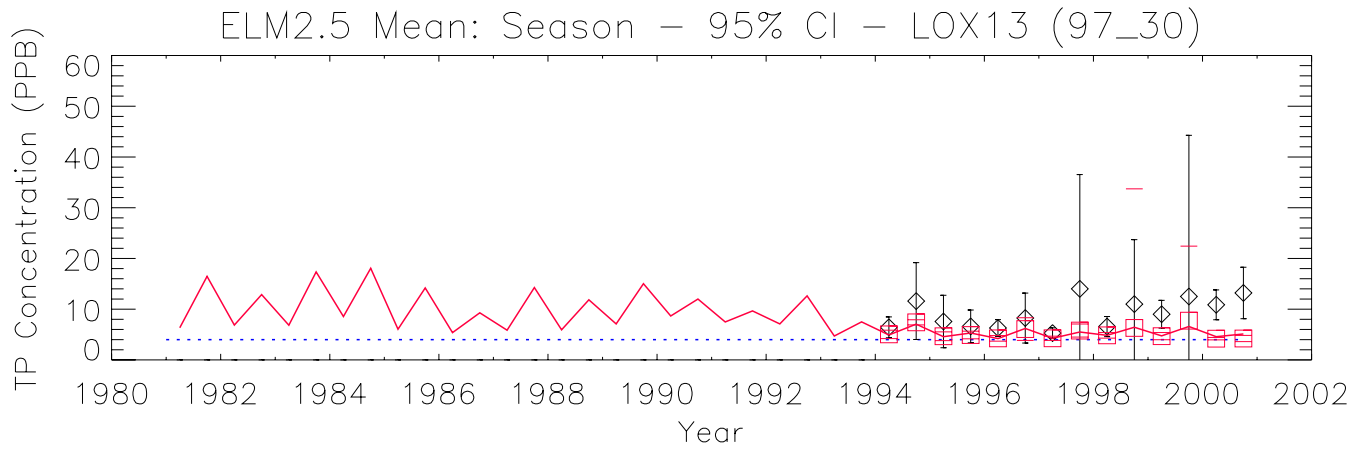
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – LOX13 (97_30)
TP Concentration (PPB)
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40
50
60
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1982
1984
1986
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1990
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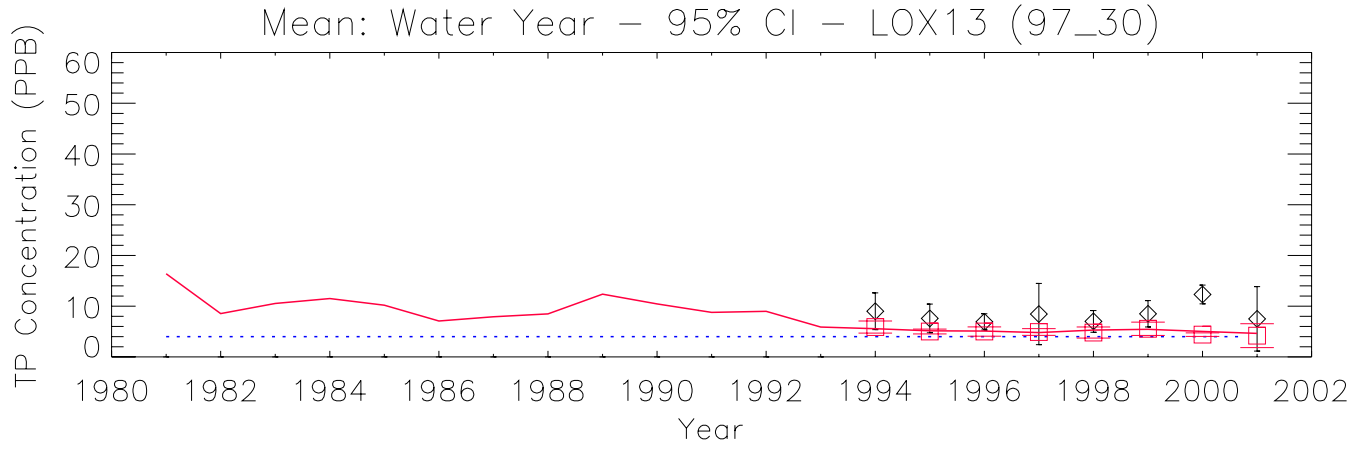
1998
2000
2002
Year


Mean: Water Year – 95% CI – LOX13 (97_30)
TP Concentration (PPB)
0
10
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50
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1980
1982
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1986
1988
1990
1992
1994
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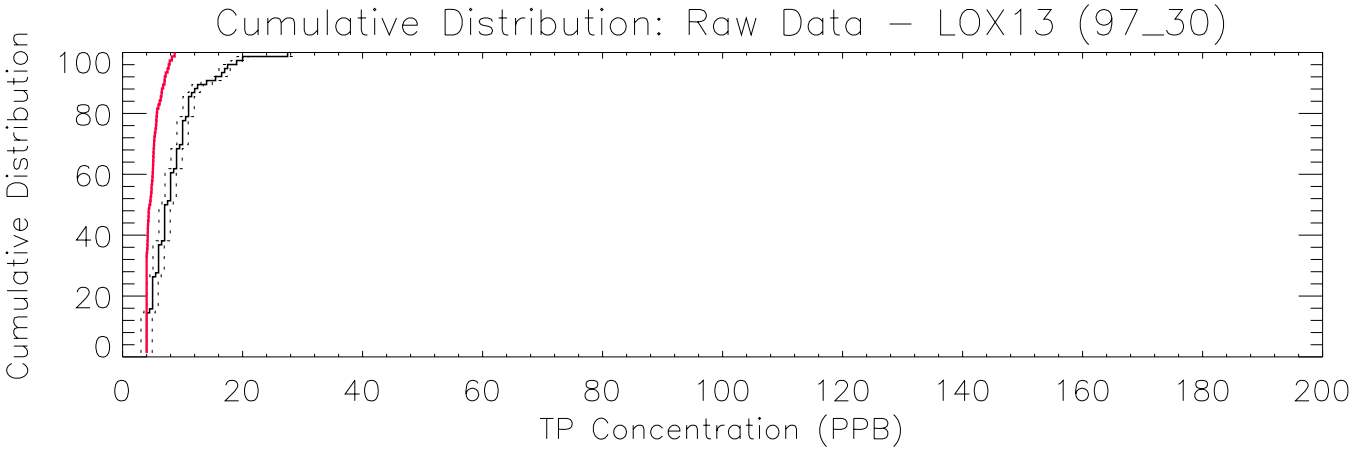
1998
2000
2002
Year


Cumulative Distribution: Raw Data – LOX13 (97_30)
Cumulative Distribution
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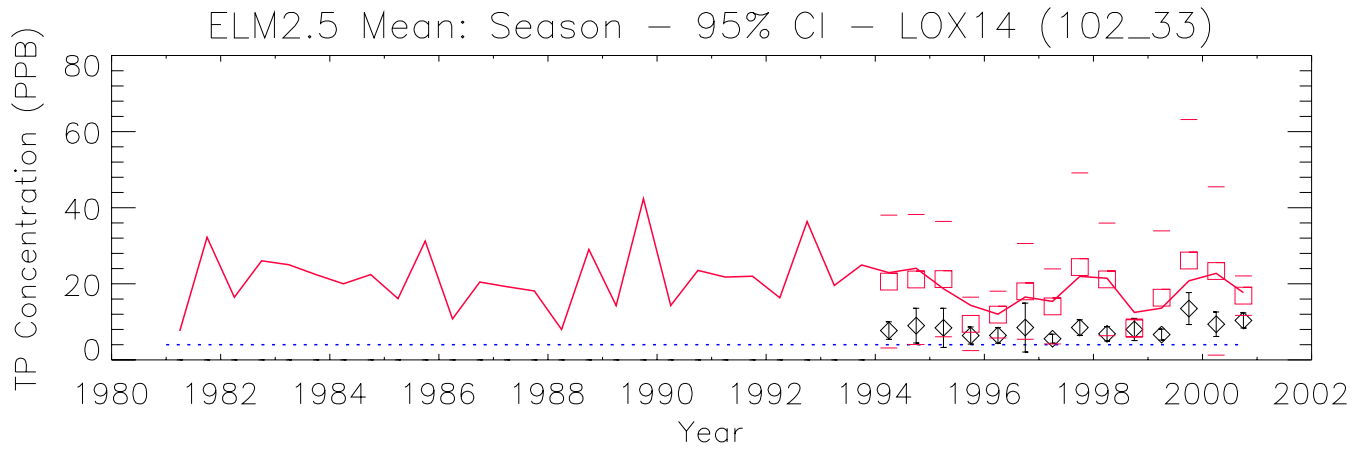
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – LOX14 (102_33)
TP Concentration (PPB)
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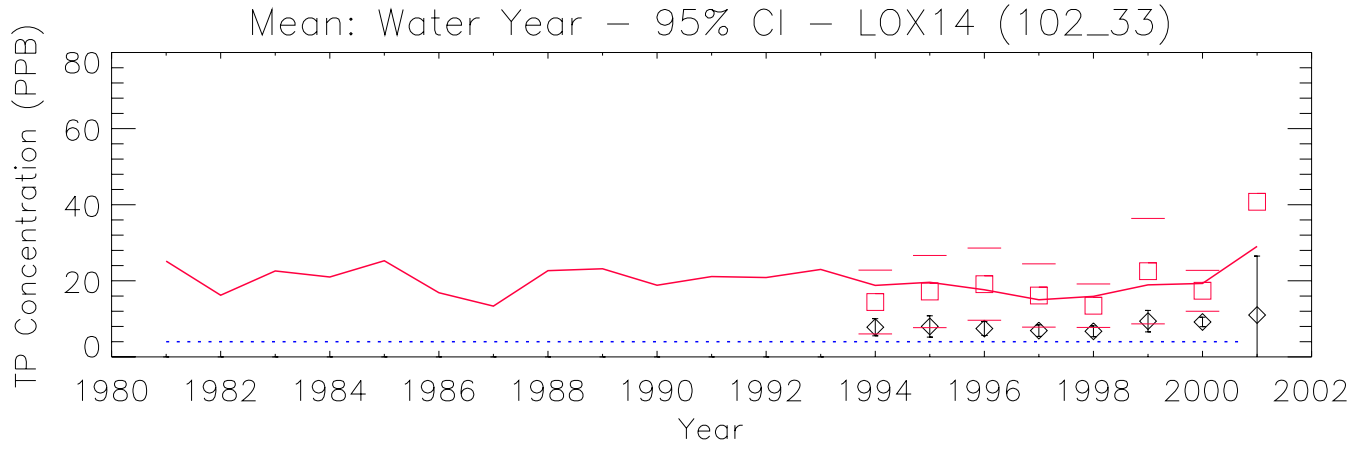
2002
Year


Mean: Water Year – 95% CI – LOX14 (102_33)
TP Concentration (PPB)
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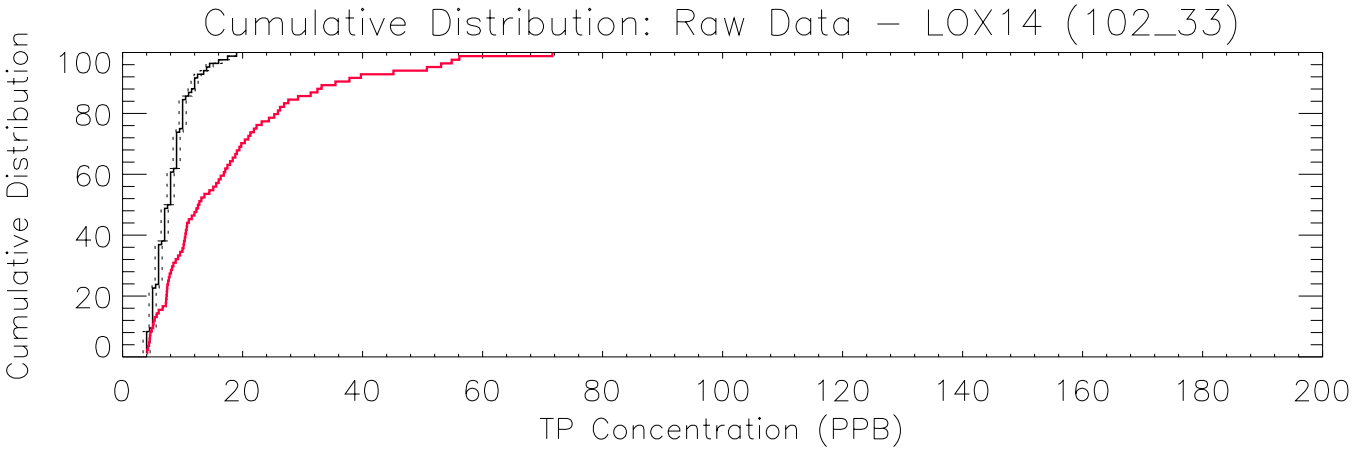
2002
Year


Cumulative Distribution: Raw Data – LOX14 (102_33)
Cumulative Distribution
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60
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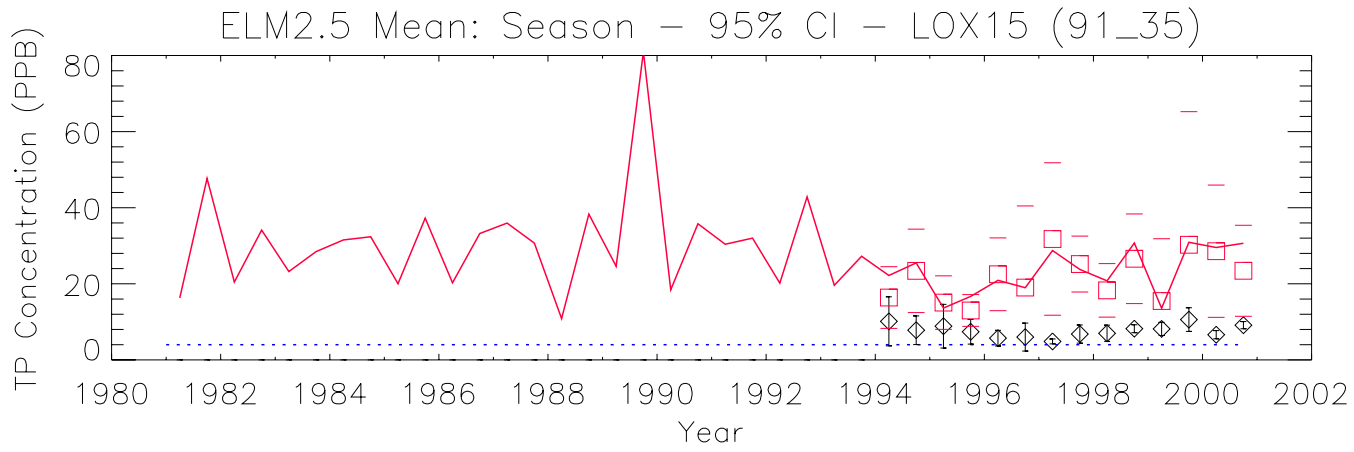
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – LOX15 (91_35)
TP Concentration (PPB)
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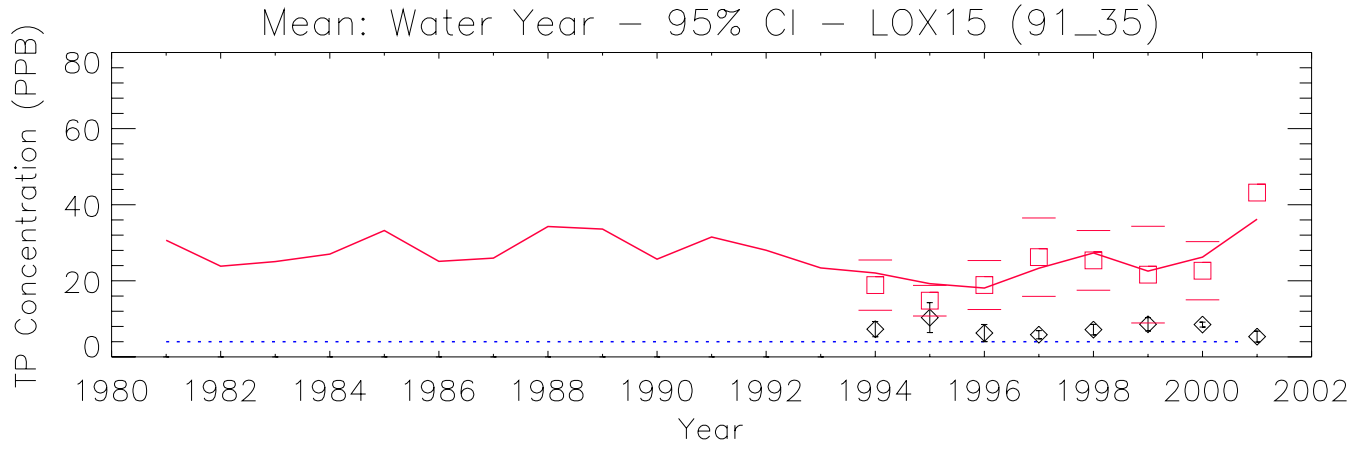
2000
2002
Year


Mean: Water Year – 95% CI – LOX15 (91_35)
TP Concentration (PPB)
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1998
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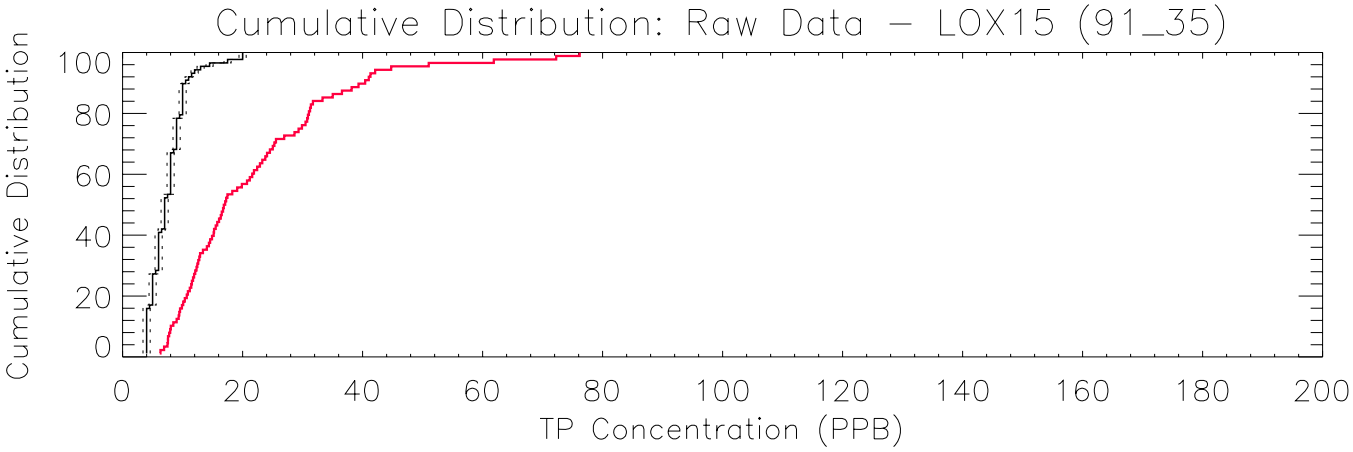
2002
Year


Cumulative Distribution: Raw Data – LOX15 (91_35)
Cumulative Distribution
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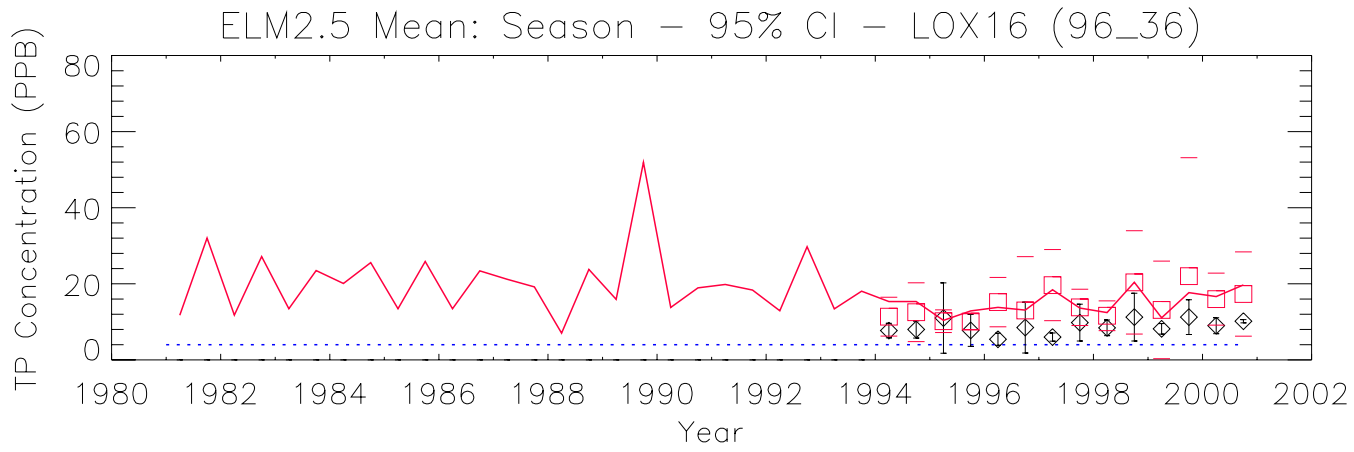
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – LOX16 (96_36)
TP Concentration (PPB)
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1980
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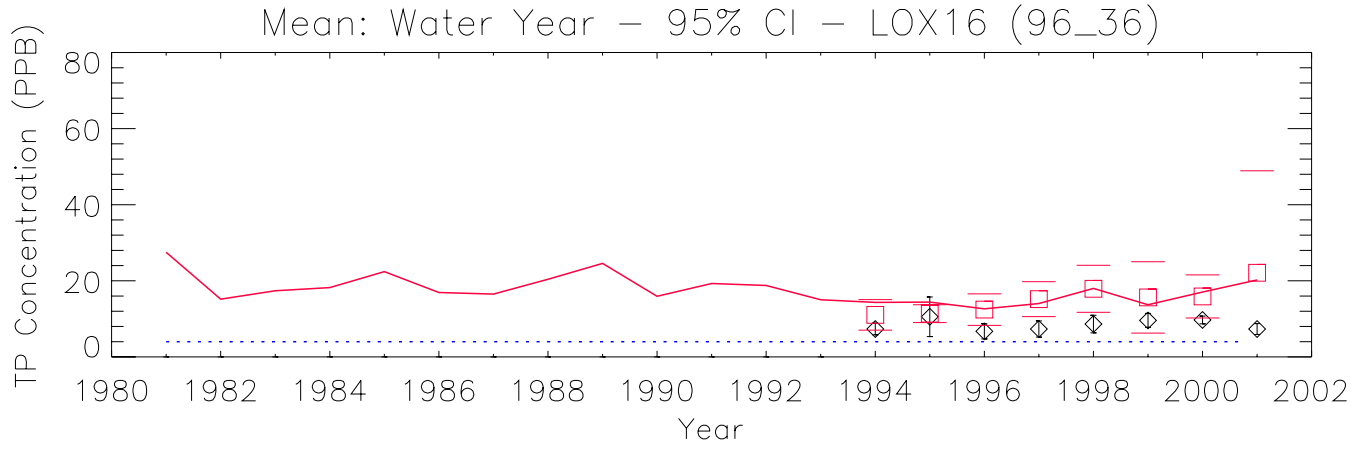
1998
2000
2002
Year


Mean: Water Year – 95% CI – LOX16 (96_36)
TP Concentration (PPB)
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1980
1982
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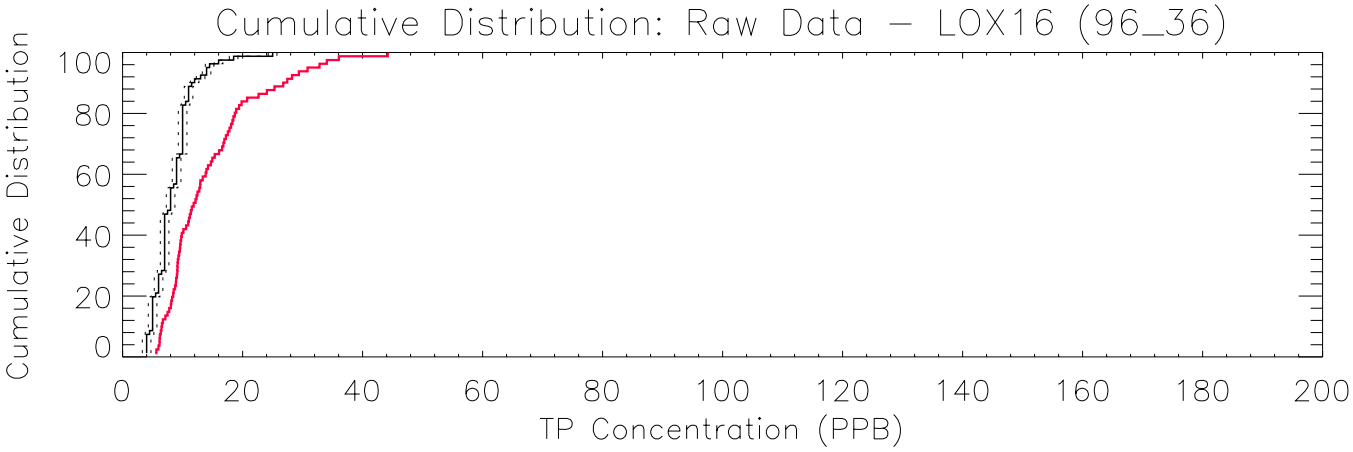
1998
2000
2002
Year


Cumulative Distribution: Raw Data – LOX16 (96_36)
Cumulative Distribution
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100
0
20
40
60
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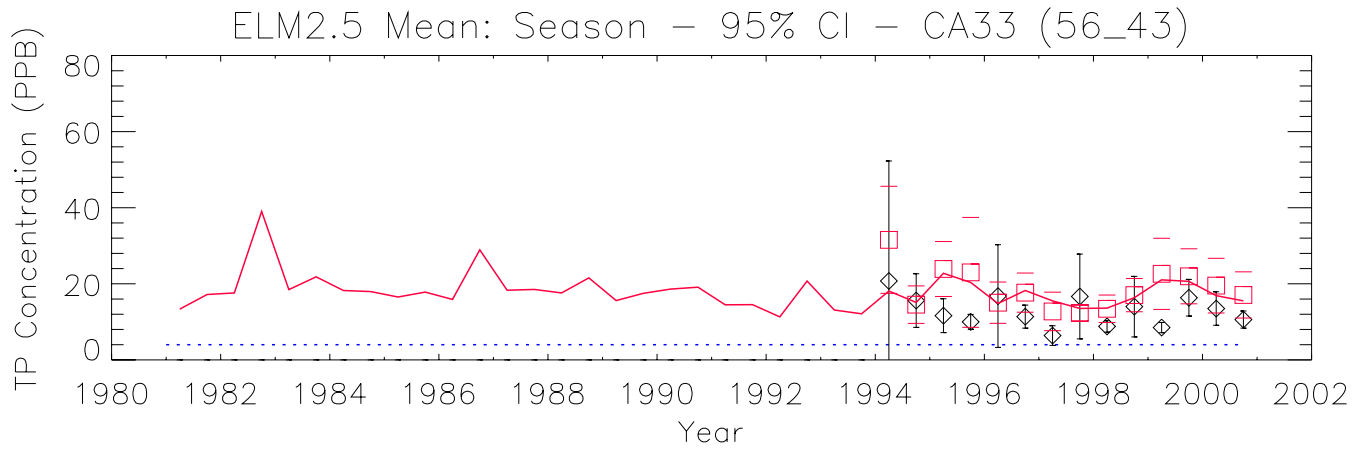
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – CA33 (56_43)
TP Concentration (PPB)
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1980
1982
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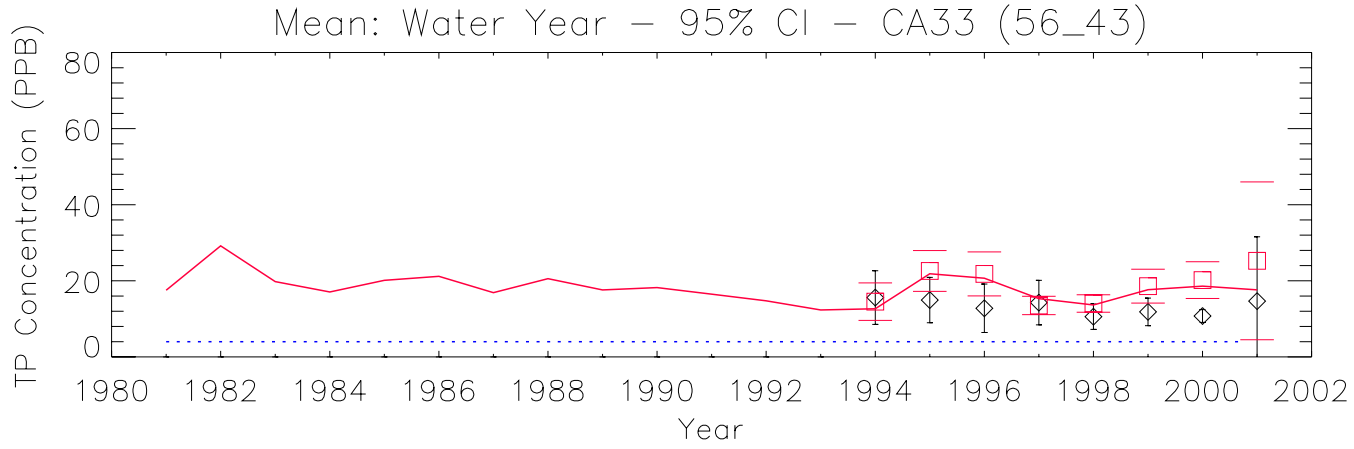
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – CA33 (56_43)
TP Concentration (PPB)
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1982
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1998
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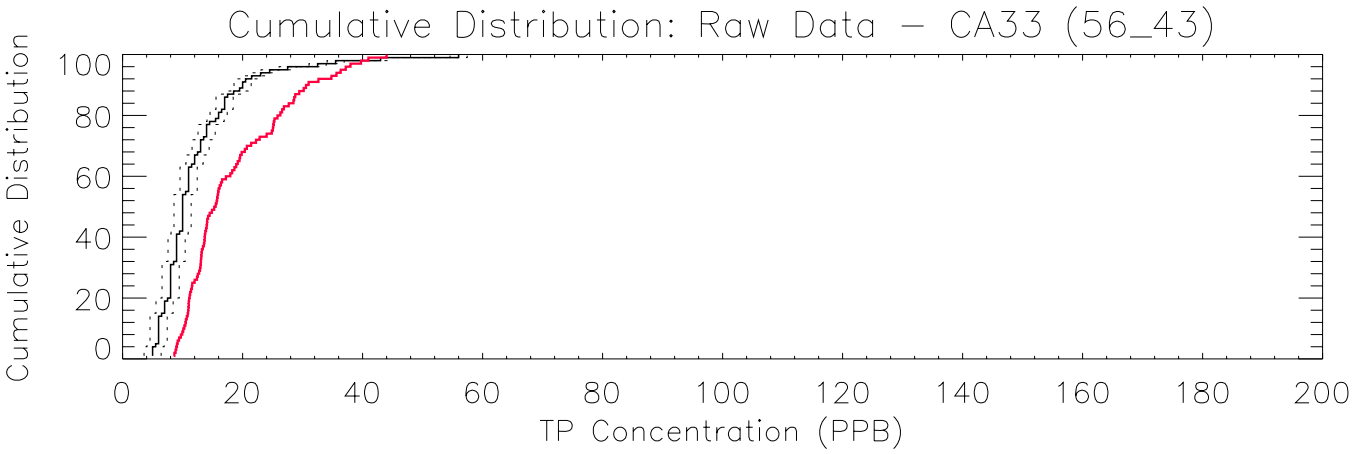
2002
Year


Cumulative Distribution: Raw Data – CA33 (56_43)
Cumulative Distribution
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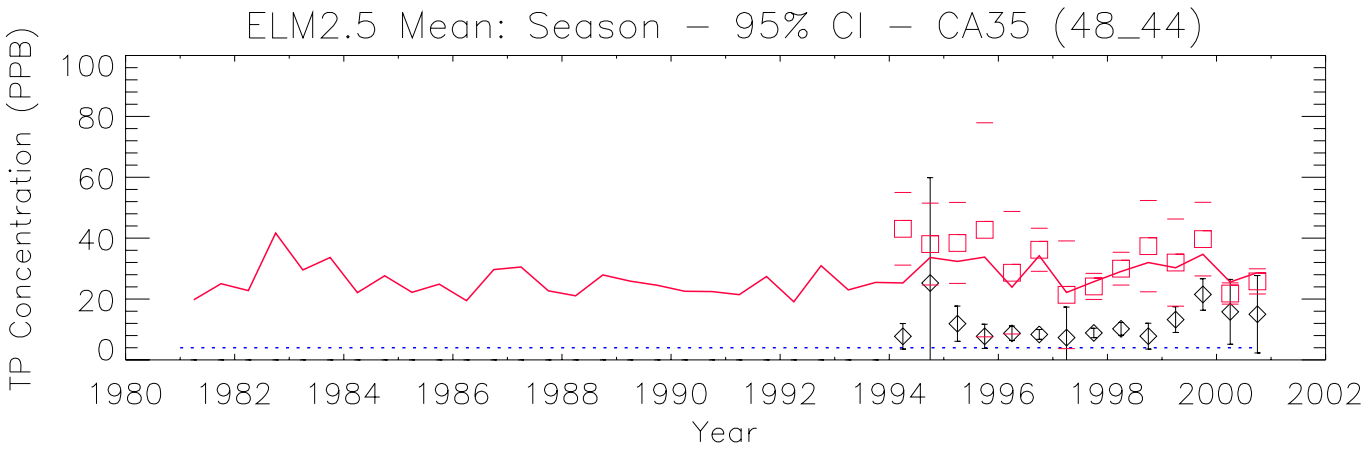
80
100
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – CA35 (48_44)
TP Concentration (PPB)
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40
20
0
1980
1982
1984
1986
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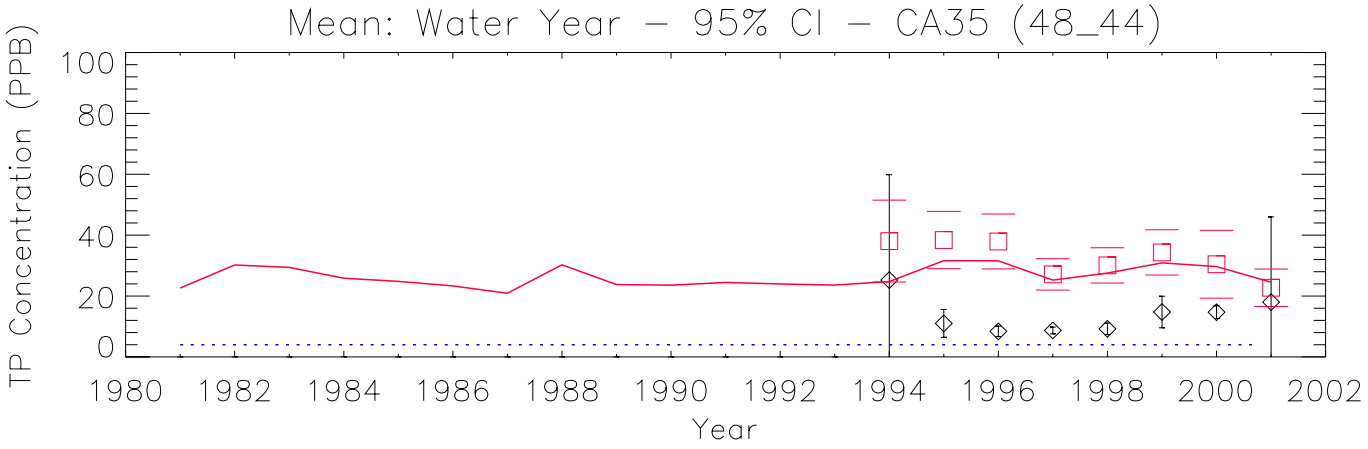
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – CA35 (48_44)
TP Concentration (PPB)
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40
20
0
1980
1982
1984
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1994
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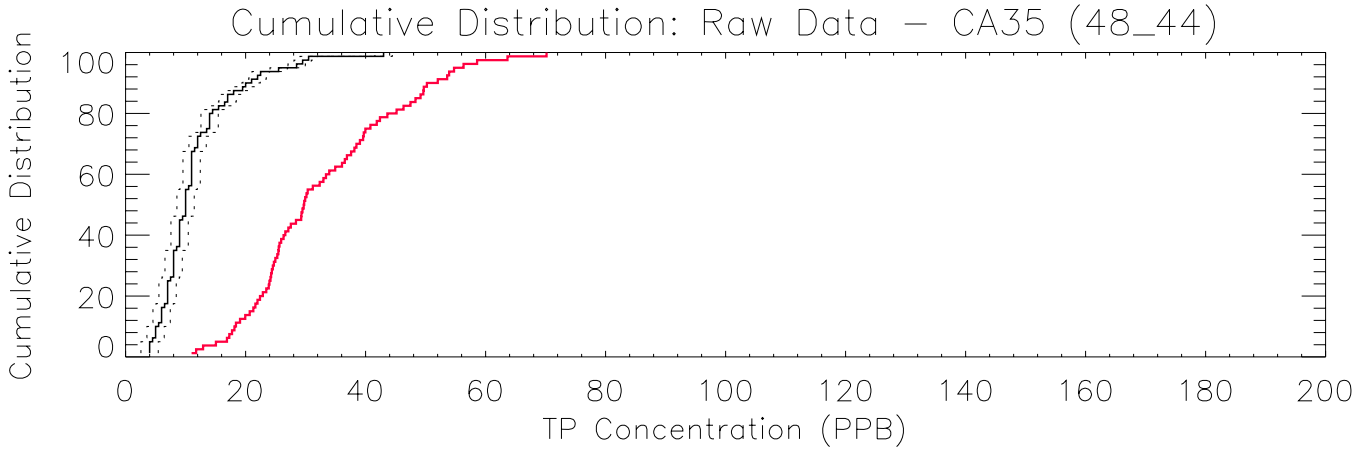
1998
2000
2002
Year


Cumulative Distribution: Raw Data – CA35 (48_44)
Cumulative Distribution
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80
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20
0
0
20
40
60
80
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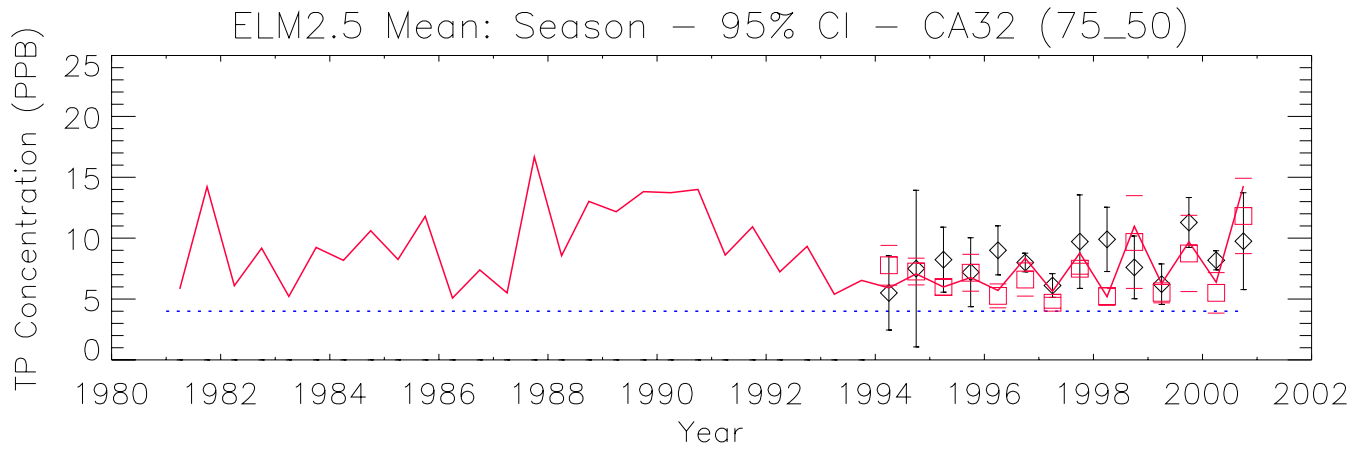
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – CA32 (75_50)
TP Concentration (PPB)
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20
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1982
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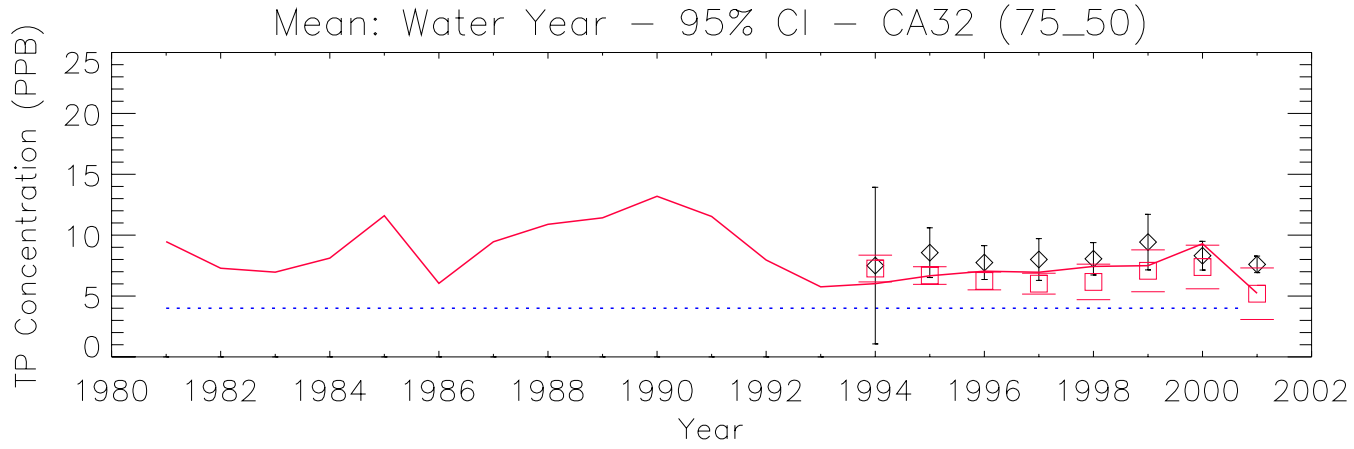
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – CA32 (75_50)
TP Concentration (PPB)
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20
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1980
1982
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1992
1994
1996
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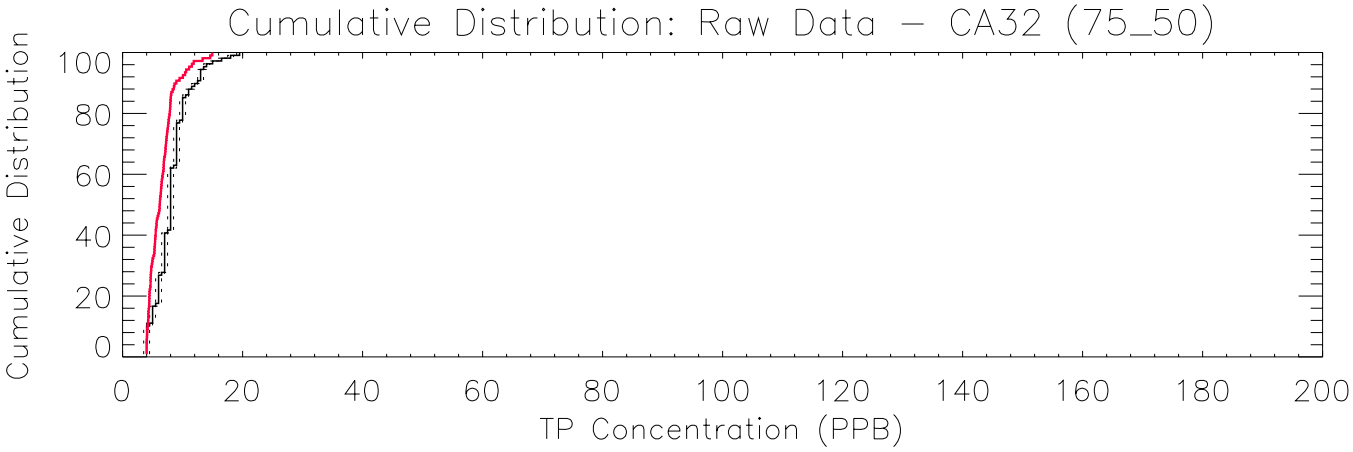
2000
2002
Year


Cumulative Distribution: Raw Data – CA32 (75_50)
Cumulative Distribution
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100
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20
40
60
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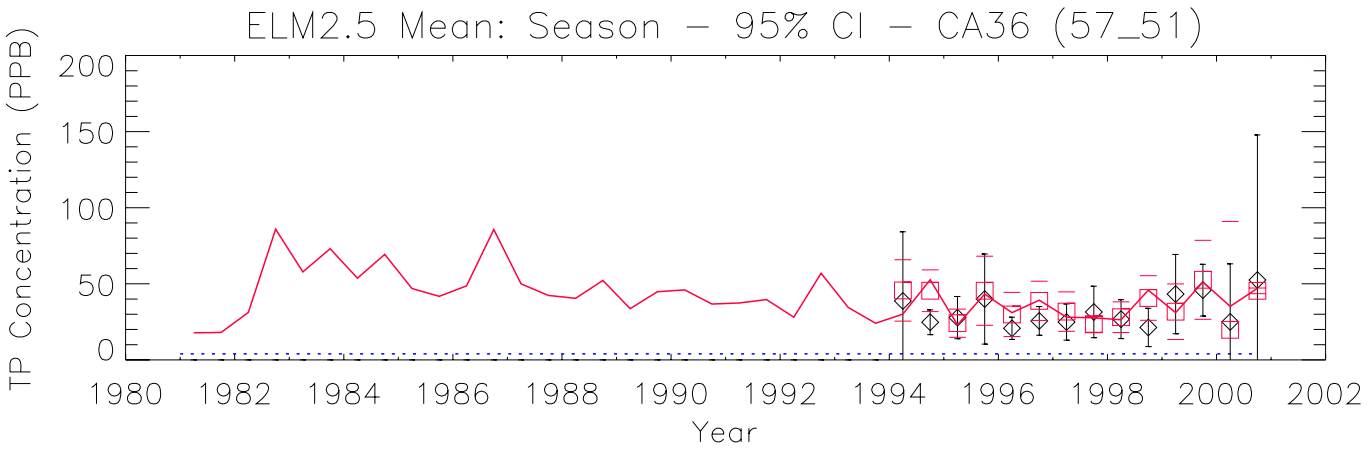
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – CA36 (57_51)
TP Concentration (PPB)
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50
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1982
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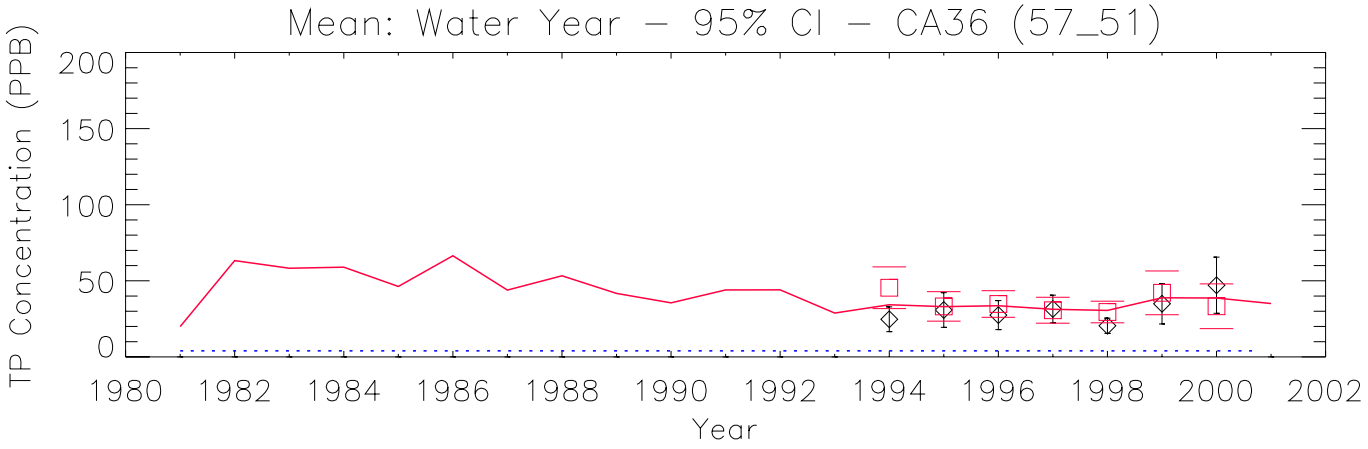
2002
Year


Mean: Water Year – 95% CI – CA36 (57_51)
TP Concentration (PPB)
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1982
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1998
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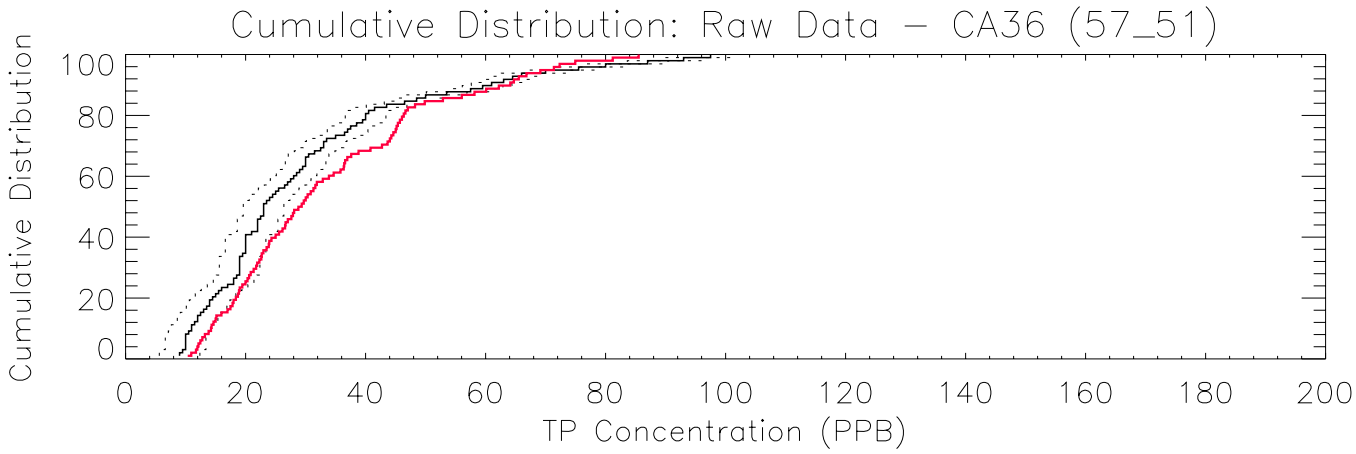
2002
Year


Cumulative Distribution: Raw Data – CA36 (57_51)
Cumulative Distribution
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0
20
40
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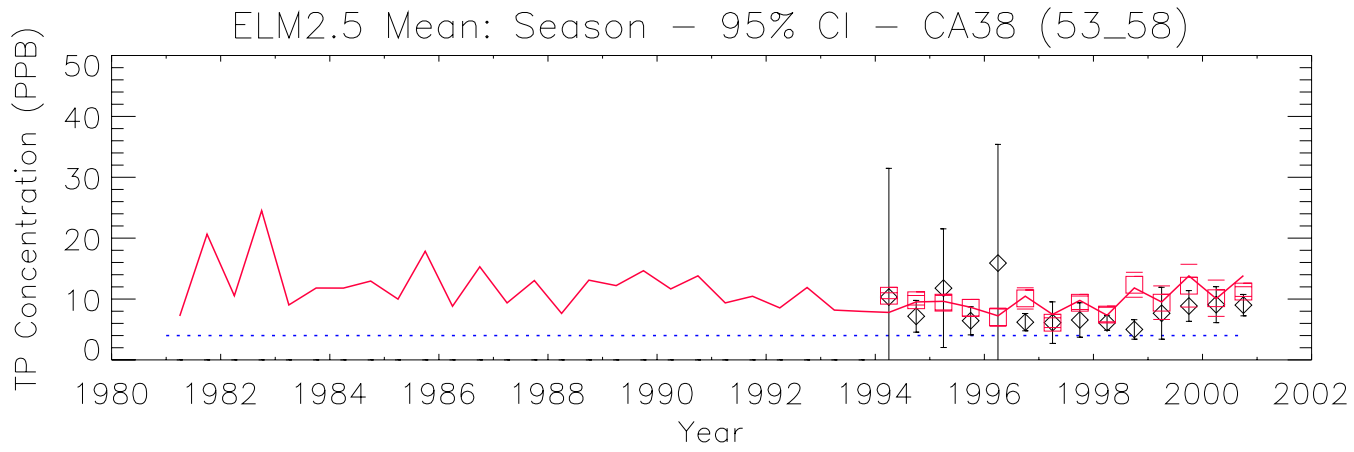
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – CA38 (53_58)
TP Concentration (PPB)
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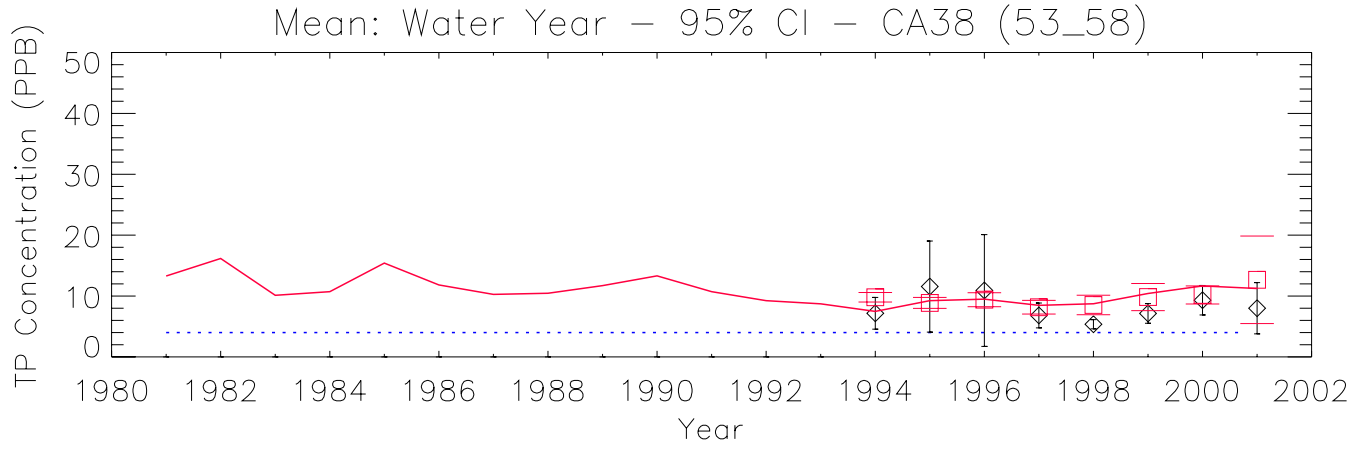
2002
Year


Mean: Water Year – 95% CI – CA38 (53_58)
TP Concentration (PPB)
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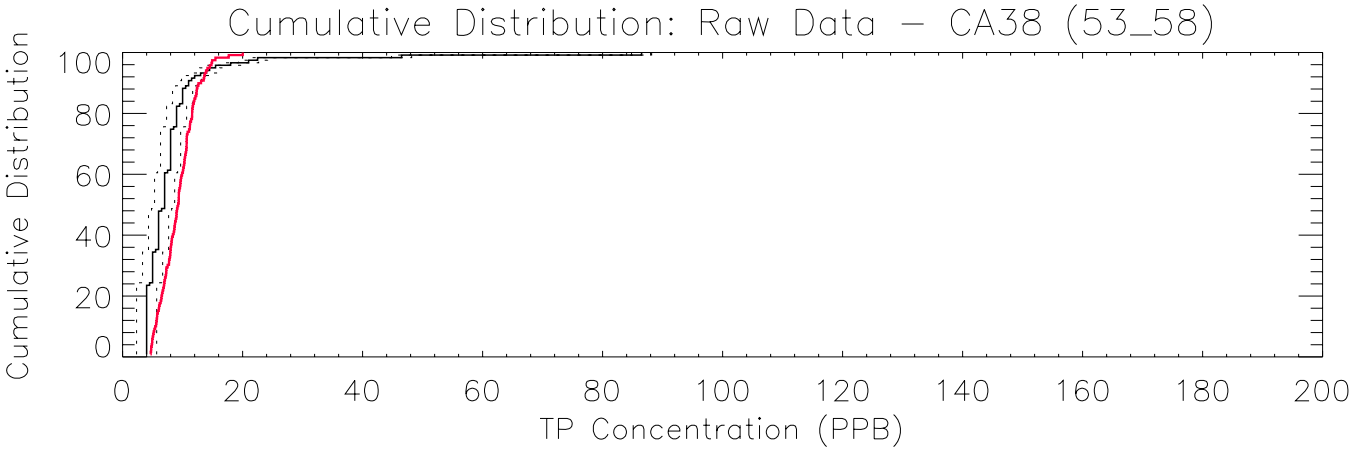
Year


Cumulative Distribution: Raw Data – CA38 (53_58)
Cumulative Distribution
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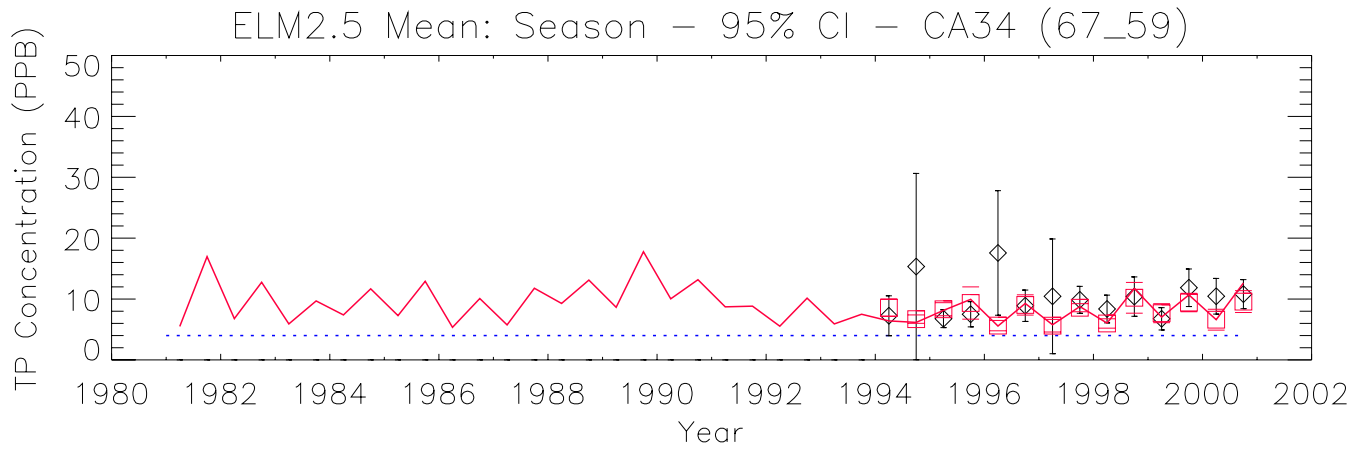
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – CA34 (67_59)
TP Concentration (PPB)
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1998
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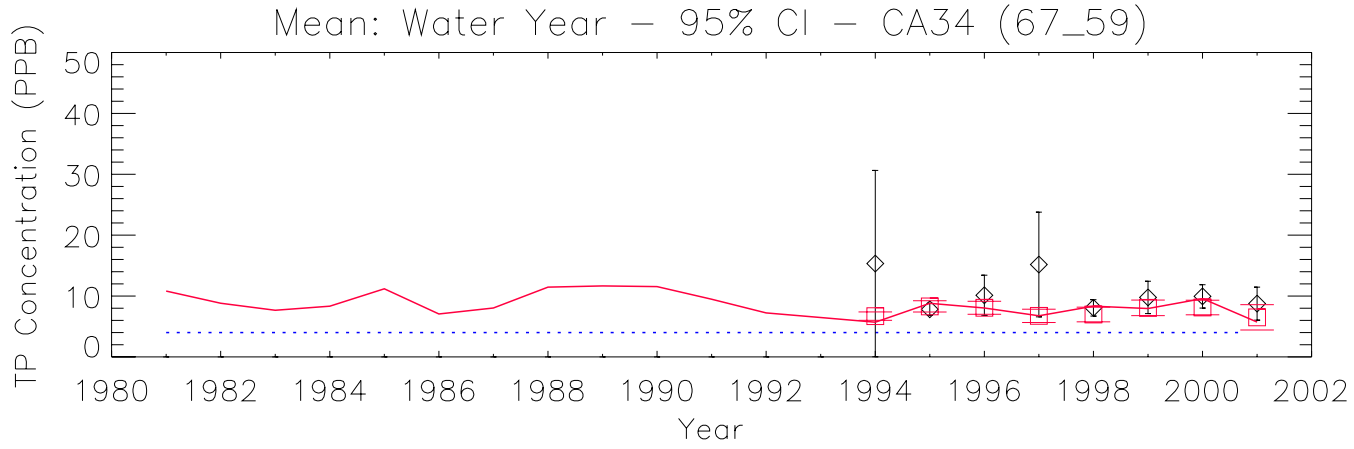
2002
Year


Mean: Water Year – 95% CI – CA34 (67_59)
TP Concentration (PPB)
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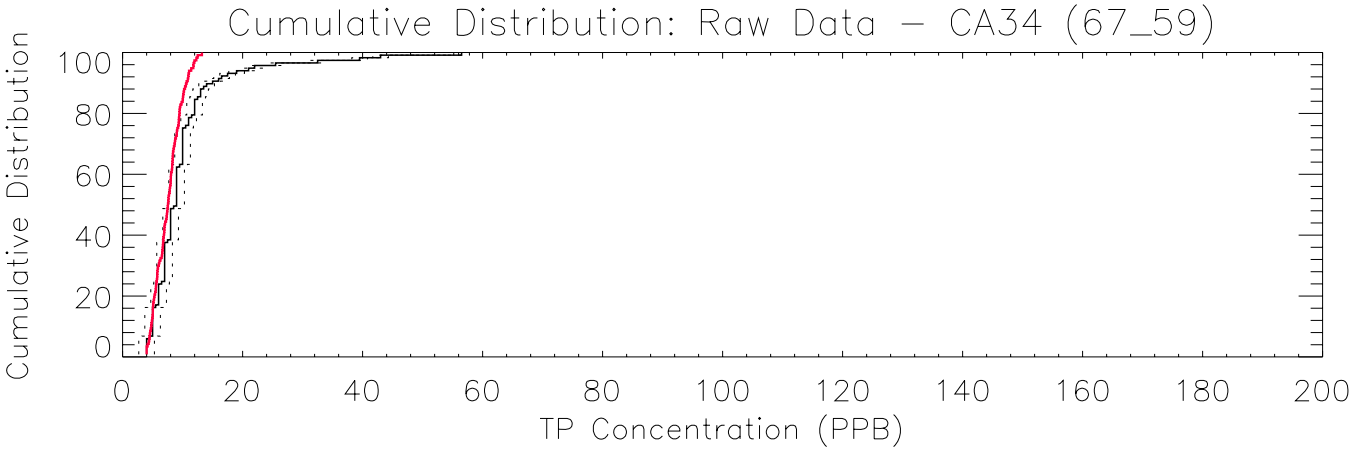
2000
2002
Year


Cumulative Distribution: Raw Data – CA34 (67_59)
Cumulative Distribution
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100
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20
40
60
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120
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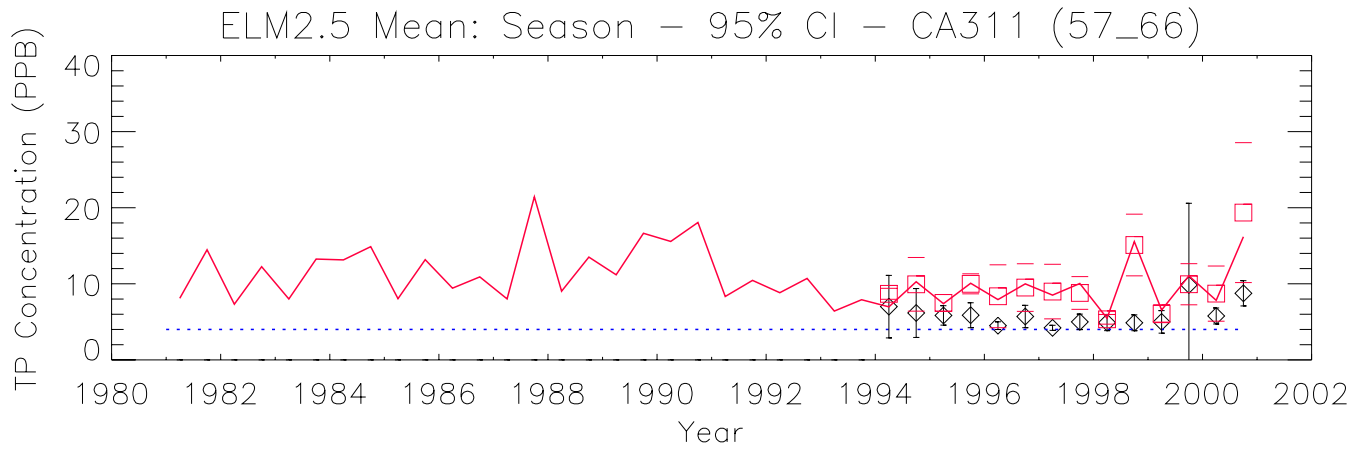
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – CA311 (57_66)
TP Concentration (PPB)
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1998
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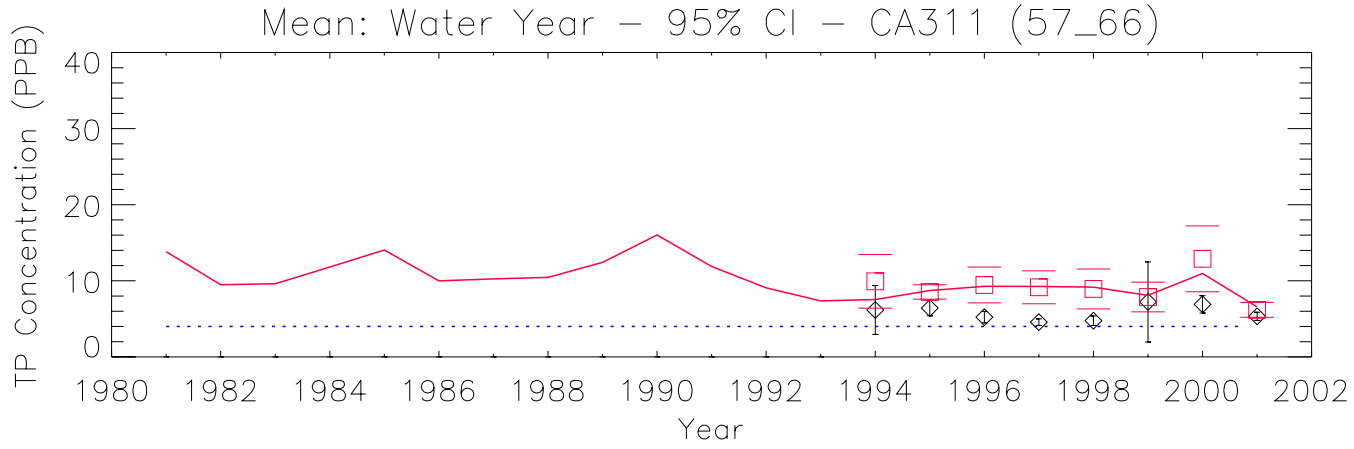
2002
Year


Mean: Water Year – 95% CI – CA311 (57_66)
TP Concentration (PPB)
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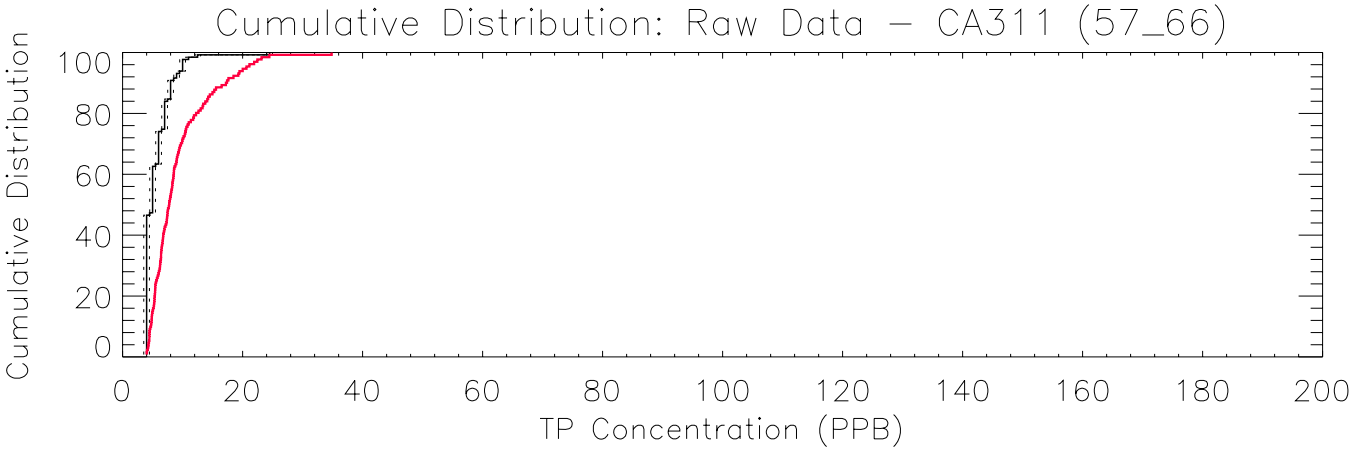
2002
Year


Cumulative Distribution: Raw Data – CA311 (57_66)
Cumulative Distribution
0
20
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100
0
20
40
60
80
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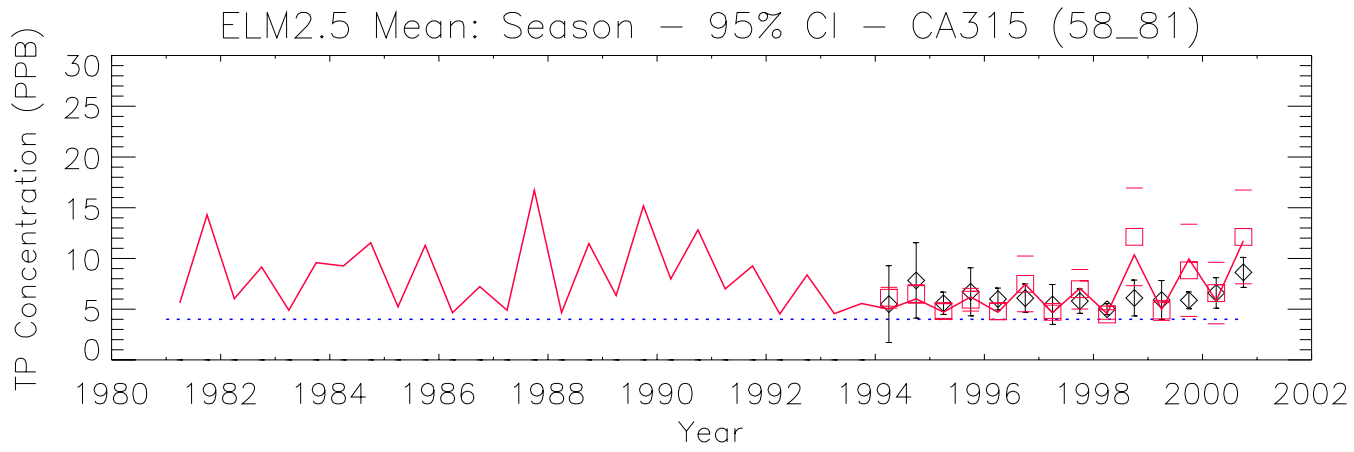
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – CA315 (58_81)
TP Concentration (PPB)
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5
10
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20
25
30
1980
1982
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1990
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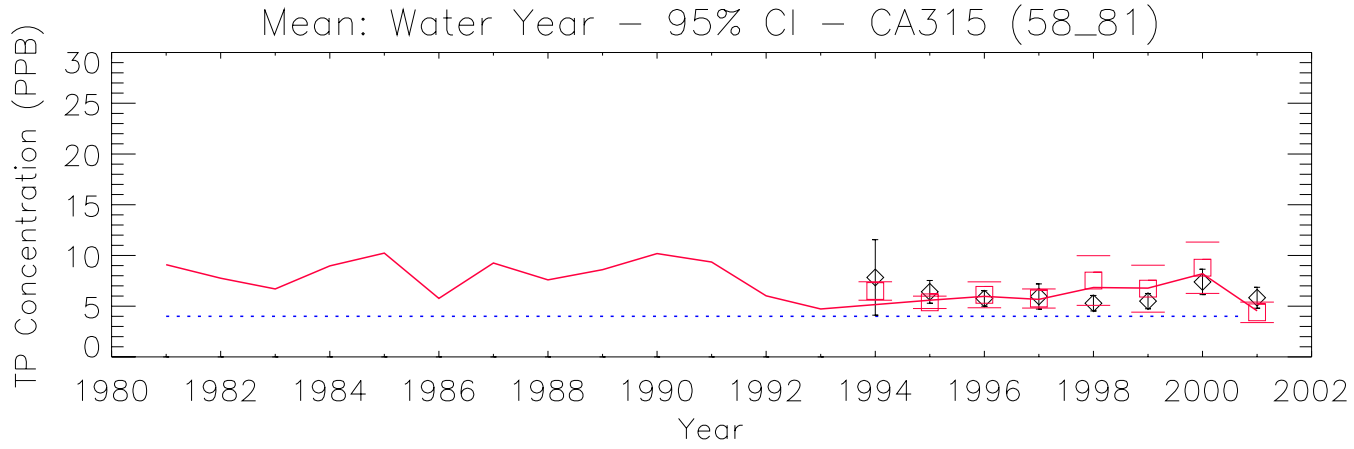
1998
2000
2002
Year


Mean: Water Year – 95% CI – CA315 (58_81)
TP Concentration (PPB)
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20
25
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1980
1982
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1998
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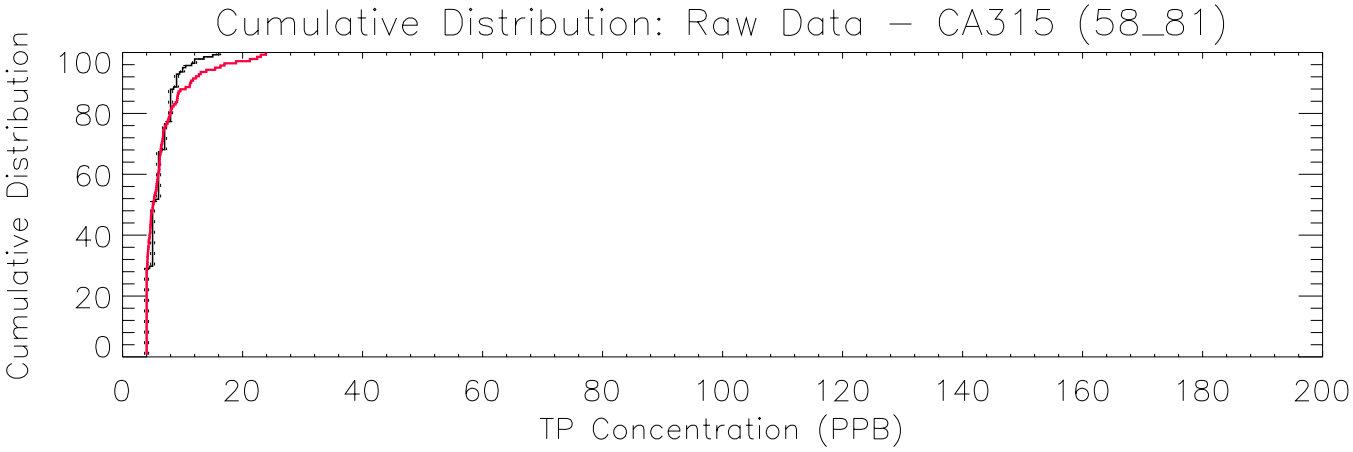
2002
Year


Cumulative Distribution: Raw Data – CA315 (58_81)
Cumulative Distribution
0
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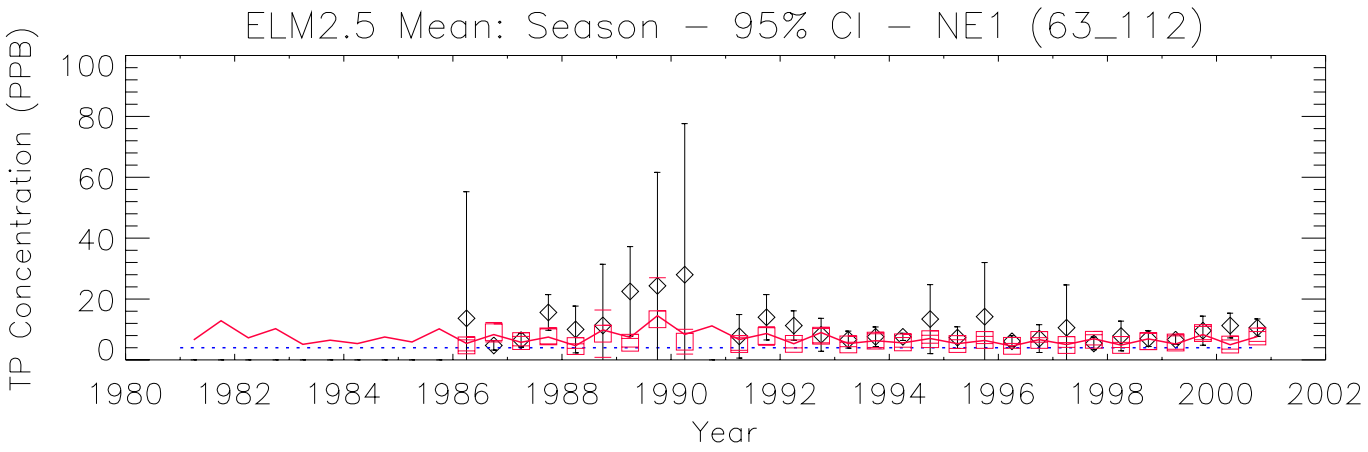
80
100
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – NE1 (63_112)
TP Concentration (PPB)
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40
20
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1982
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1990
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1994
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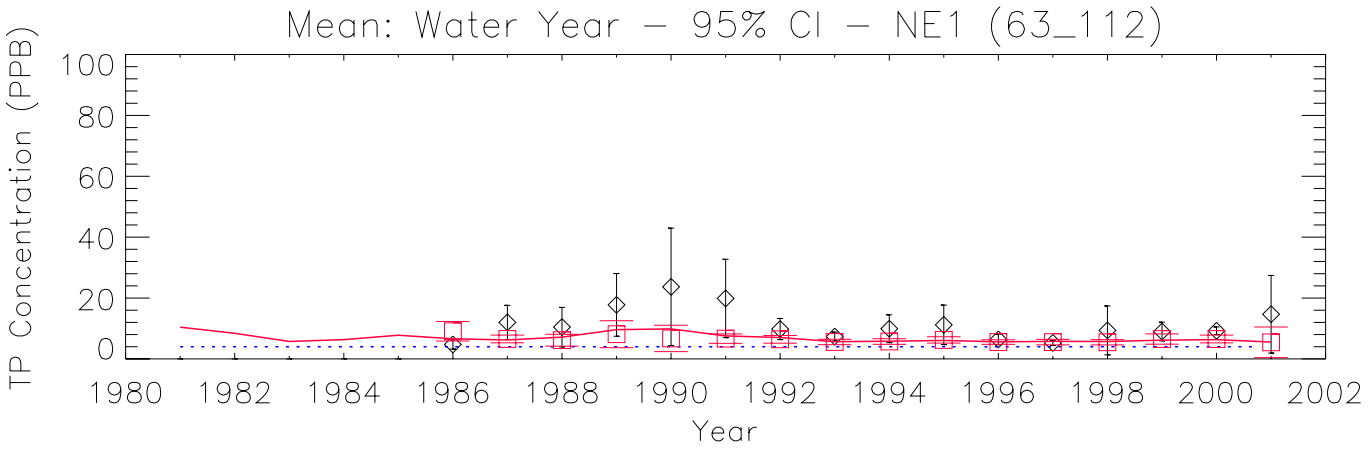
1998
2000
2002
Year


Mean: Water Year – 95% CI – NE1 (63_112)
TP Concentration (PPB)
100
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40
20
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1980
1982
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1986
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1990
1992
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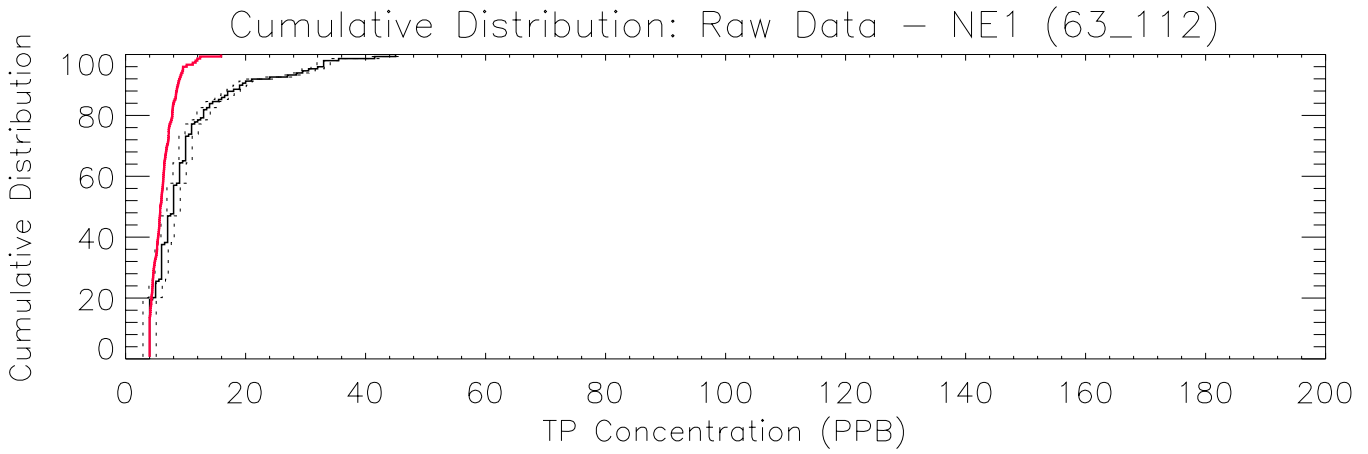
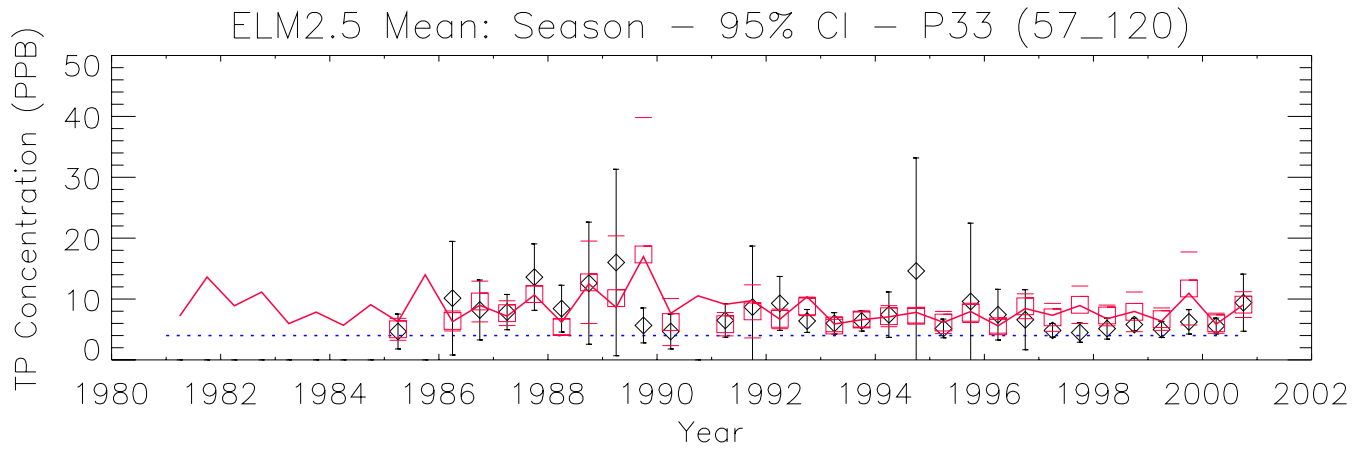
1998
2000
2002
Year


Cumulative Distribution: Raw Data – NE1 (63_112)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – P33 (57_120)
TP Concentration (PPB)
0
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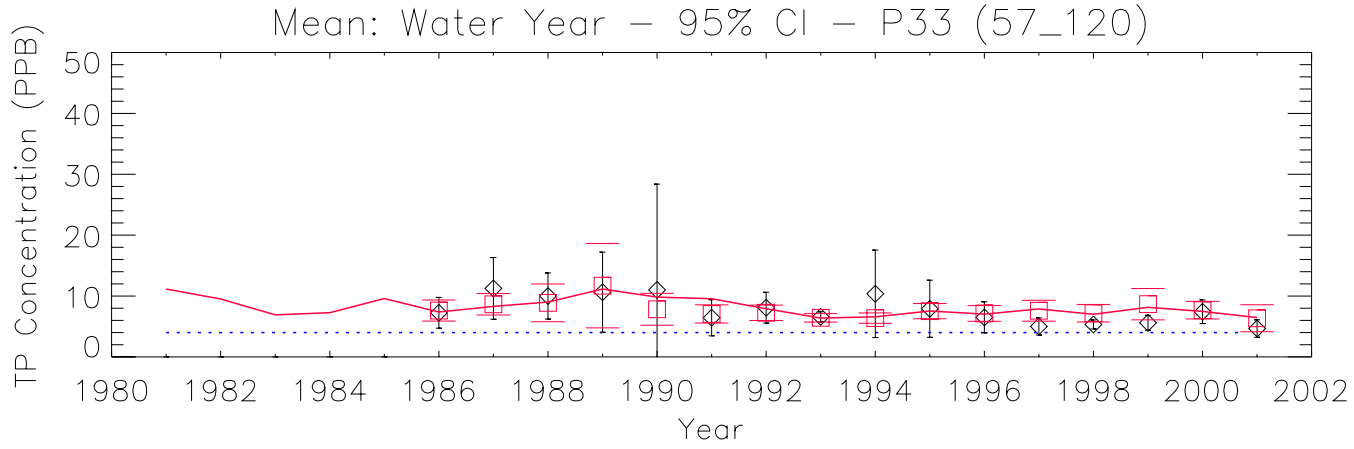
30
40
50
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – P33 (57_120)
TP Concentration (PPB)
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1980
1982
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1994
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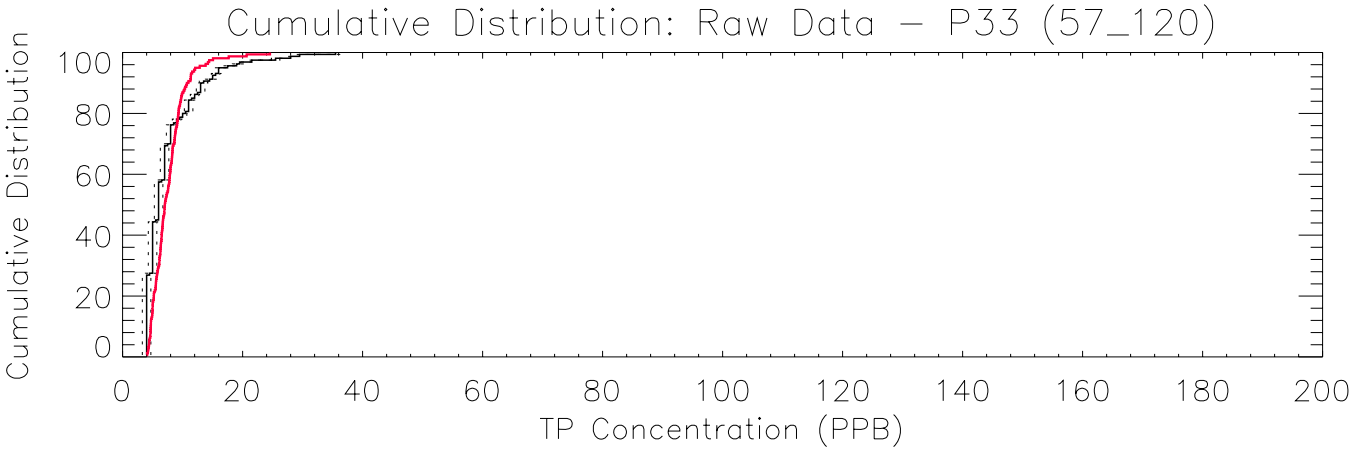
1998
2000
2002
Year


Cumulative Distribution: Raw Data – P33 (57_120)
Cumulative Distribution
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20
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80
100
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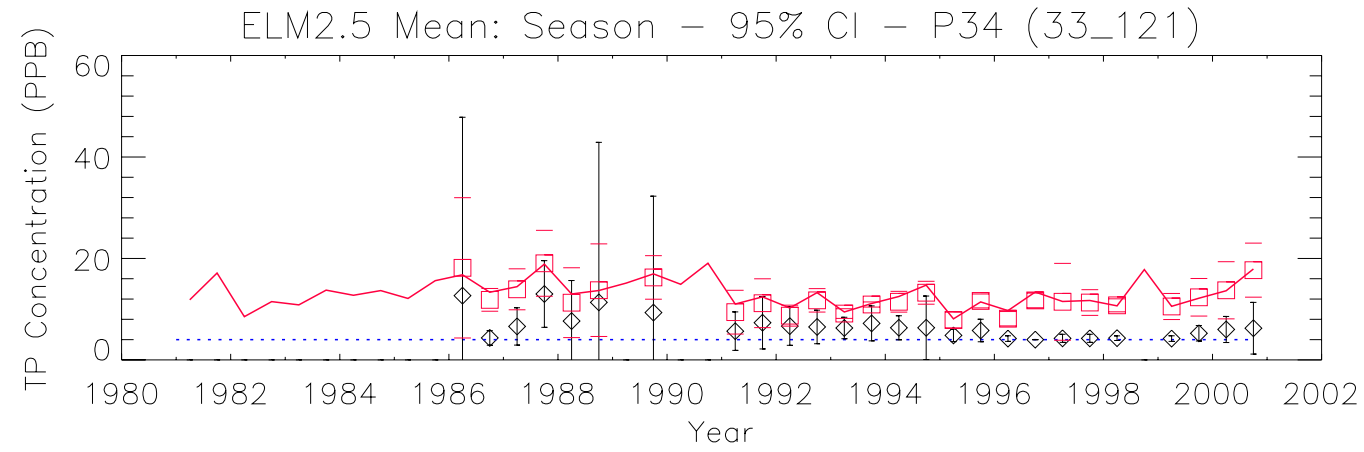
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – P34 (33_121)
TP Concentration (PPB)
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20
40
60
1980
1982
1984
1986
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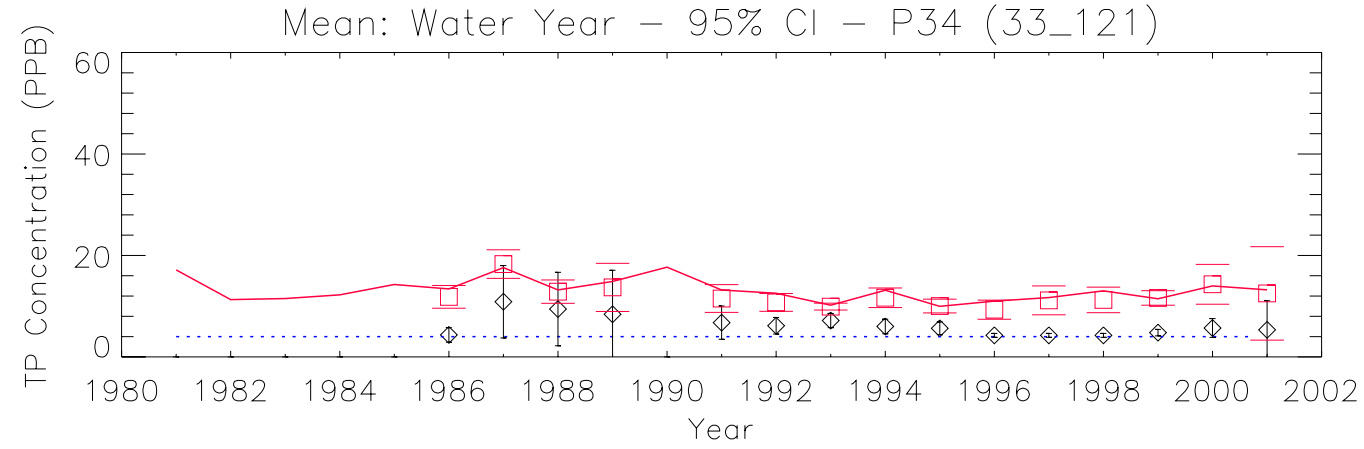
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – P34 (33_121)
TP Concentration (PPB)
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1980
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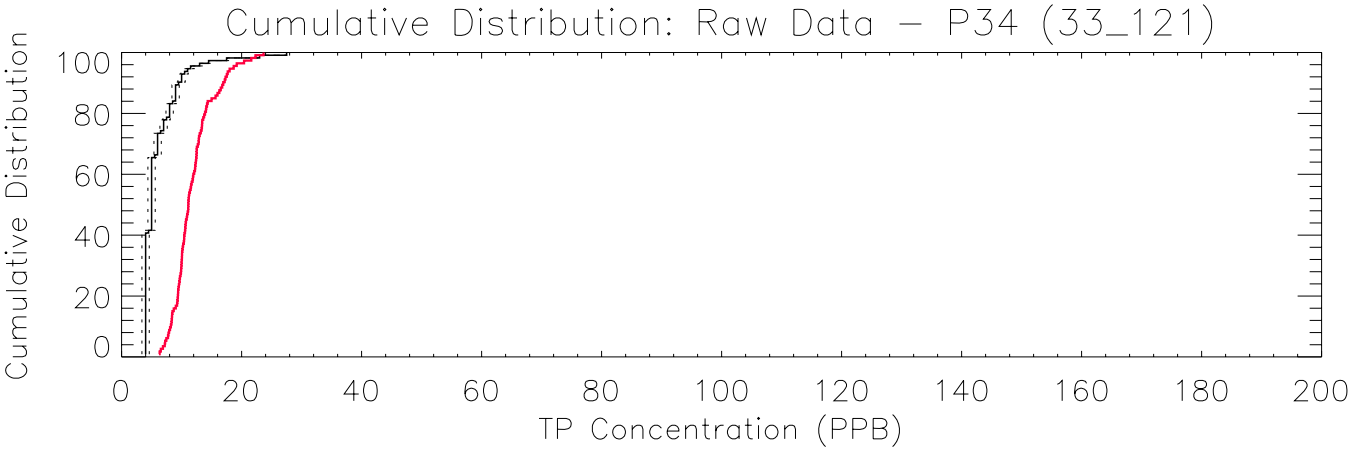
1998
2000
2002
Year


Cumulative Distribution: Raw Data – P34 (33_121)
Cumulative Distribution
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100
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20
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60
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120
140
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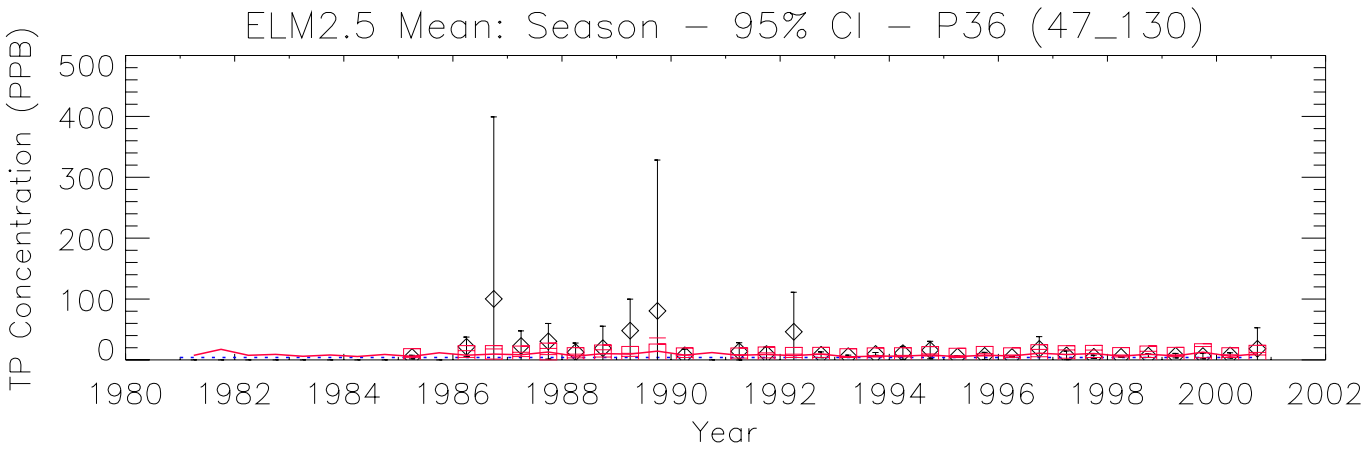
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – P36 (47_130)
TP Concentration (PPB)
500
400
300
200
100
0
1980
1982
1984
1986
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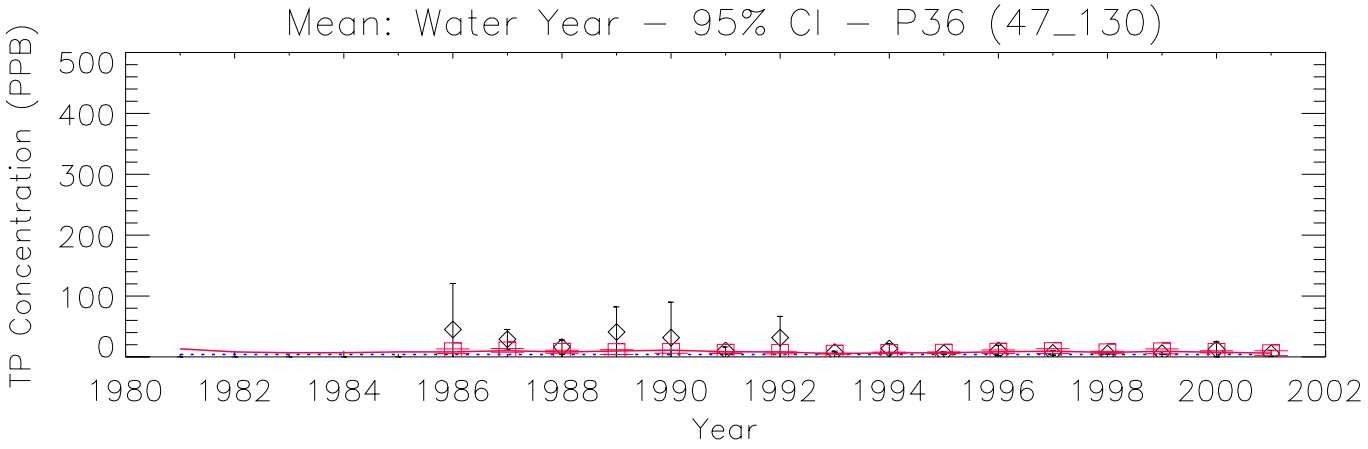
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – P36 (47_130)
TP Concentration (PPB)
500
400
300
200
100
0
1980
1982
1984
1986
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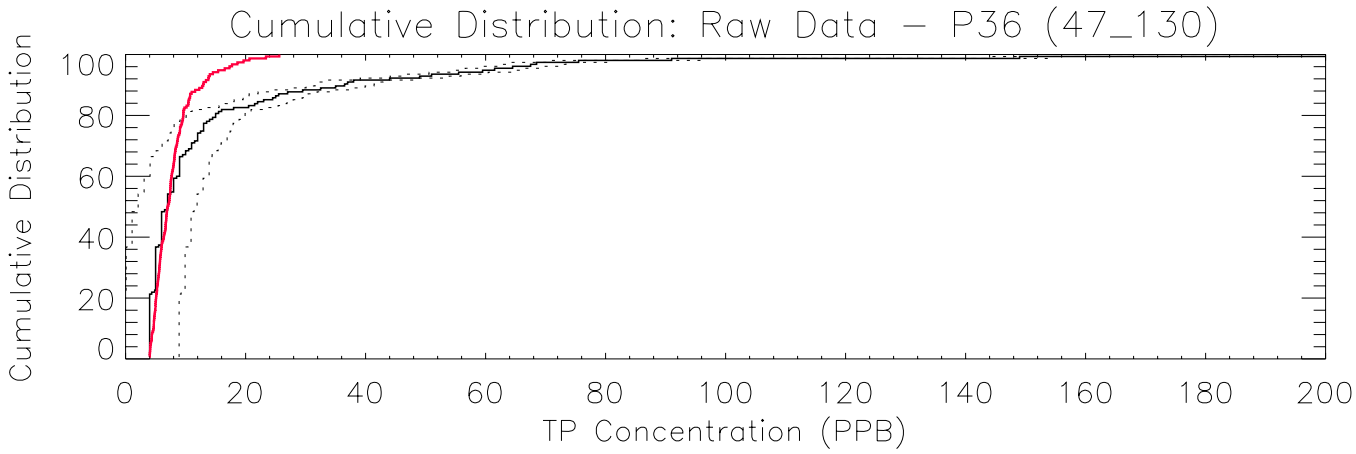
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – P36 (47_130)
Cumulative Distribution
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80
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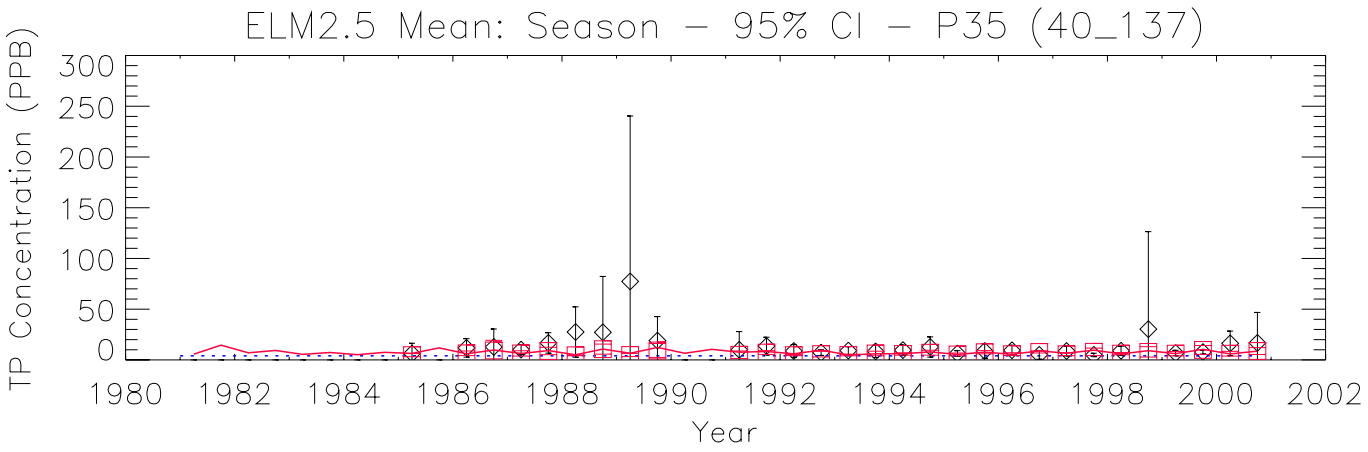
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – P35 (40_137)
TP Concentration (PPB)
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250
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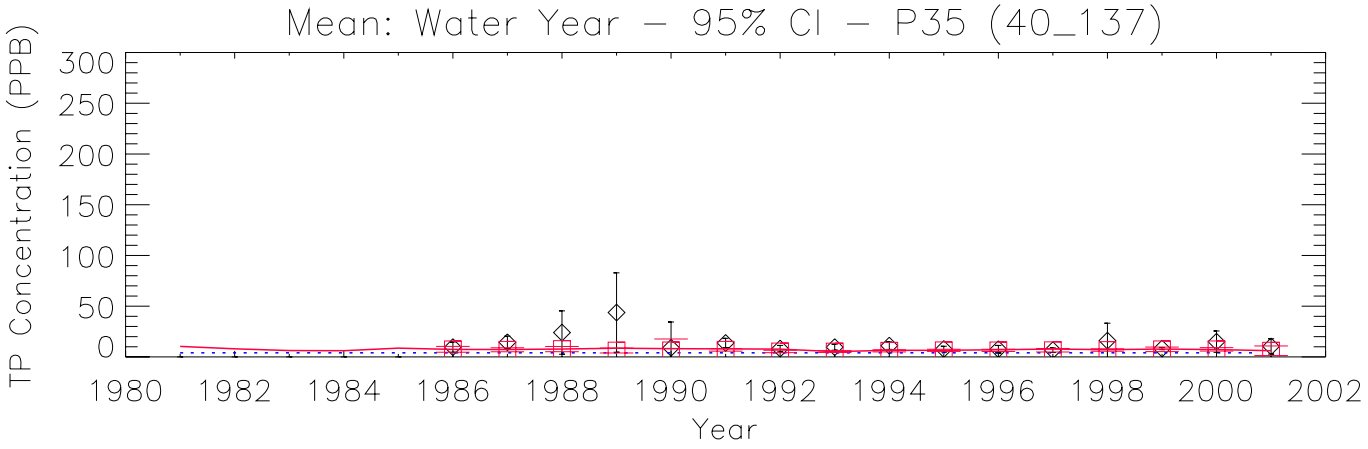
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – P35 (40_137)
TP Concentration (PPB)
300
250
200
150
100
50
0
1980
1982
1984
1986
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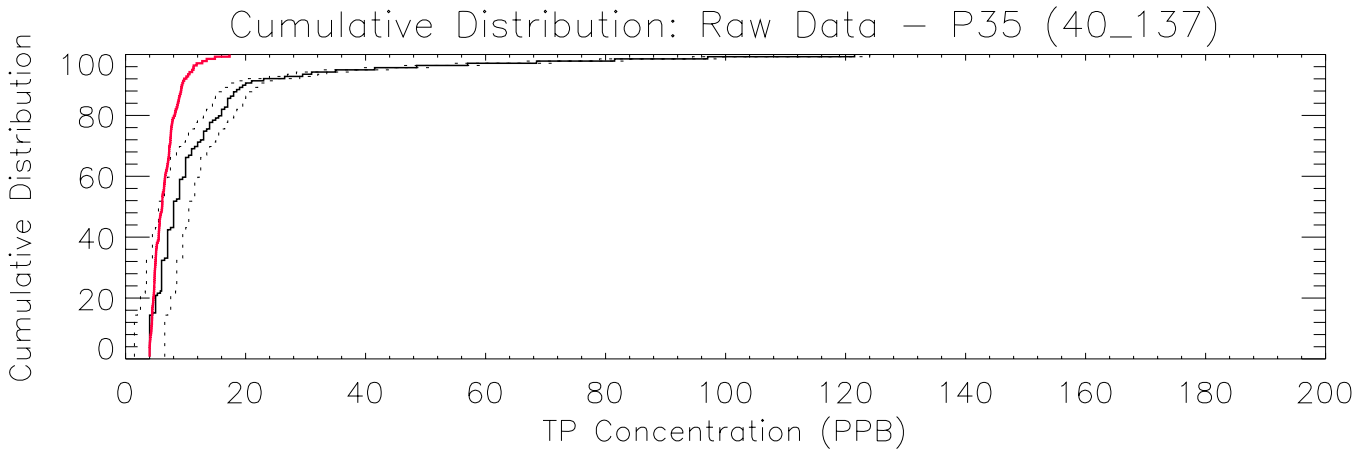
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – P35 (40_137)
Cumulative Distribution
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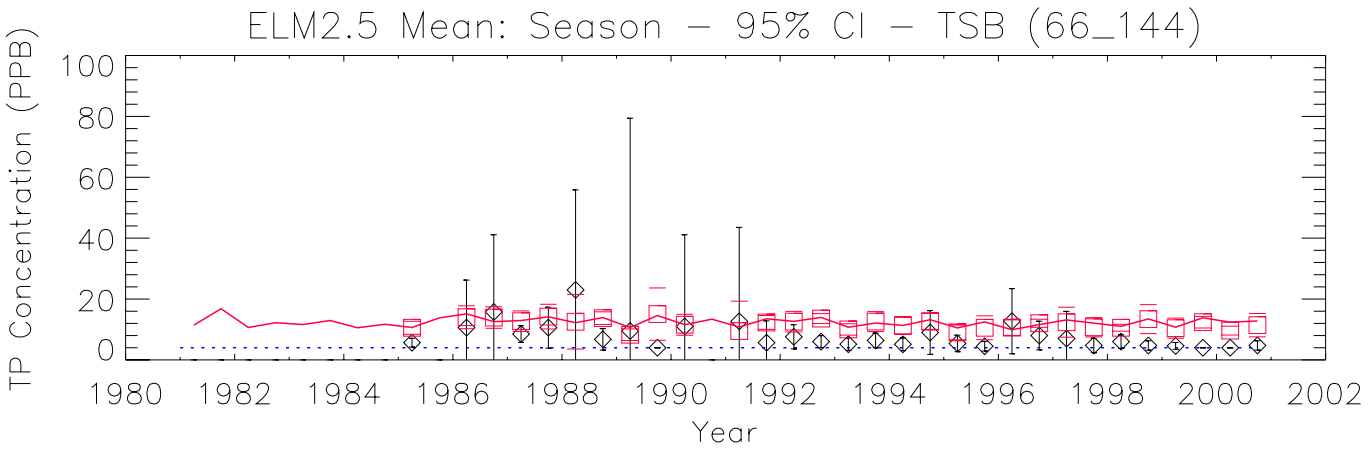
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – TSB (66_144)
TP Concentration (PPB)
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0
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1982
1984
1986
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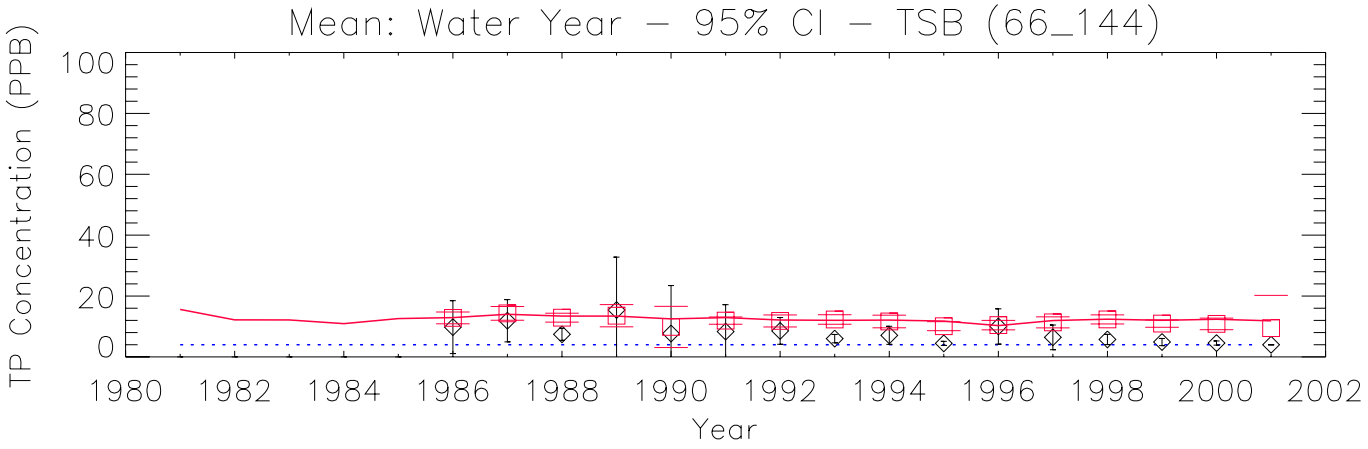
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – TSB (66_144)
TP Concentration (PPB)
100
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40
20
0
1980
1982
1984
1986
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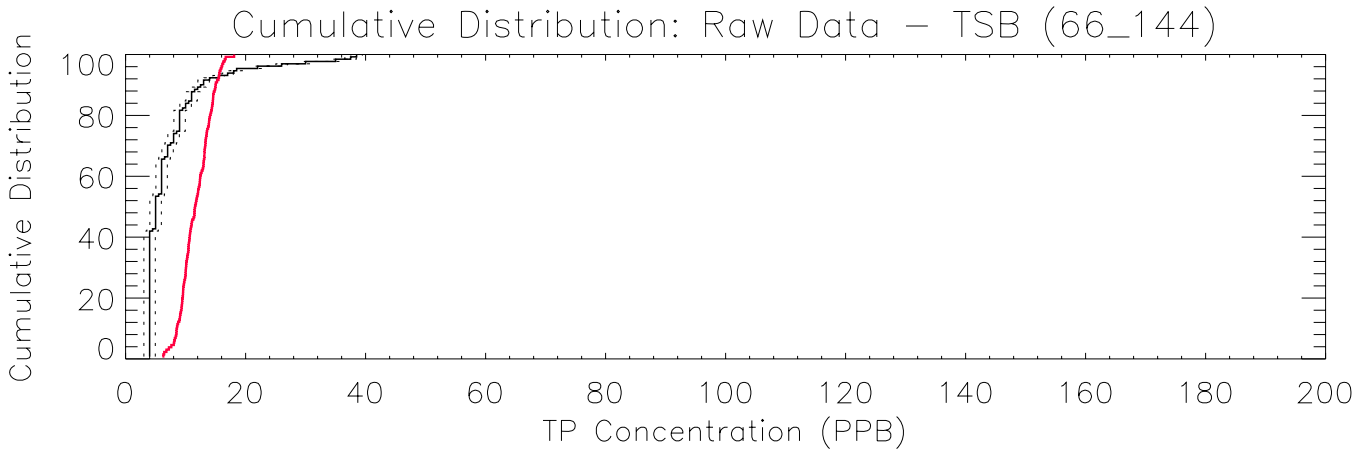
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – TSB (66_144)
Cumulative Distribution
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0
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20
40
60
80
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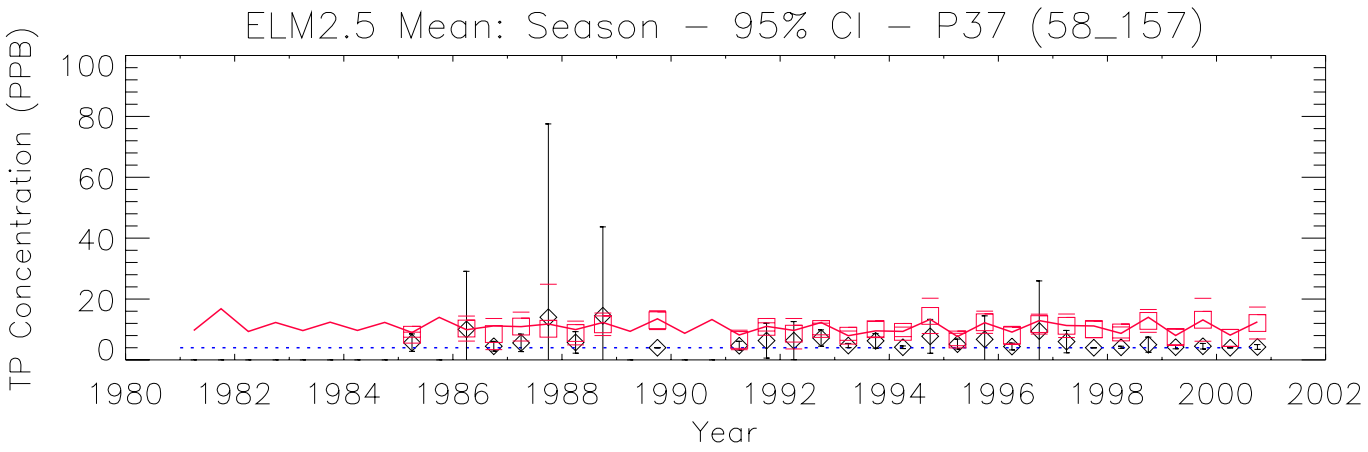
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – P37 (58_157)
TP Concentration (PPB)
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1982
1984
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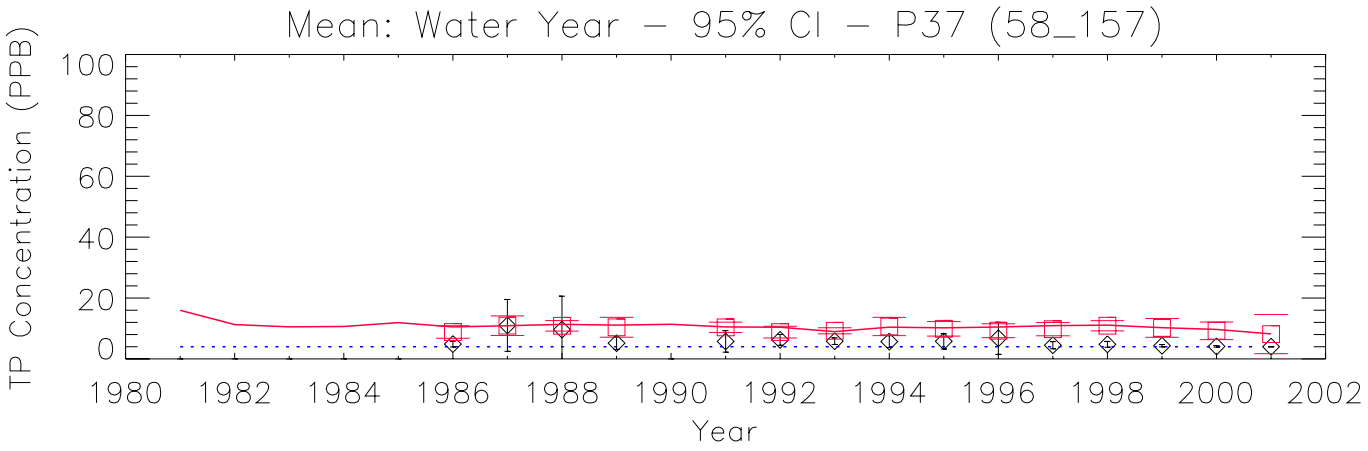
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – P37 (58_157)
TP Concentration (PPB)
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20
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1982
1984
1986
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1990
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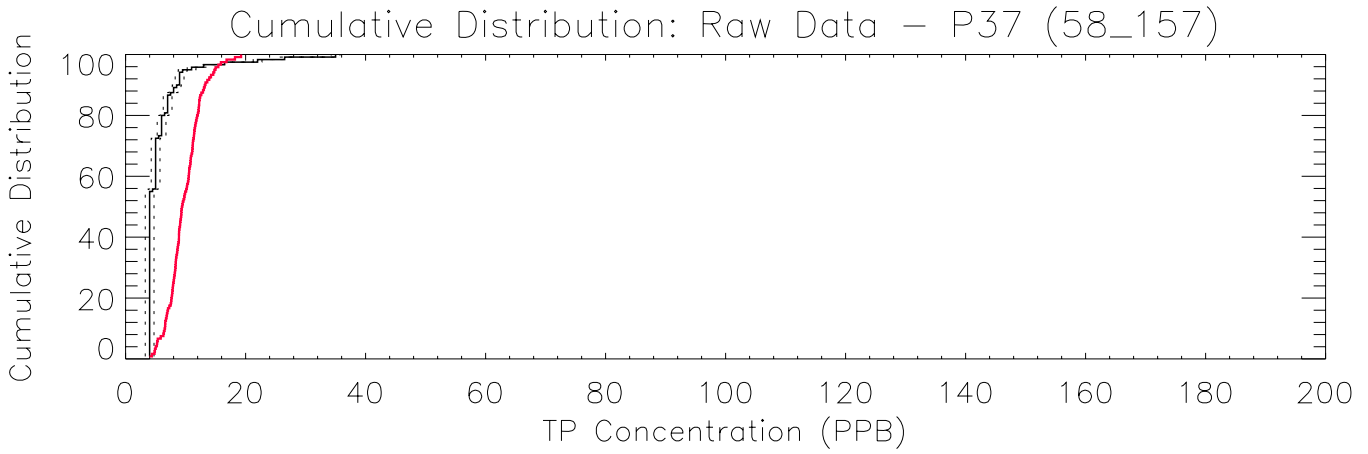
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – P37 (58_157)
Cumulative Distribution
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20
0
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20
40
60
80
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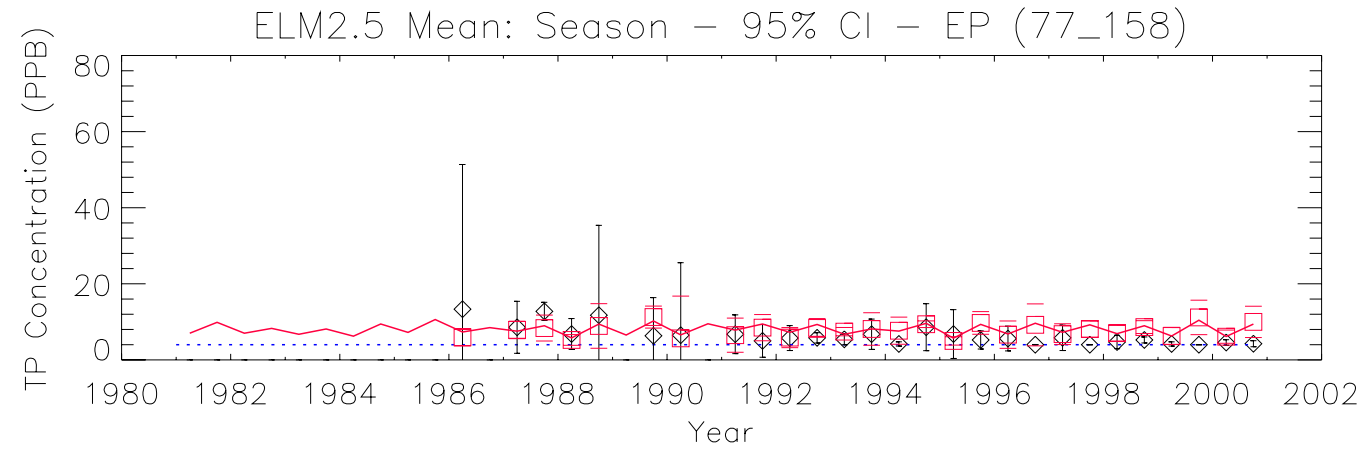
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – EP (77_158)
TP Concentration (PPB)
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40
60
80
1980
1982
1984
1986
1988
1990
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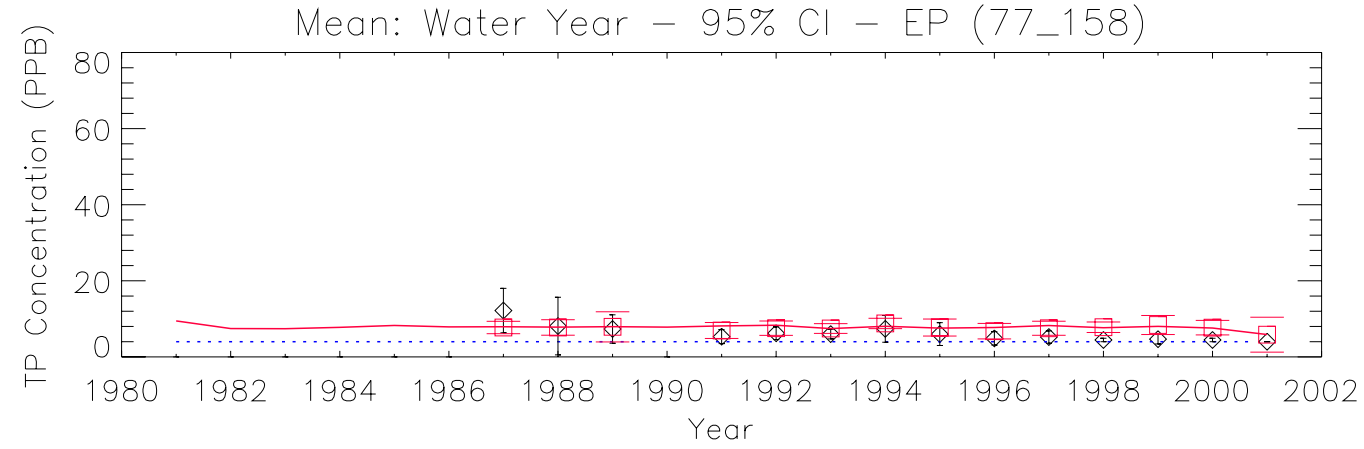
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – EP (77_158)
TP Concentration (PPB)
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1980
1982
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1990
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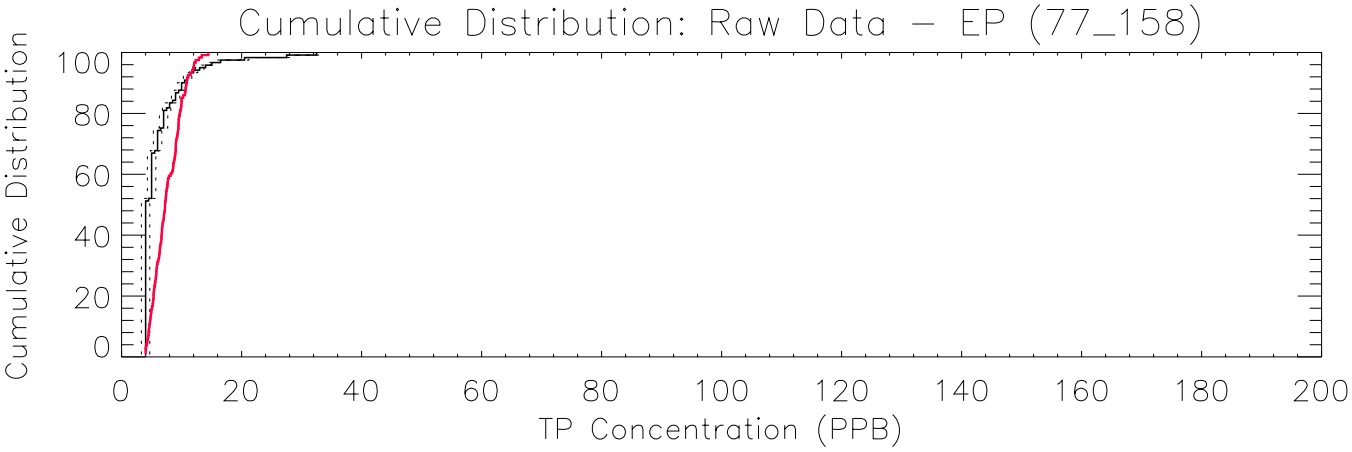
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – EP (77_158)
Cumulative Distribution
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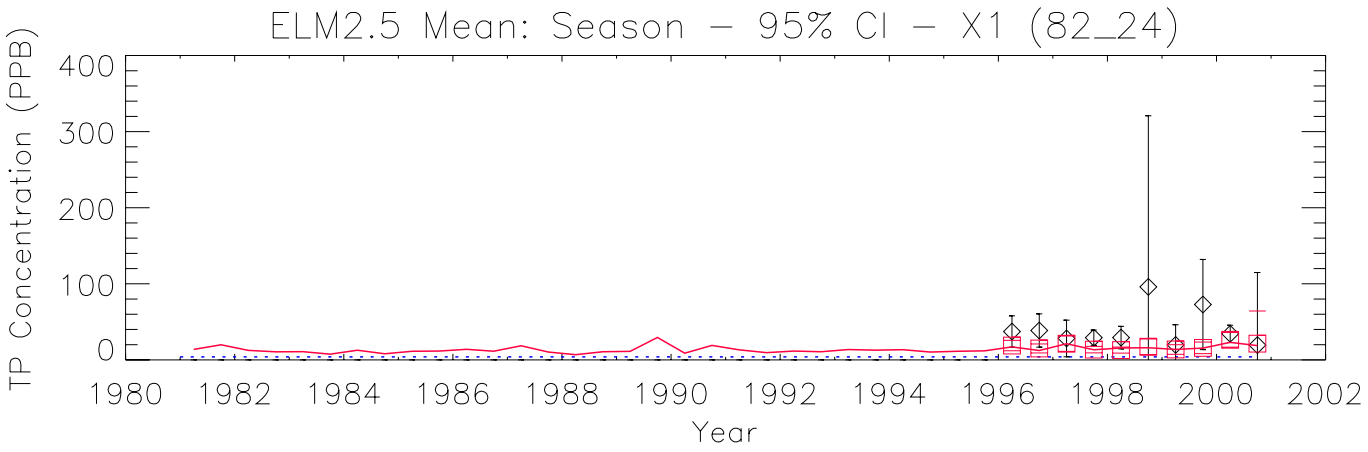
80
100
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – X1 (82_24)
TP Concentration (PPB)
400
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200
100
0
1980
1982
1984
1986
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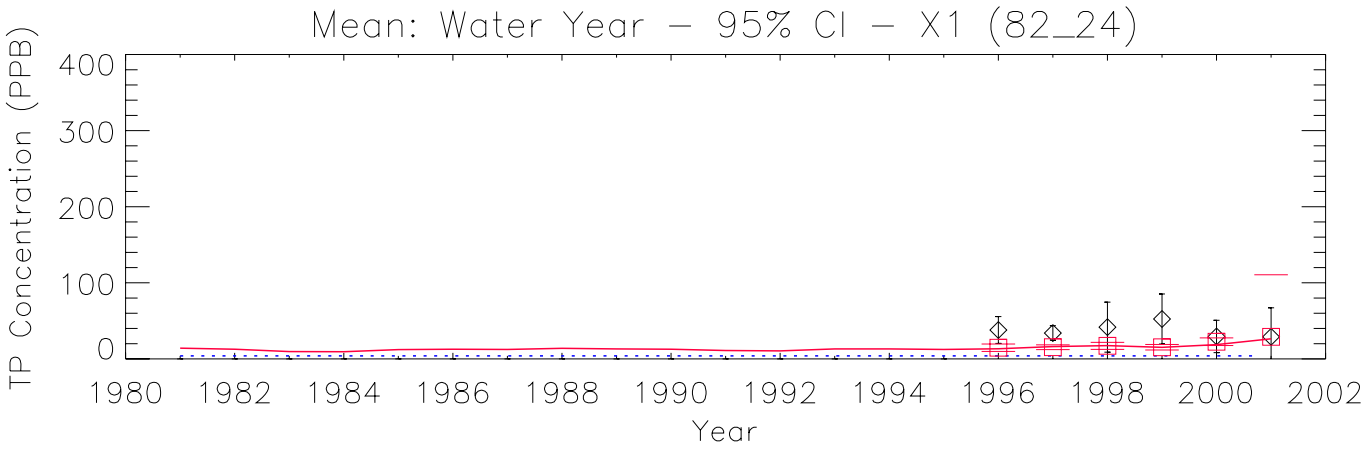
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – X1 (82_24)
TP Concentration (PPB)
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200
100
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1980
1982
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1990
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1994
1996
1998
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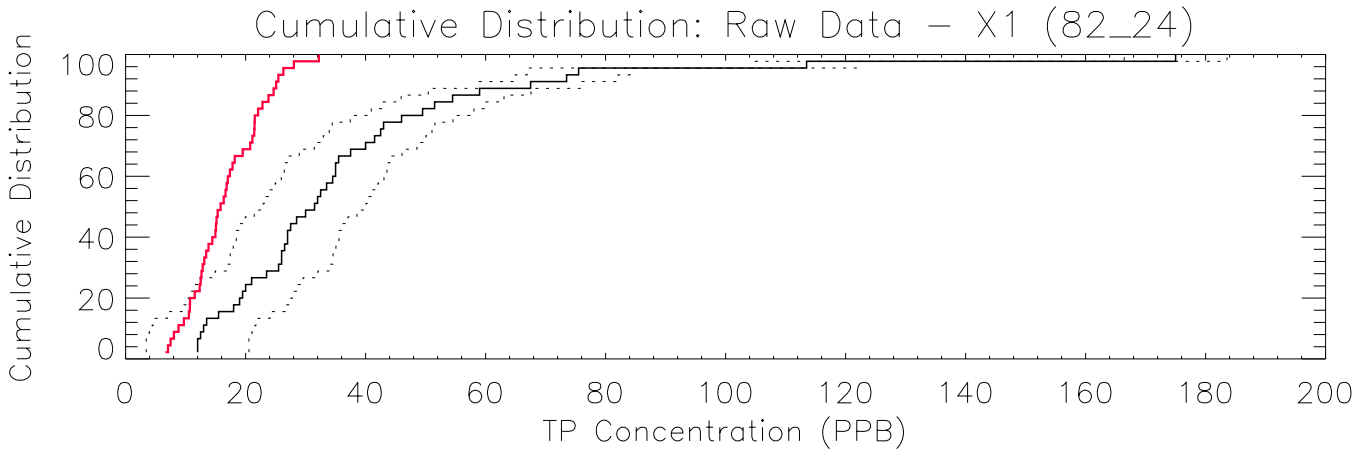
2002
Year


Cumulative Distribution: Raw Data – X1 (82_24)
Cumulative Distribution
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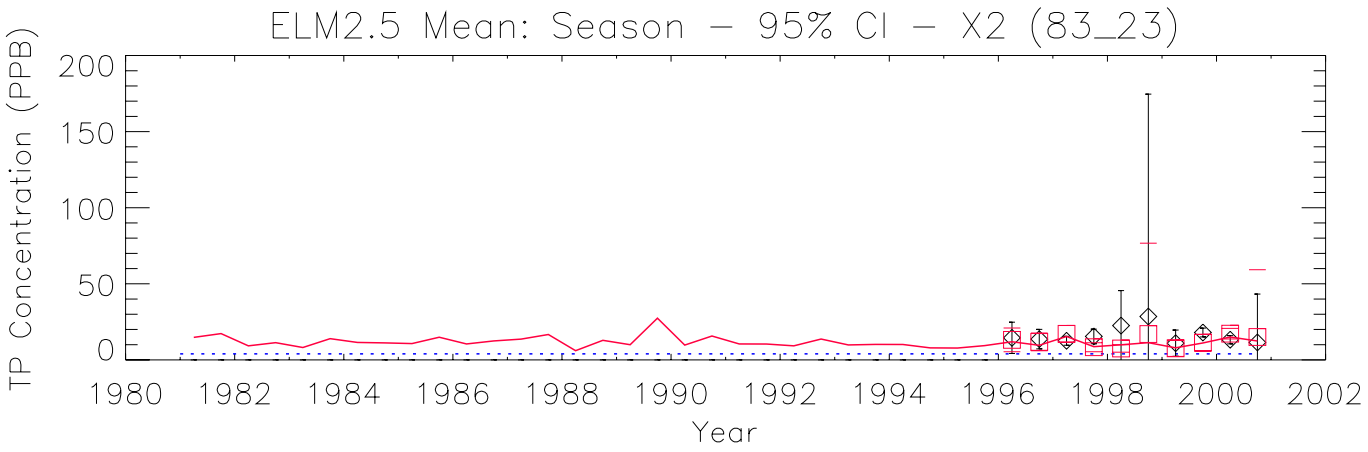
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – X2 (83_23)
TP Concentration (PPB)
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100
50
0
1980
1982
1984
1986
1988
1990
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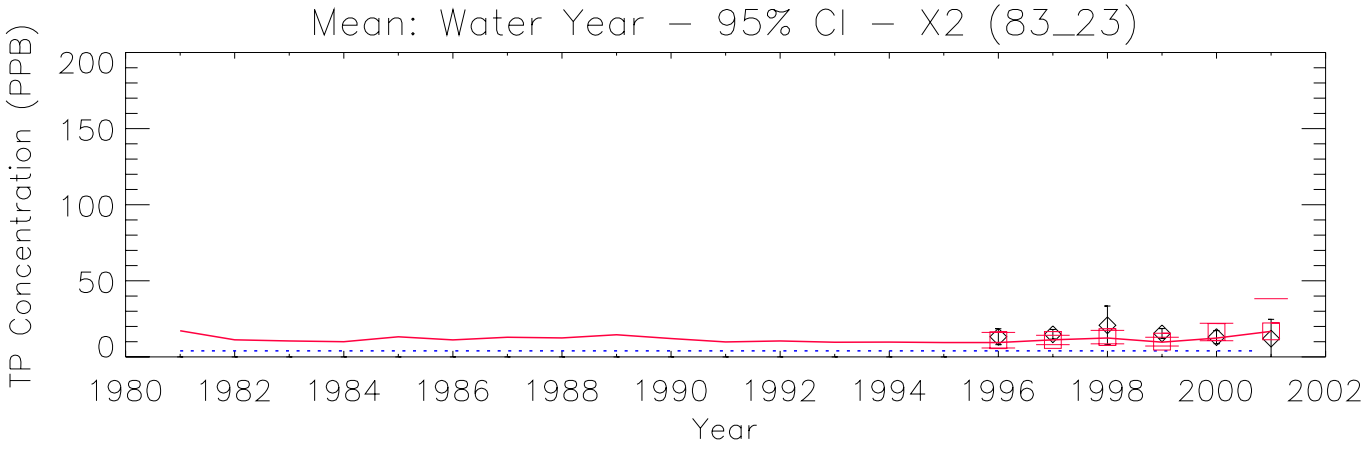
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – X2 (83_23)
TP Concentration (PPB)
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50
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1980
1982
1984
1986
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1990
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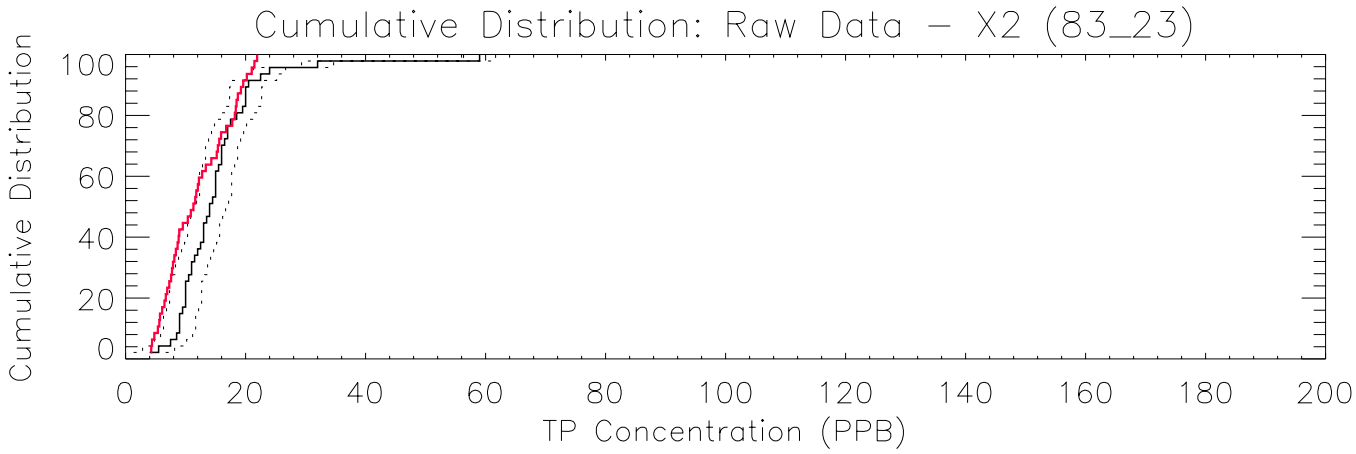
1998
2000
2002
Year


Cumulative Distribution: Raw Data – X2 (83_23)
Cumulative Distribution
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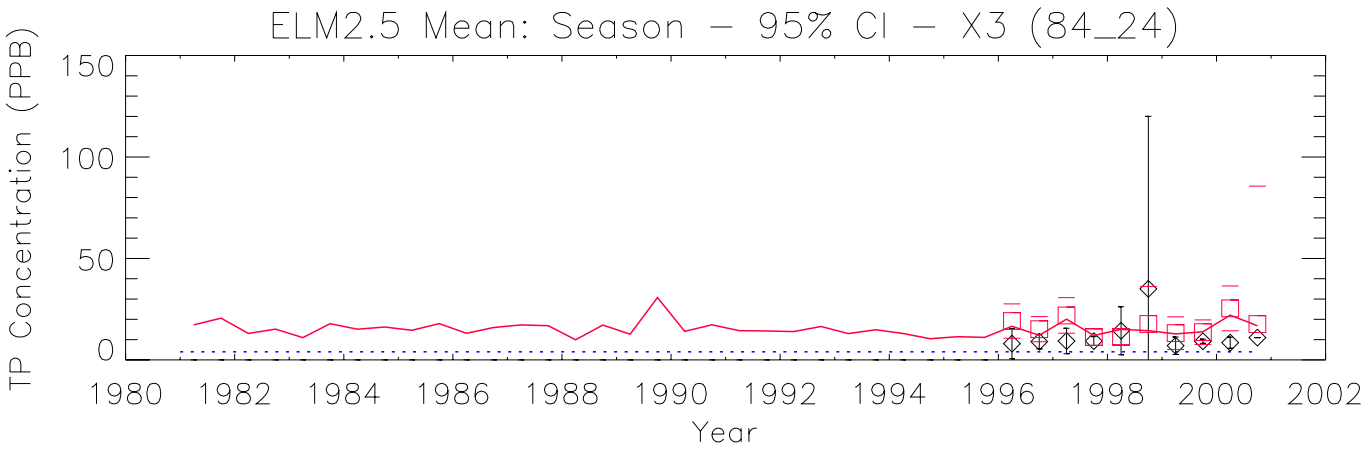
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – X3 (84_24)
TP Concentration (PPB)
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100
50
0
1980
1982
1984
1986
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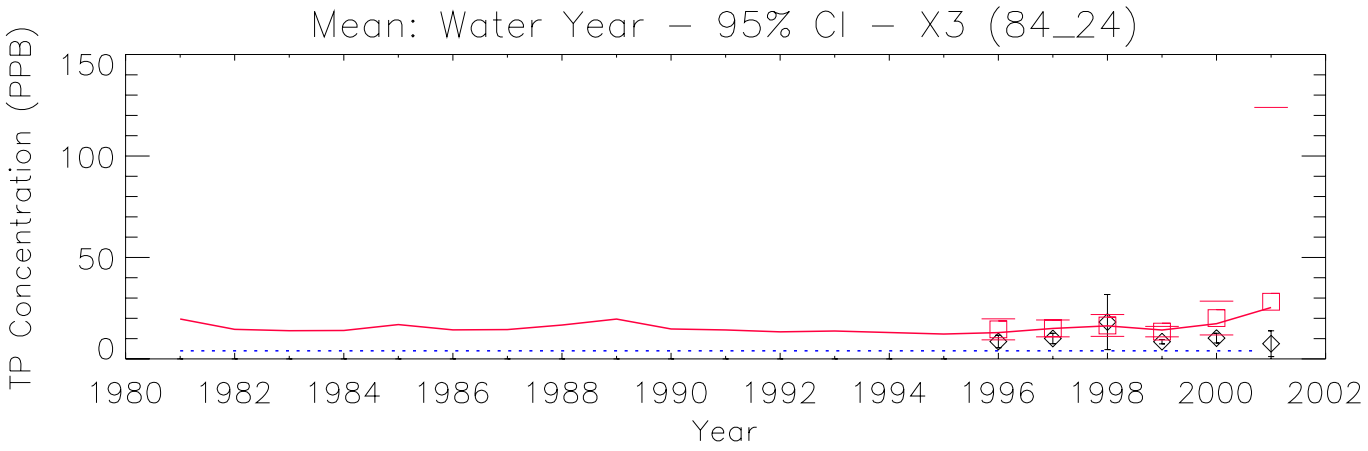
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – X3 (84_24)
TP Concentration (PPB)
150
100
50
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1980
1982
1984
1986
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1990
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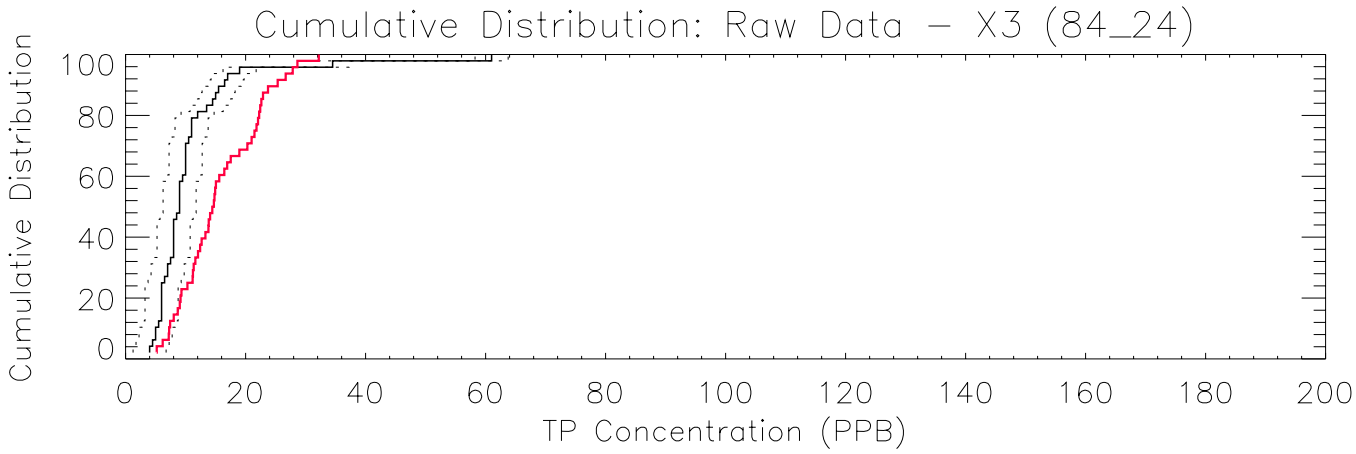
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – X3 (84_24)
Cumulative Distribution
100
80
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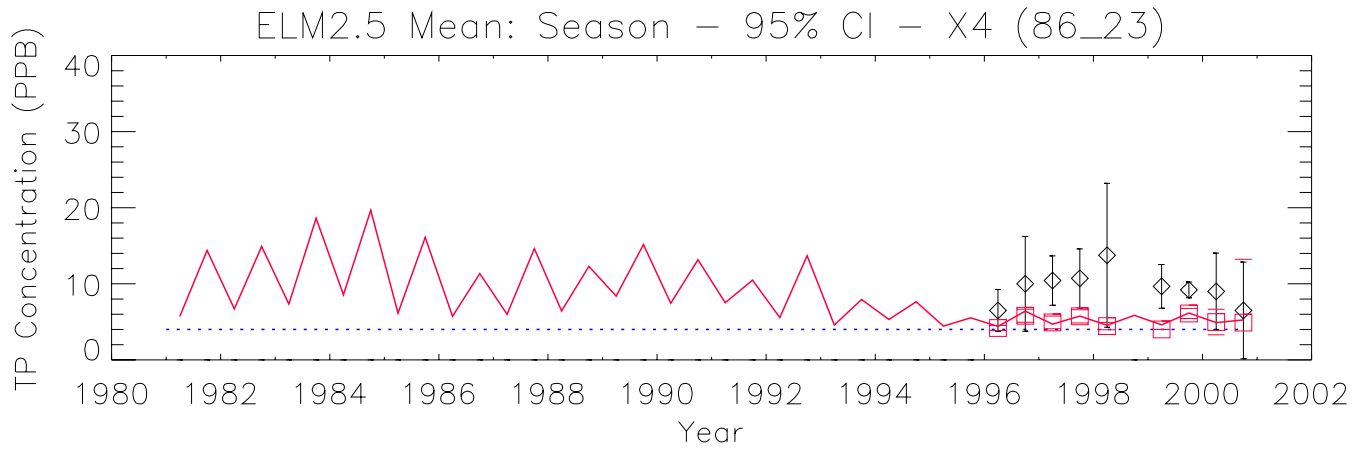
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – X4 (86_23)
TP Concentration (PPB)
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30
40
1980
1982
1984
1986
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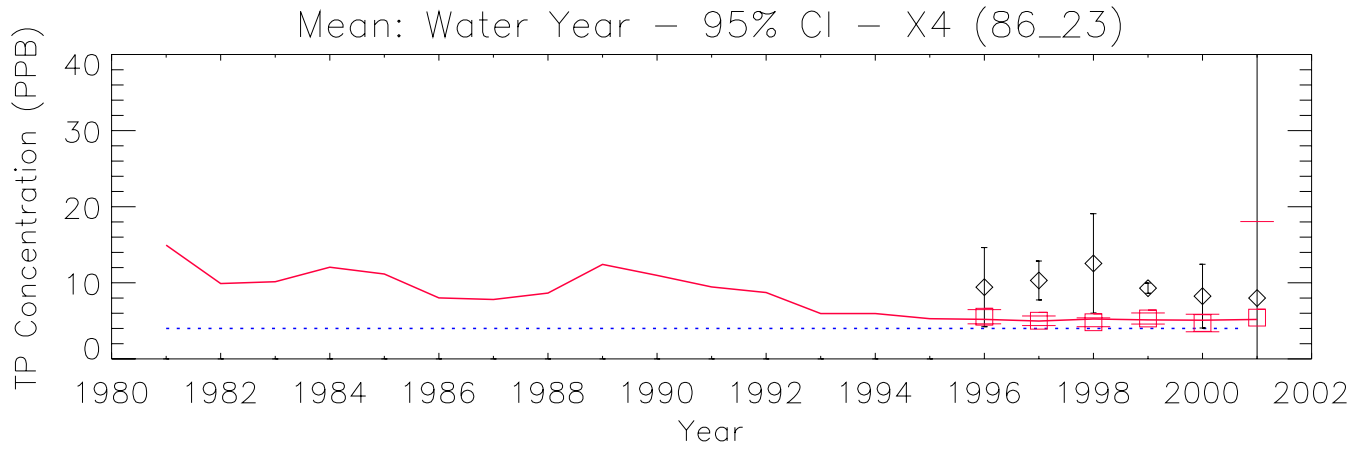
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – X4 (86_23)
TP Concentration (PPB)
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30
40
1980
1982
1984
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1990
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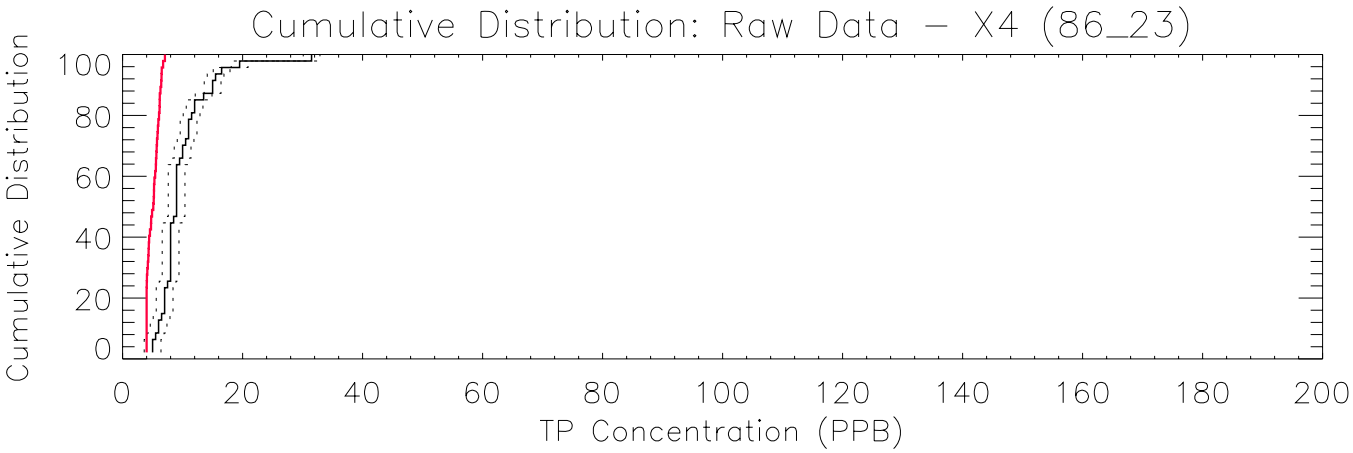
1998
2000
2002
Year


Cumulative Distribution: Raw Data – X4 (86_23)
Cumulative Distribution
0
20
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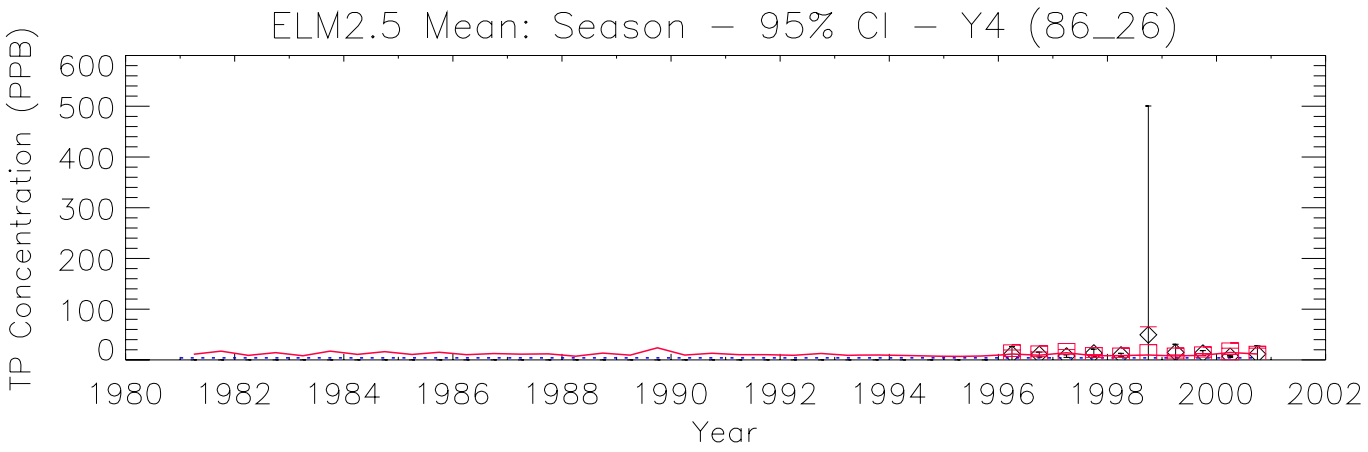
60
80
100
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – Y4 (86_26)
TP Concentration (PPB)
600
500
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200
100
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1980
1982
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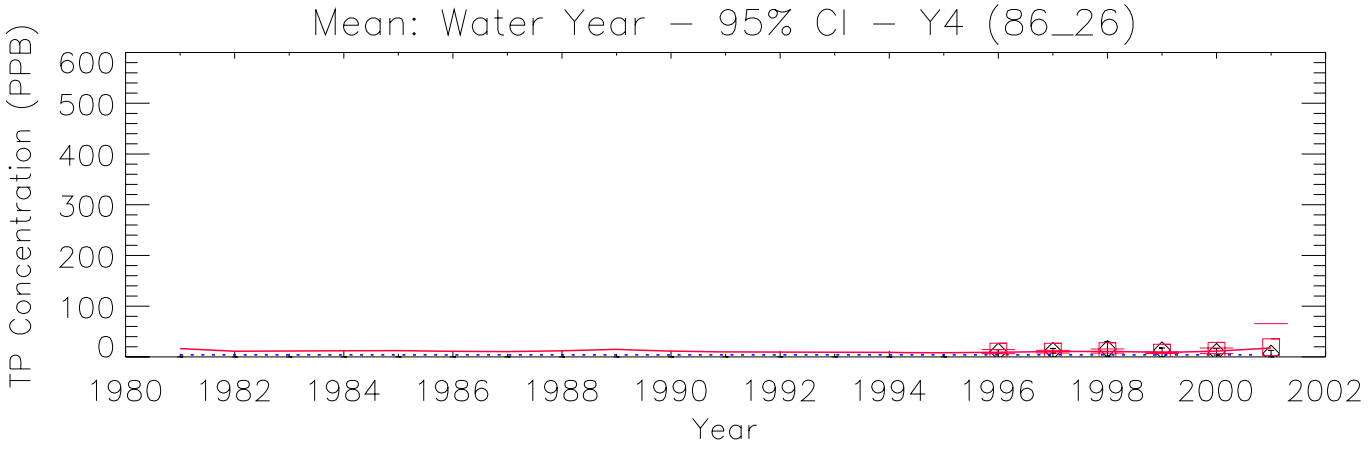
1998
2000
2002
Year


Mean: Water Year – 95% CI – Y4 (86_26)
TP Concentration (PPB)
600
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200
100
0
1980
1982
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1990
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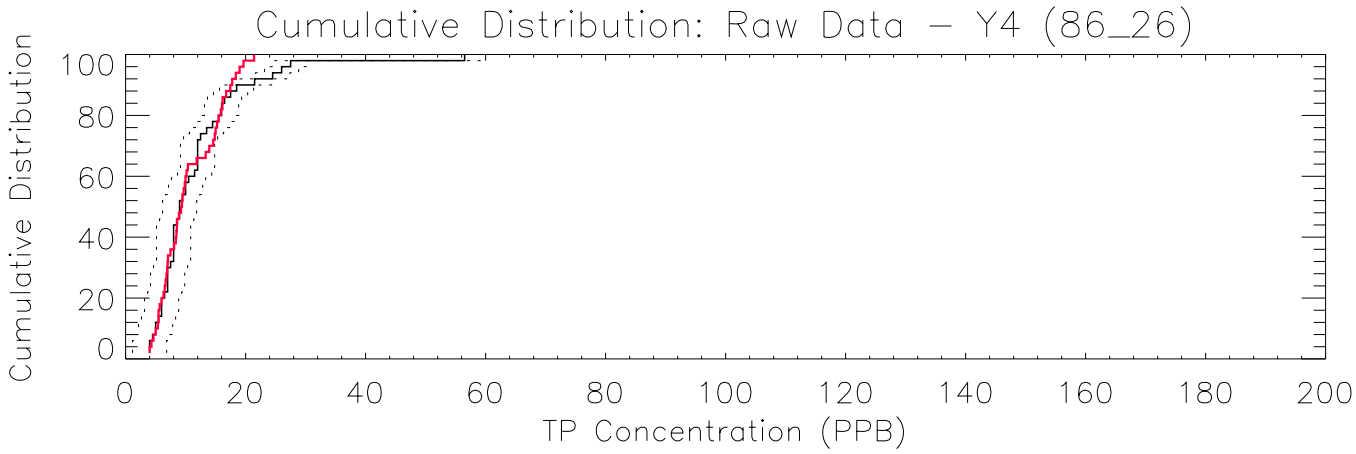
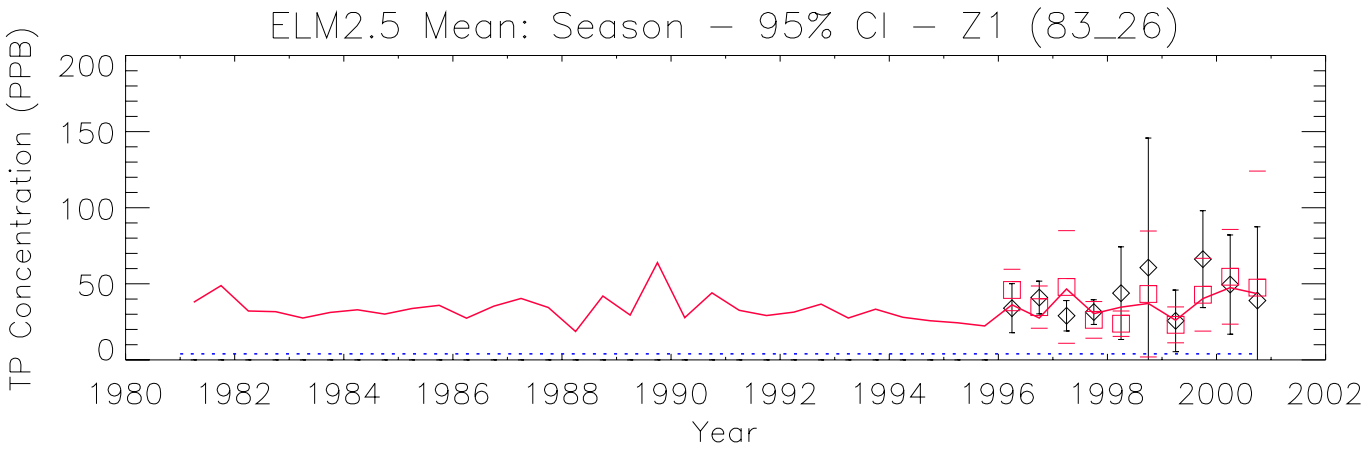
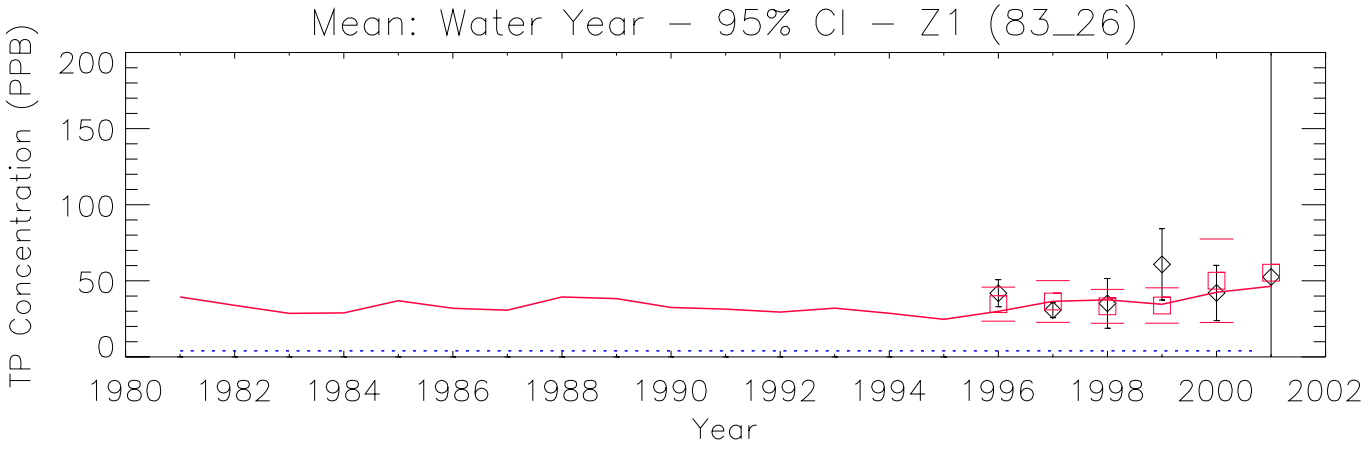
1998
2000
2002
Year


Cumulative Distribution: Raw Data – Y4 (86_26)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – Z1 (83_26)
TP Concentration (PPB)
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – Z1 (83_26)
TP Concentration (PPB)
200
150
100
50
0
1980
1982
1984
1986
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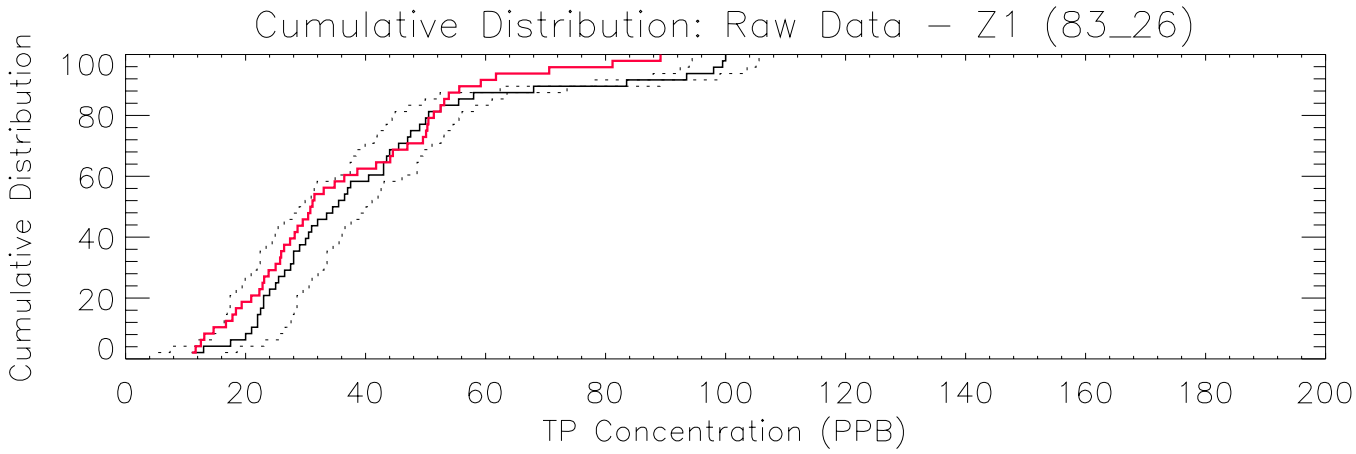
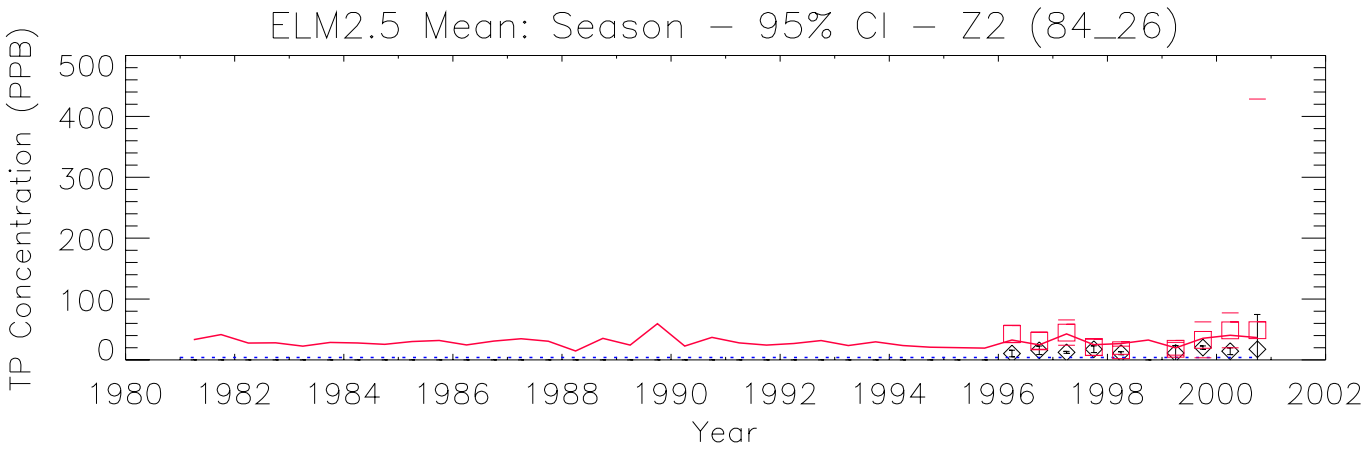
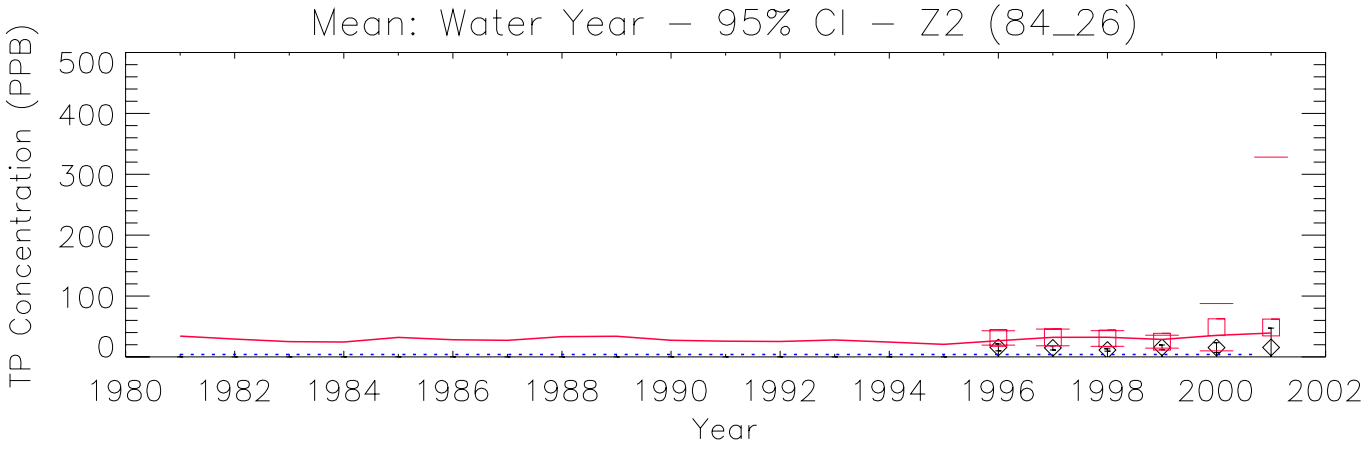
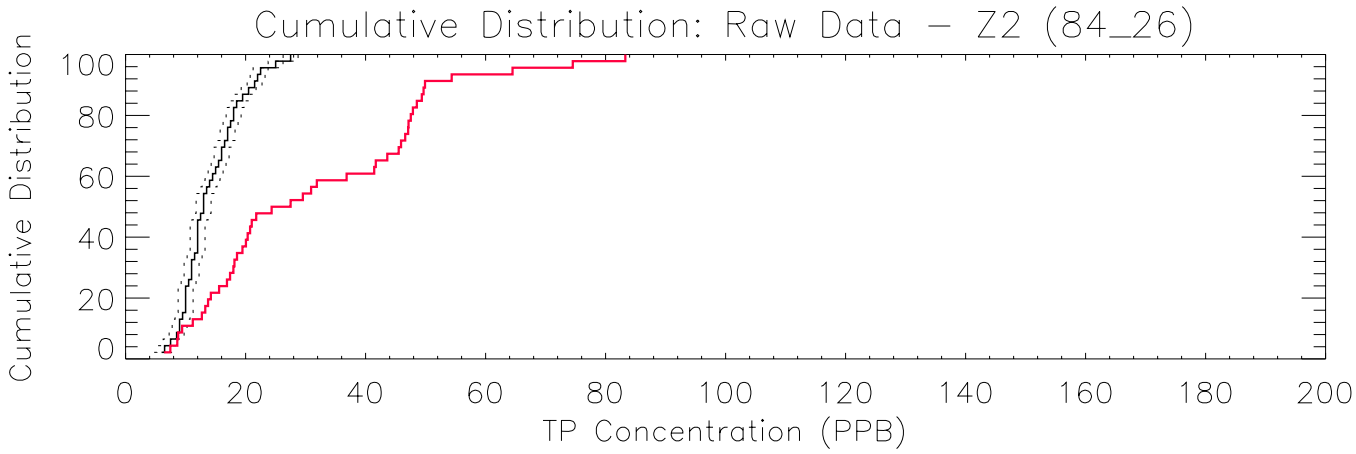
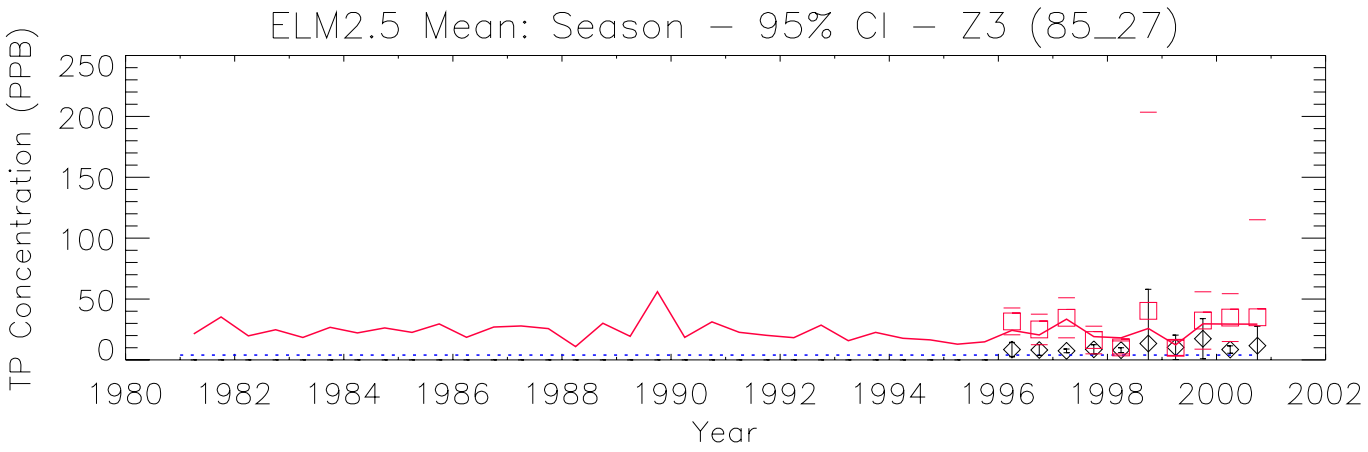
1990
1992
1994
1996
1998
2000
2002
Year

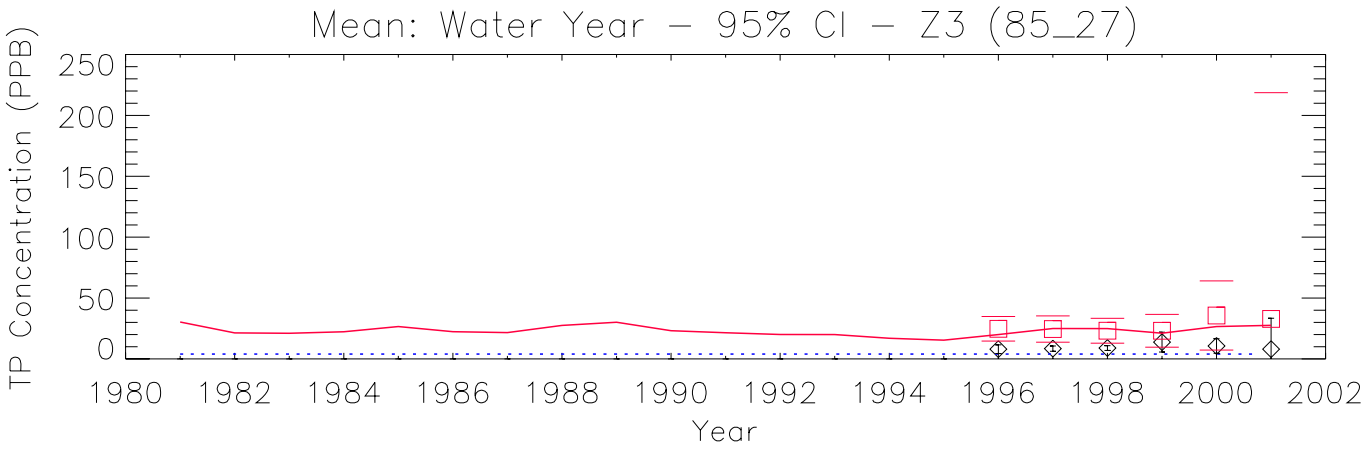

Cumulative Distribution: Raw Data – Z1 (83_26)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

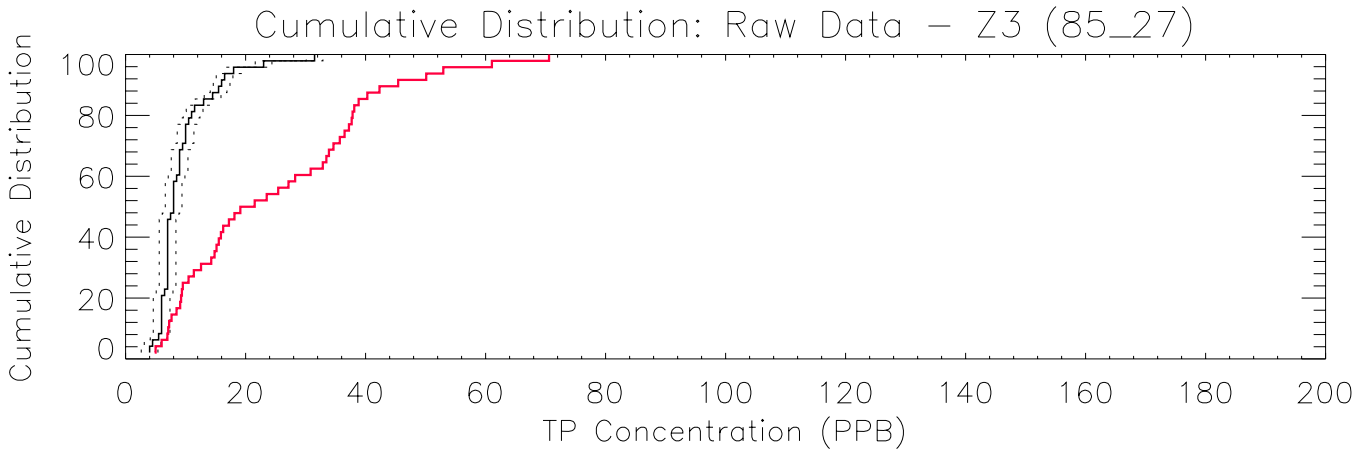

ELM2.5 Mean: Season – 95% CI – Z2 (84_26)
TP Concentration (PPB)
500
400
300
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

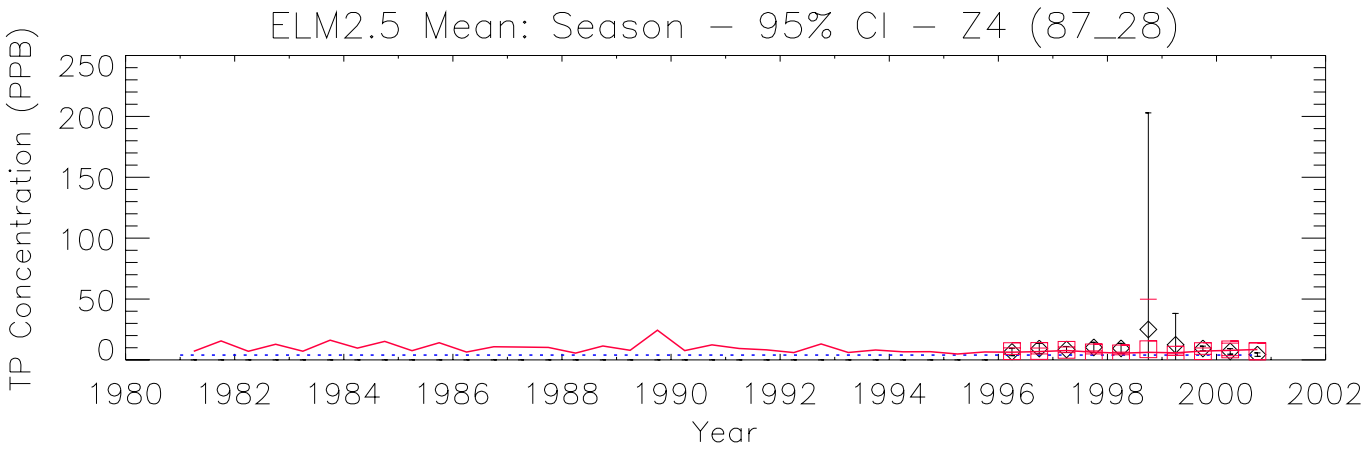

Mean: Water Year – 95% CI – Z2 (84_26)
TP Concentration (PPB)
500
400
300
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

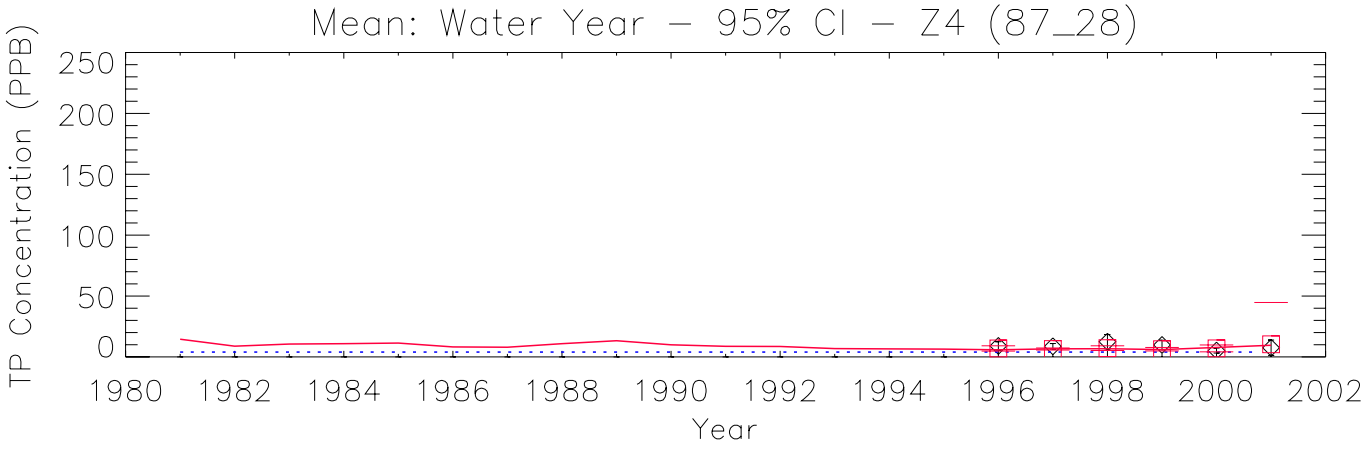

Cumulative Distribution: Raw Data – Z2 (84_26)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

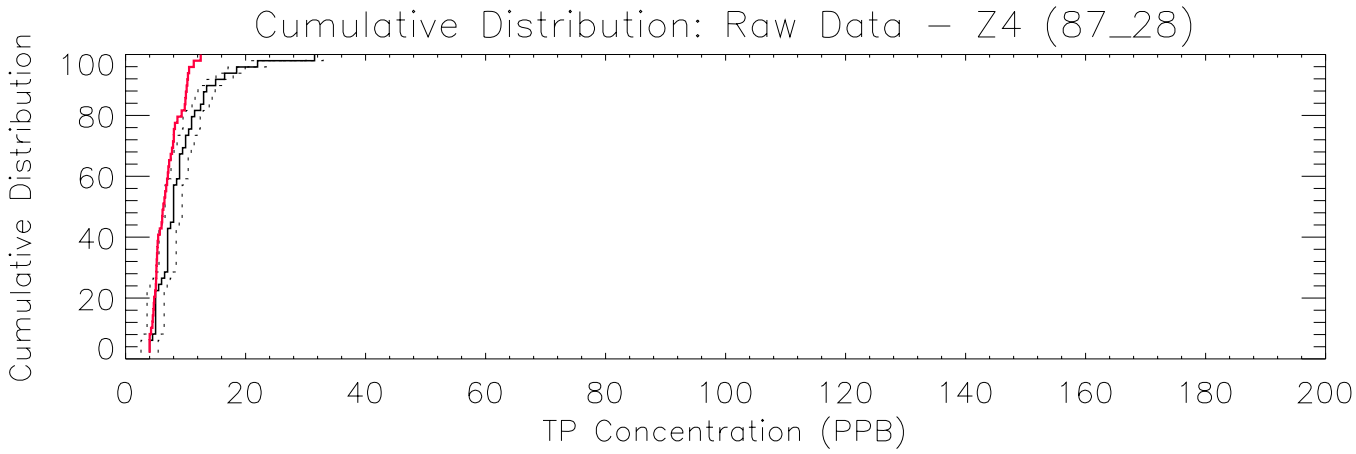

ELM2.5 Mean: Season – 95% CI – Z3 (85_27)
TP Concentration (PPB)
250
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

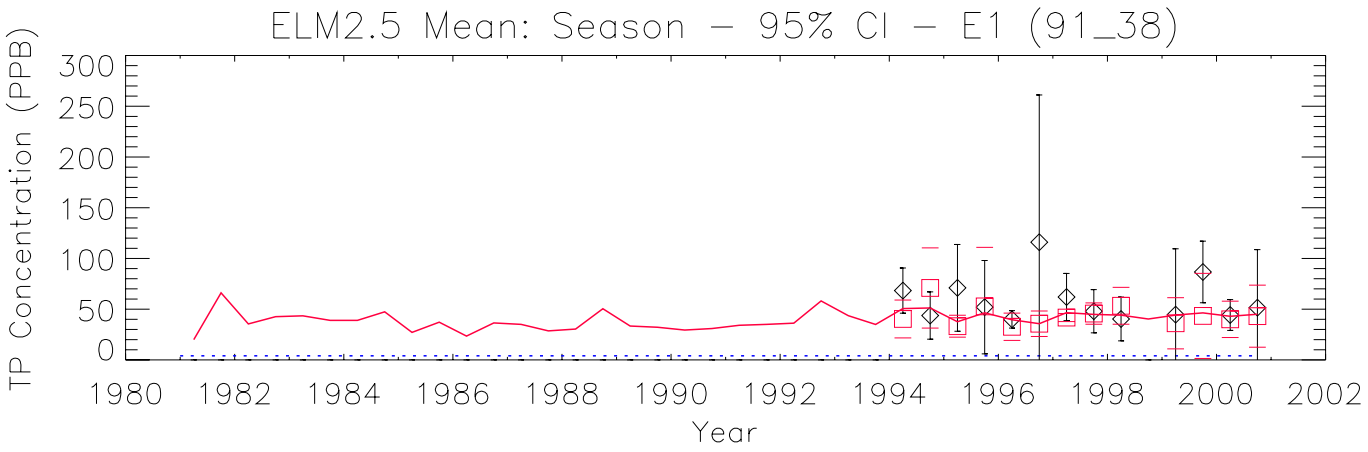

Mean: Water Year – 95% CI – Z3 (85_27)
TP Concentration (PPB)
250
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – Z3 (85_27)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – Z4 (87_28)
TP Concentration (PPB)
250
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – Z4 (87_28)
TP Concentration (PPB)
250
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – Z4 (87_28)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – E1 (91_38)
TP Concentration (PPB)
300
250
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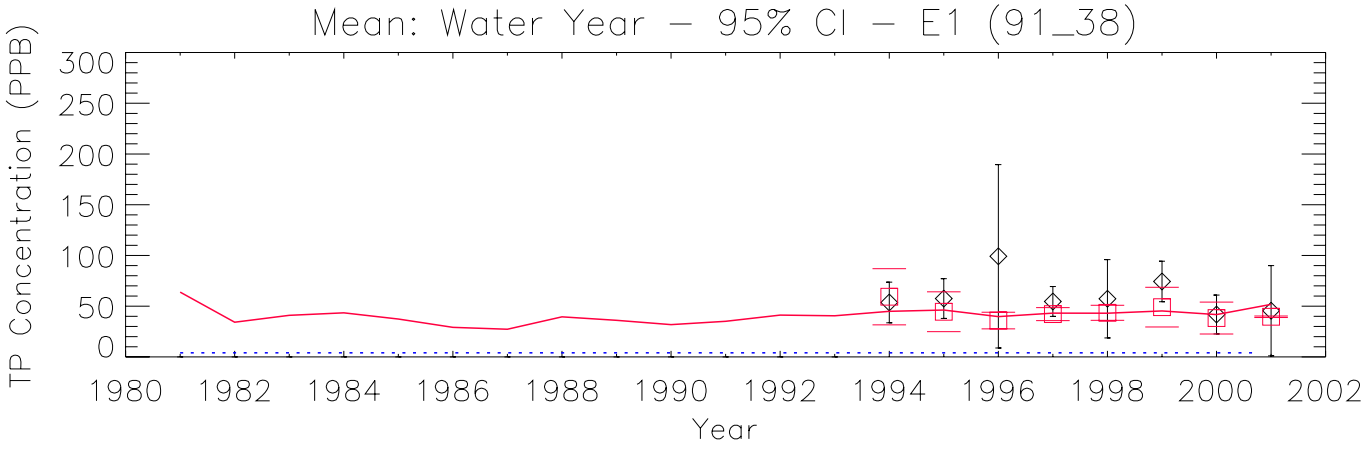
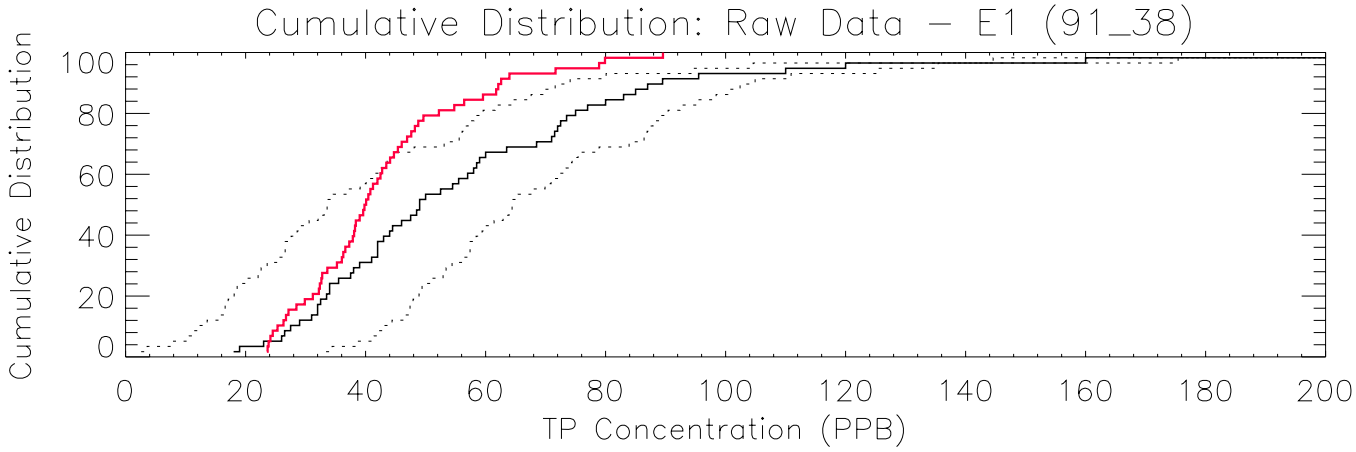
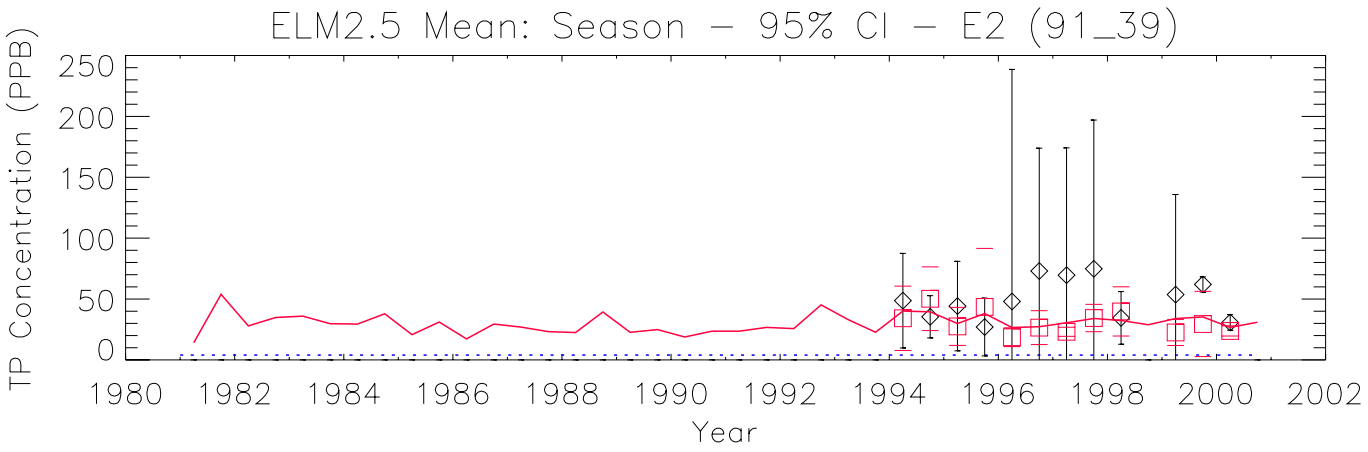
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – E1 (91_38)
TP Concentration (PPB)
300
250
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – E1 (91_38)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – E2 (91_39)
TP Concentration (PPB)
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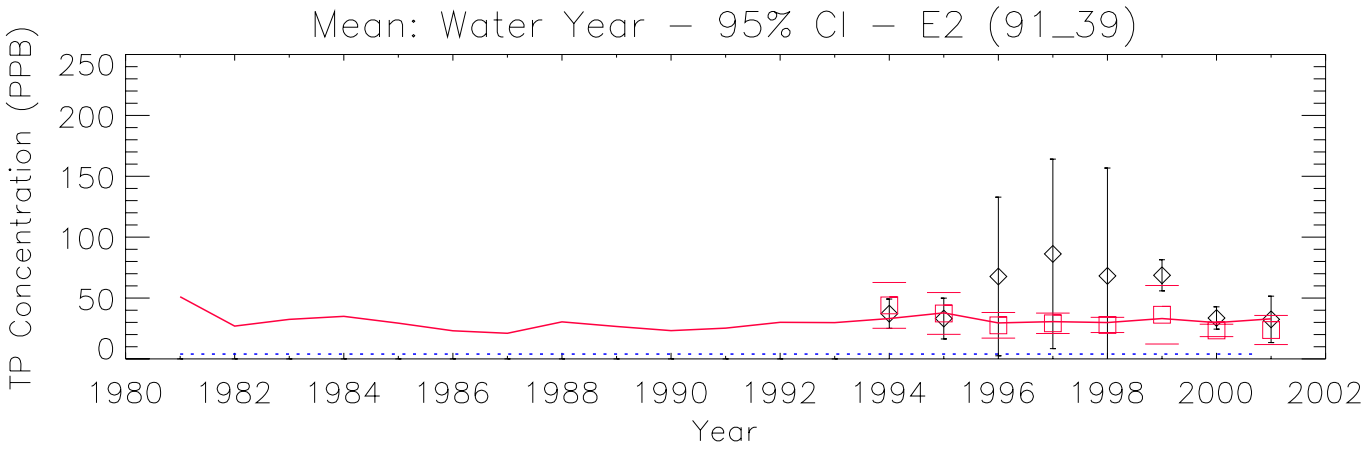
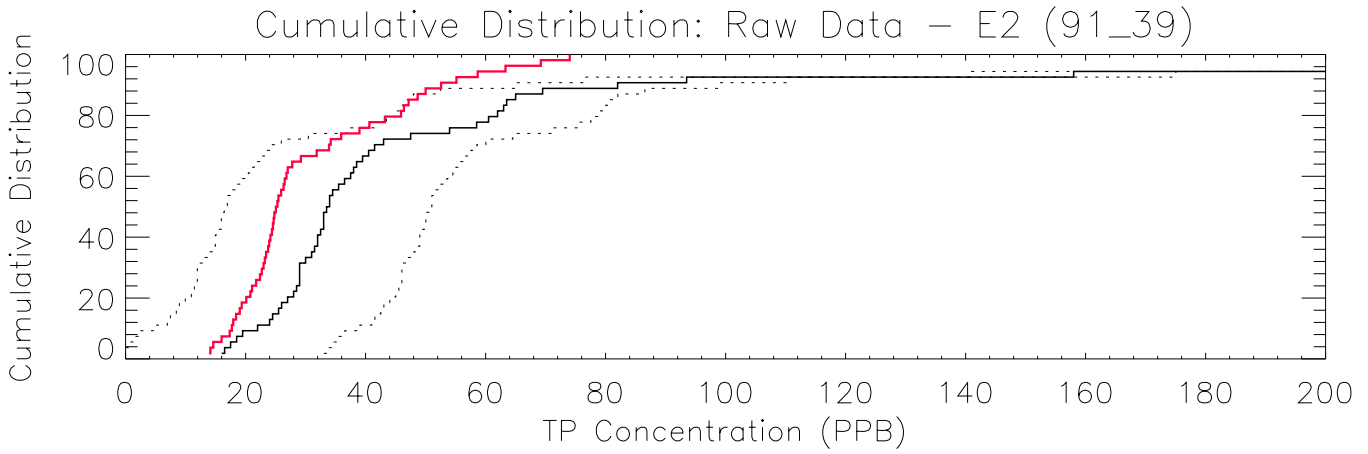
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – E2 (91_39)
TP Concentration (PPB)
250
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – E2 (91_39)
Cumulative Distribution
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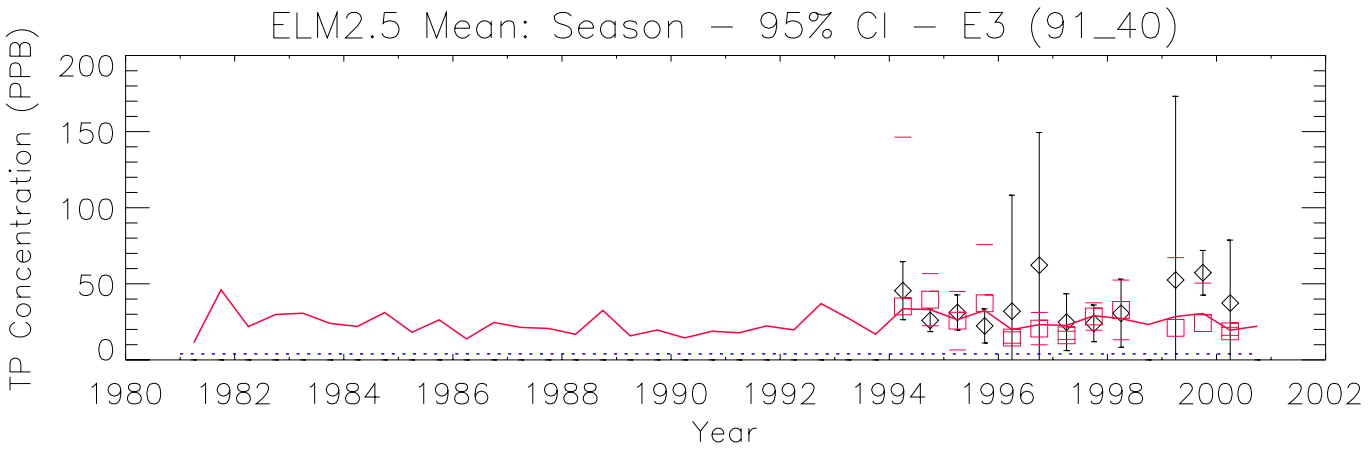
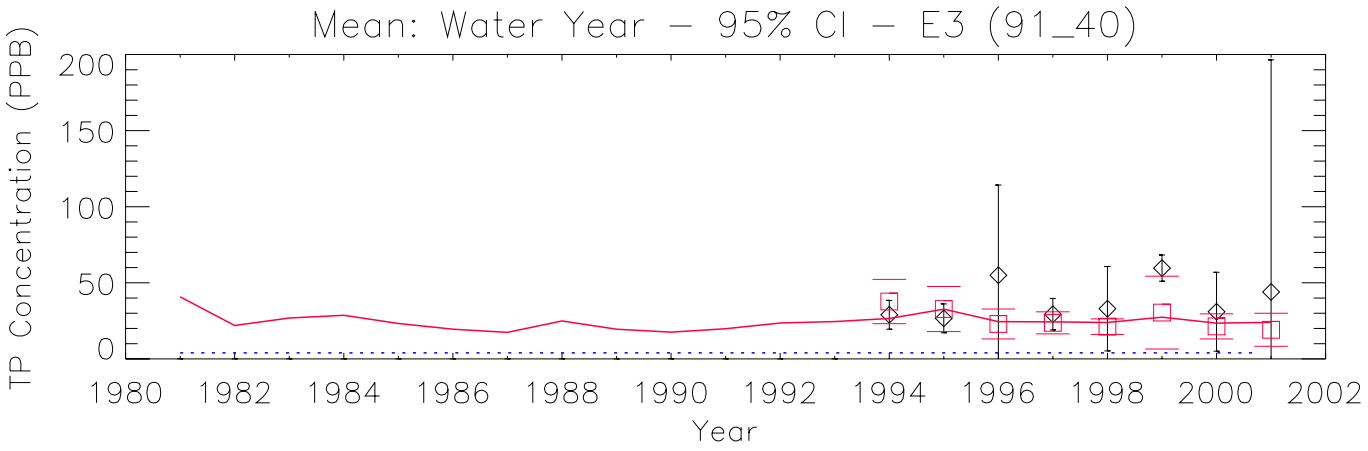
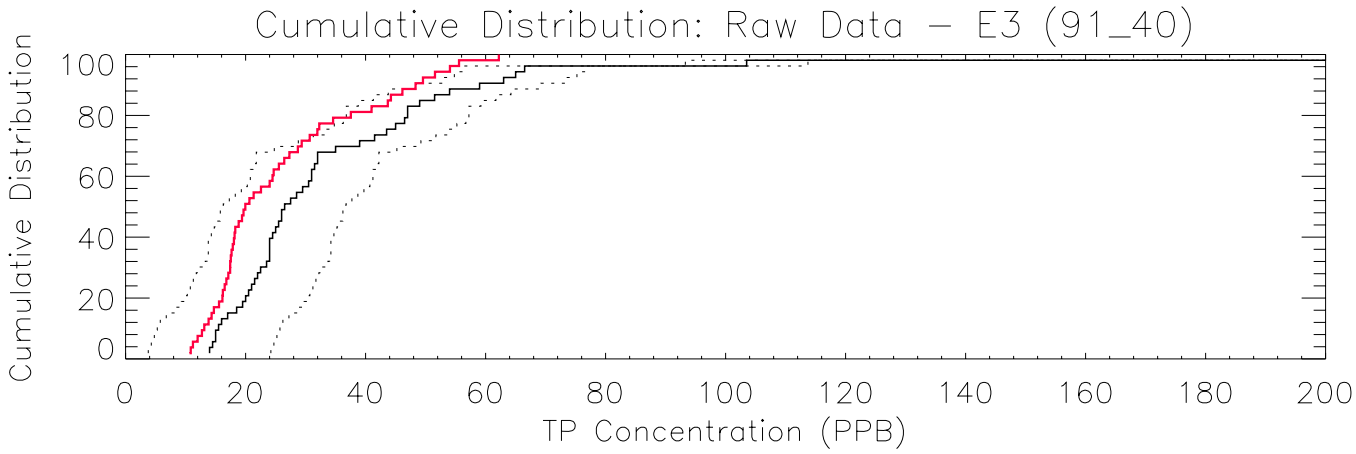
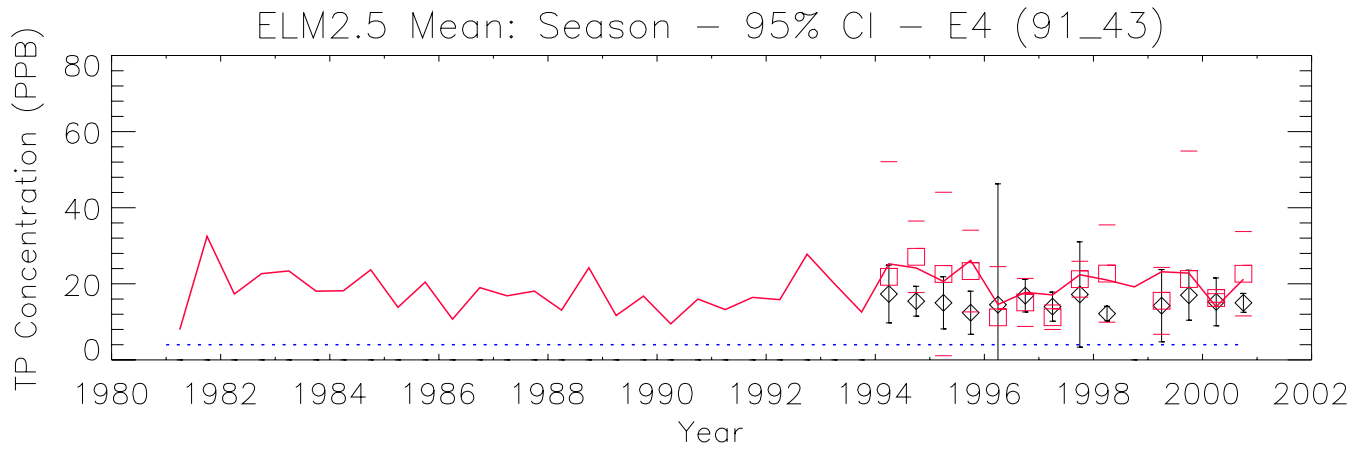
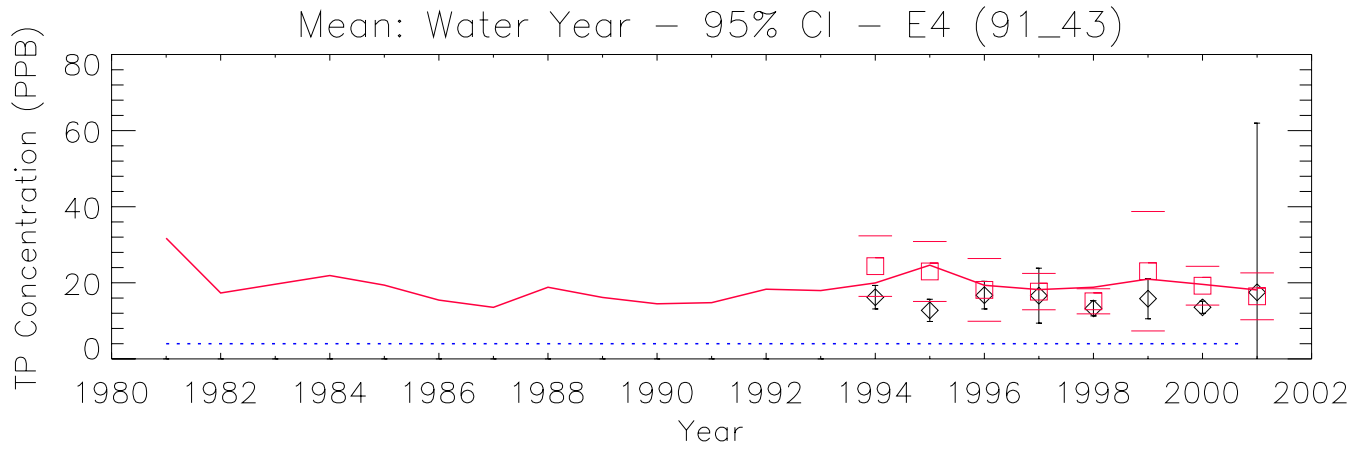
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – E3 (91_40)
TP Concentration (PPB)
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – E3 (91_40)
TP Concentration (PPB)
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – E3 (91_40)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – E4 (91_43)
TP Concentration (PPB)
0
20
40
60
80
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – E4 (91_43)
TP Concentration (PPB)
0
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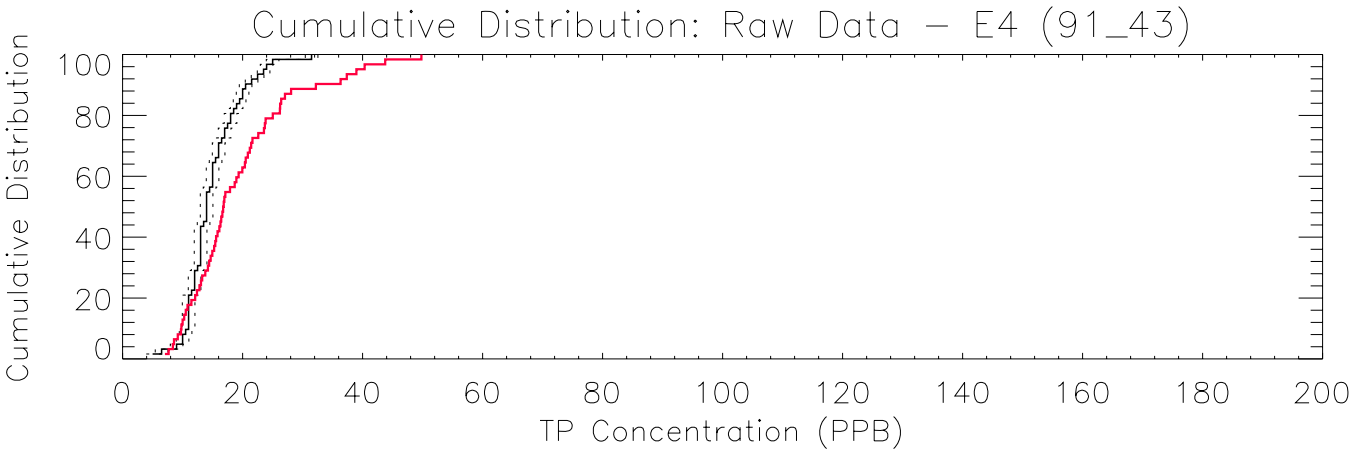
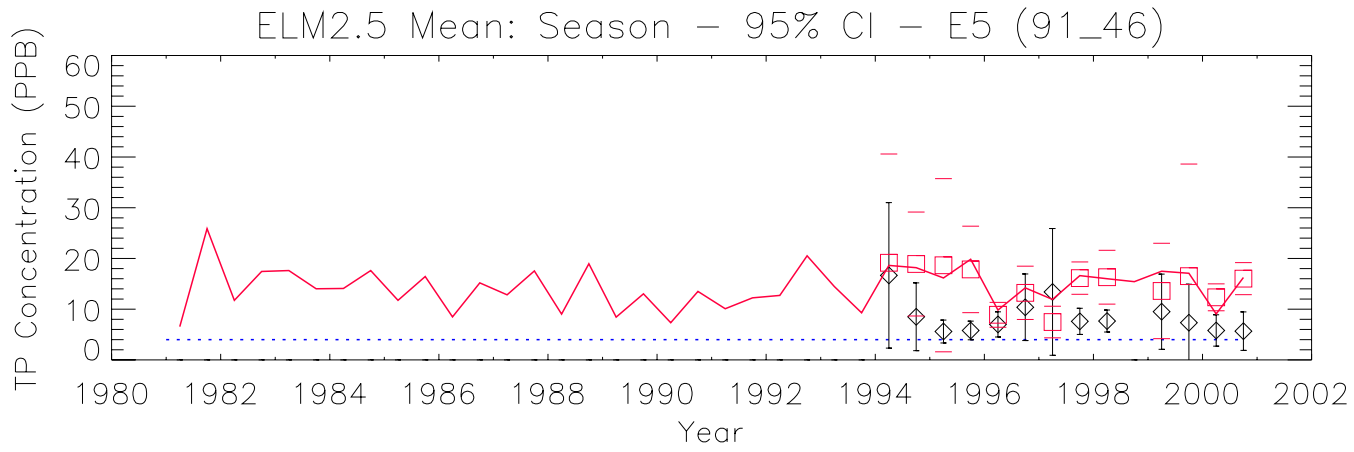
40
60
80
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – E4 (91_43)
Cumulative Distribution
0
20
40
60
80
100
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – E5 (91_46)
TP Concentration (PPB)
0
10
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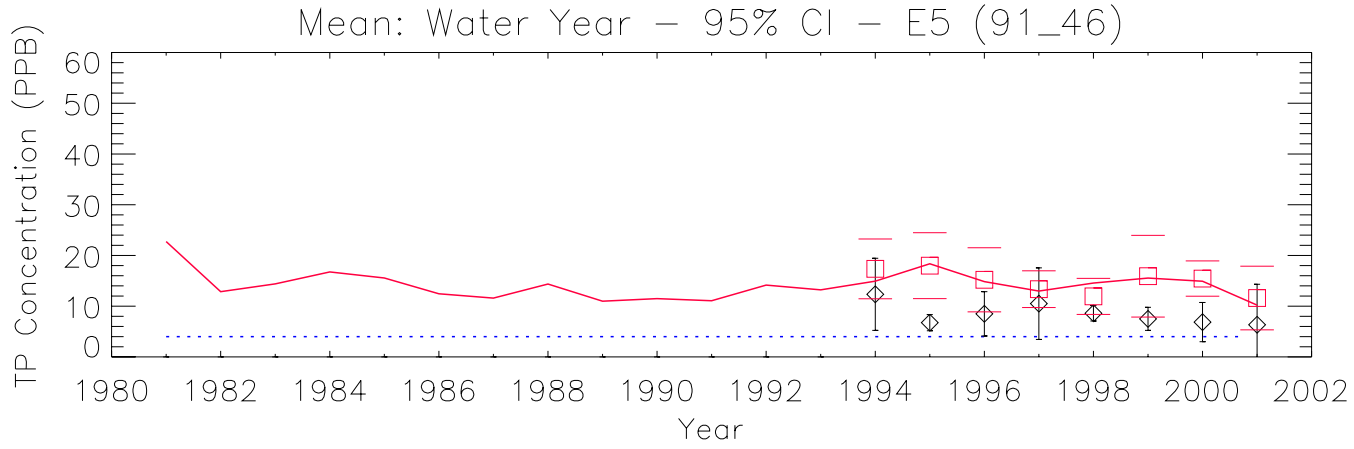
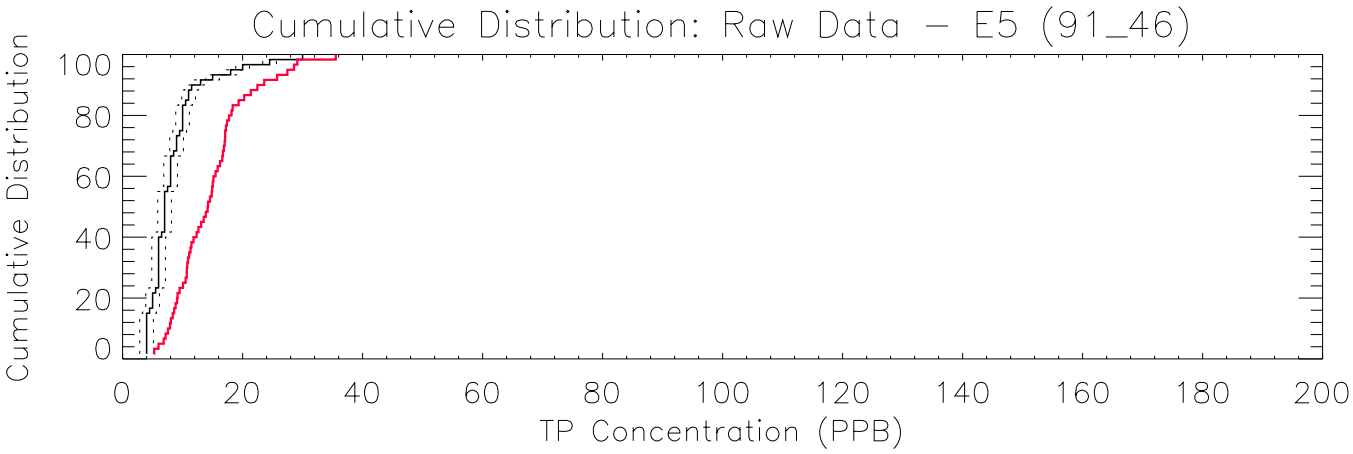
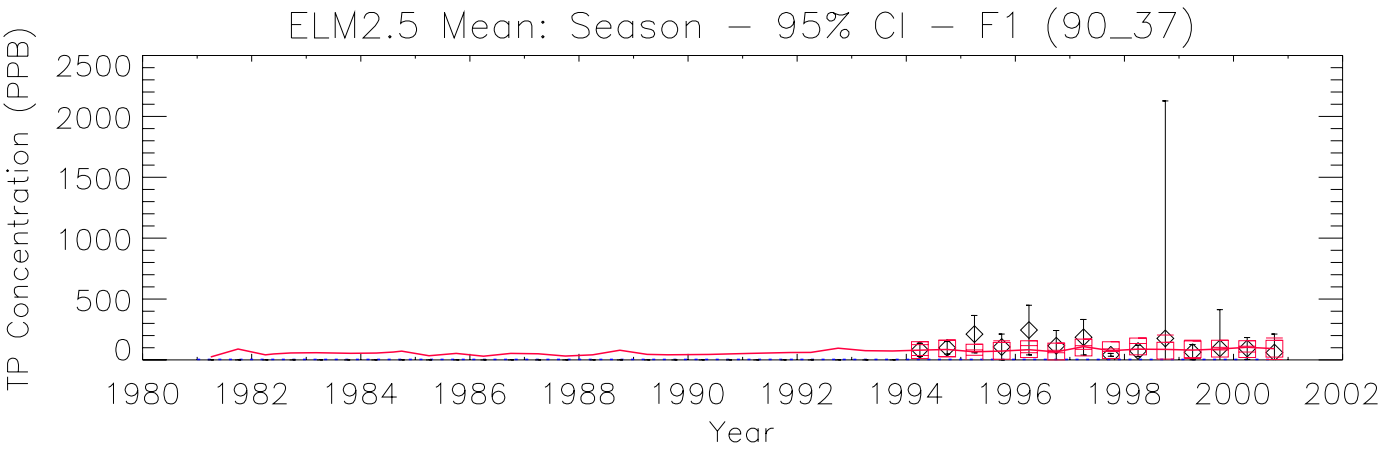
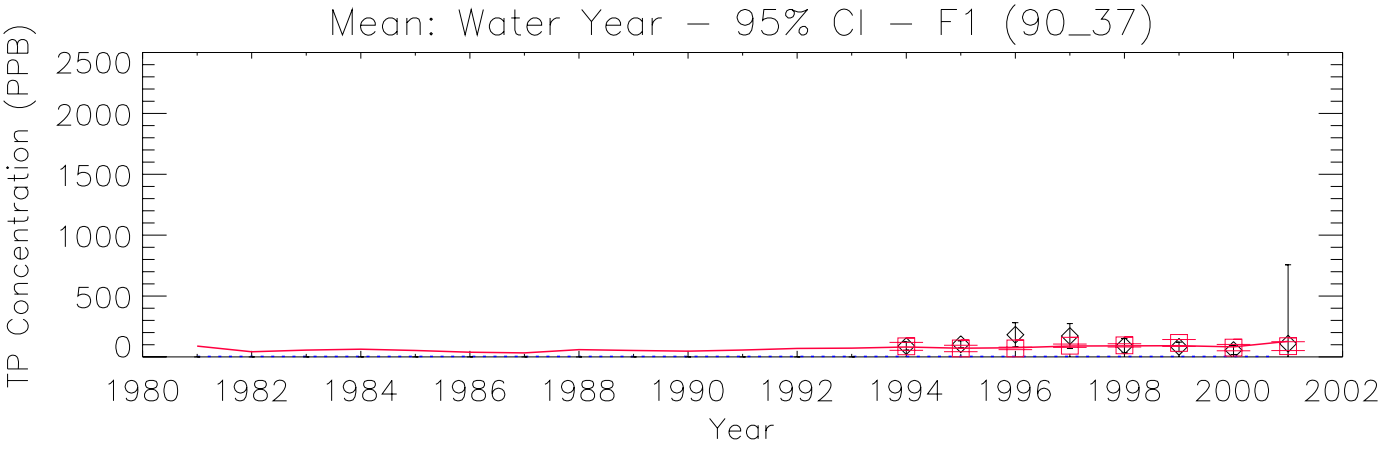
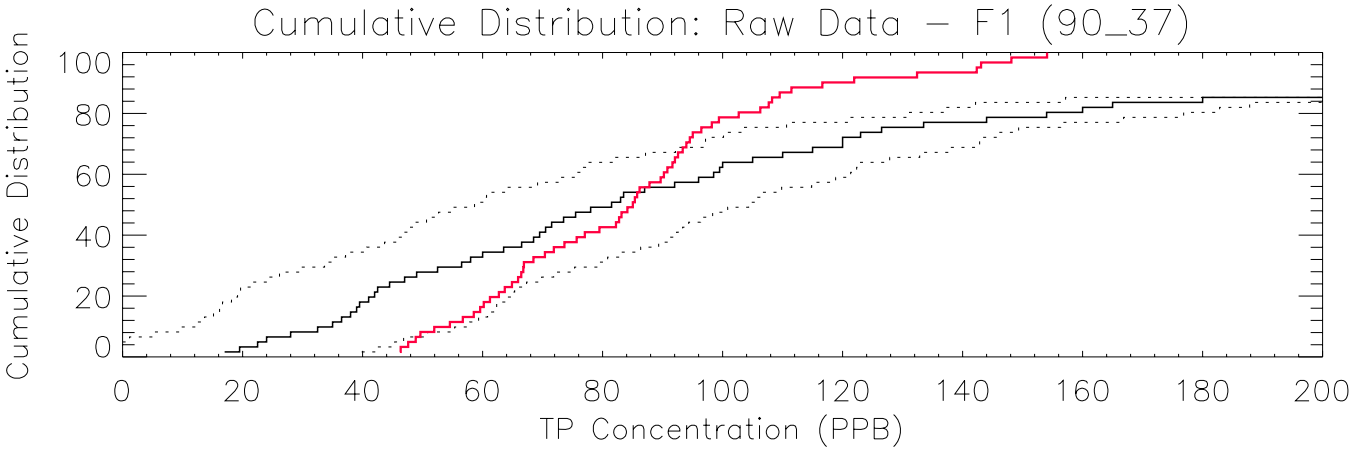
30
40
50
60
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

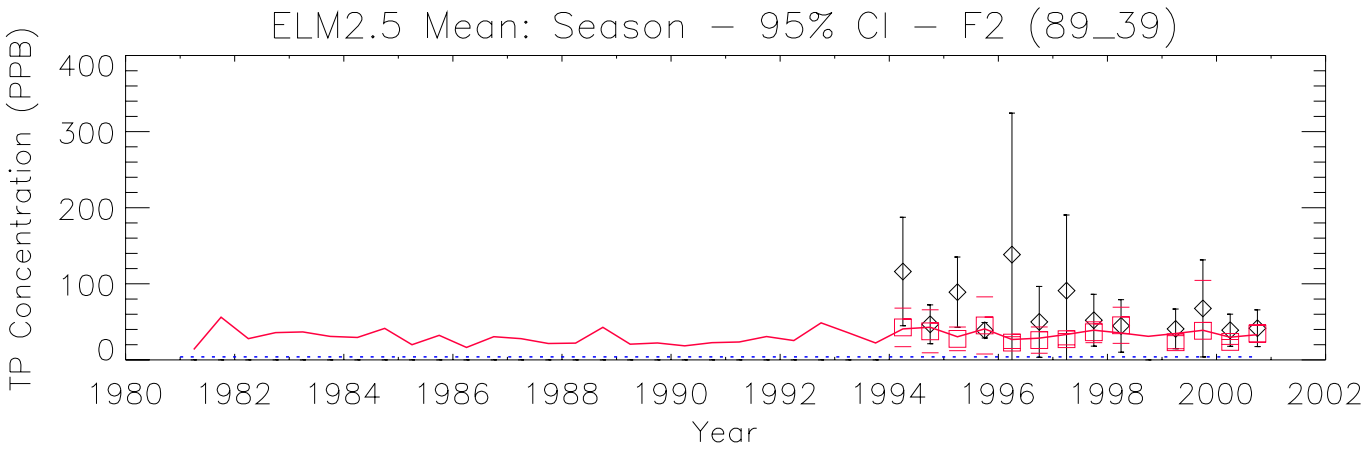

Mean: Water Year – 95% CI – E5 (91_46)
TP Concentration (PPB)
0
10
20
30
40
50
60
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

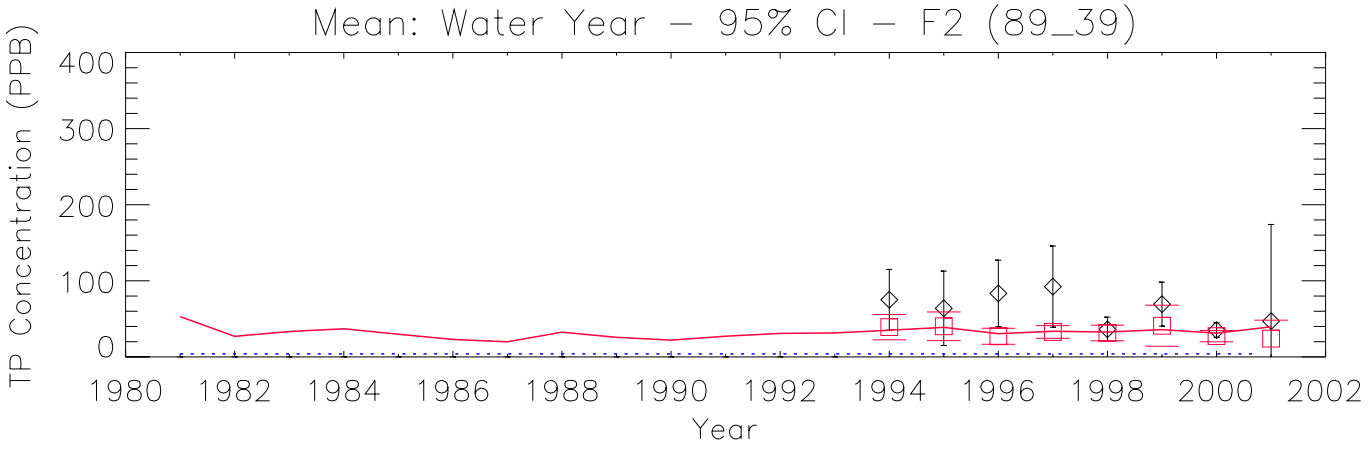

Cumulative Distribution: Raw Data – E5 (91_46)
Cumulative Distribution
0
20
40
60
80
100
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

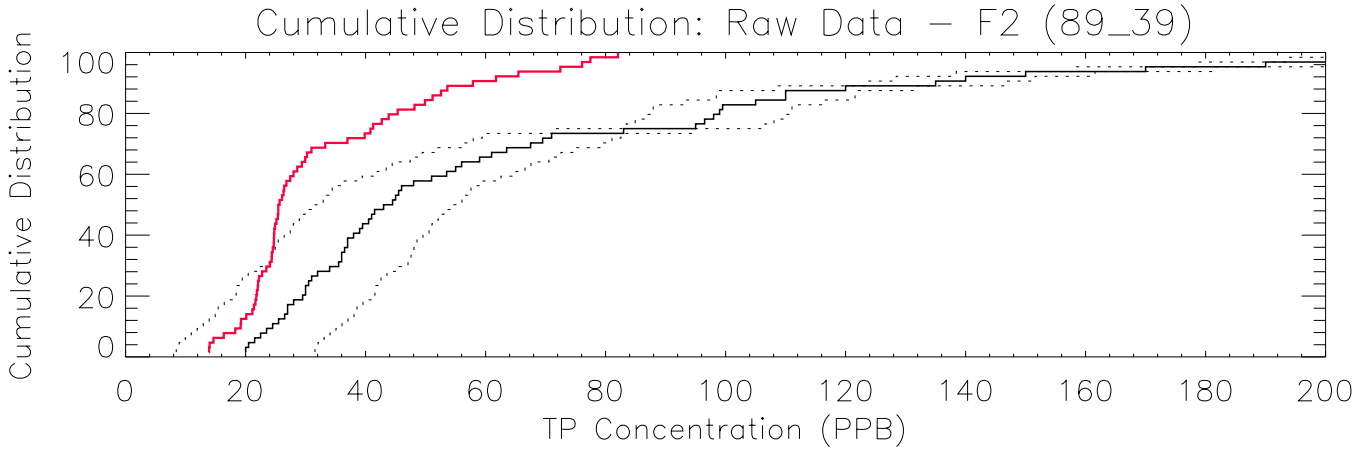

ELM2.5 Mean: Season – 95% CI – F1 (90_37)
TP Concentration (PPB)
2500
2000
1500
1000
500
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

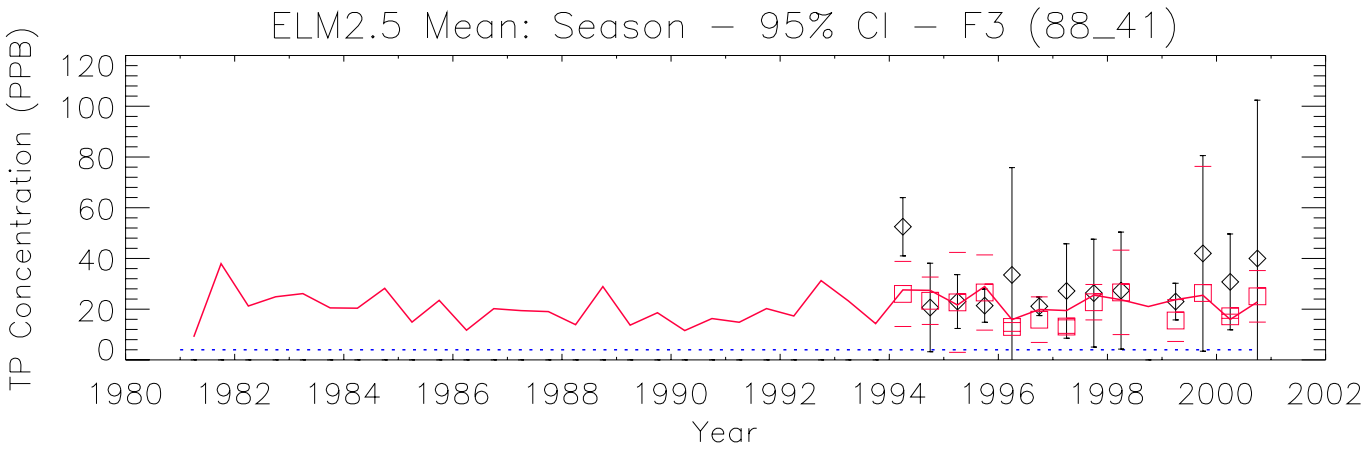

Mean: Water Year – 95% CI – F1 (90_37)
TP Concentration (PPB)
2500
2000
1500
1000
500
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

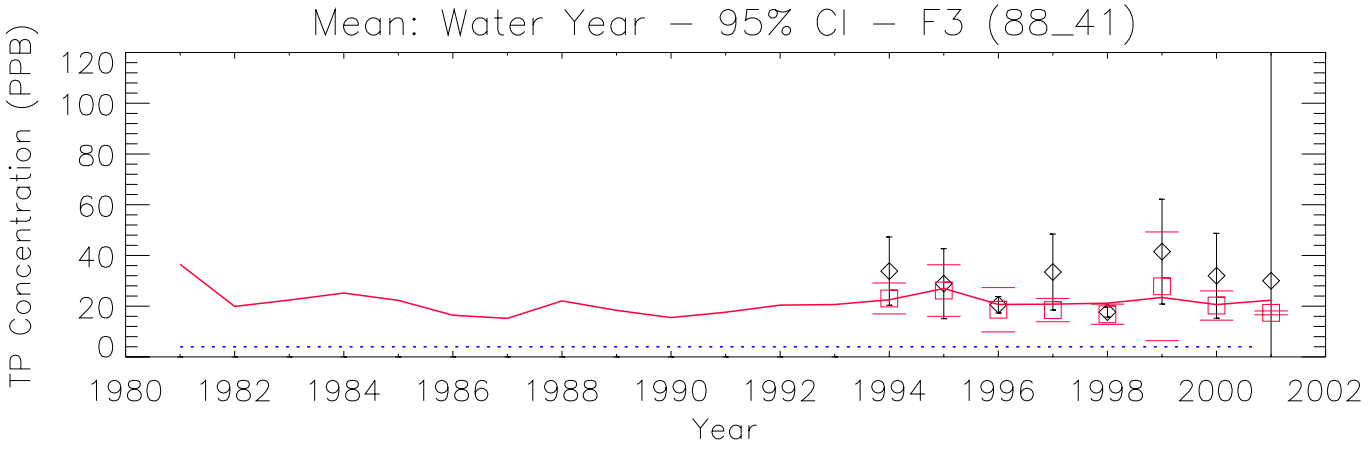

Cumulative Distribution: Raw Data – F1 (90_37)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

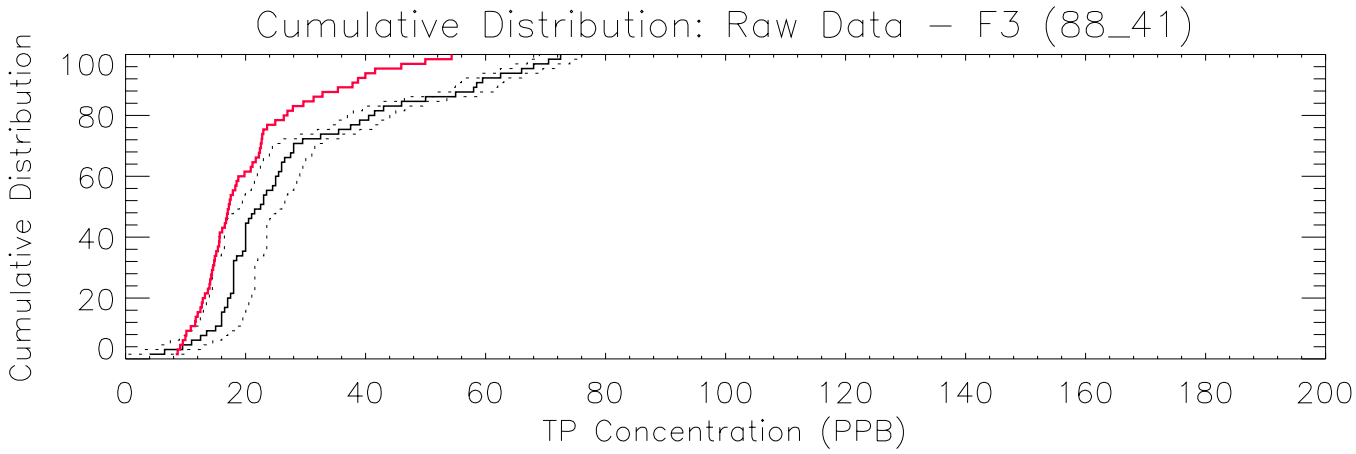

ELM2.5 Mean: Season – 95% CI – F2 (89_39)
TP Concentration (PPB)
400
300
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

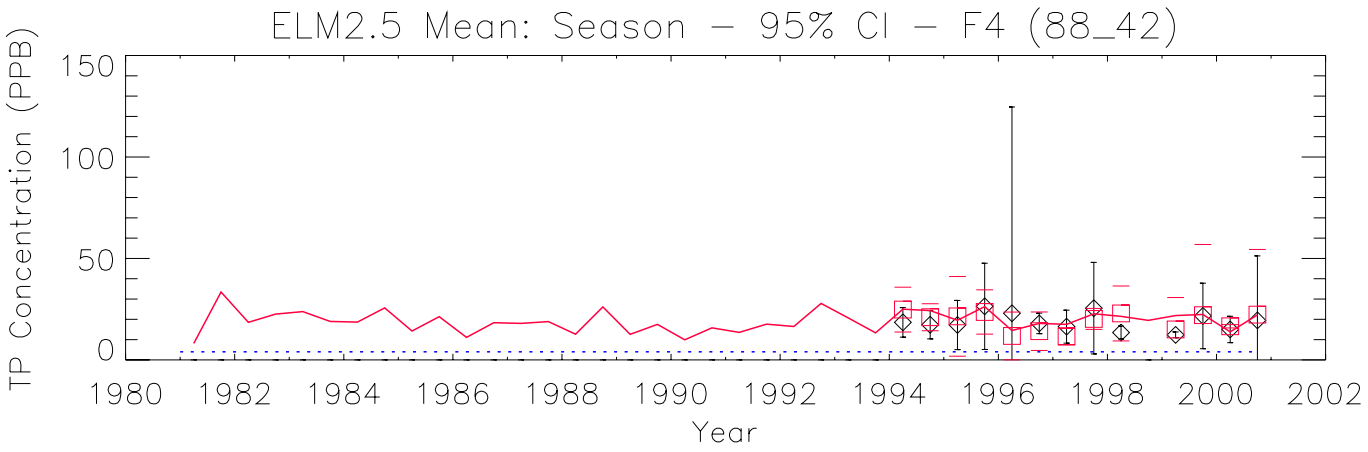

Mean: Water Year – 95% CI – F2 (89_39)
TP Concentration (PPB)
400
300
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

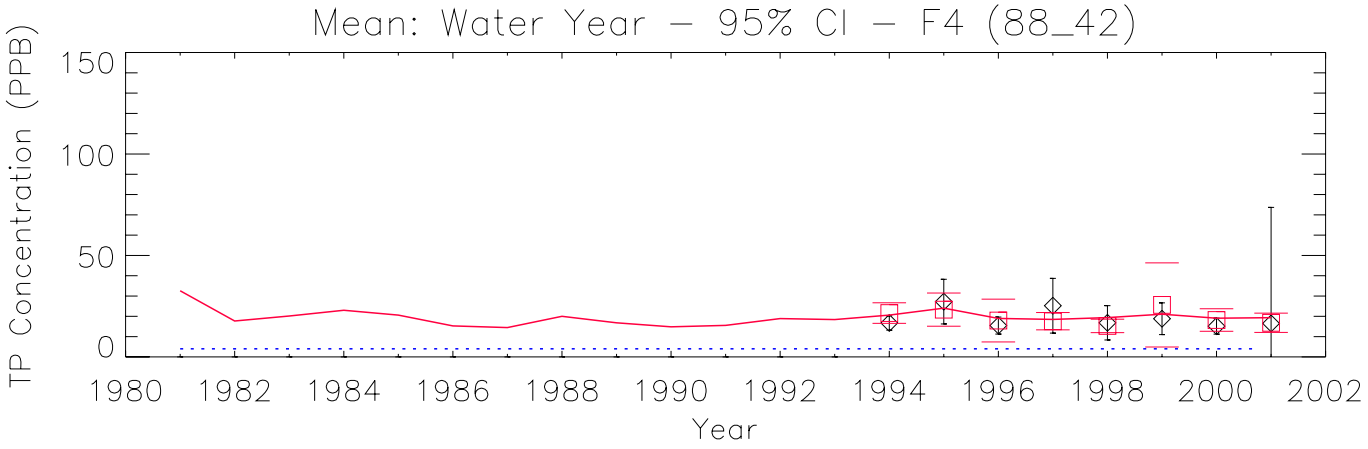

Cumulative Distribution: Raw Data – F2 (89_39)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

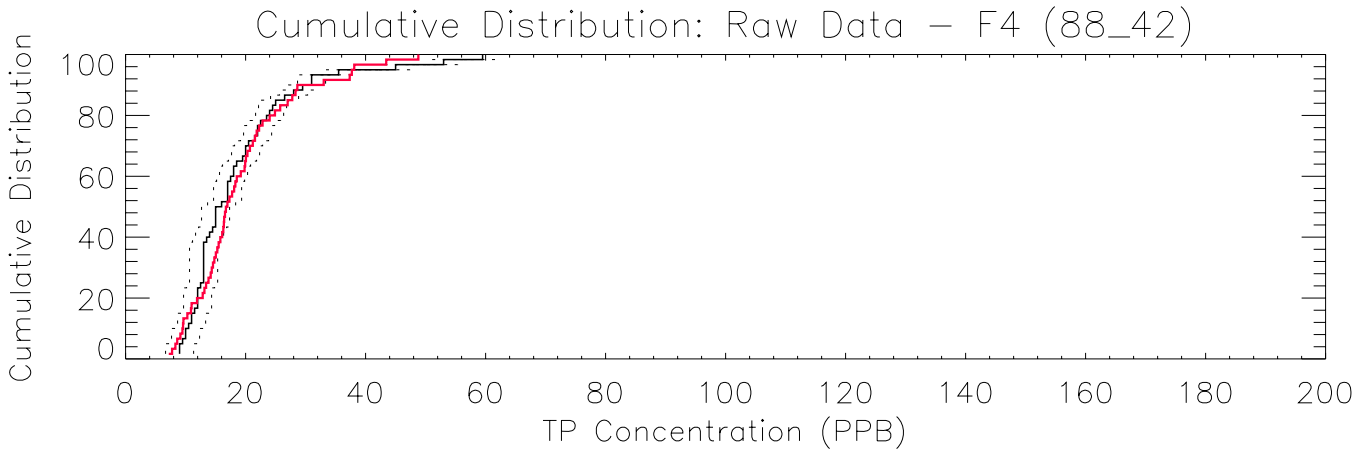

ELM2.5 Mean: Season – 95% CI – F3 (88_41)
TP Concentration (PPB)
120
100
80
60
40
20
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

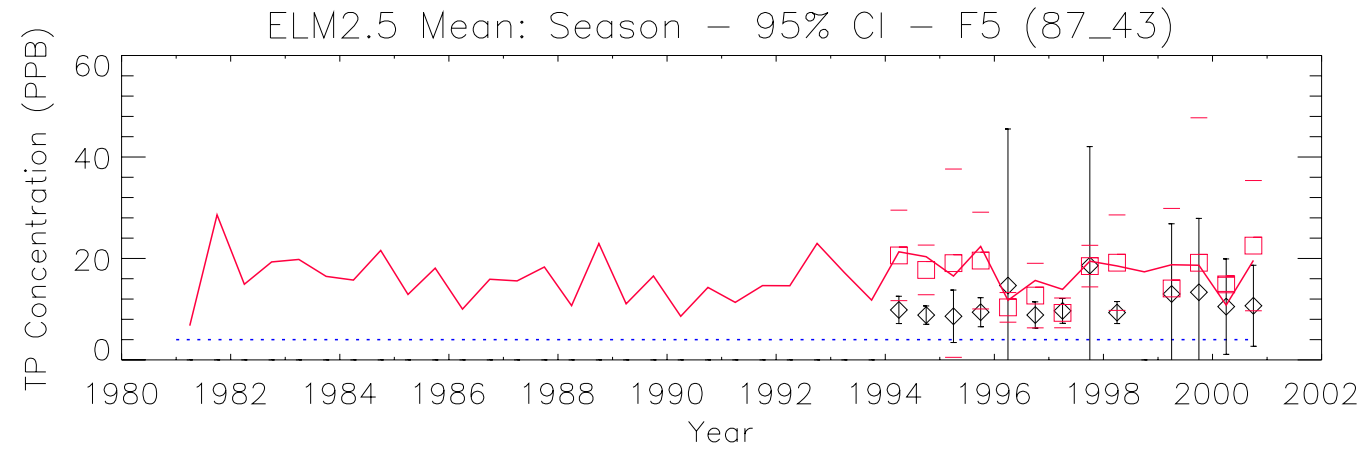

Mean: Water Year – 95% CI – F3 (88_41)
TP Concentration (PPB)
120
100
80
60
40
20
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

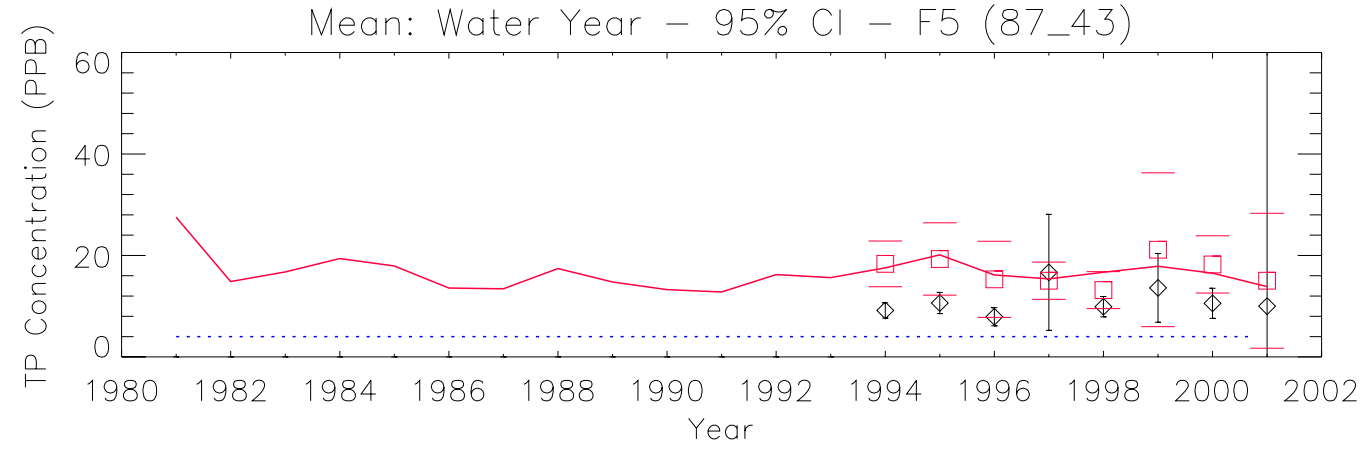

Cumulative Distribution: Raw Data – F3 (88_41)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

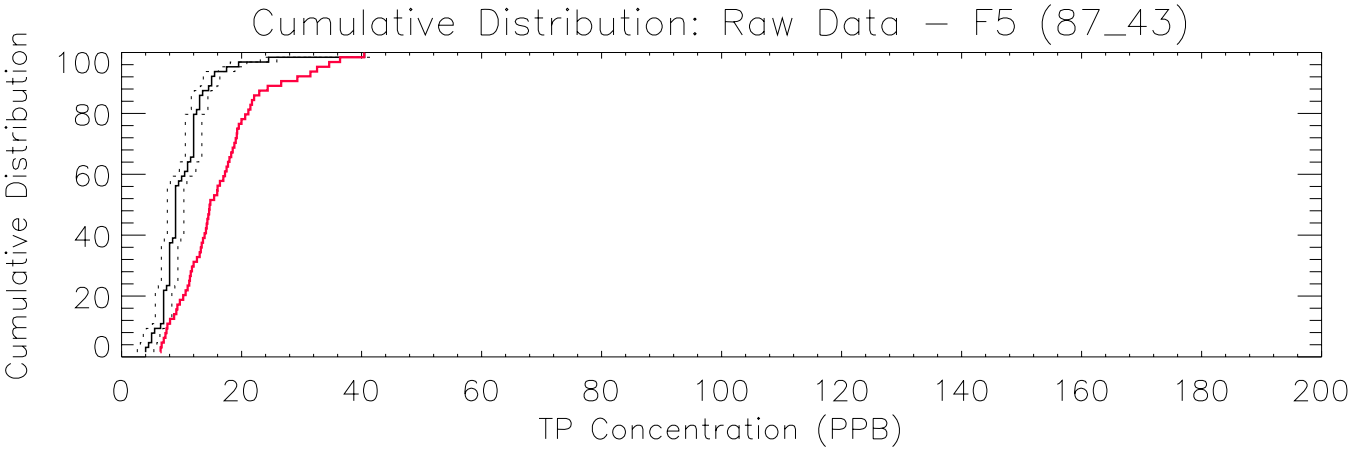

ELM2.5 Mean: Season – 95% CI – F4 (88_42)
TP Concentration (PPB)
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

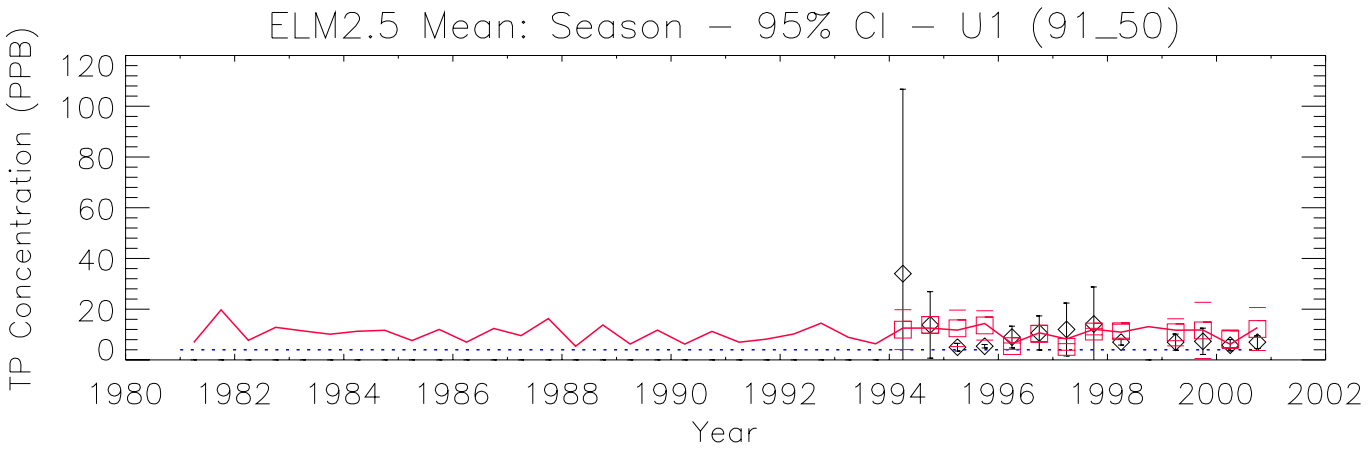

Mean: Water Year – 95% CI – F4 (88_42)
TP Concentration (PPB)
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

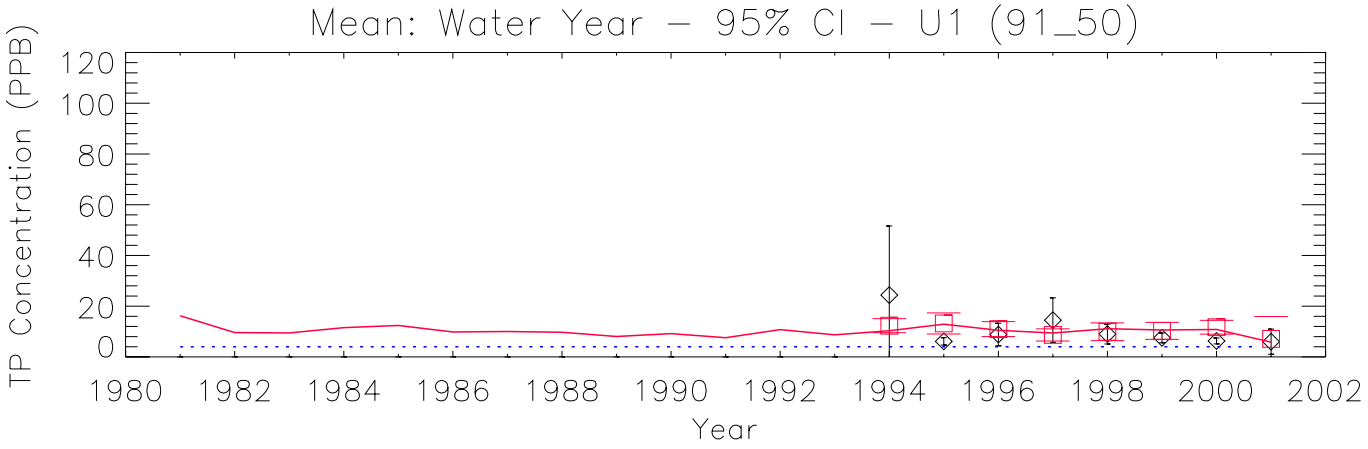

Cumulative Distribution: Raw Data – F4 (88_42)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

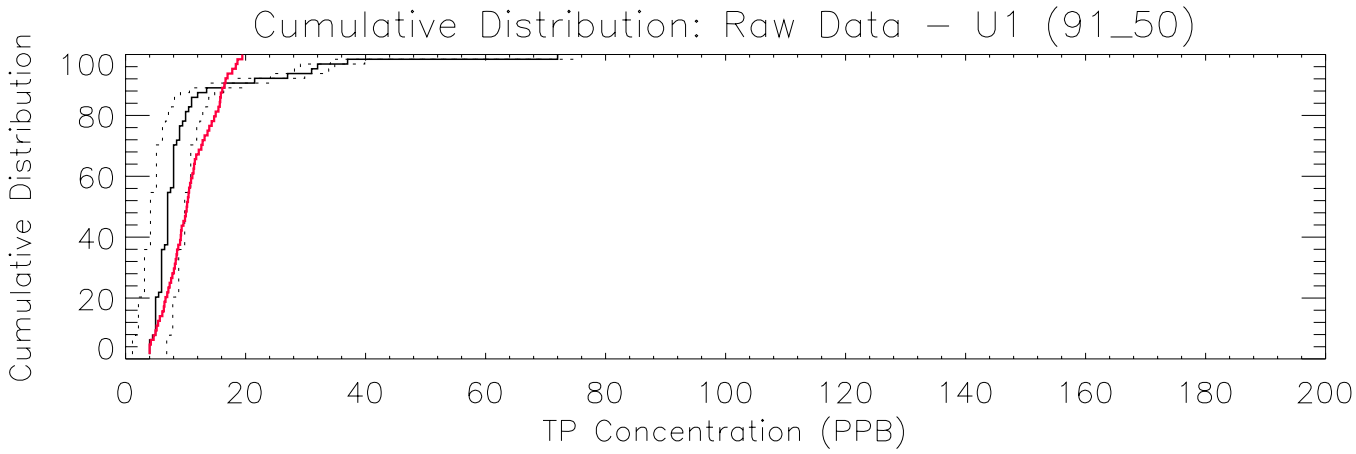

ELM2.5 Mean: Season – 95% CI – F5 (87_43)
TP Concentration (PPB)
0
20
40
60
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

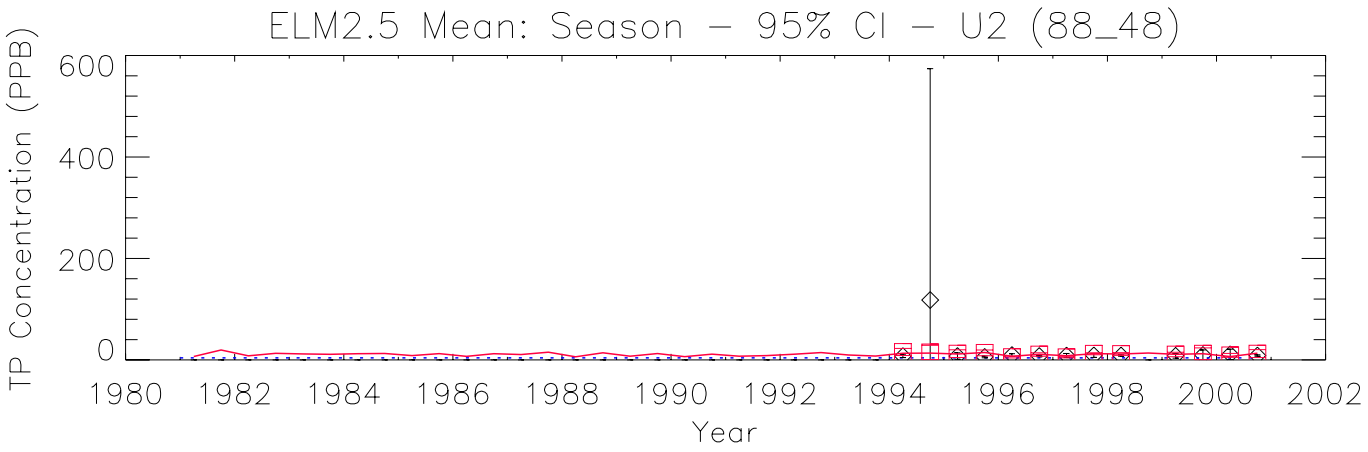

Mean: Water Year – 95% CI – F5 (87_43)
TP Concentration (PPB)
0
20
40
60
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

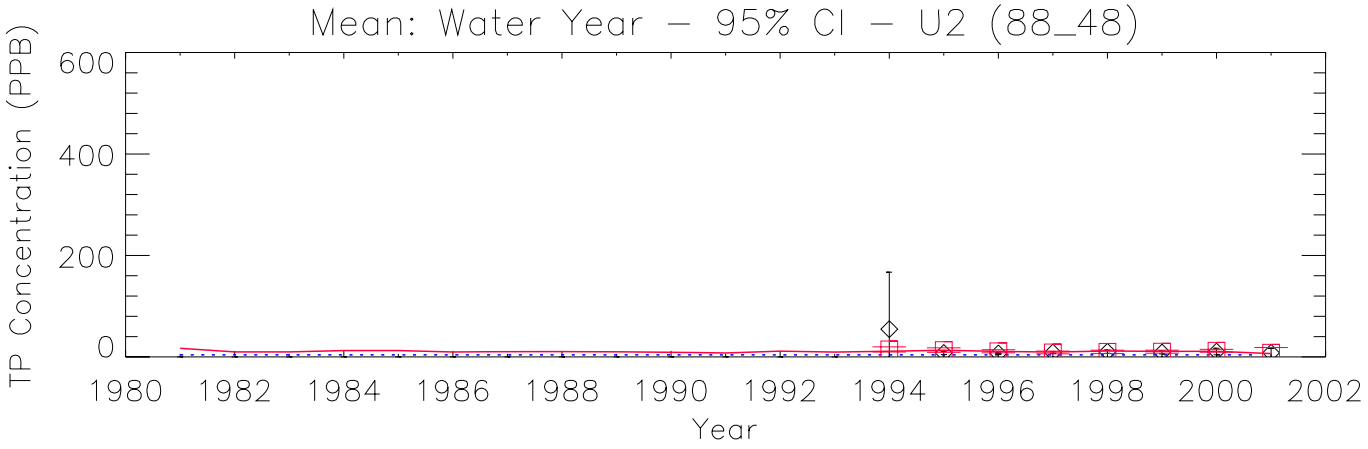

Cumulative Distribution: Raw Data – F5 (87_43)
Cumulative Distribution
0
20
40
60
80
100
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

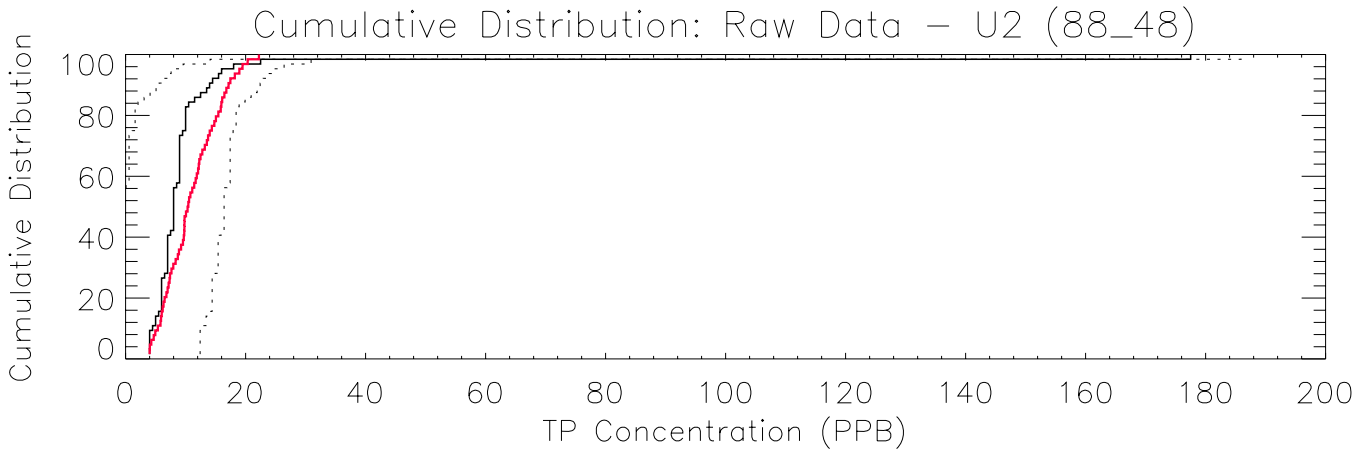

ELM2.5 Mean: Season – 95% CI – U1 (91_50)
TP Concentration (PPB)
120
100
80
60
40
20
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

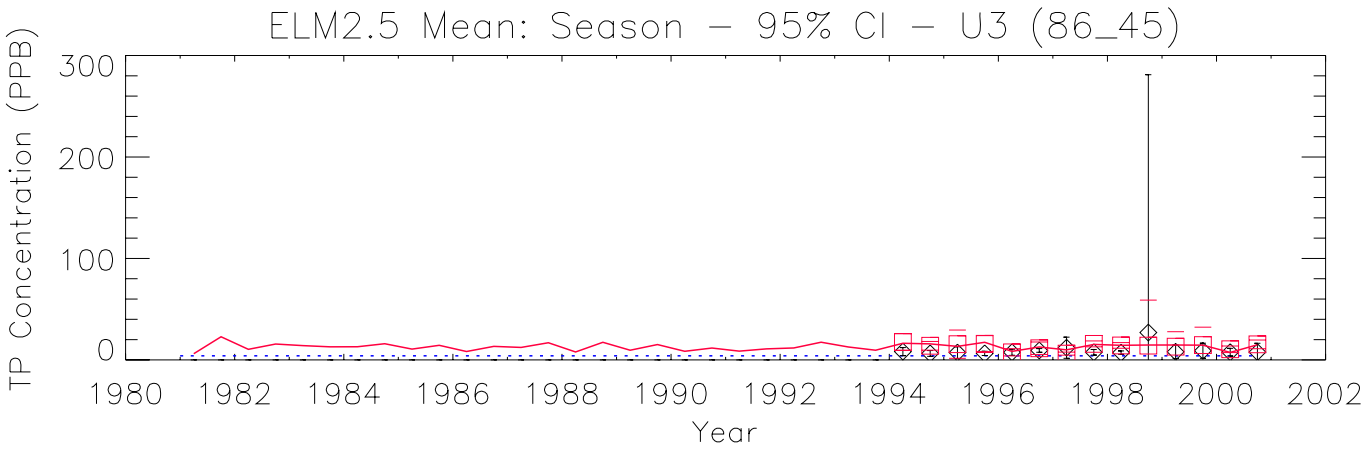

Mean: Water Year – 95% CI – U1 (91_50)
TP Concentration (PPB)
120
100
80
60
40
20
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

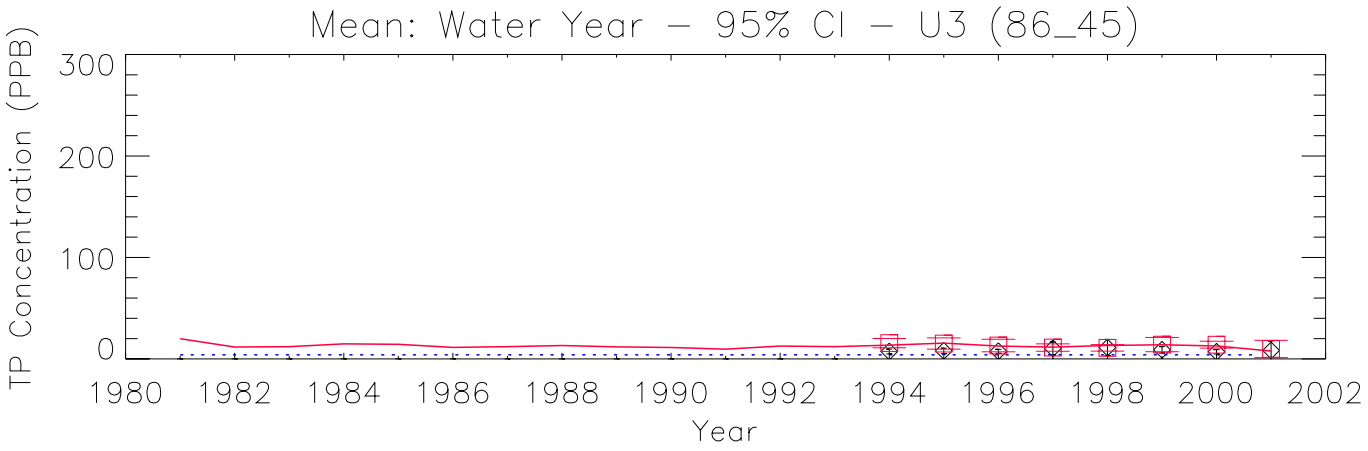

Cumulative Distribution: Raw Data – U1 (91_50)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

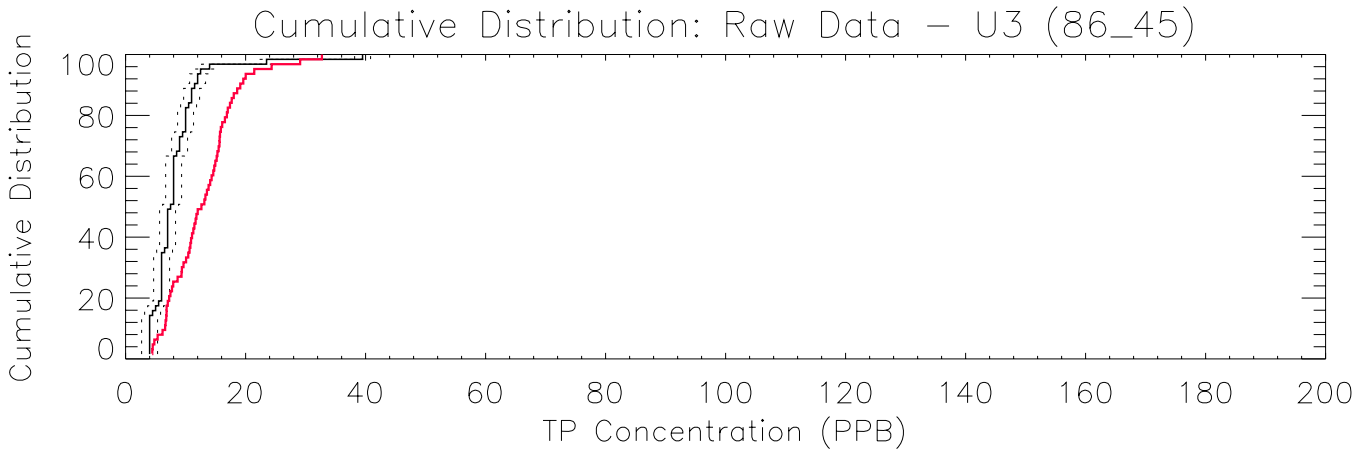

ELM2.5 Mean: Season – 95% CI – U2 (88_48)
TP Concentration (PPB)
600
400
200
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

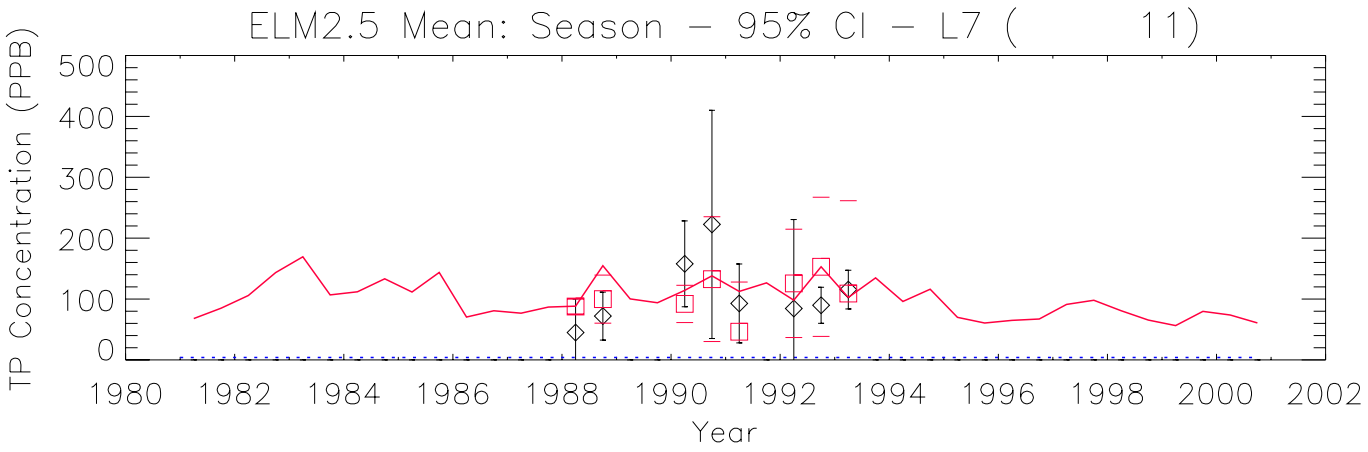

Mean: Water Year – 95% CI – U2 (88_48)
TP Concentration (PPB)
600
400
200
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

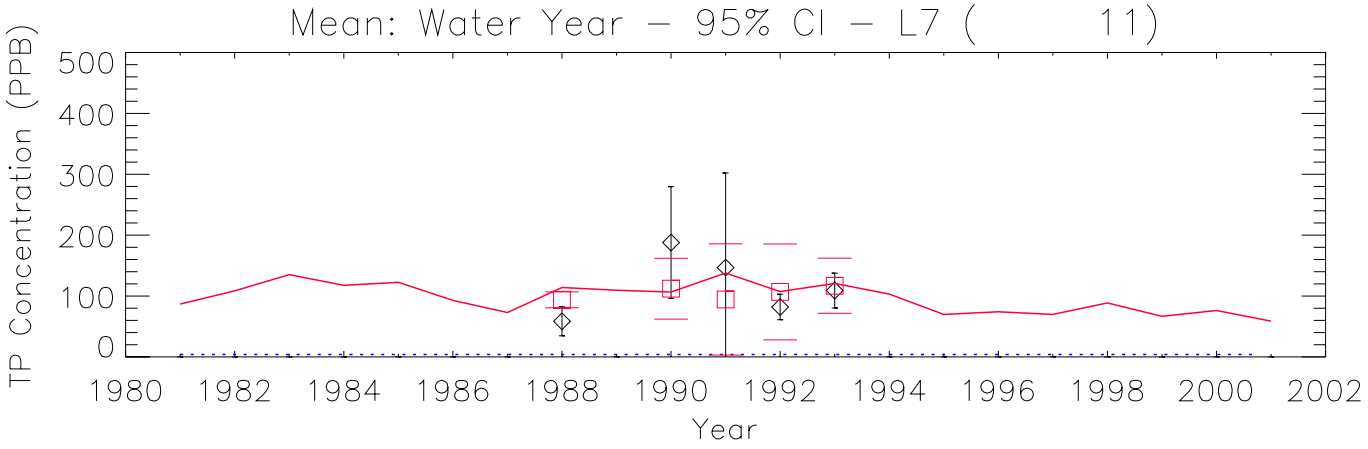

Cumulative Distribution: Raw Data – U2 (88_48)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

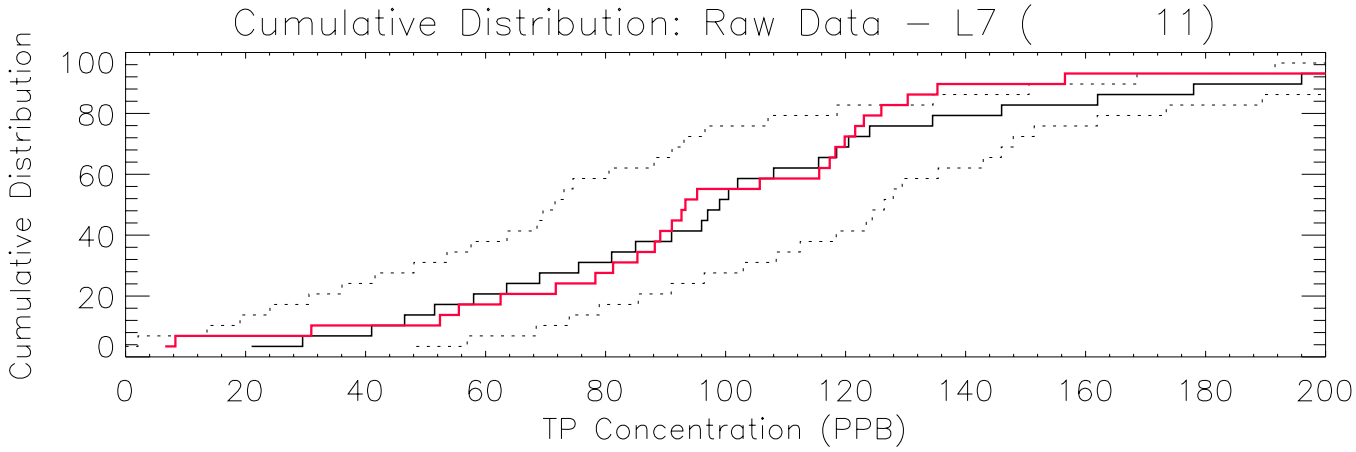

ELM2.5 Mean: Season – 95% CI – U3 (86_45)
TP Concentration (PPB)
300
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

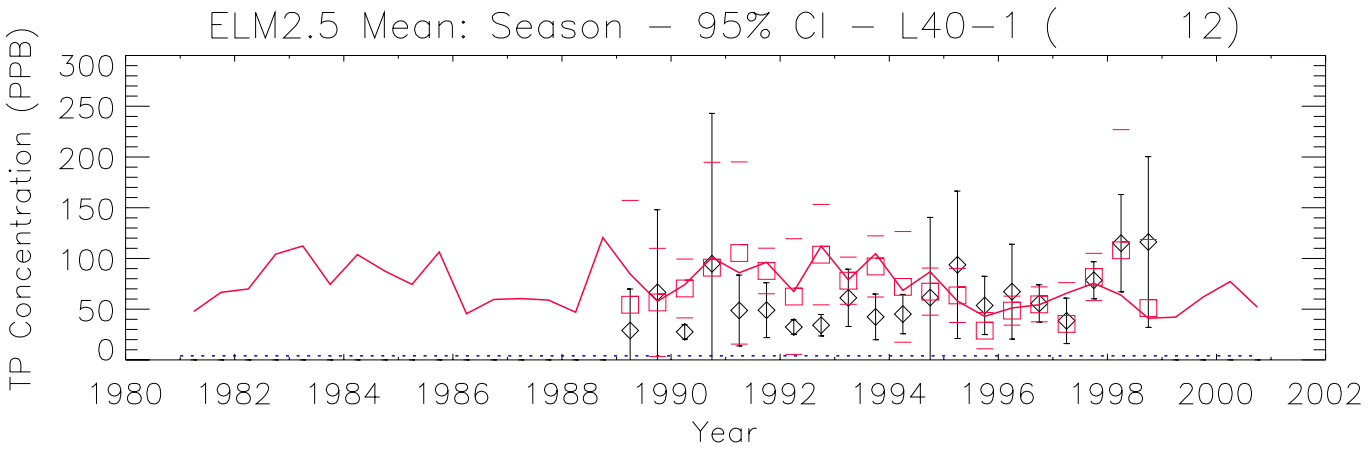

Mean: Water Year – 95% CI – U3 (86_45)
TP Concentration (PPB)
300
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

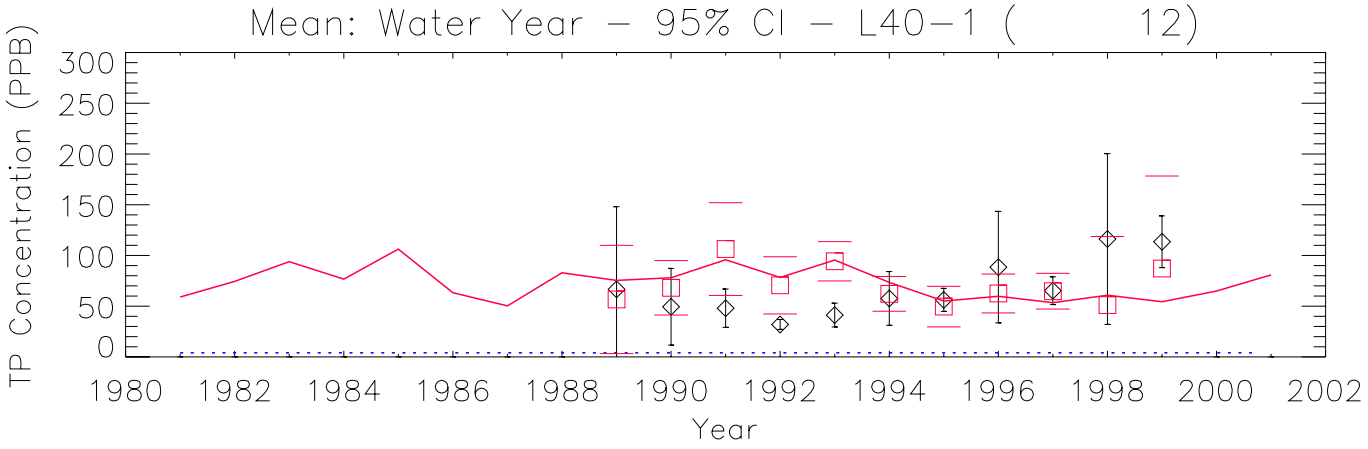

Cumulative Distribution: Raw Data – U3 (86_45)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

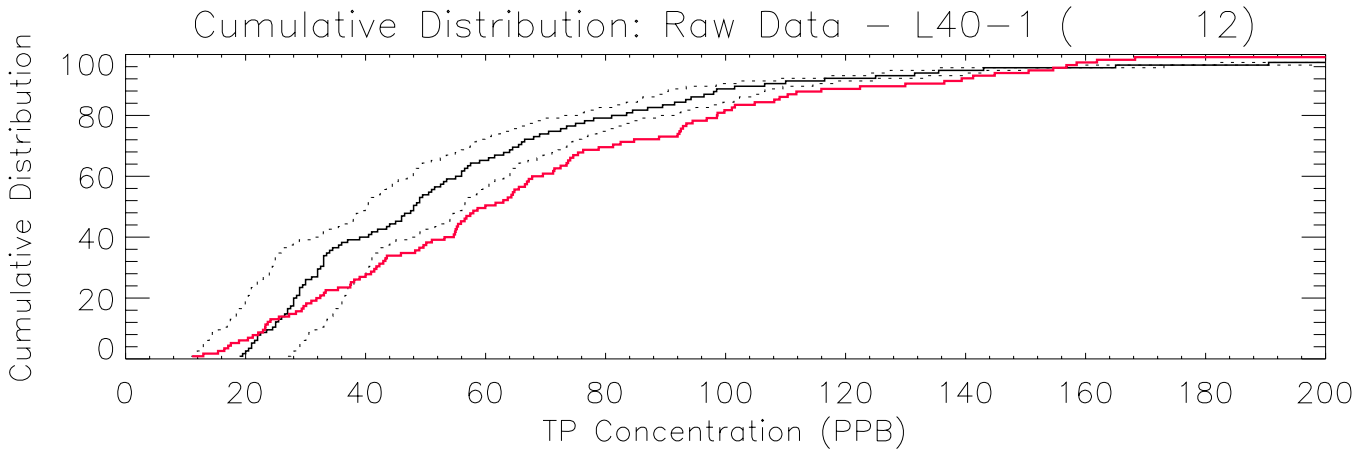

ELM2.5 Mean: Season – 95% CI – L7 (11)
TP Concentration (PPB)
0
100
200
300
400
500
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

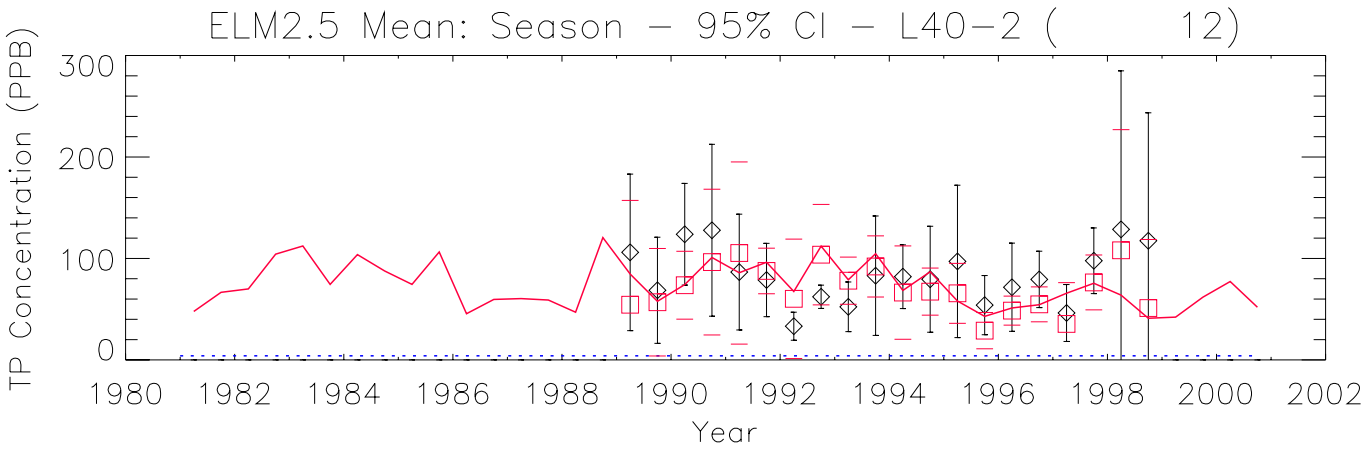

Mean: Water Year – 95% CI – L7 (11)
TP Concentration (PPB)
0
100
200
300
400
500
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – L7 (11)
Cumulative Distribution
0
20
40
60
80
100
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – L40–1 (12)
TP Concentration (PPB)
300
250
200
150
100
50
0
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year


Mean: Water Year – 95% CI – L40–1 (12)
TP Concentration (PPB)
300
250
200
150
100
50
0
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year


Cumulative Distribution: Raw Data – L40–1 (12)
Cumulative Distribution
100
80
60
40
20
0
0 20 40 60 80 100 120 140 160 180 200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – L40–2 (12)
TP Concentration (PPB)
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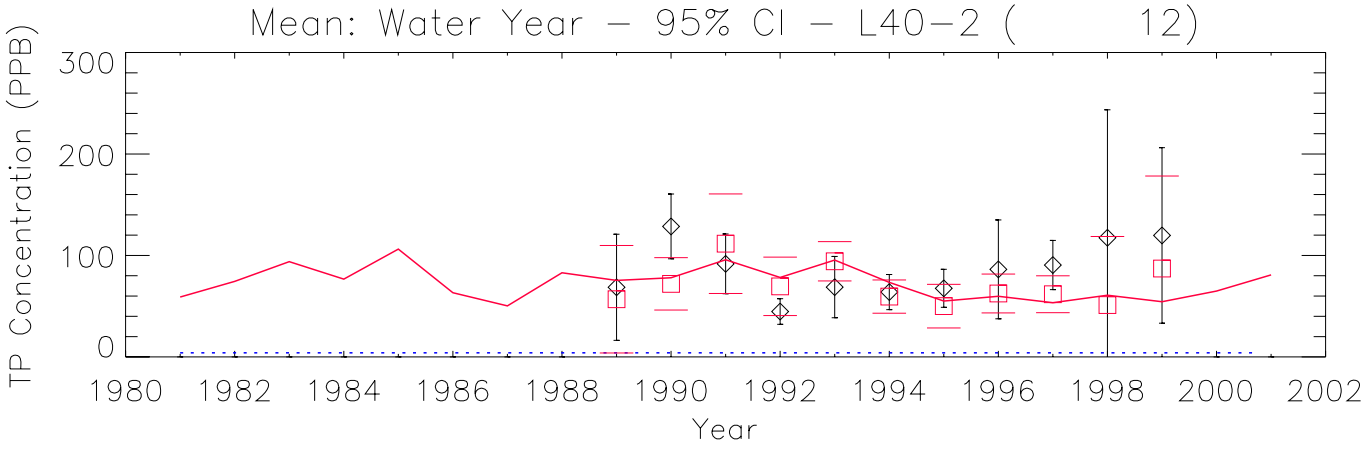
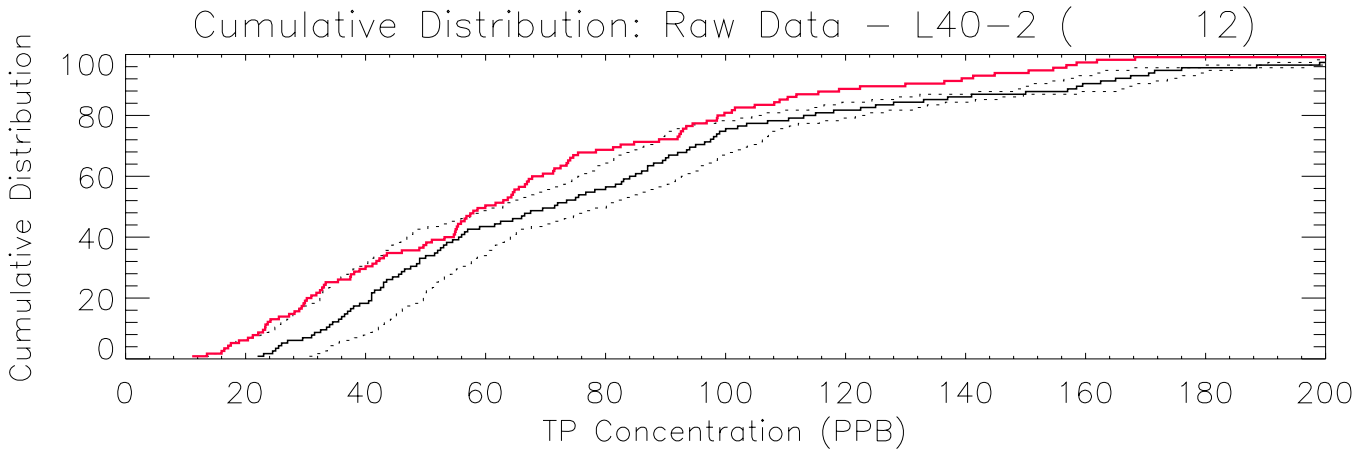
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – L40–2 (12)
TP Concentration (PPB)
300
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – L40–2 (12)
Cumulative Distribution
100
80
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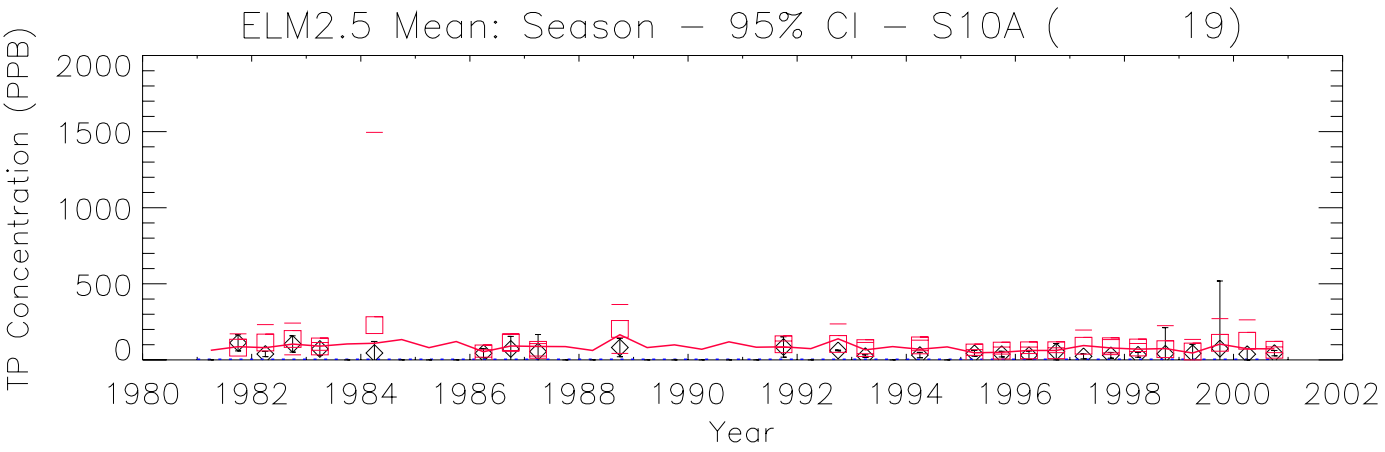
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – S10A (19)
TP Concentration (PPB)
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1000
500
0
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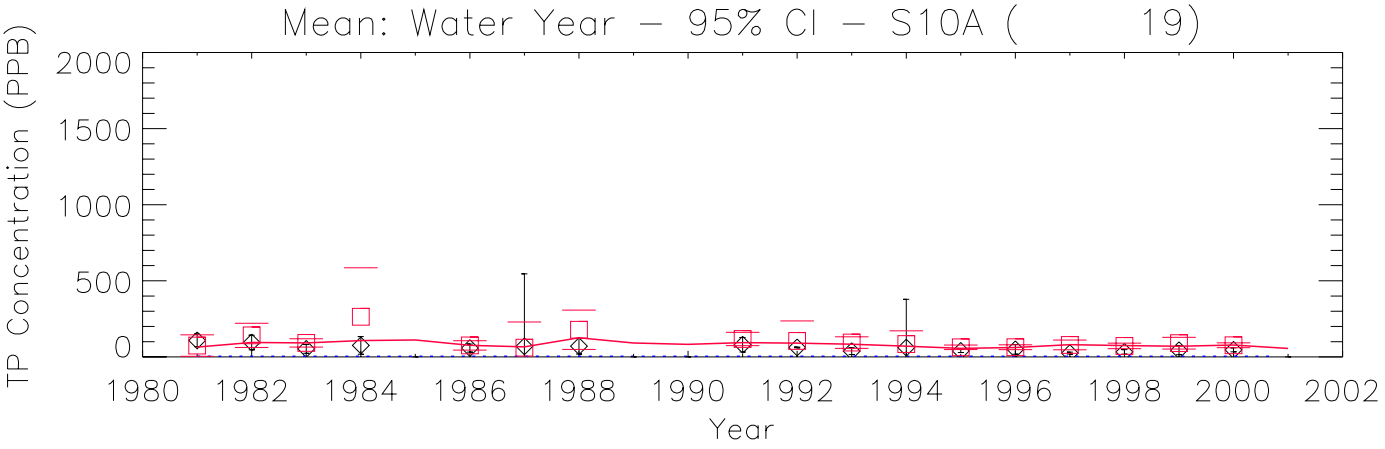
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S10A (19)
TP Concentration (PPB)
2000
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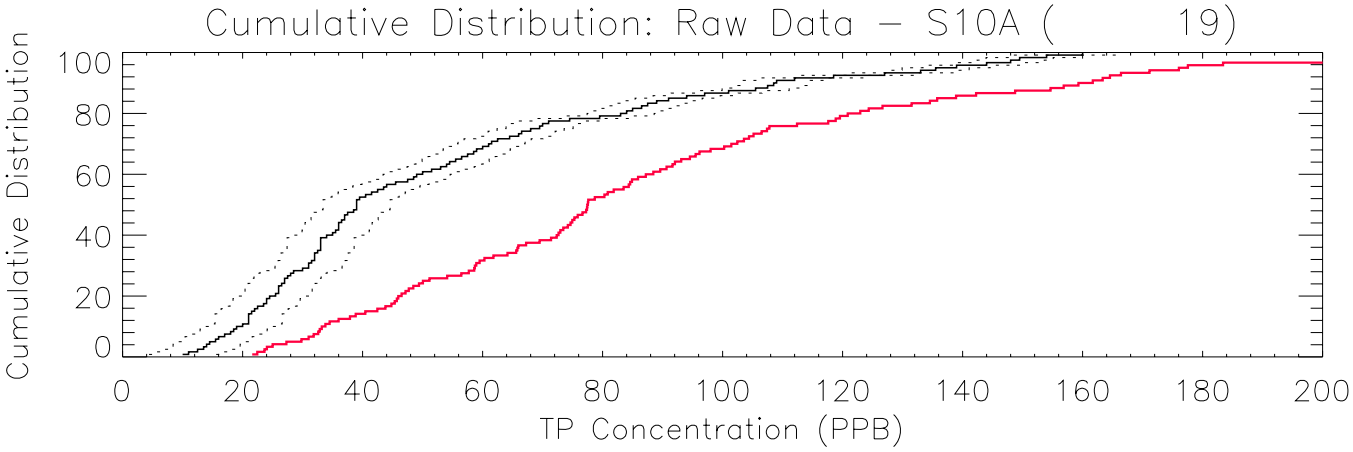
1000
500
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S10A (19)
Cumulative Distribution
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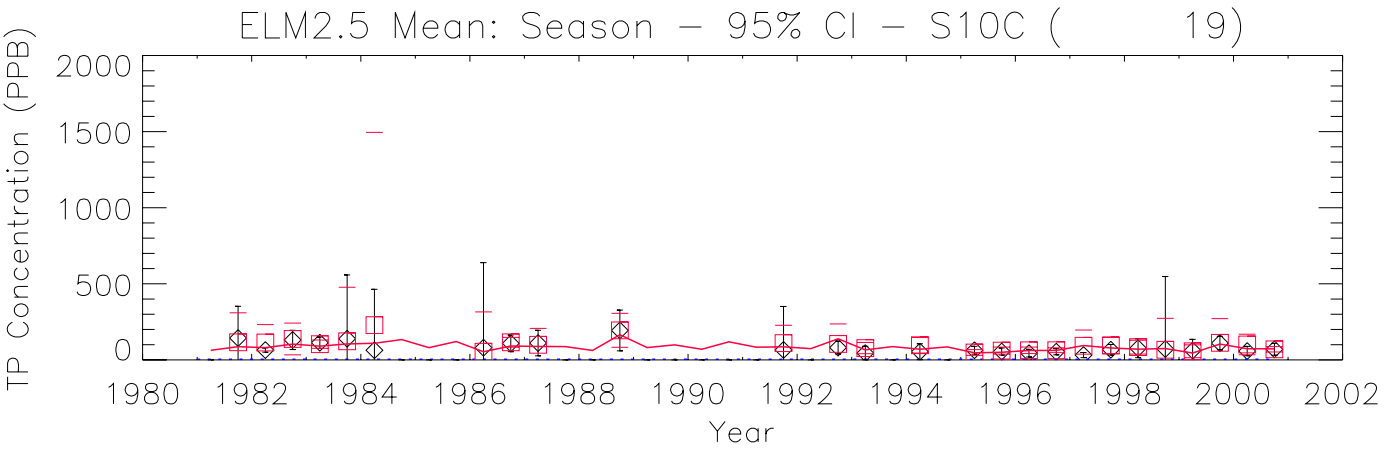
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – S10C (19)
TP Concentration (PPB)
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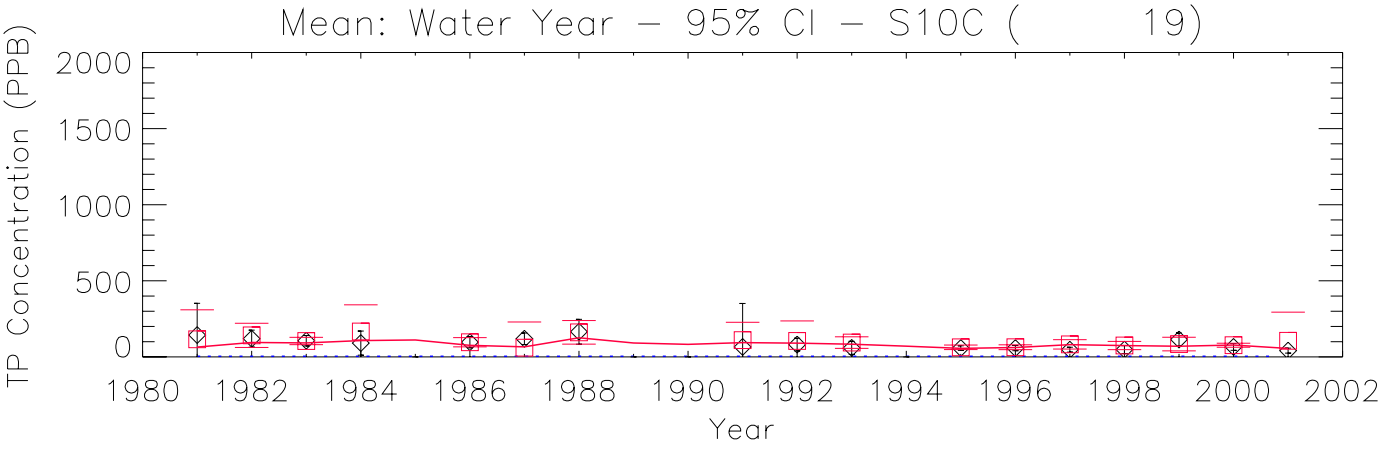
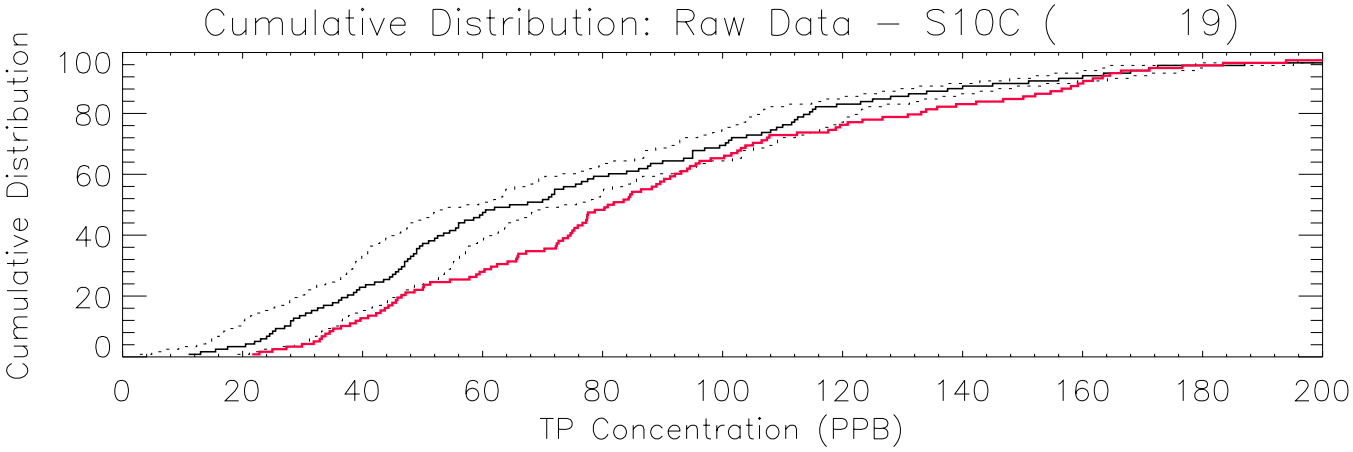
1500
1000
500
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S10C (19)
TP Concentration (PPB)
2000
1500
1000
500
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S10C (19)
Cumulative Distribution
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80
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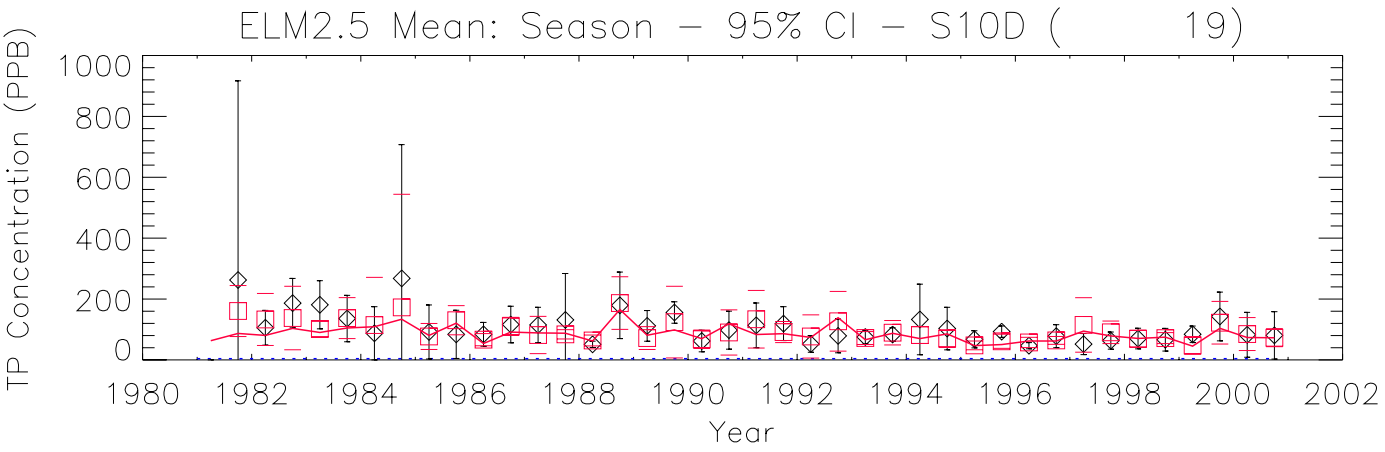
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – S10D (19)
TP Concentration (PPB)
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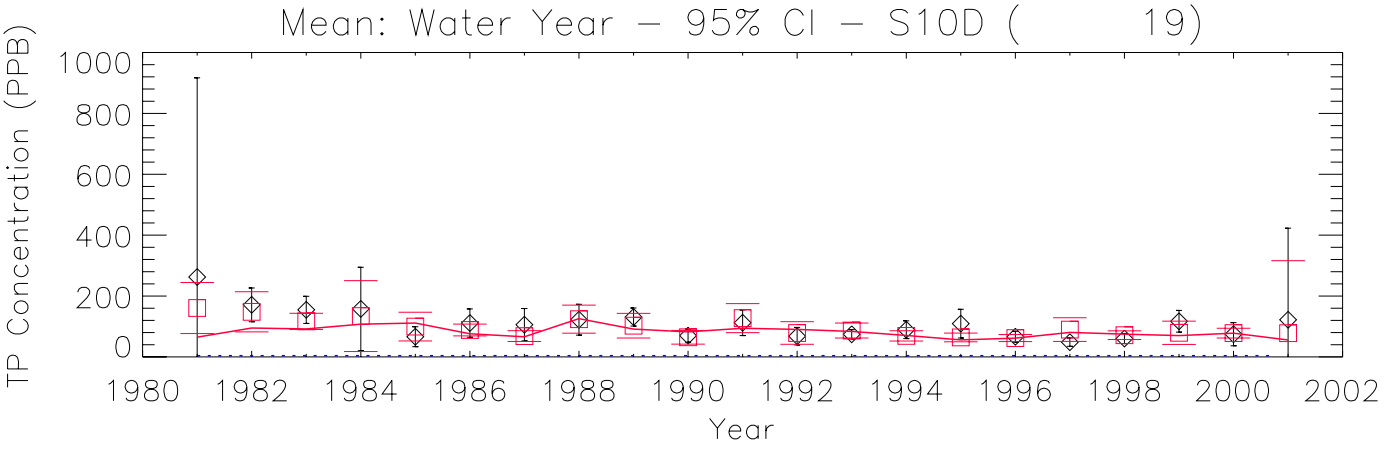
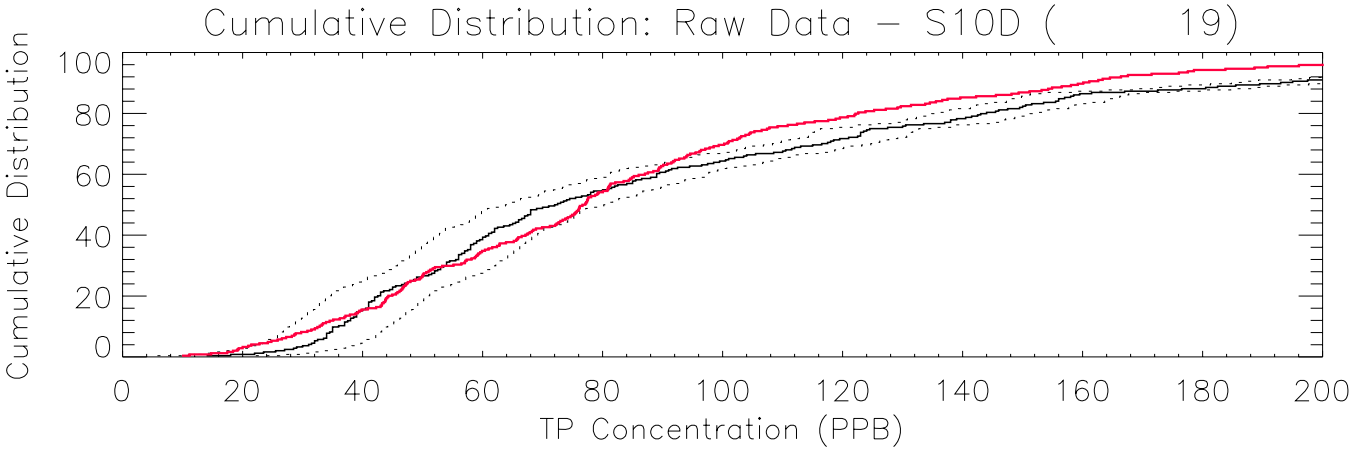
400
200
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S10D (19)
TP Concentration (PPB)
1000
800
600
400
200
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S10D (19)
Cumulative Distribution
100
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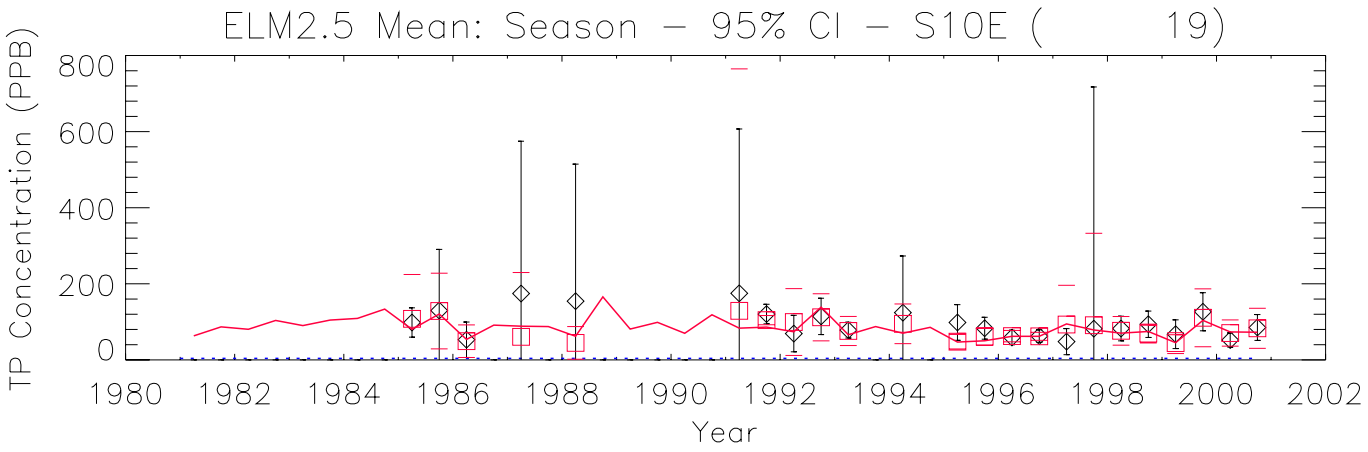
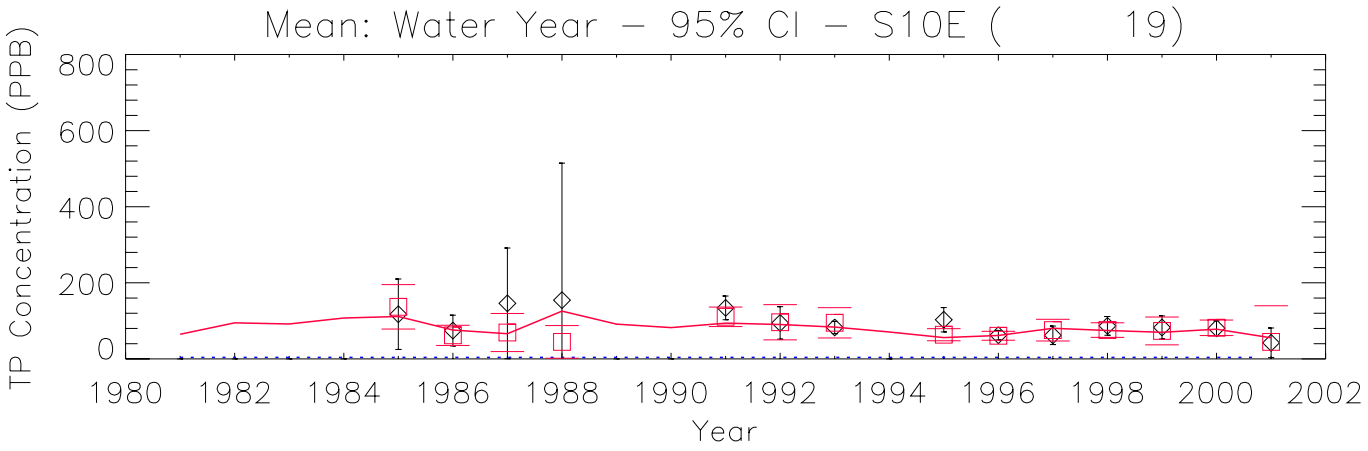
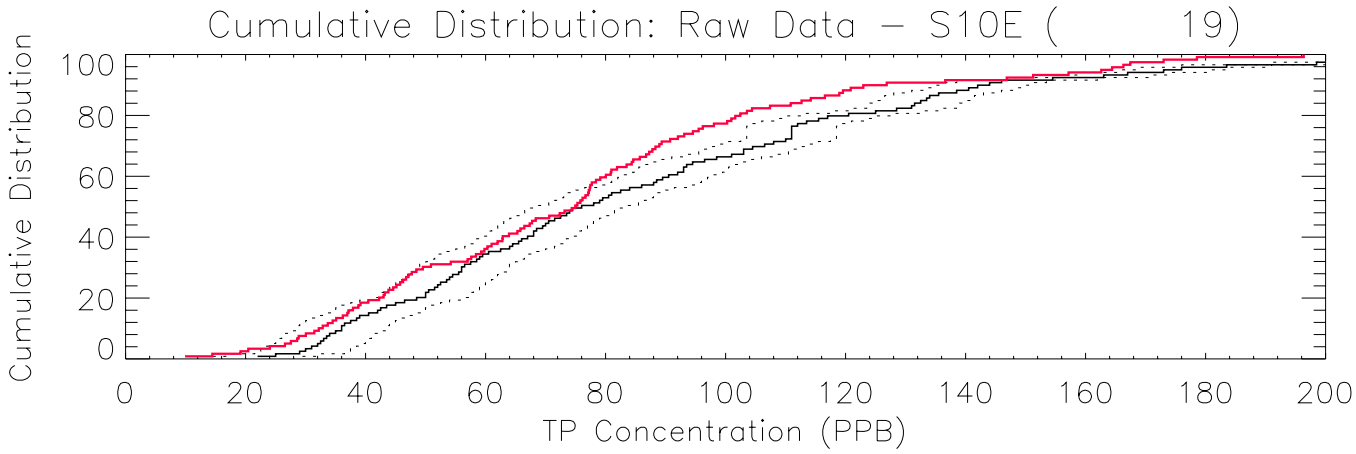
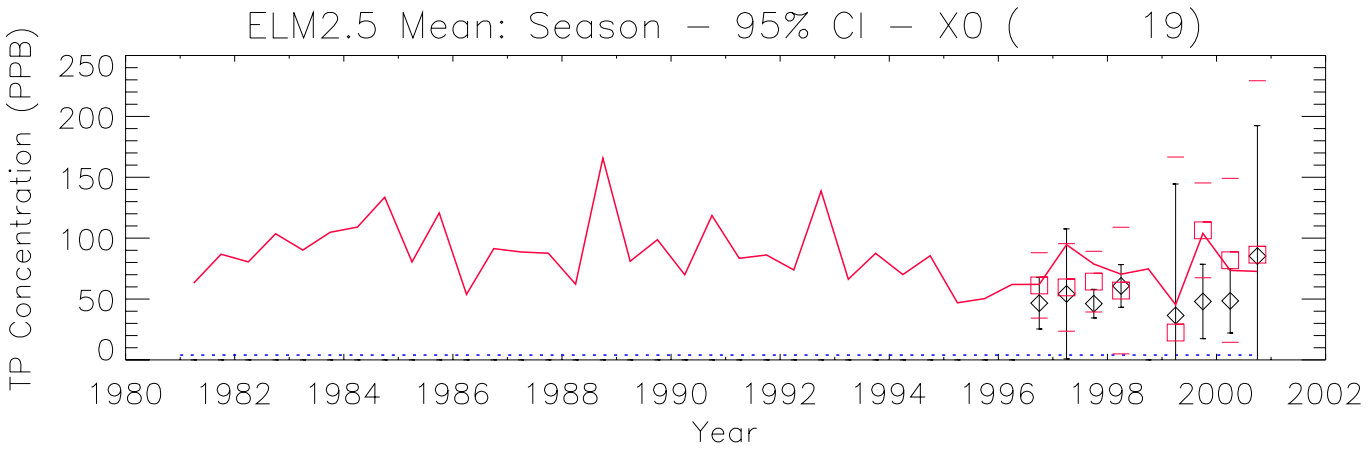
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – S10E (19)
TP Concentration (PPB)
800
600
400
200
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S10E (19)
TP Concentration (PPB)
800
600
400
200
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S10E (19)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – XO (19)
TP Concentration (PPB)
250
200
150
100
50
0
1980
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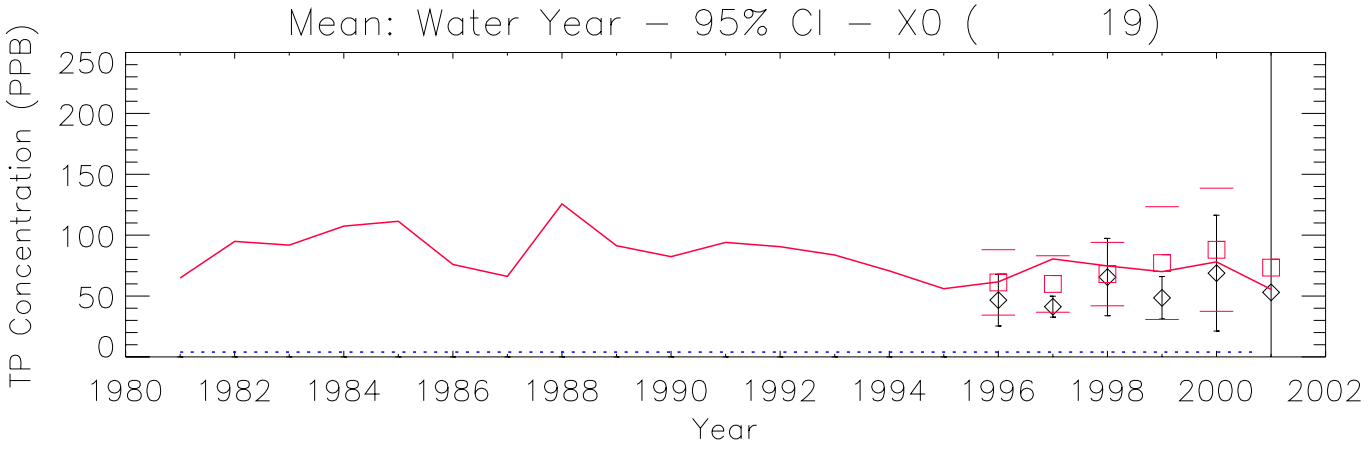
Year


Mean: Water Year – 95% CI – XO (19)
TP Concentration (PPB)
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1982
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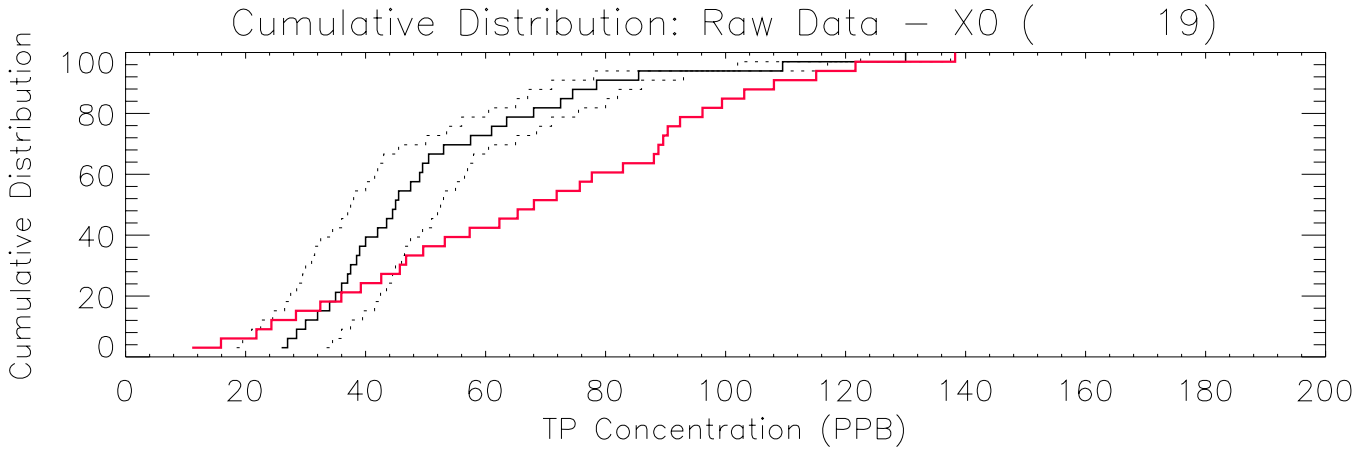
2002
Year


Cumulative Distribution: Raw Data – XO (19)
Cumulative Distribution
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0
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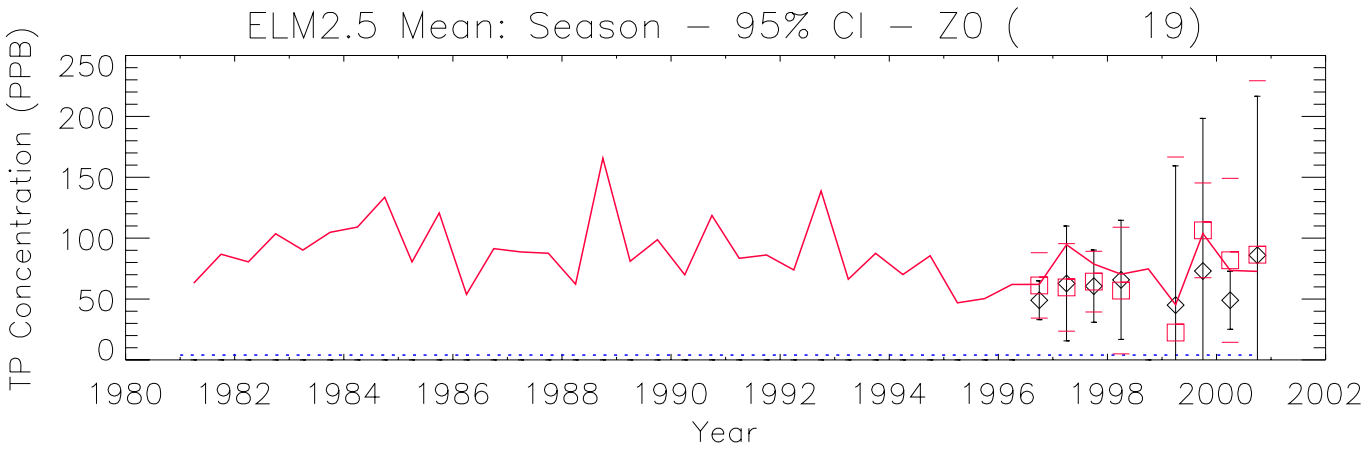
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – Z0 (19)
TP Concentration (PPB)
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1982
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1998
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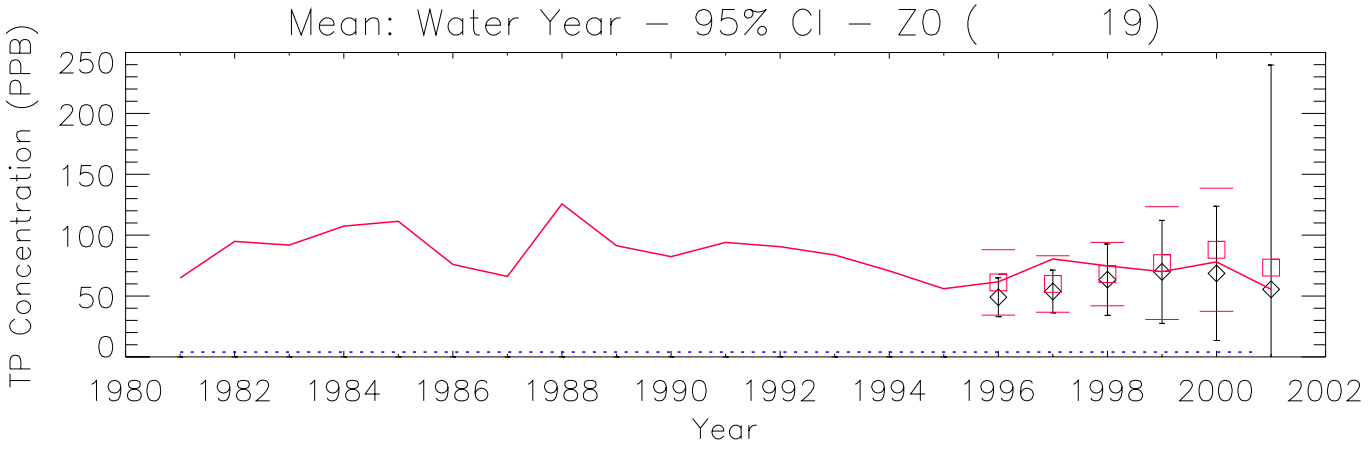
2002
Year


Mean: Water Year – 95% CI – Z0 (19)
TP Concentration (PPB)
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1998
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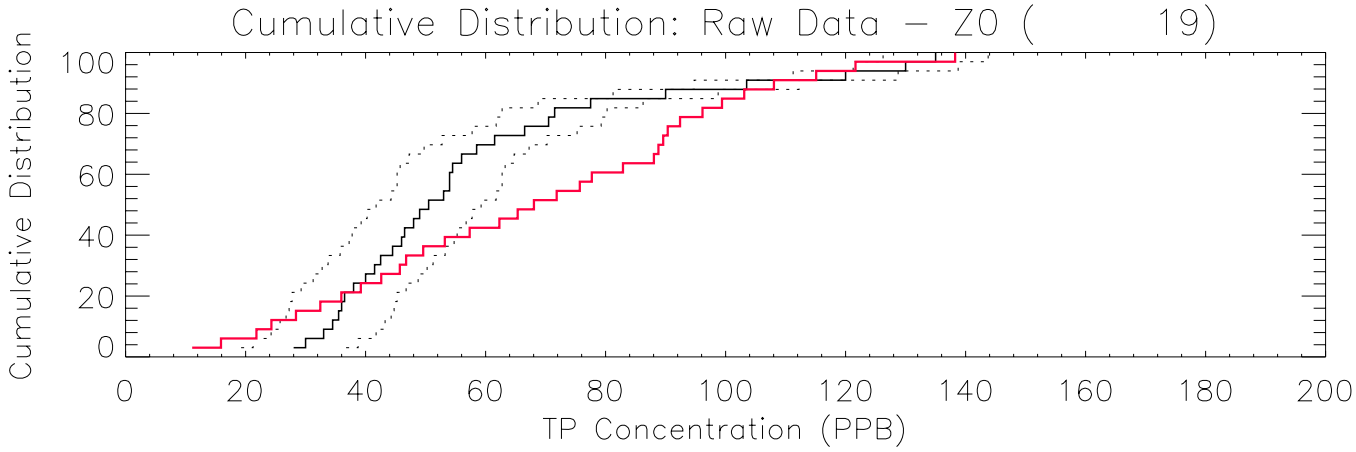
2002
Year


Cumulative Distribution: Raw Data – Z0 (19)
Cumulative Distribution
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0
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20
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60
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120
140
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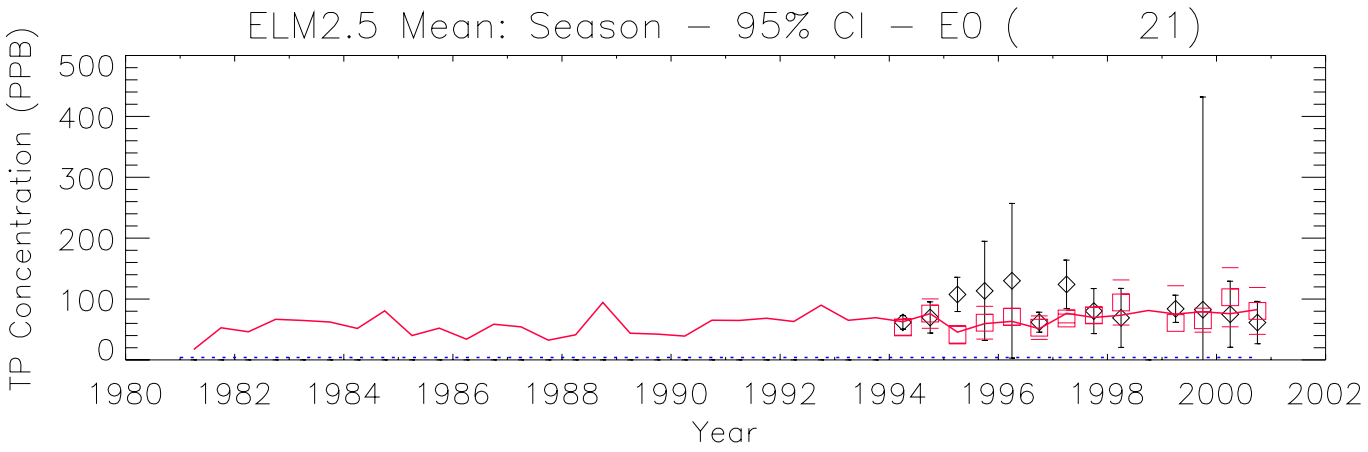
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – E0 (21)
TP Concentration (PPB)
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300
400
500
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1982
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1998
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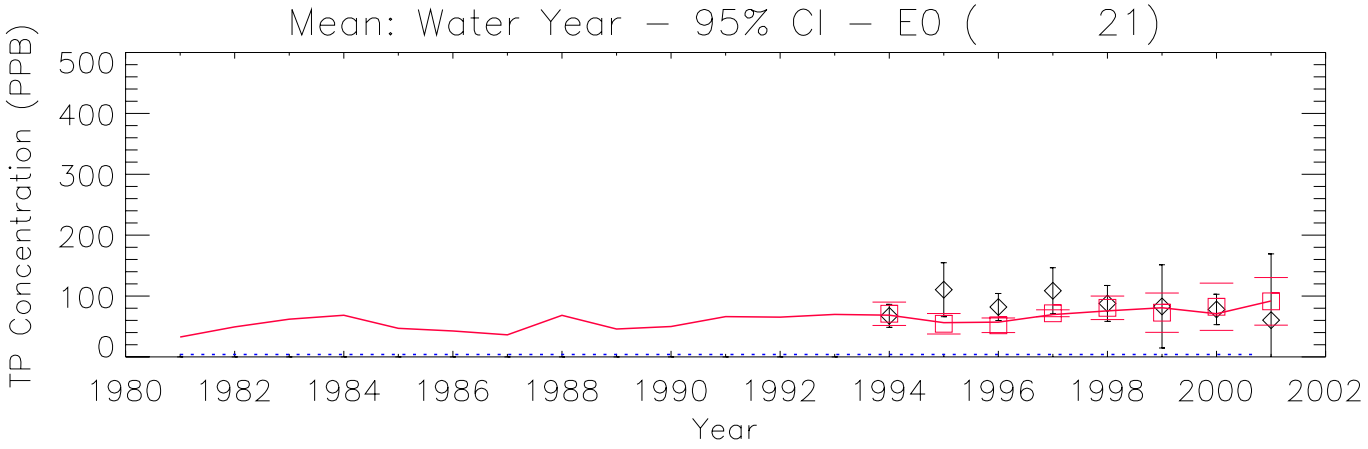
2002
Year


Mean: Water Year – 95% CI – E0 (21)
TP Concentration (PPB)
0
100
200
300
400
500
1980
1982
1984
1986
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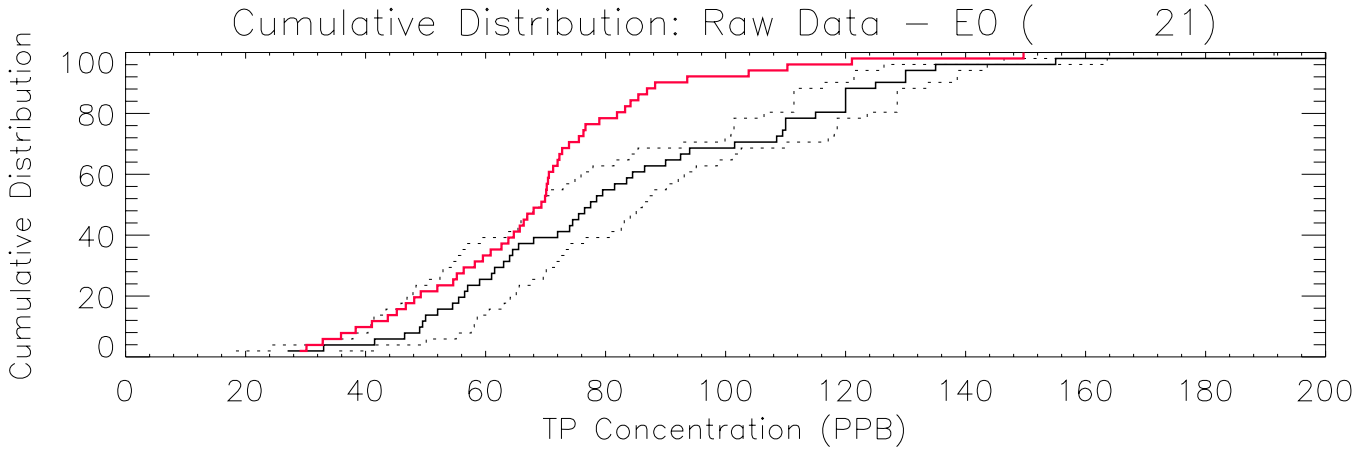
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – E0 (21)
Cumulative Distribution
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20
40
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80
100
0
20
40
60
80
100
120
140
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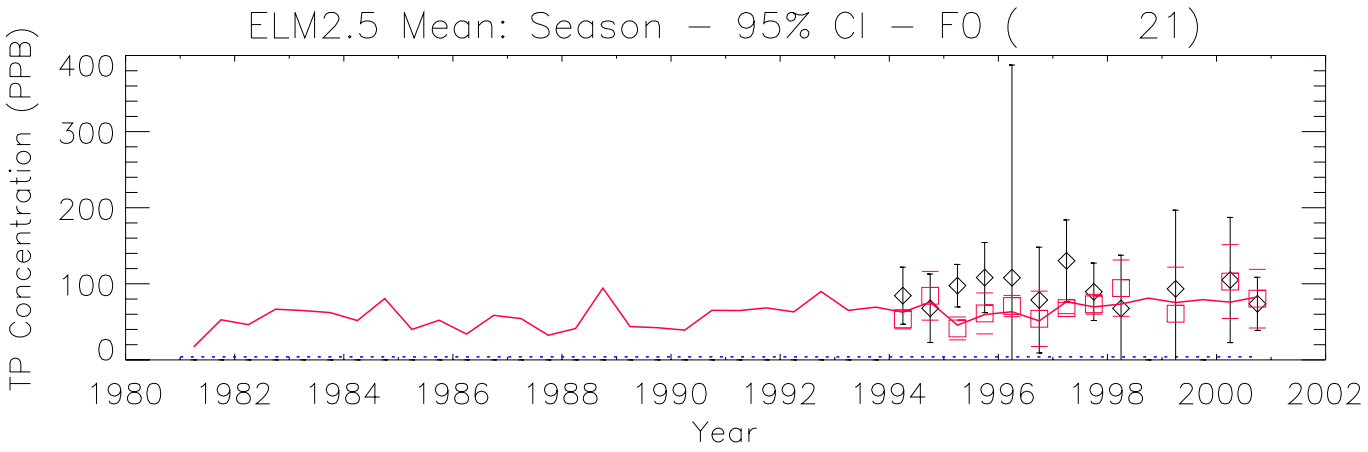
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – F0 (21)
TP Concentration (PPB)
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200
300
400
1980
1982
1984
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1998
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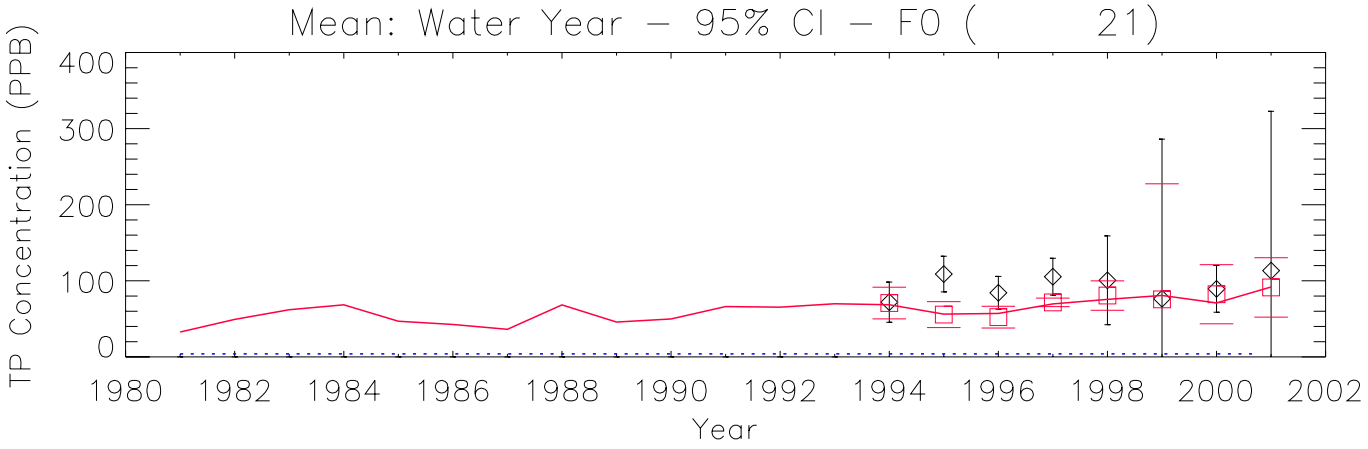
2002
Year


Mean: Water Year – 95% CI – F0 (21)
TP Concentration (PPB)
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200
300
400
1980
1982
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1986
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1990
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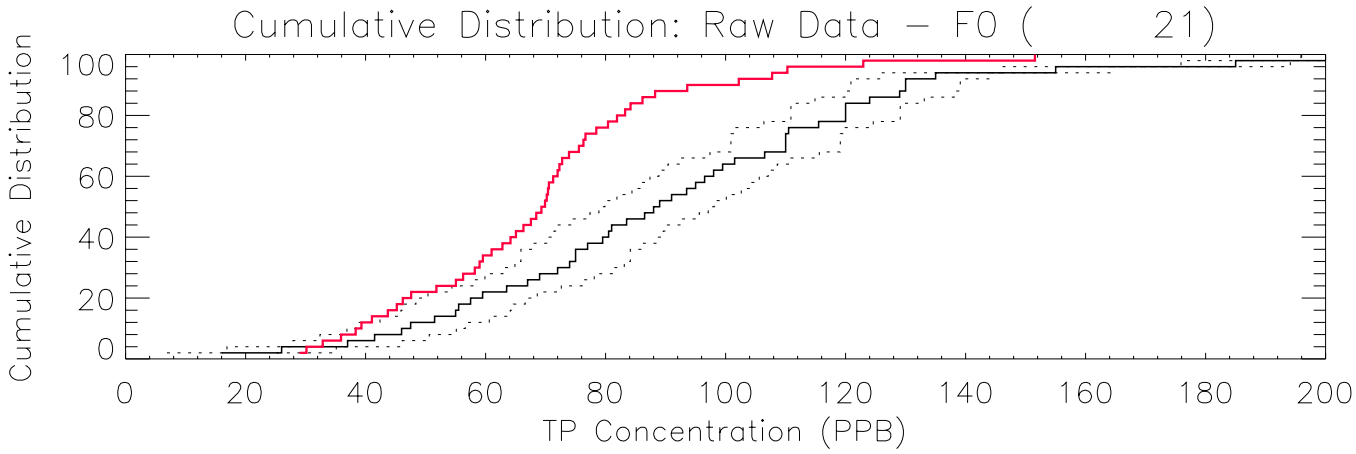
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – F0 (21)
Cumulative Distribution
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80
100
0
20
40
60
80
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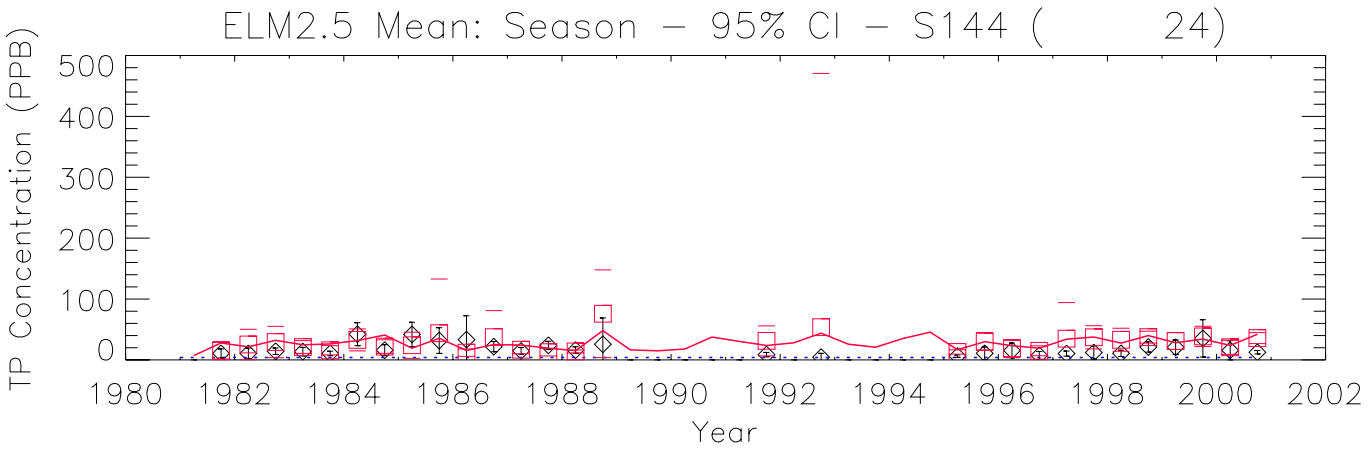
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – S144 (24)
TP Concentration (PPB)
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200
100
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1982
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1990
1992
1994
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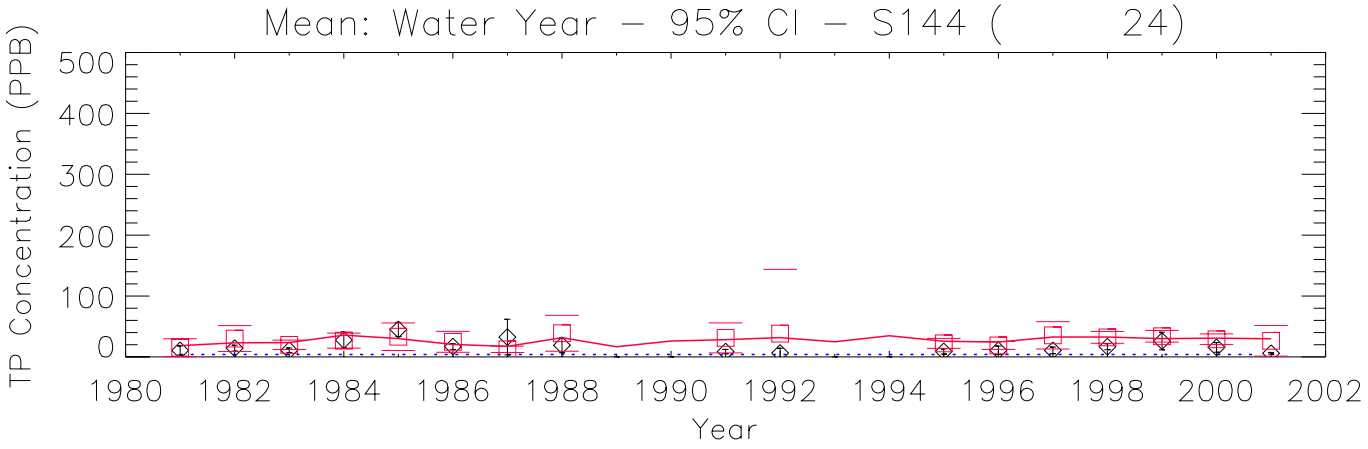
1998
2000
2002
Year


Mean: Water Year – 95% CI – S144 (24)
TP Concentration (PPB)
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200
100
0
1980
1982
1984
1986
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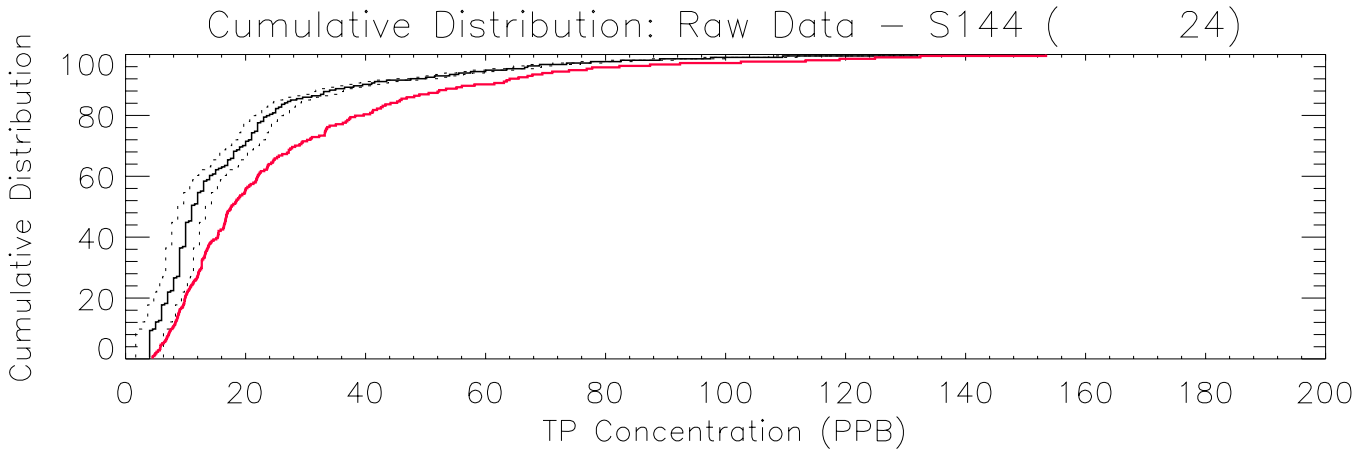
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S144 (24)
Cumulative Distribution
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20
0
0
20
40
60
80
100
120
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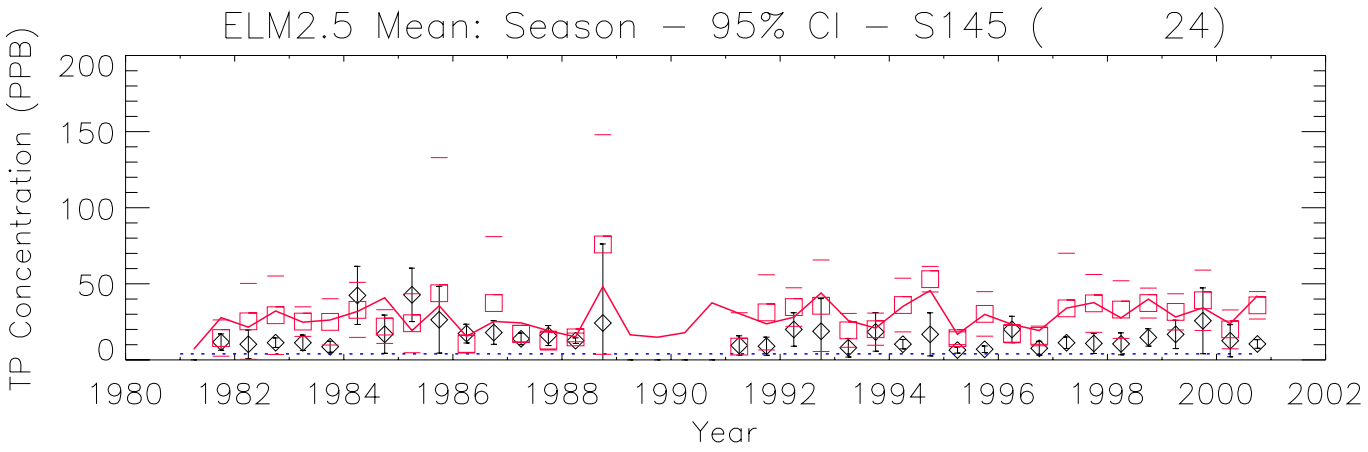
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – S145 (24)
TP Concentration (PPB)
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1982
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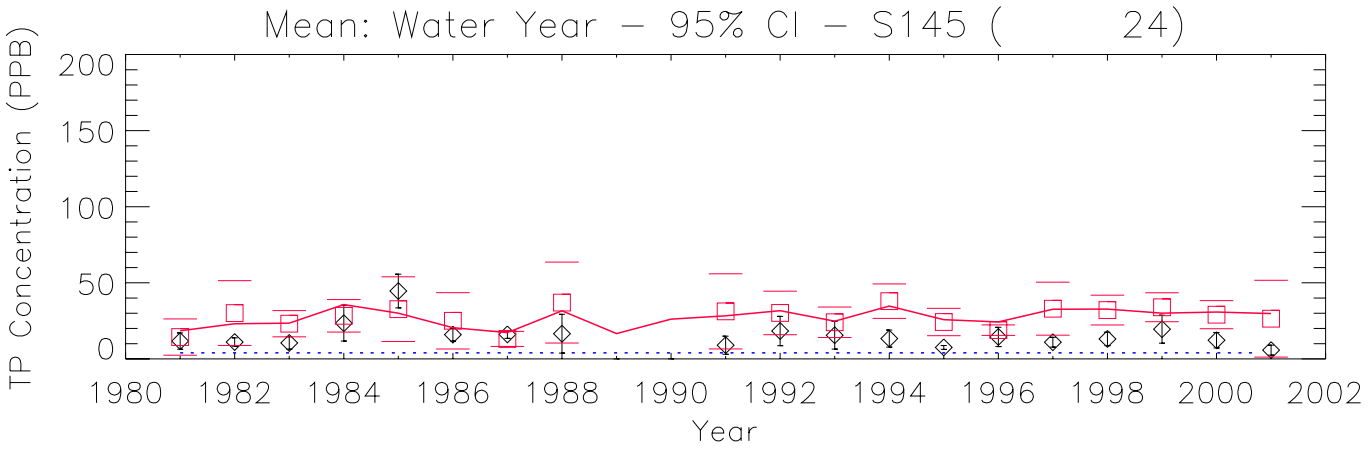
1998
2000
2002
Year


Mean: Water Year – 95% CI – S145 (24)
TP Concentration (PPB)
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1998
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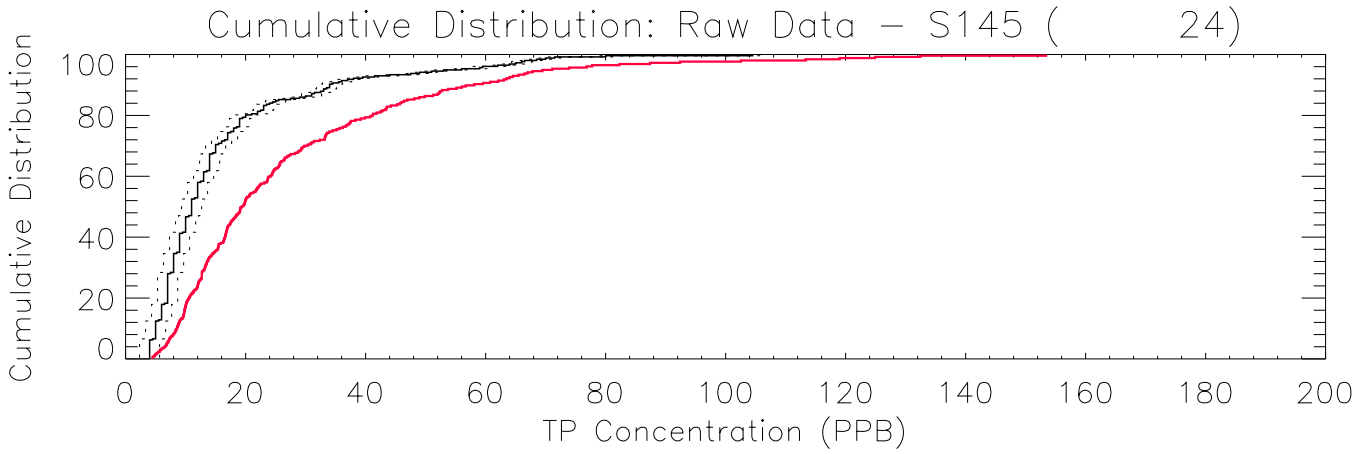
2002
Year


Cumulative Distribution: Raw Data – S145 (24)
Cumulative Distribution
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60
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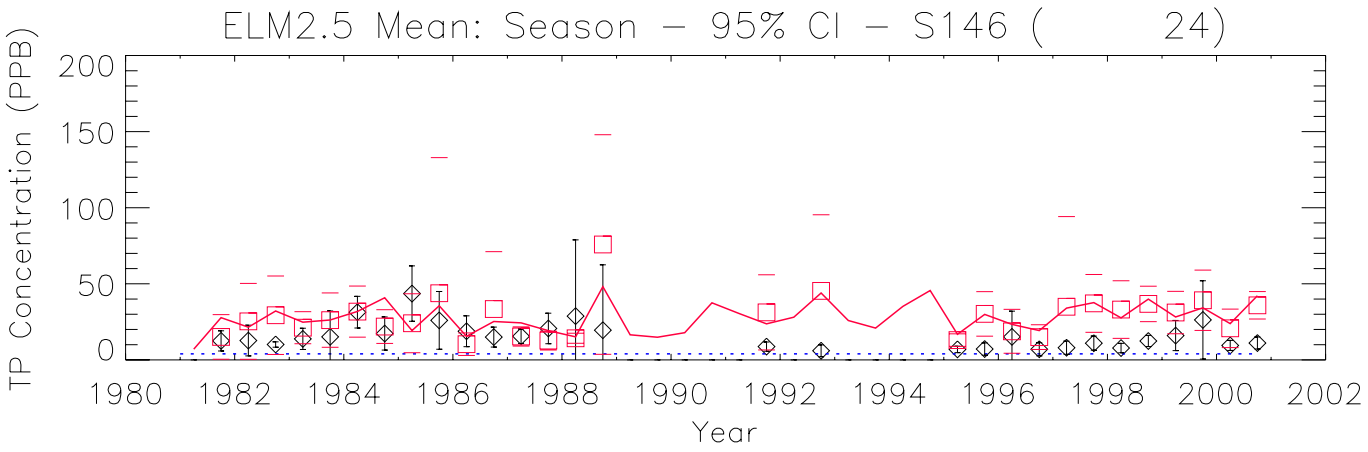
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – S146 (24)
TP Concentration (PPB)
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50
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1982
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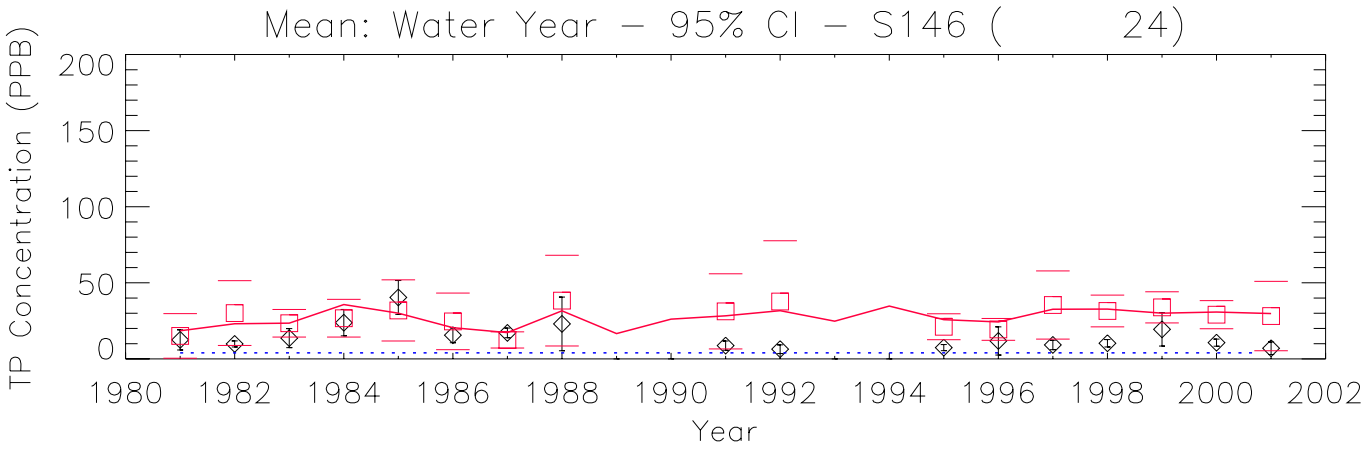
1998
2000
2002
Year


Mean: Water Year – 95% CI – S146 (24)
TP Concentration (PPB)
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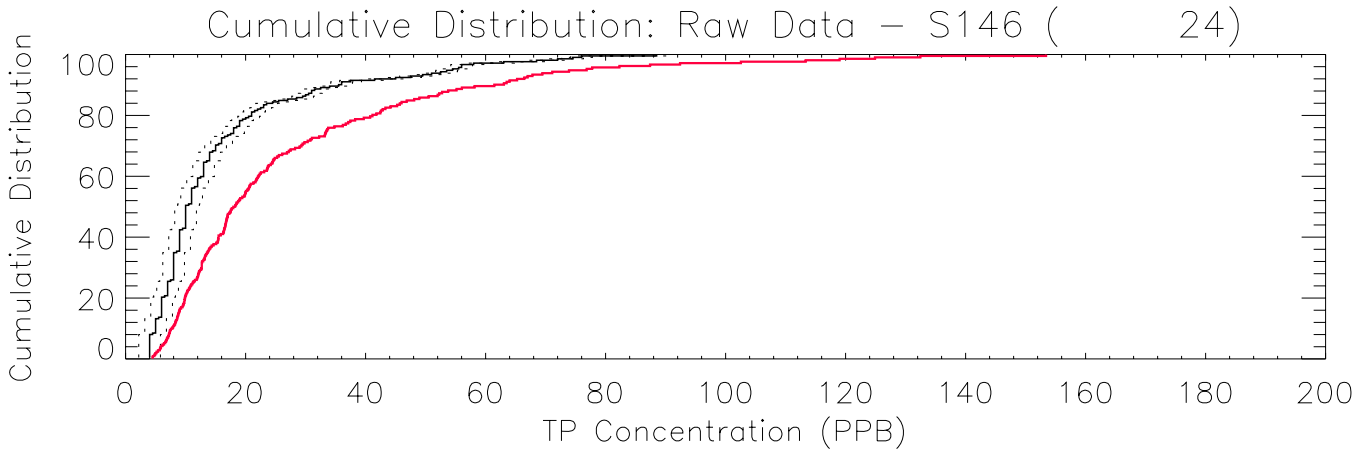
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S146 (24)
Cumulative Distribution
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40
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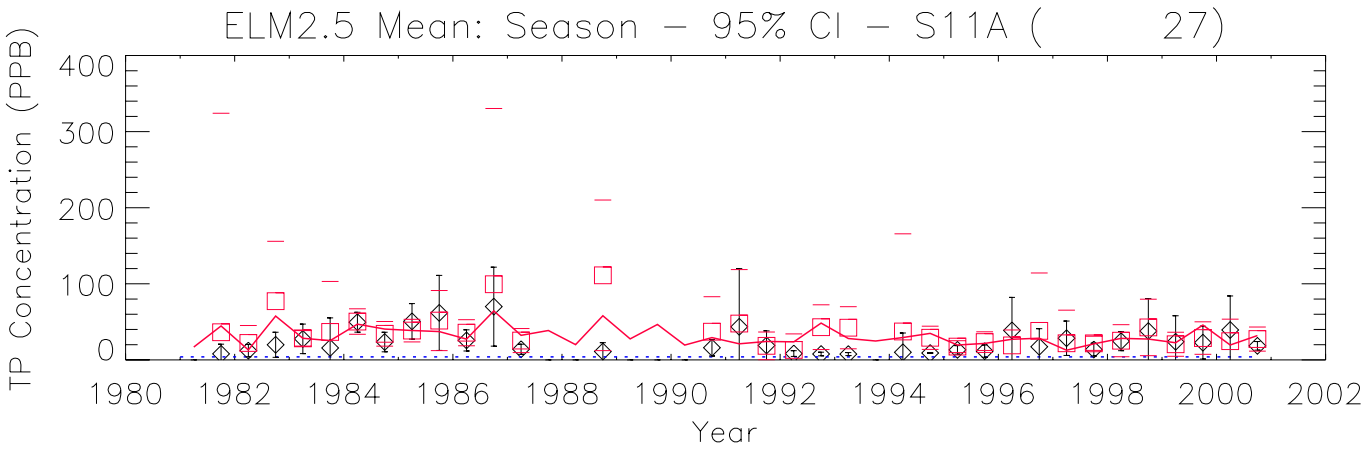
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – S11A (27)
TP Concentration (PPB)
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200
100
0
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1982
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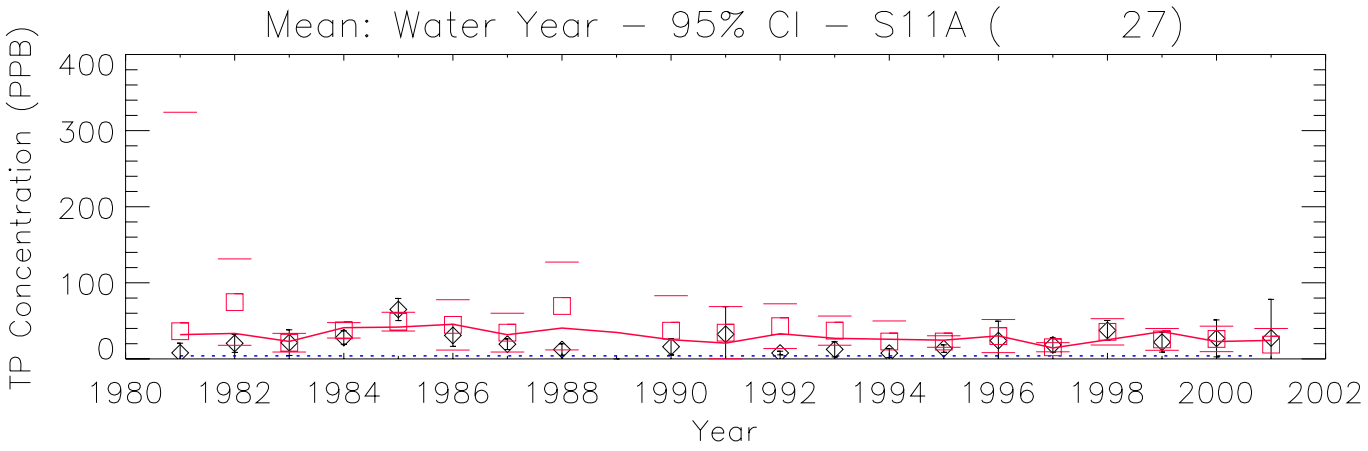
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S11A (27)
TP Concentration (PPB)
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1982
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1986
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1990
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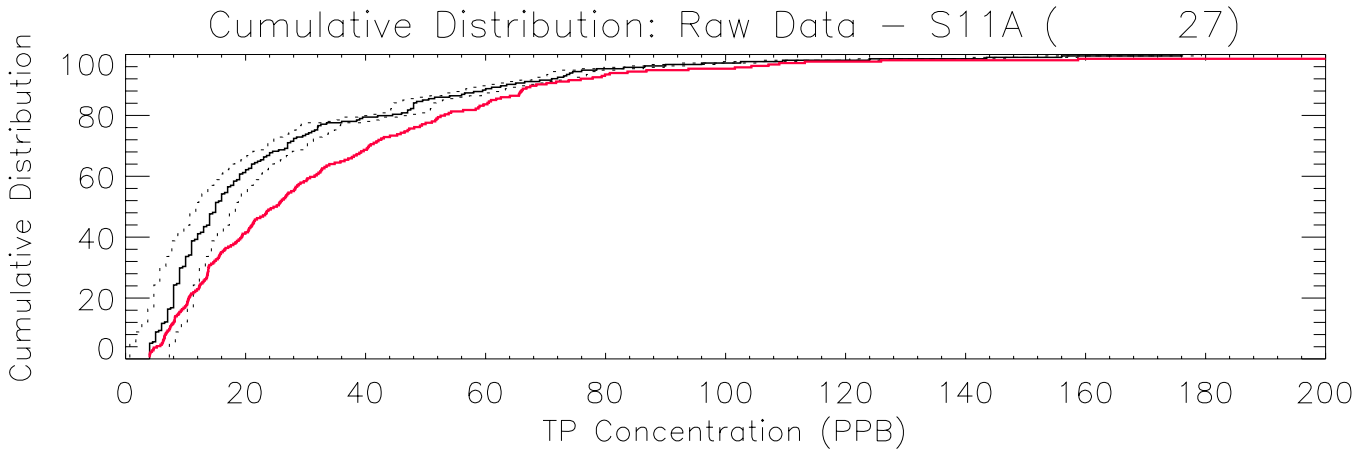
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S11A (27)
Cumulative Distribution
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40
60
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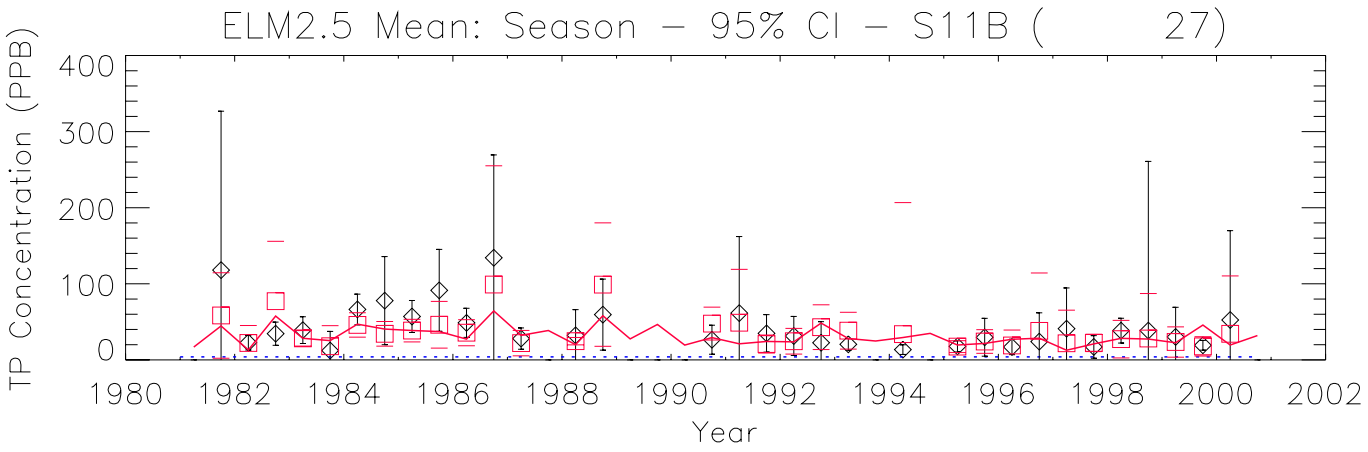
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – S11B (27)
TP Concentration (PPB)
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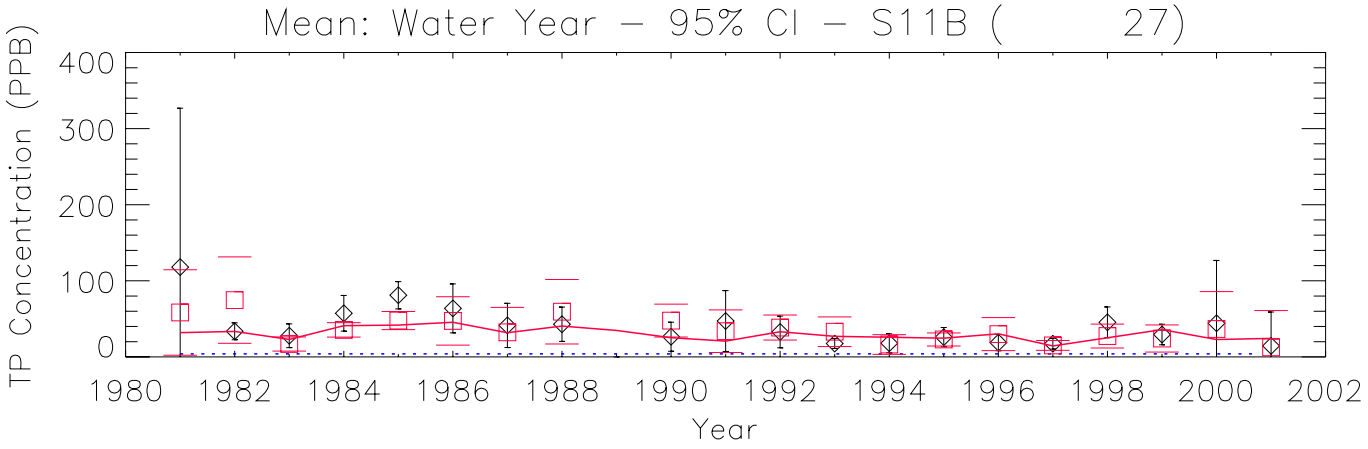
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S11B (27)
TP Concentration (PPB)
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1982
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1994
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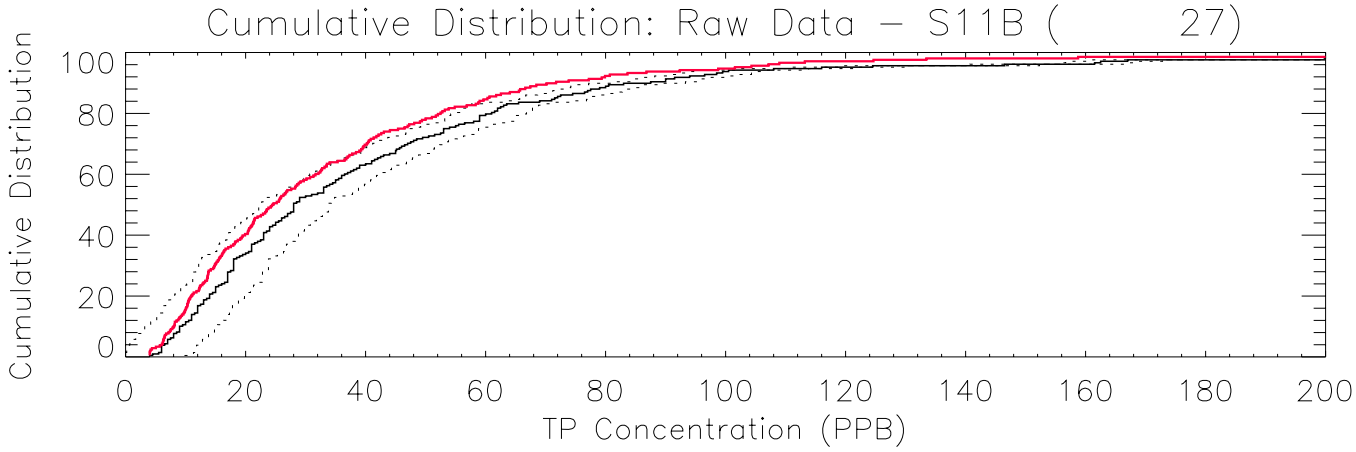
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S11B (27)
Cumulative Distribution
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80
100
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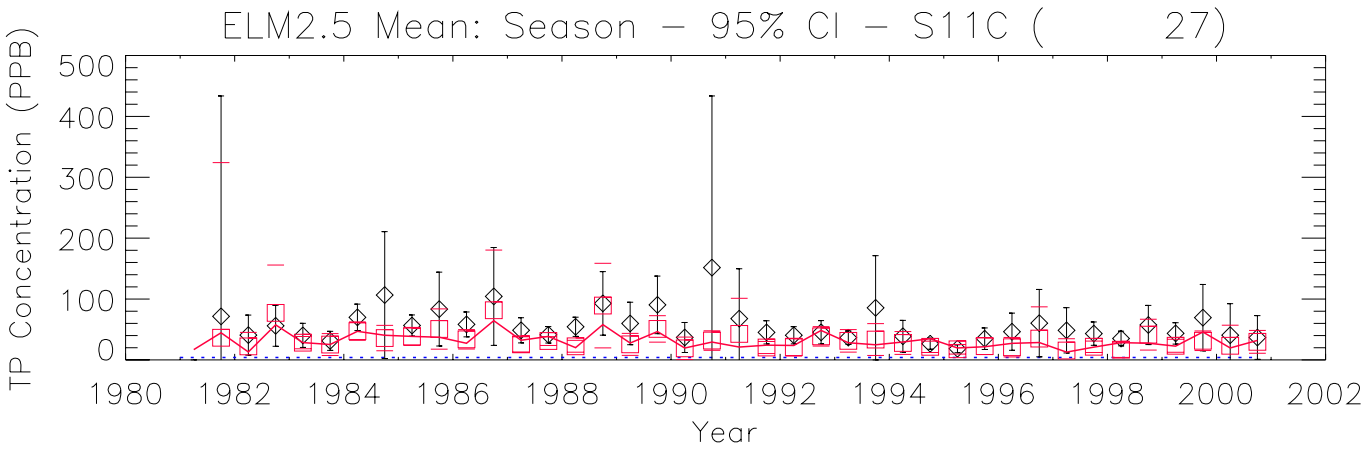
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – S11C (27)
TP Concentration (PPB)
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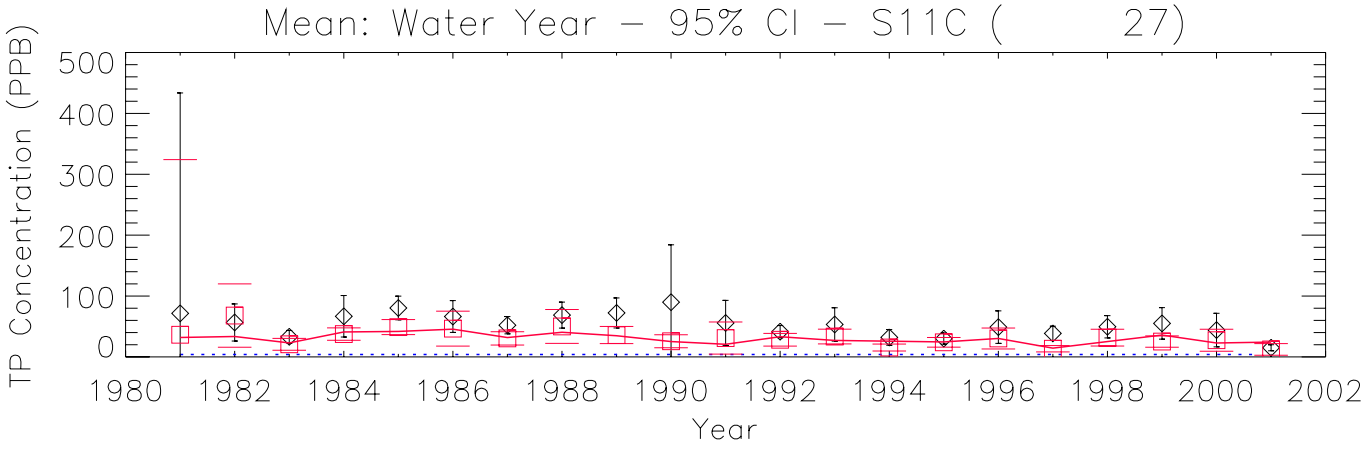
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S11C (27)
TP Concentration (PPB)
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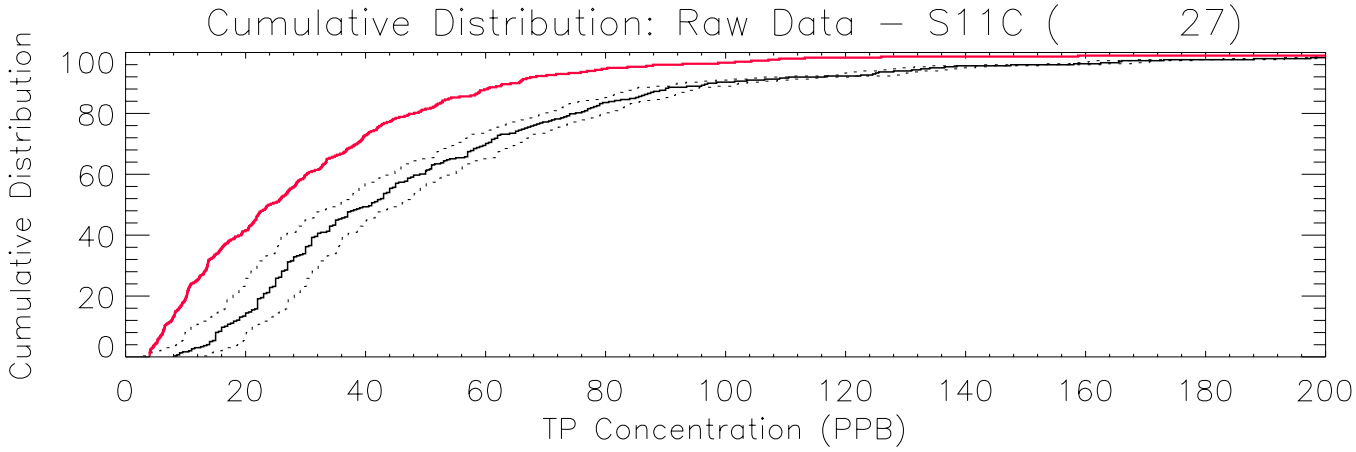
400
300
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S11C (27)
Cumulative Distribution
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0
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20
40
60
80
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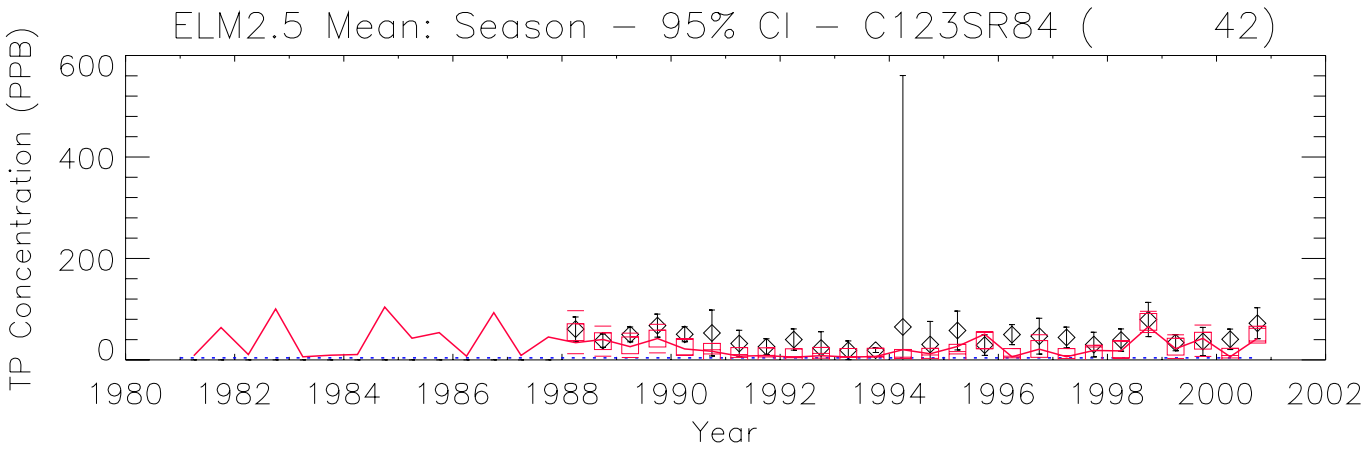
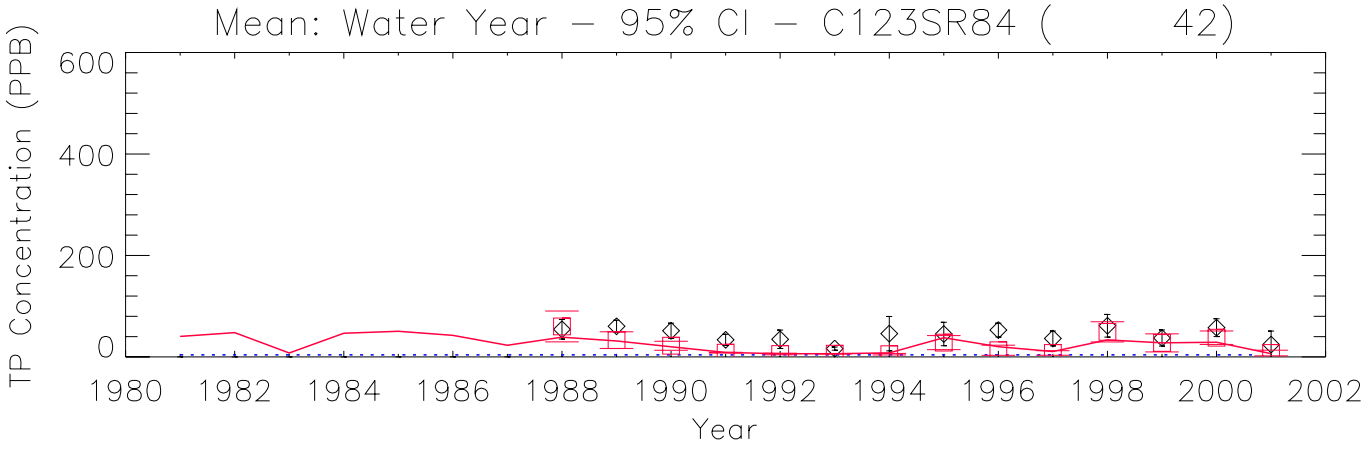
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – C123SR84 (42)
TP Concentration (PPB)
600
400
200
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – C123SR84 (42)
TP Concentration (PPB)
600
400
200
0
1980
1982
1984
1986
1988
1990
1992
1994
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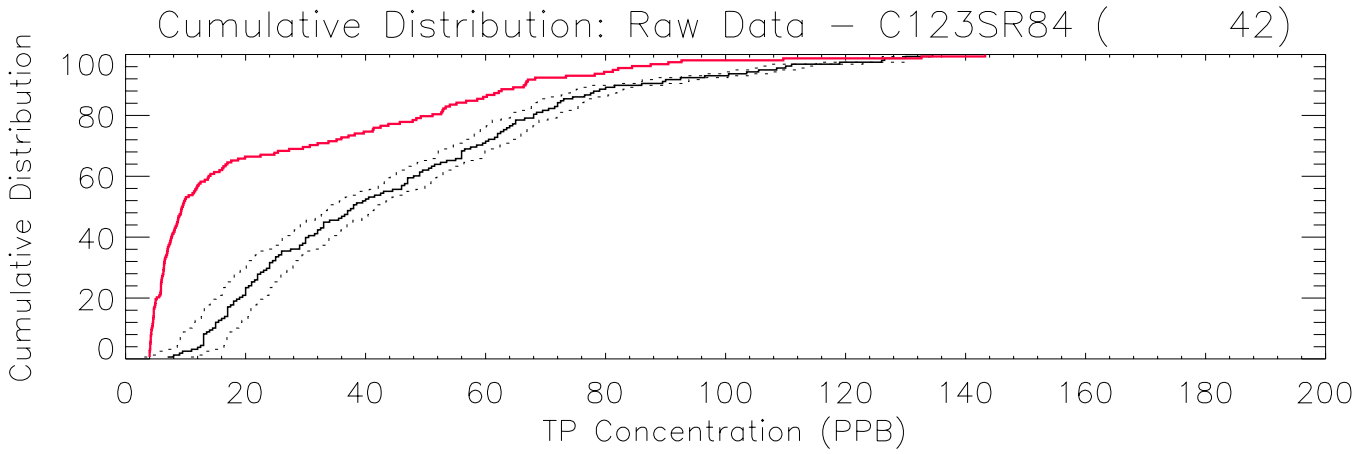
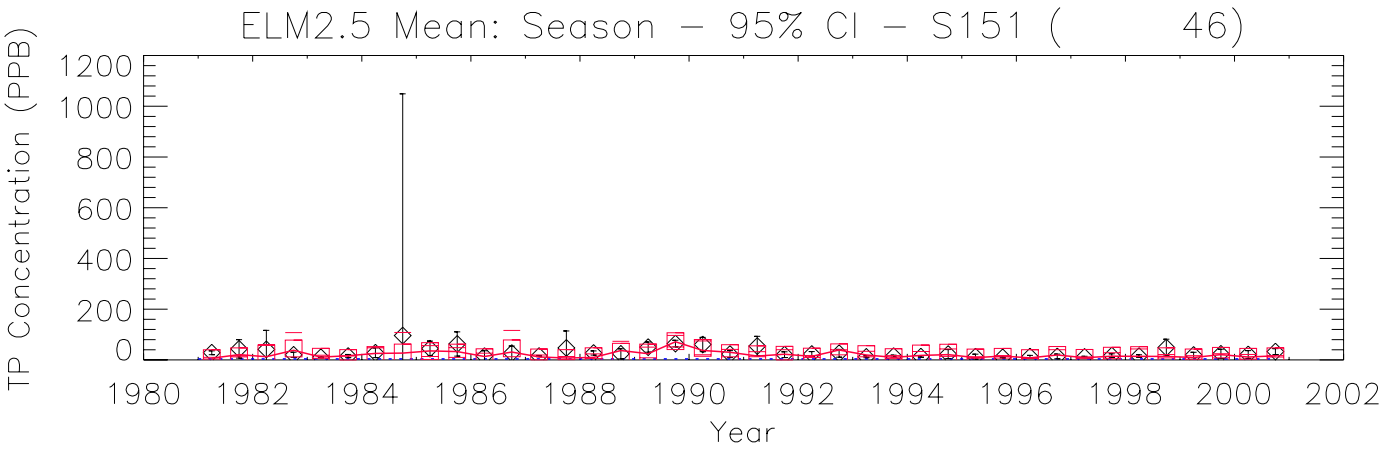
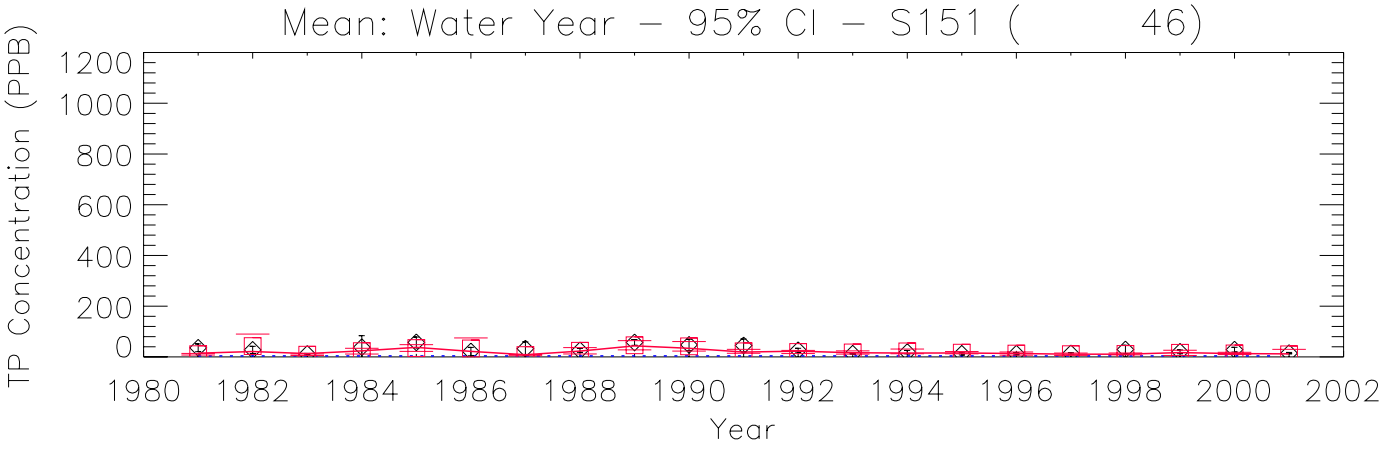
1998
2000
2002
Year


Cumulative Distribution: Raw Data – C123SR84 (42)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – S151 (46)
TP Concentration (PPB)
1200
1000
800
600
400
200
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S151 (46)
TP Concentration (PPB)
1200
1000
800
600
400
200
0
1980
1982
1984
1986
1988
1990
1992
1994
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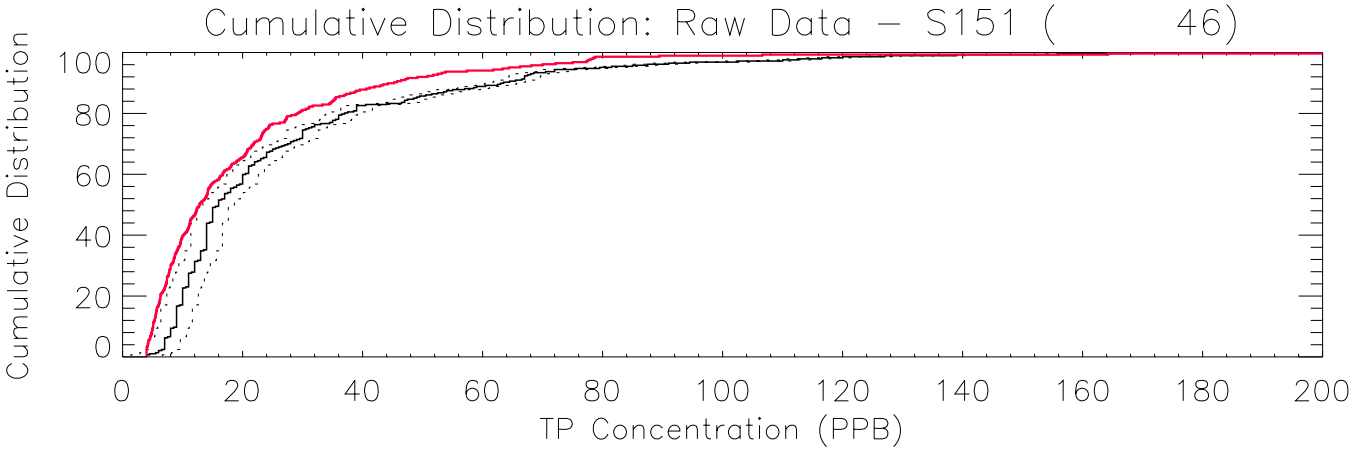
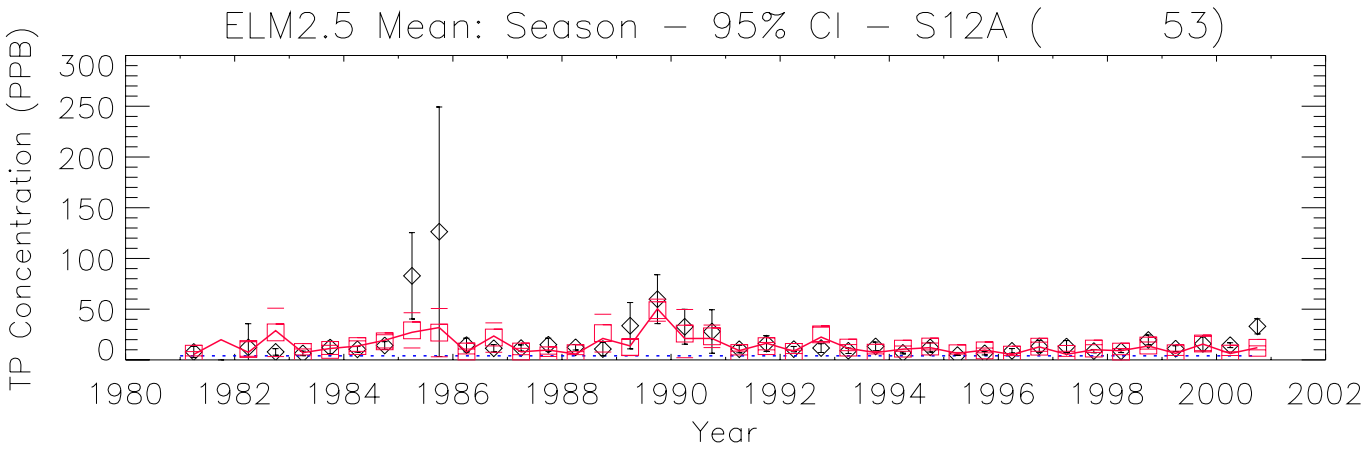
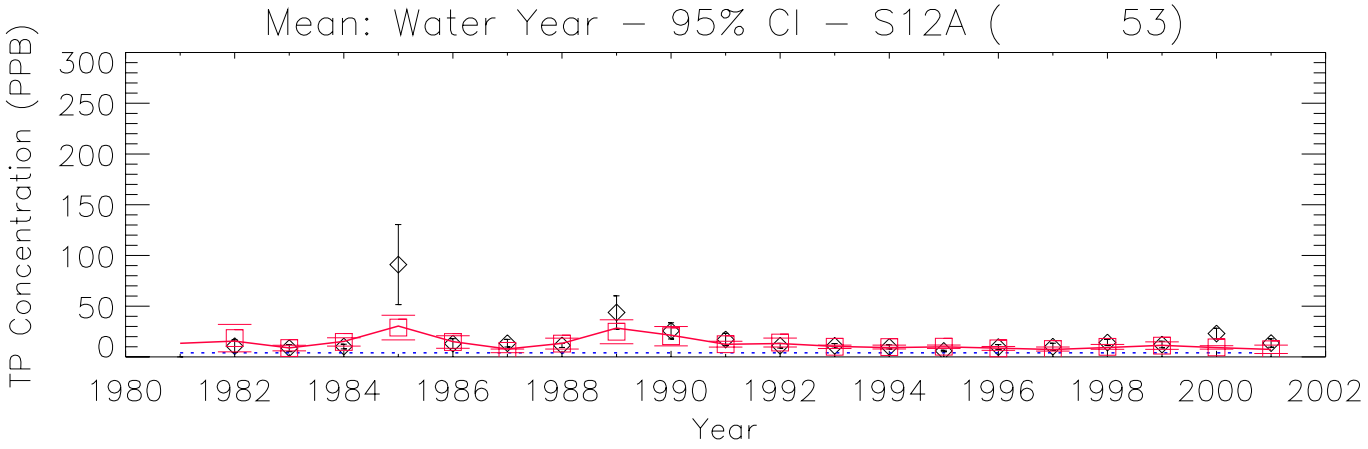
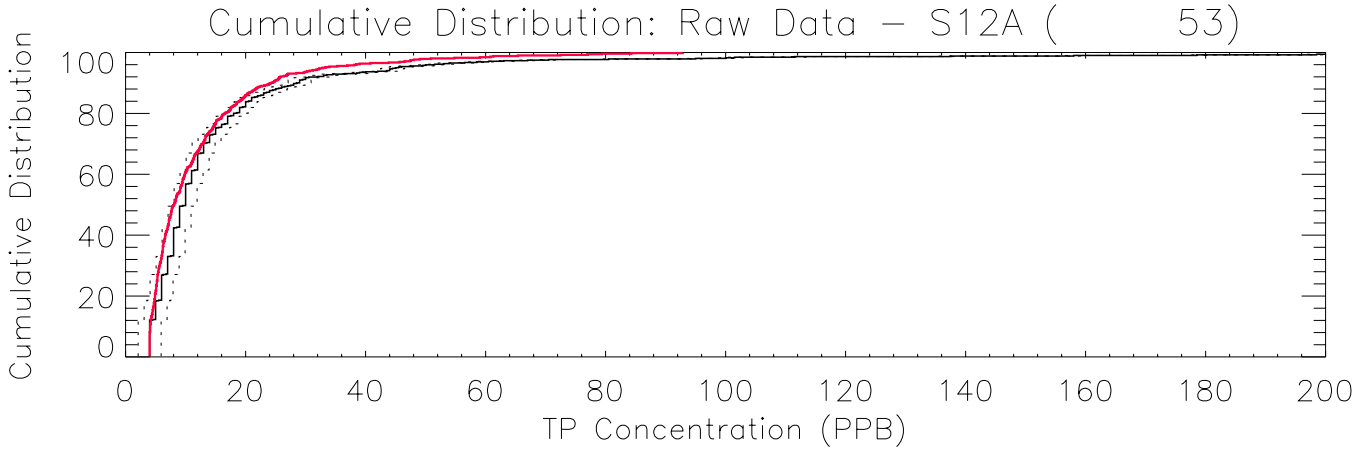
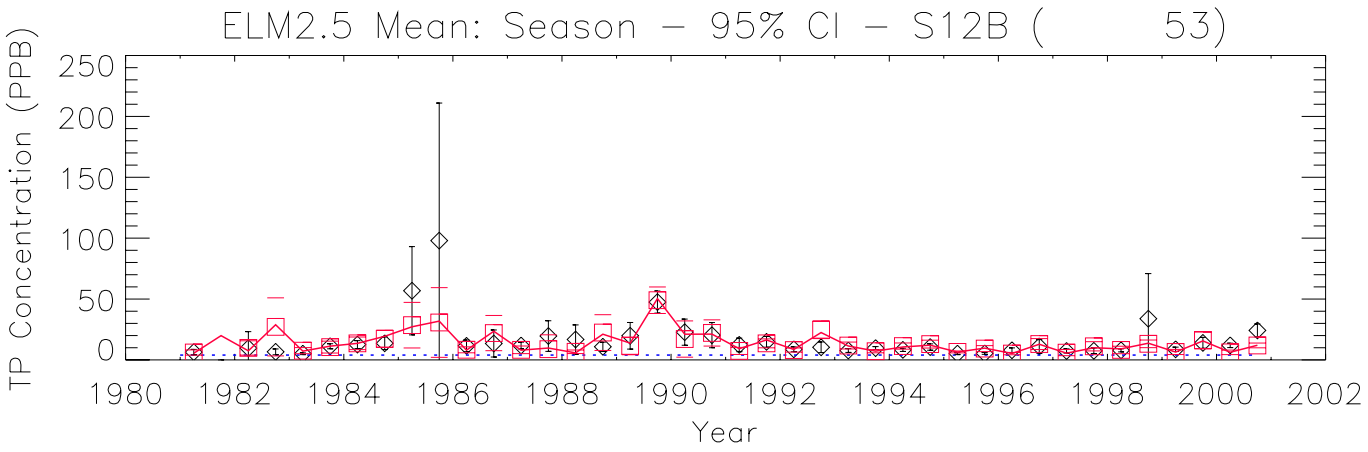
1998
2000
2002
Year

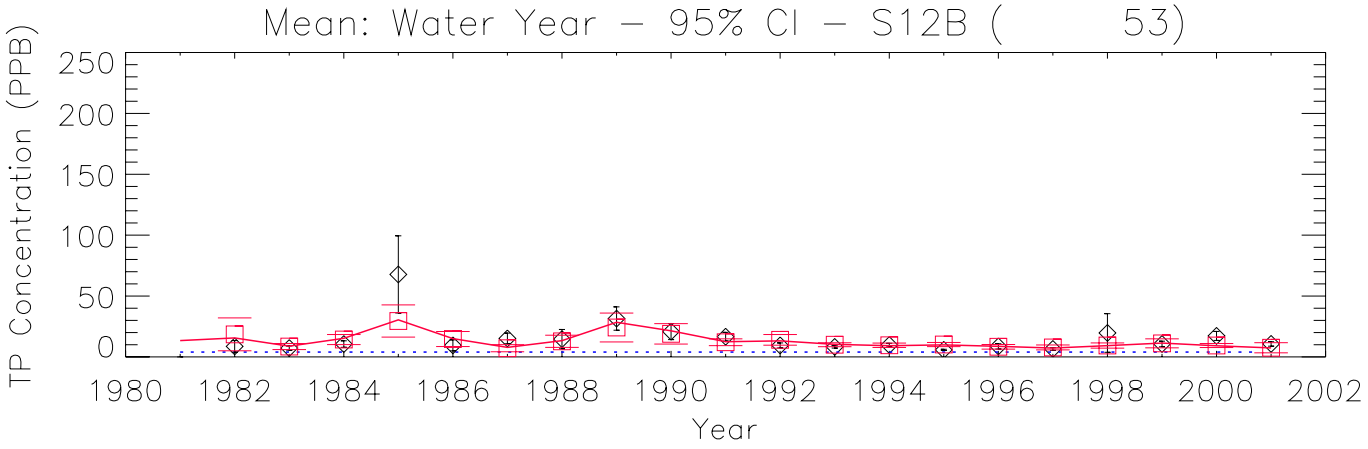

Cumulative Distribution: Raw Data – S151 (46)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

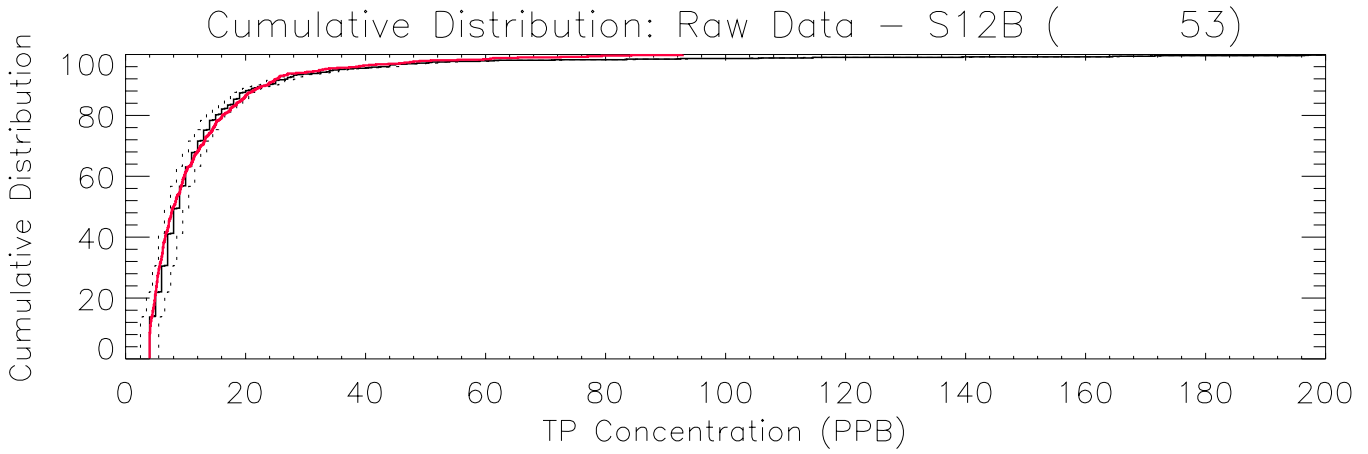

ELM2.5 Mean: Season – 95% CI – S12A (53)
TP Concentration (PPB)
300
250
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

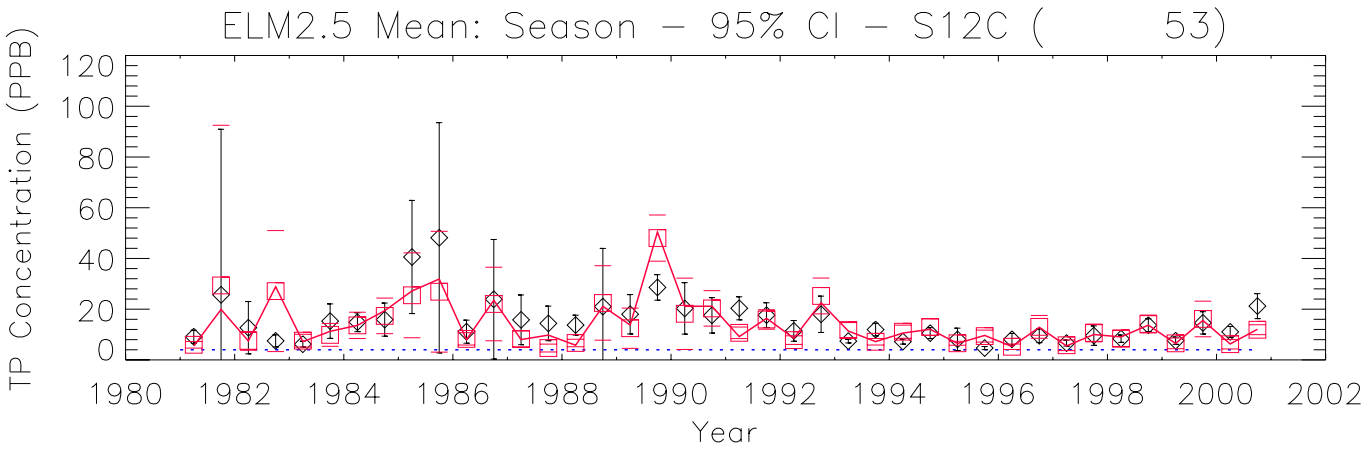

Mean: Water Year – 95% CI – S12A (53)
TP Concentration (PPB)
300
250
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

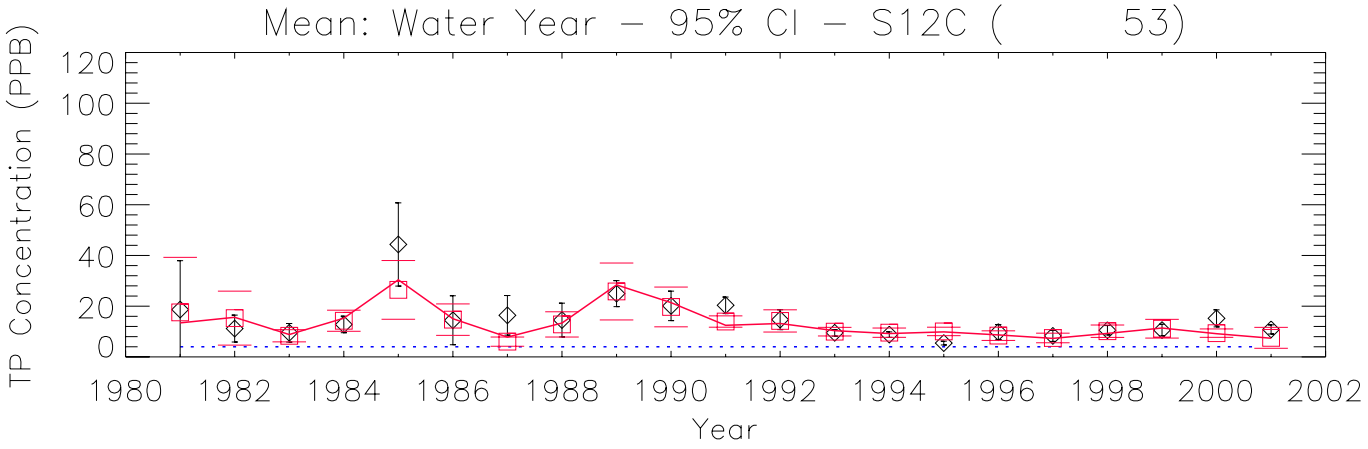

Cumulative Distribution: Raw Data – S12A (53)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

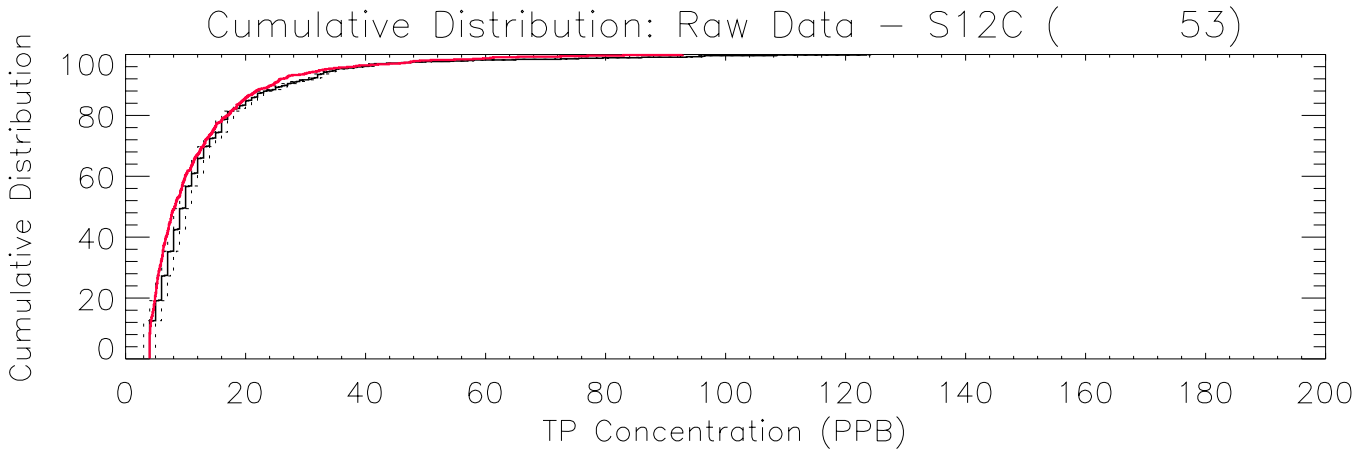

ELM2.5 Mean: Season – 95% CI – S12B (53)
TP Concentration (PPB)
250
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

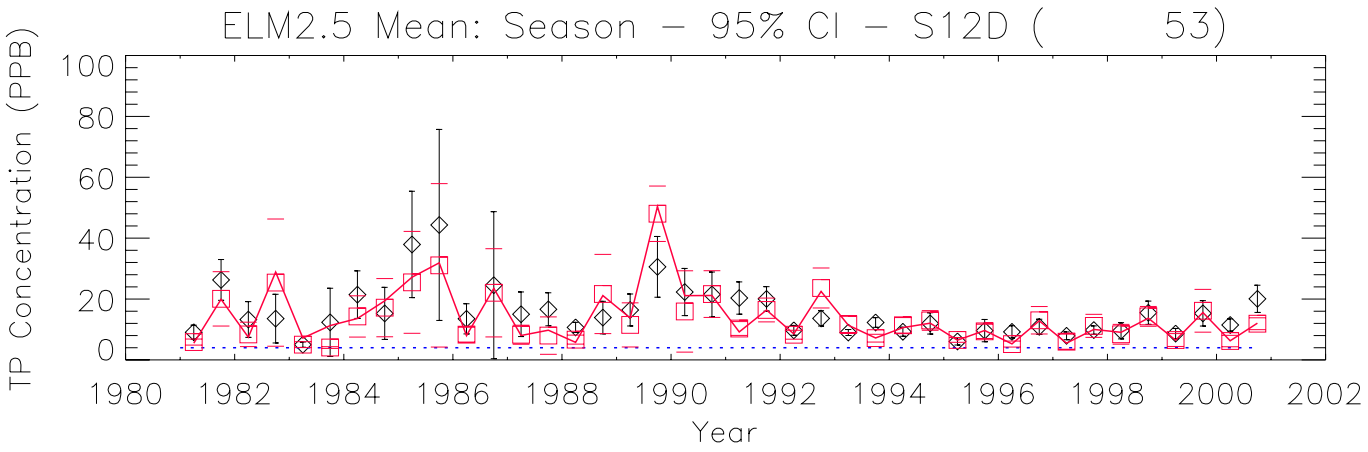

Mean: Water Year – 95% CI – S12B (53)
TP Concentration (PPB)
250
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

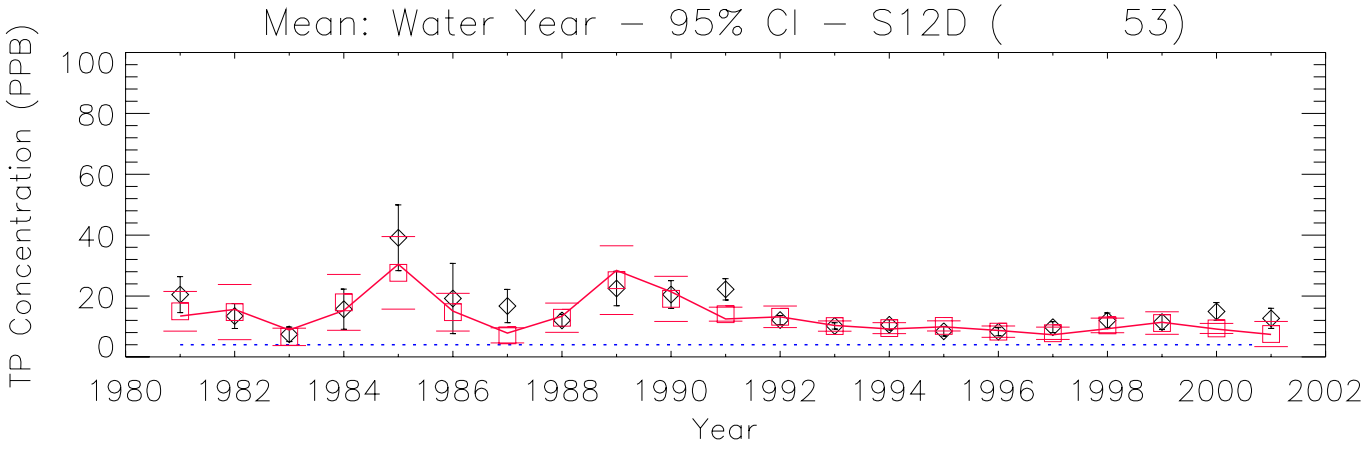

Cumulative Distribution: Raw Data – S12B (53)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

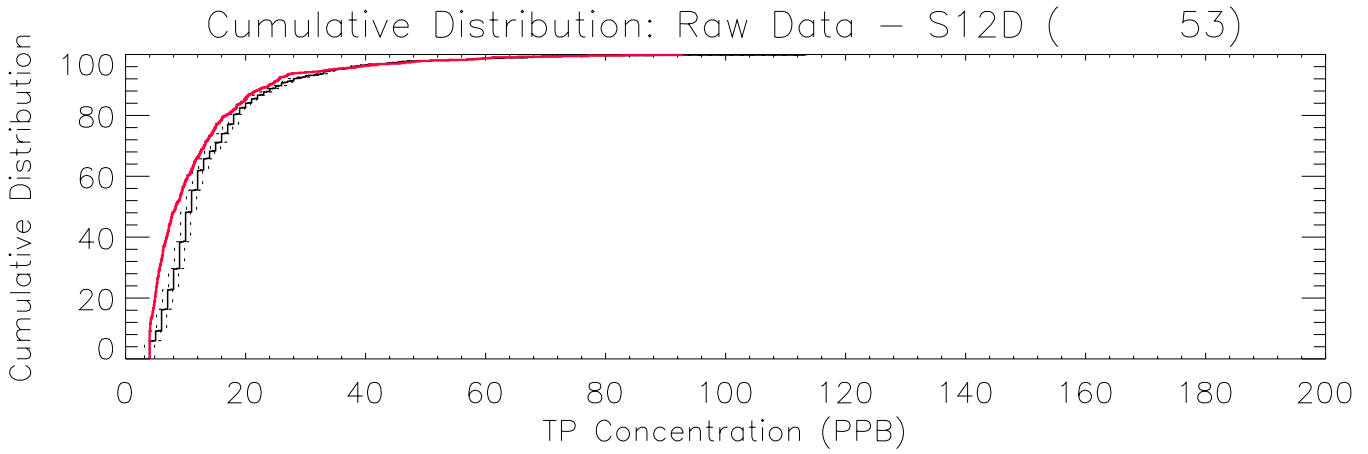

ELM2.5 Mean: Season – 95% CI – S12C (53)
TP Concentration (PPB)
120
100
80
60
40
20
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

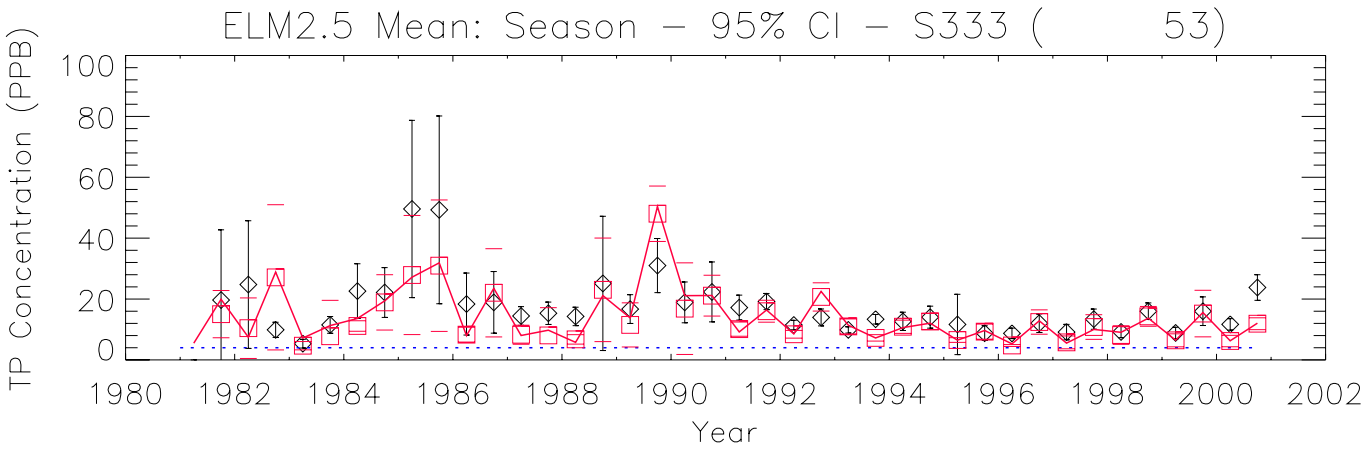

Mean: Water Year – 95% CI – S12C (53)
TP Concentration (PPB)
120
100
80
60
40
20
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

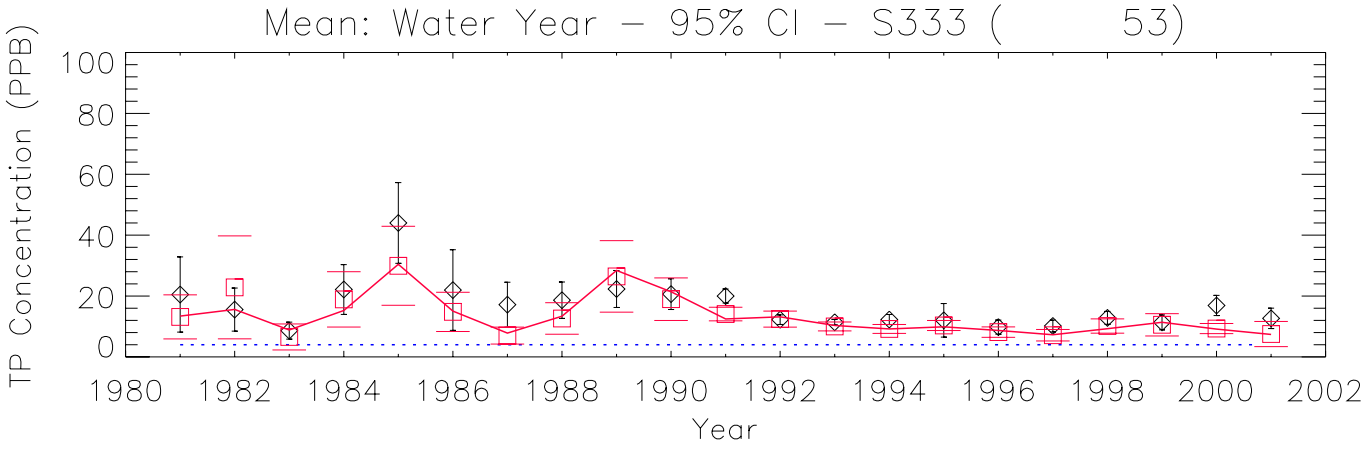

Cumulative Distribution: Raw Data – S12C (53)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

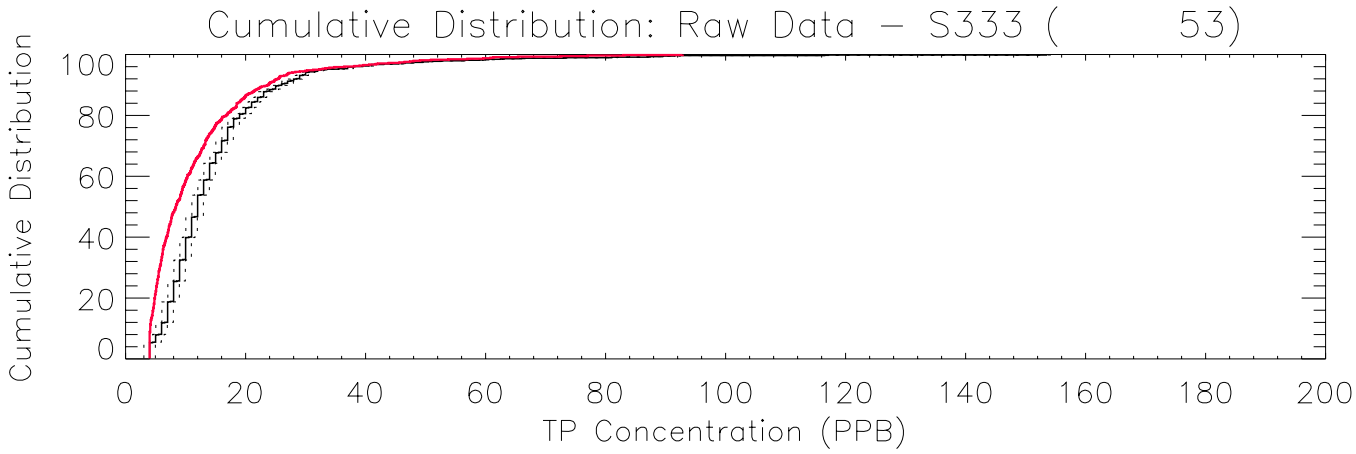

ELM2.5 Mean: Season – 95% CI – S12D (53)
TP Concentration (PPB)
100
80
60
40
20
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

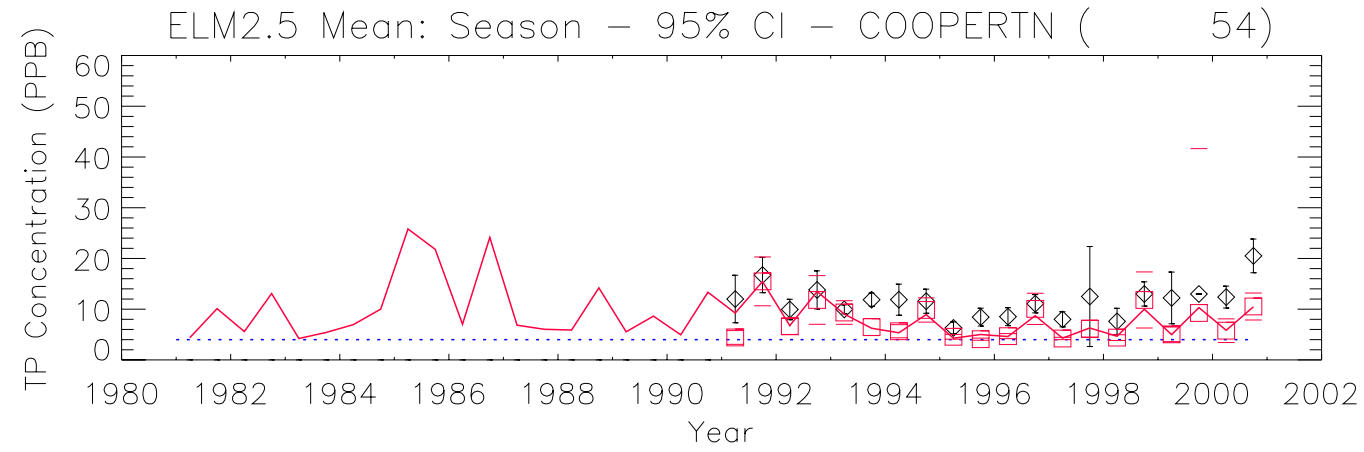

Mean: Water Year – 95% CI – S12D (53)
TP Concentration (PPB)
100
80
60
40
20
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

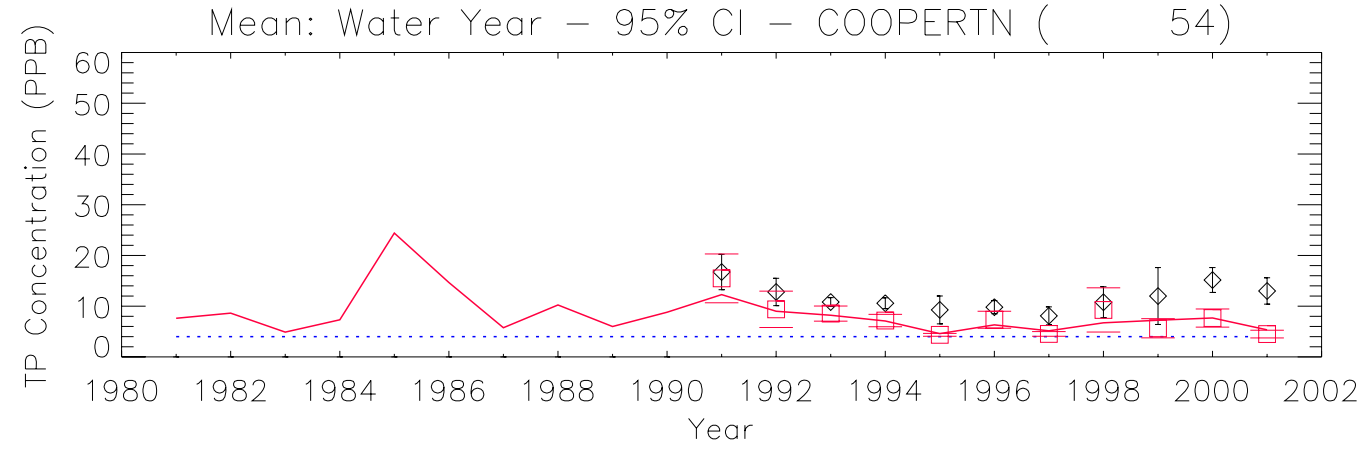

Cumulative Distribution: Raw Data – S12D (53)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

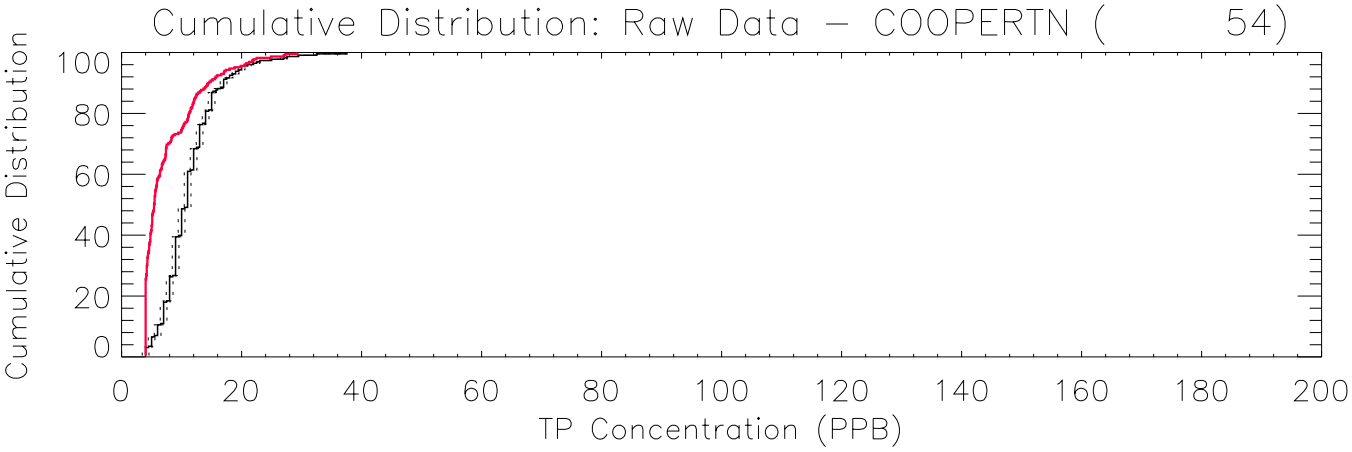

ELM2.5 Mean: Season – 95% CI – S333 (53)
TP Concentration (PPB)
100
80
60
40
20
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

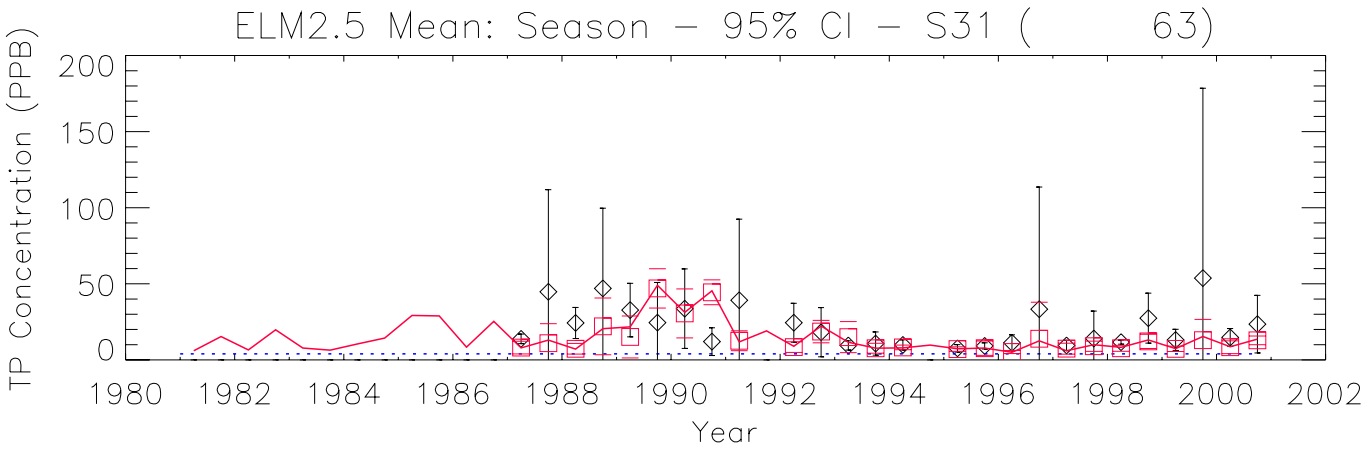

Mean: Water Year – 95% CI – S333 (53)
TP Concentration (PPB)
100
80
60
40
20
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

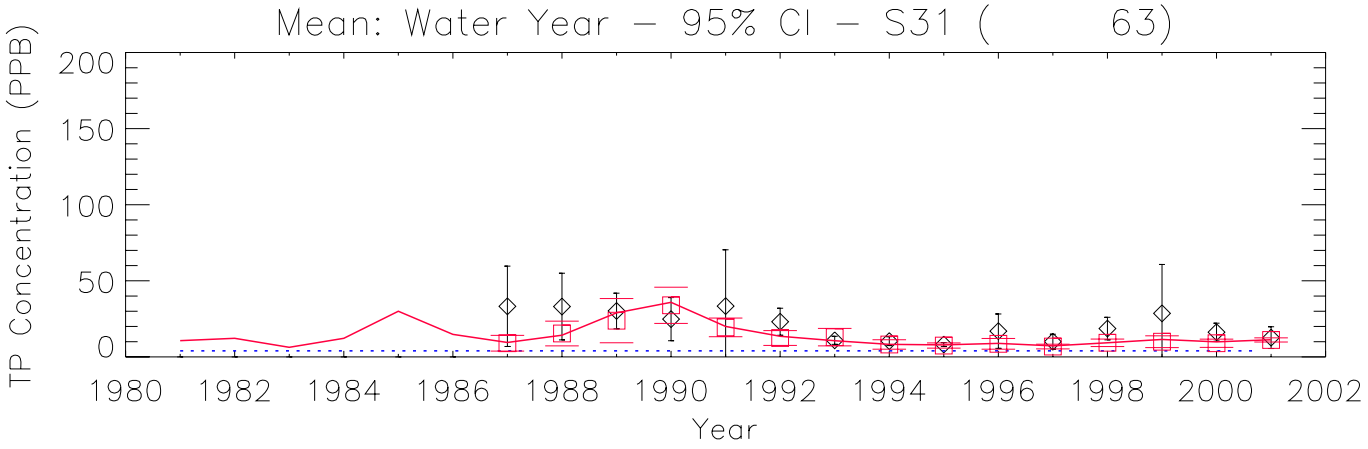

Cumulative Distribution: Raw Data – S333 (53)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

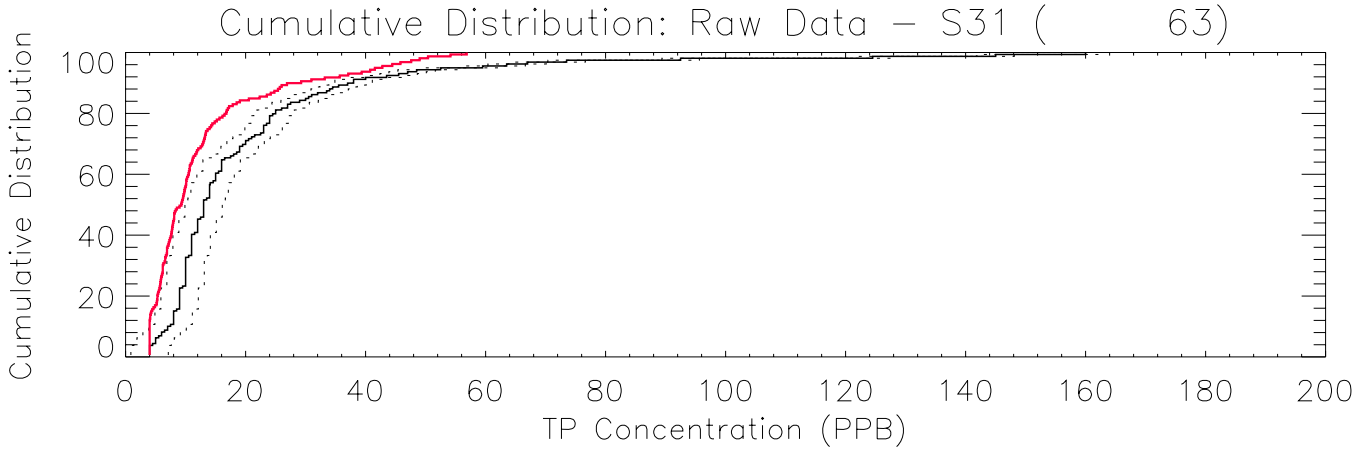

ELM2.5 Mean: Season – 95% CI – COOPERTN (54)
TP Concentration (PPB)
0
10
20
30
40
50
60
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – COOPERTN (54)
TP Concentration (PPB)
0
10
20
30
40
50
60
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – COOPERTN (54)
Cumulative Distribution
0
20
40
60
80
100
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)


ELM2.5 Mean: Season – 95% CI – S31 (63)
TP Concentration (PPB)
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S31 (63)
TP Concentration (PPB)
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S31 (63)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
TP Concentration (PPB)

6.11 Appendix C: Time series & CFDs: stage

Figures C.1 – C.82. Plots of stage hydrographs and their associated Cumulative Frequency Distributions (CFD) for the period of record 1981-2000 at each monitoring location. The sequence of the figures is based on geographic location, starting in the northwest, moving towards the southeast. A map of all sites is provided in the Model Performance Chapter.

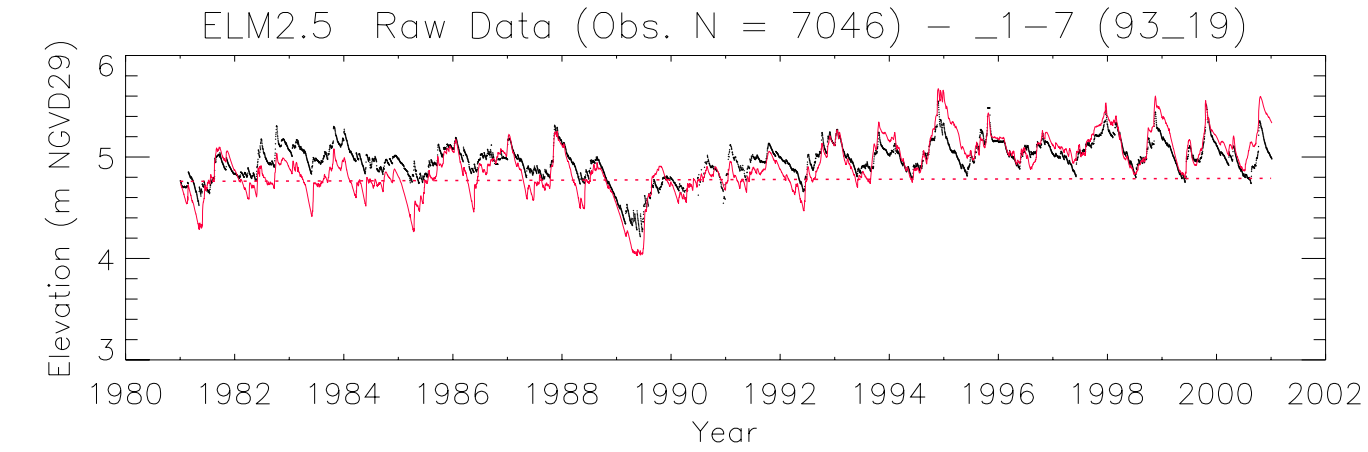
The red dashed line in the stage hydrographs is the model grid cell's land surface elevation, which is a time-varying output variable of the model. The model grid cell column and row locations are shown in parentheses (col_row) of each plot's title.

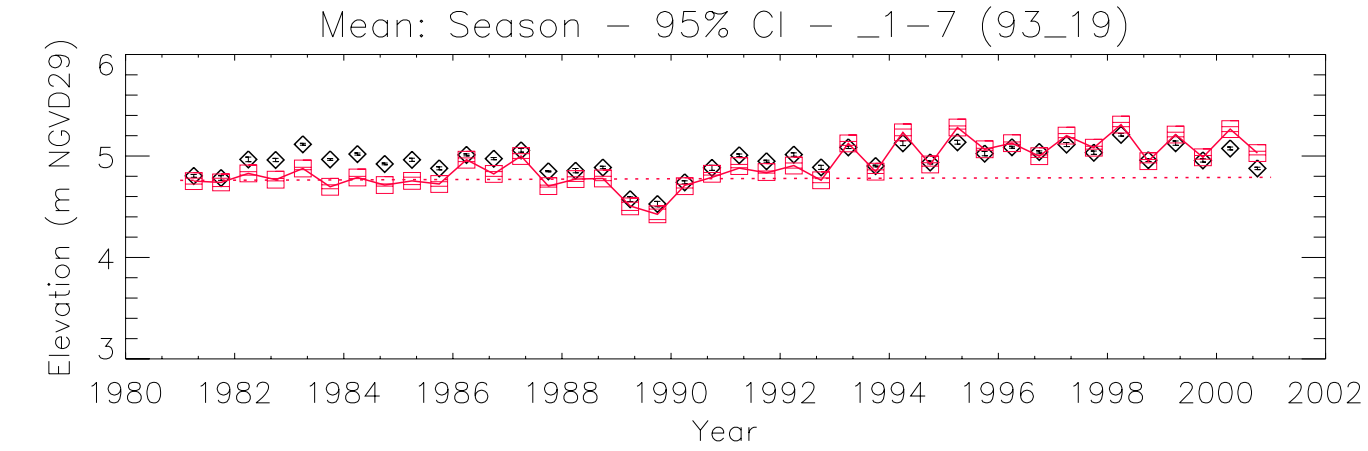
a) All data, with no temporal aggregation, of daily observations (black dots) and model results (red line).

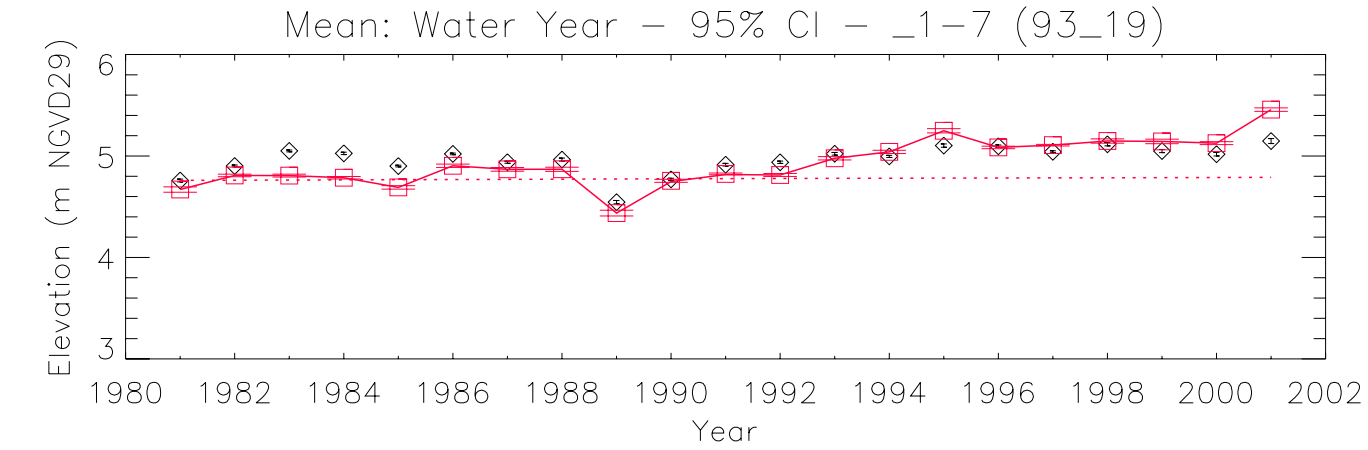
b) All data were aggregated into arithmetic mean values by wet and dry seasons within water years; the continuous lines pass through mean of all daily data points for each season; the mean of paired simulated & observed values are shown in red boxes and black diamonds, respectively; the 95% Confidence Interval (CI) of the paired means are shown by the "__" symbols in the red for the model and black for the observed data.

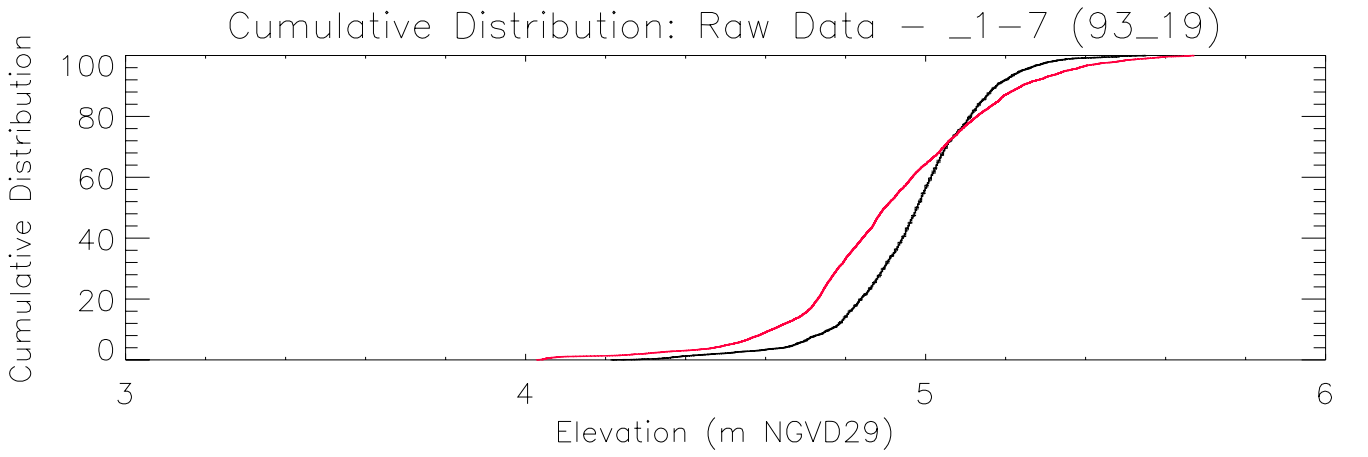
c) All data aggregated into arithmetic mean values by water year, with the same treatment as in plot b).

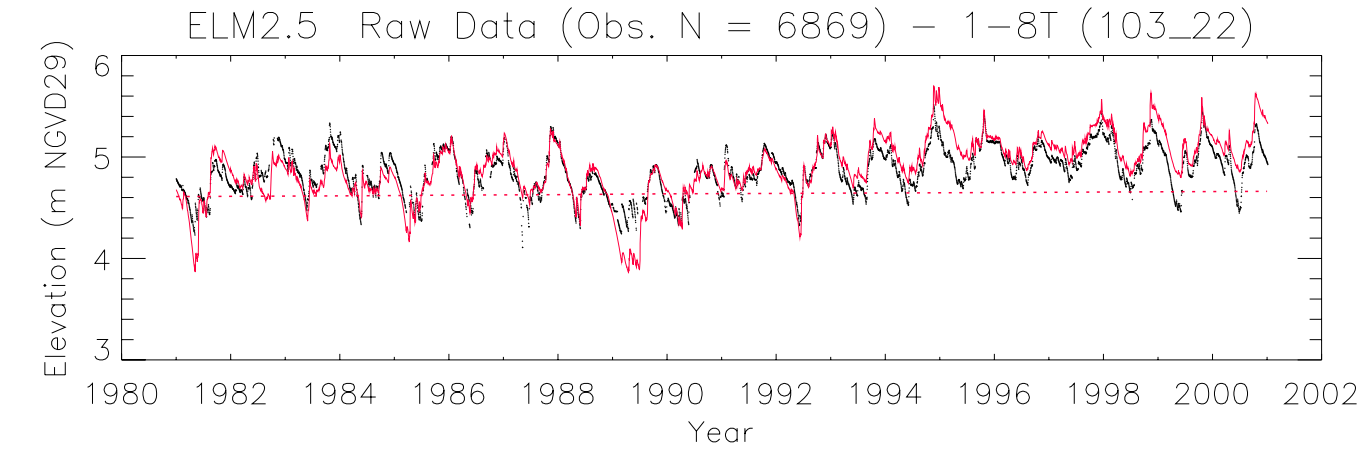
d) The cumulative frequency distributions of the simulated and observed (raw, un-aggregated) data; the 95% confidence interval for observed data is shown in the dashed black lines. Note that only paired simulated and observed data points are used.

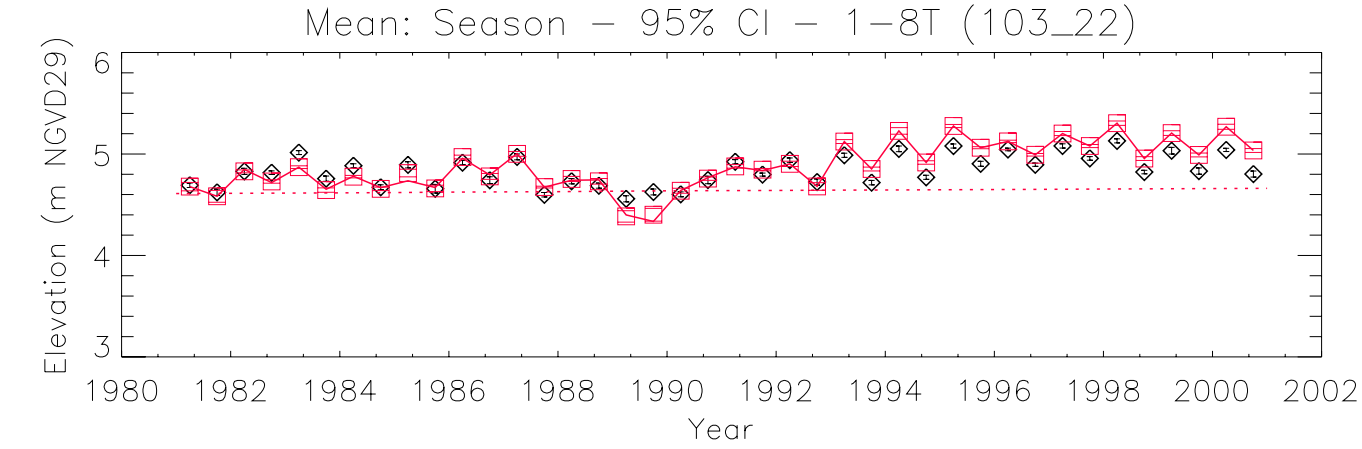

ELM2.5 Raw Data (Obs. N = 7046) – _1–7 (93_19)
Elevation (m NGVD29)
6
5
4
3
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

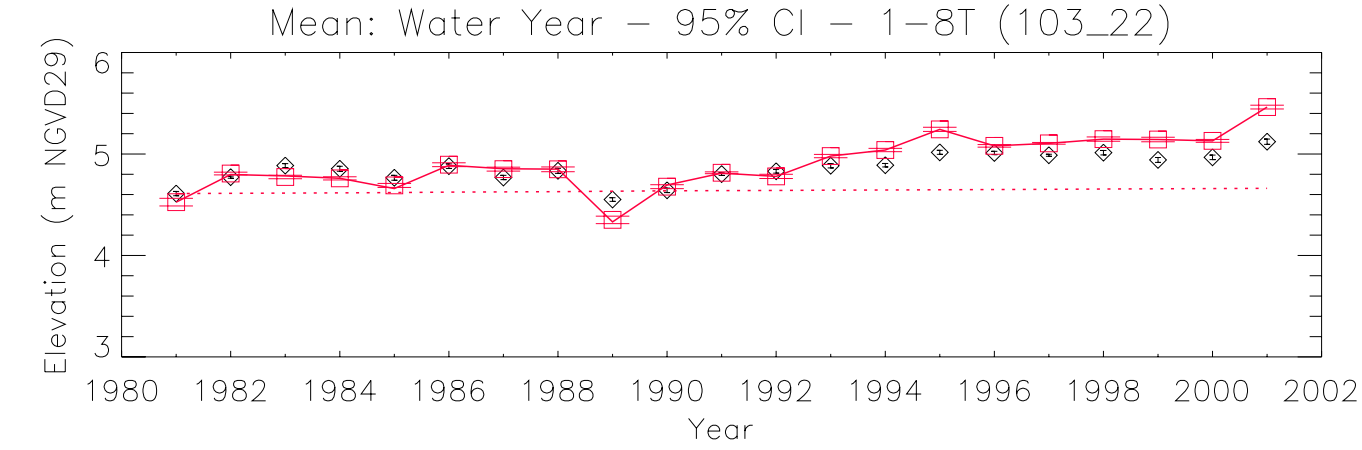

Mean: Season – 95% CI – _1–7 (93_19)
Elevation (m NGVD29)
6
5
4
3
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

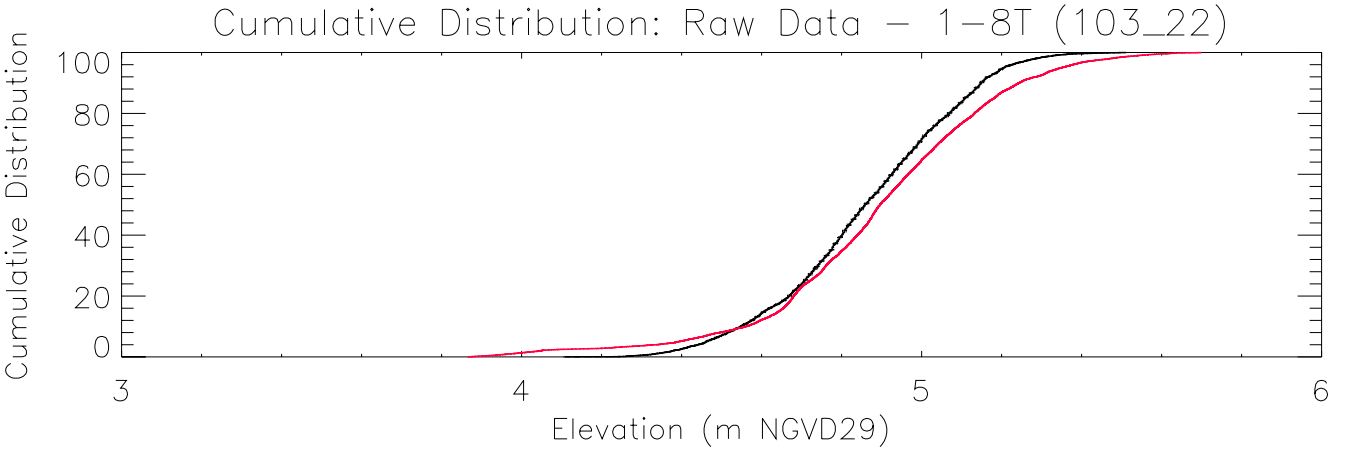

Mean: Water Year – 95% CI – _1–7 (93_19)
Elevation (m NGVD29)
6
5
4
3
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

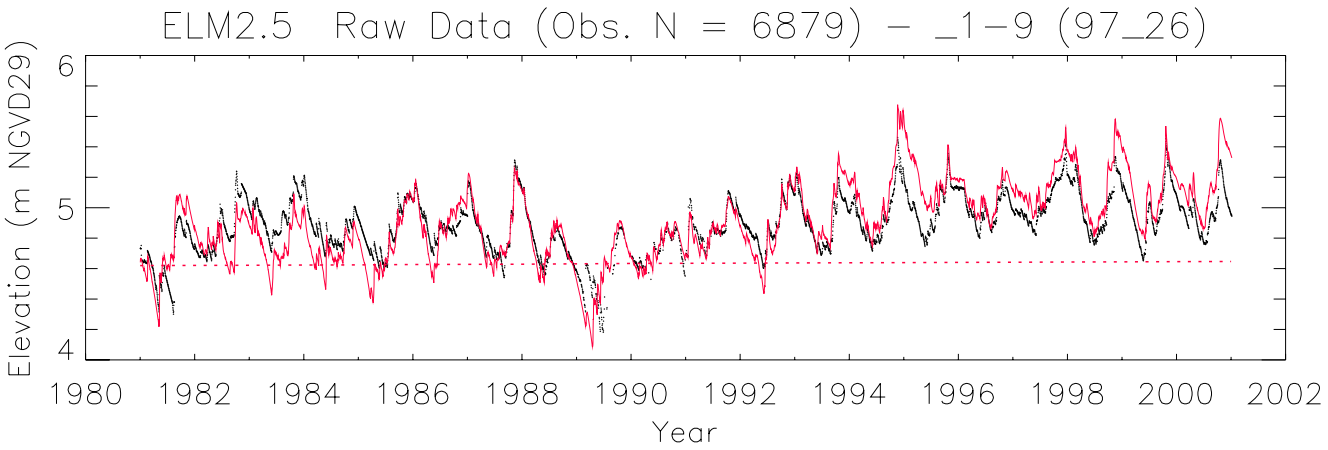

Cumulative Distribution: Raw Data – _1–7 (93_19)
Cumulative Distribution
100
80
60
40
20
0
3
4
5
6
Elevation (m NGVD29)

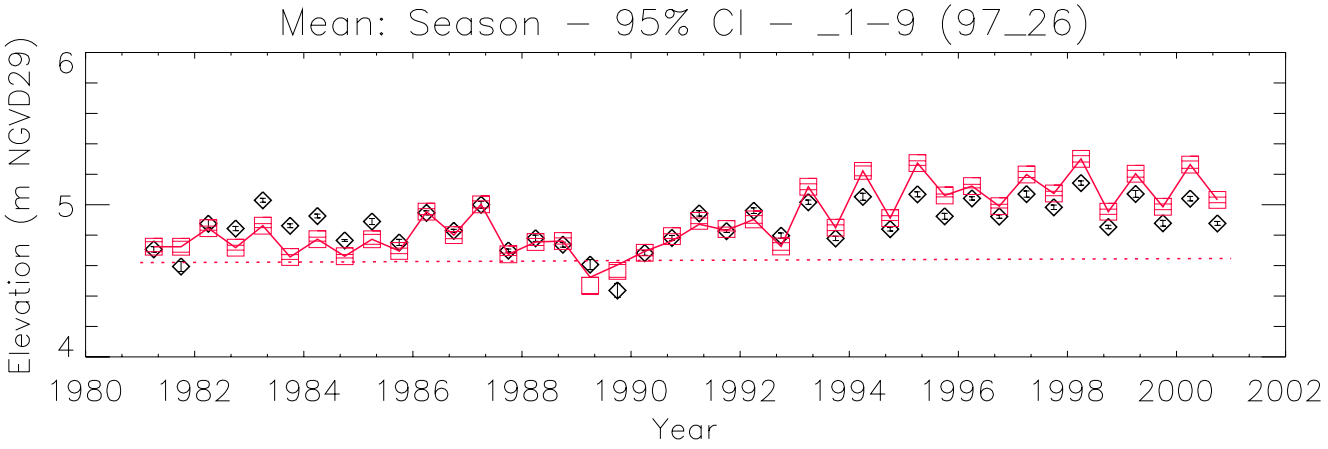

ELM2.5 Raw Data (Obs. N = 6869) – 1–8T (103_22)
Elevation (m NGVD29)
6
5
4
3
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

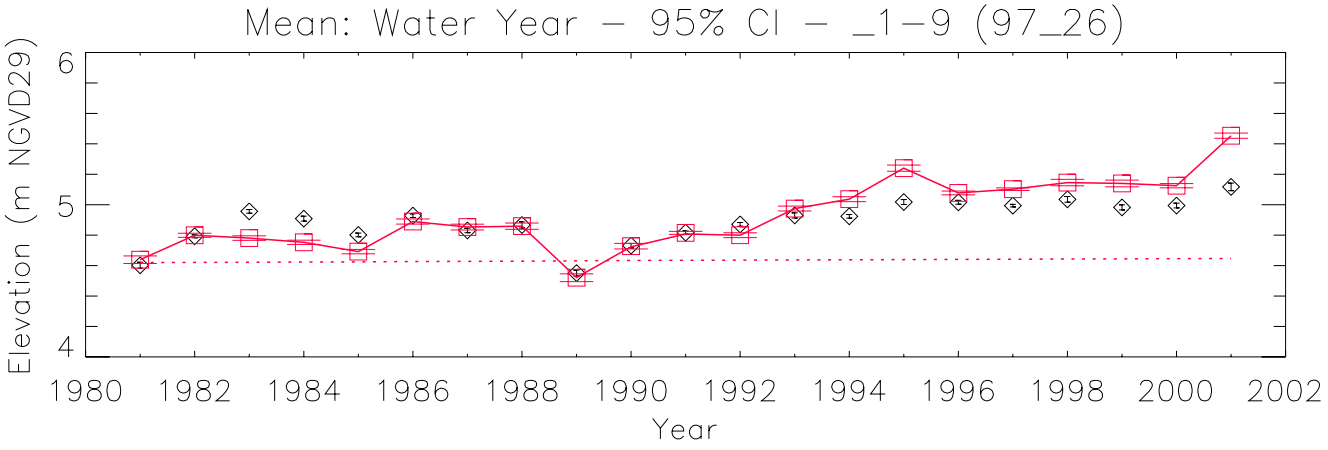

Mean: Season – 95% CI – 1–8T (103_22)
Elevation (m NGVD29)
6
5
4
3
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

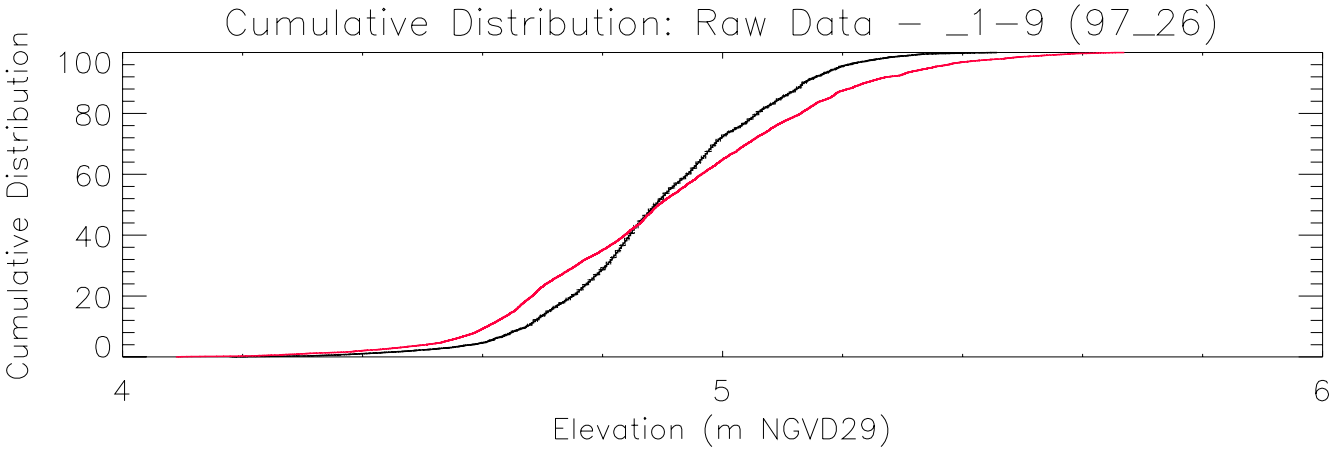

Mean: Water Year – 95% CI – 1–8T (103_22)
Elevation (m NGVD29)
6
5
4
3
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

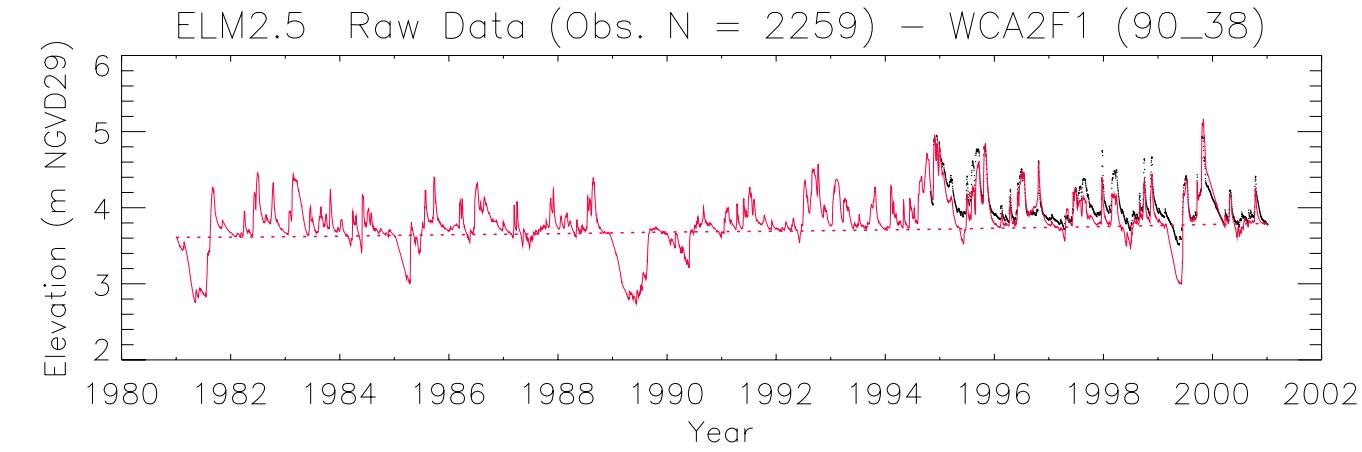

Cumulative Distribution: Raw Data – 1–8T (103_22)
Cumulative Distribution
100
80
60
40
20
0
3
4
5
6
Elevation (m NGVD29)

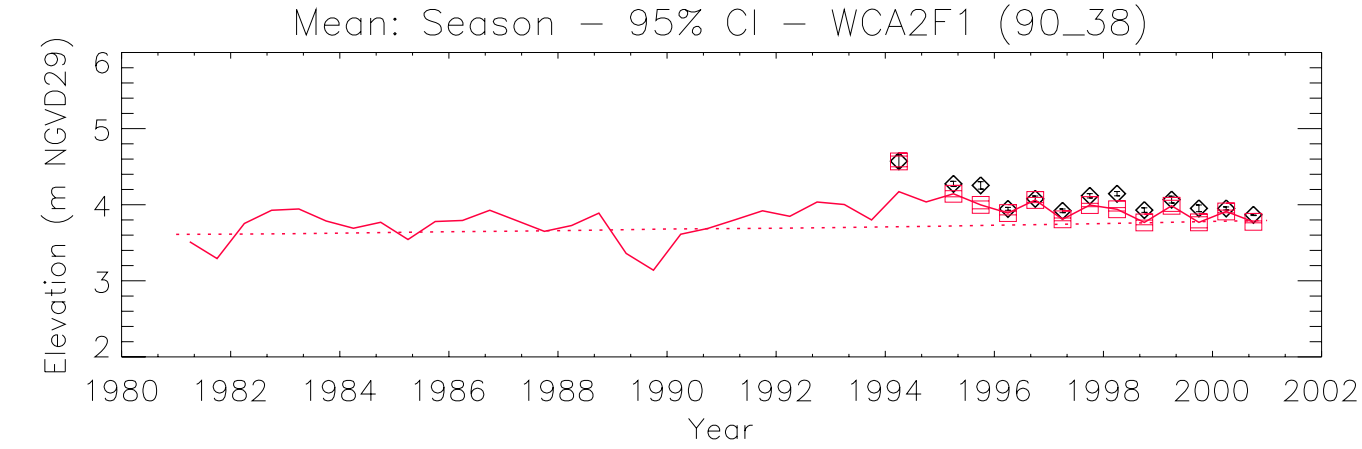

ELM2.5 Raw Data (Obs. N = 6879) – _1–9 (97_26)
Elevation (m NGVD29)
6
5
4
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

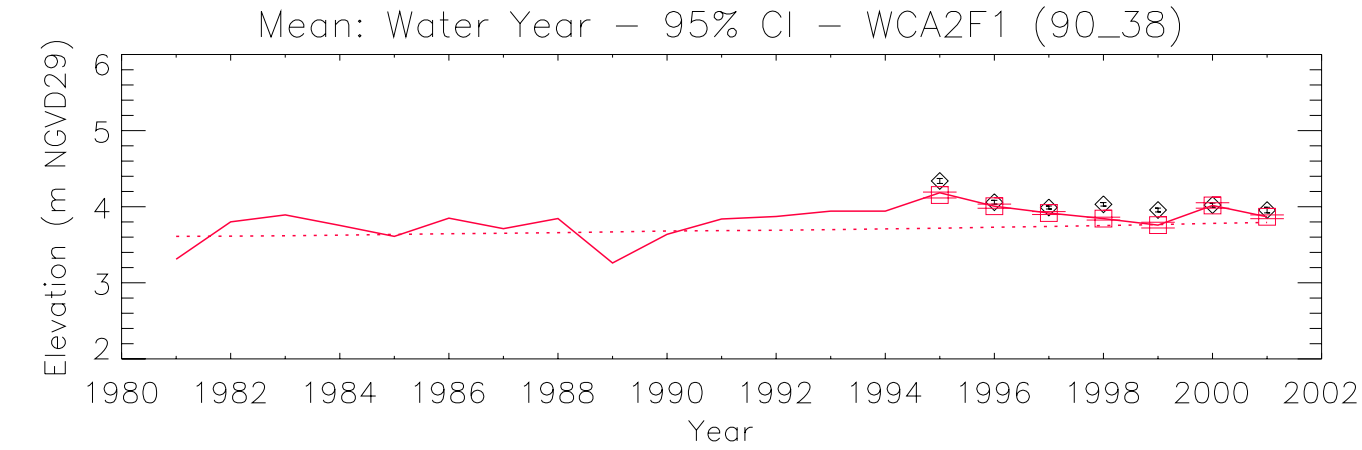

Mean: Season – 95% CI – _1–9 (97_26)
Elevation (m NGVD29)
6
5
4
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

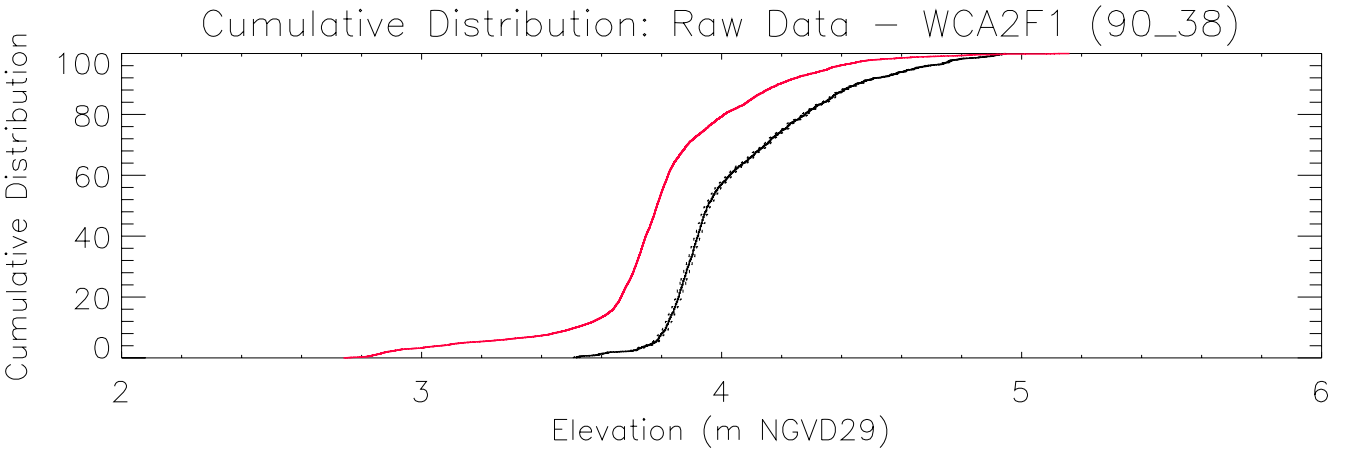

Mean: Water Year – 95% CI – _1–9 (97_26)
Elevation (m NGVD29)
6
5
4
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

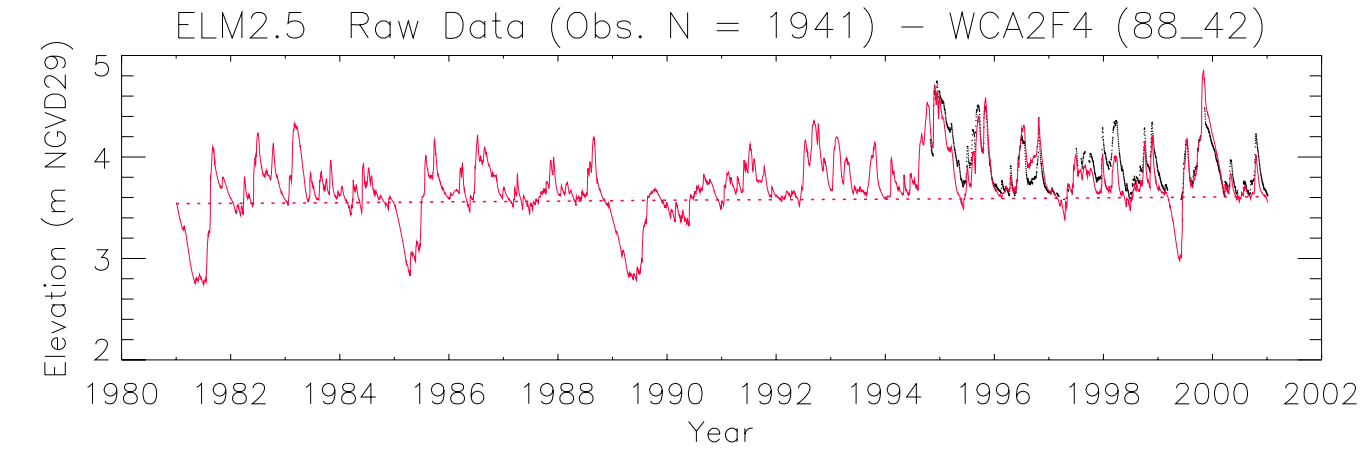

Cumulative Distribution: Raw Data – _1–9 (97_26)
Cumulative Distribution
100
80
60
40
20
0
4
5
6
Elevation (m NGVD29)

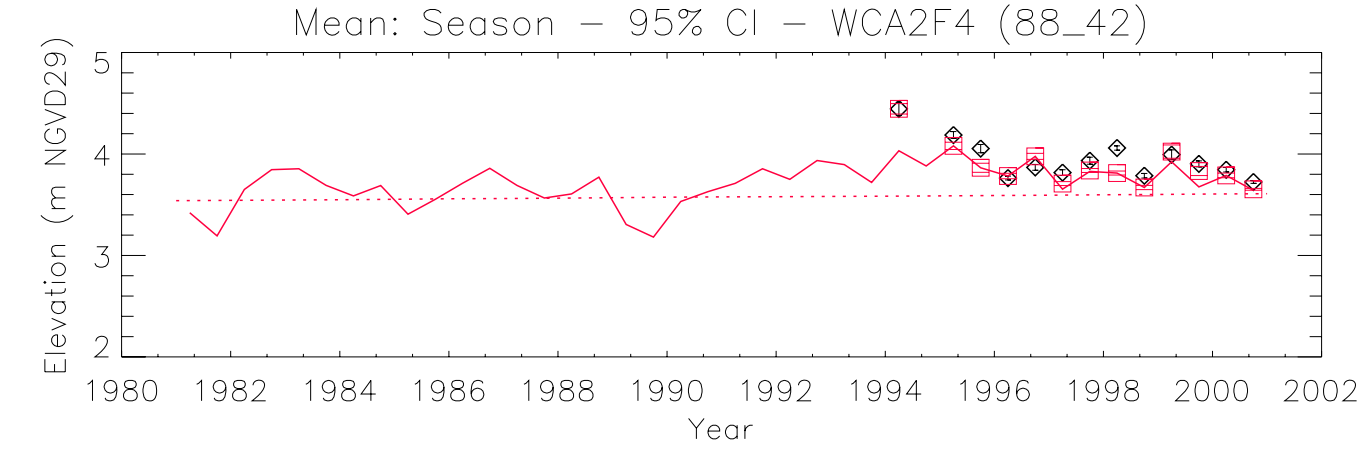

ELM2.5 Raw Data (Obs. N = 2259) – WCA2F1 (90_38)
Elevation (m NGVD29)
Year

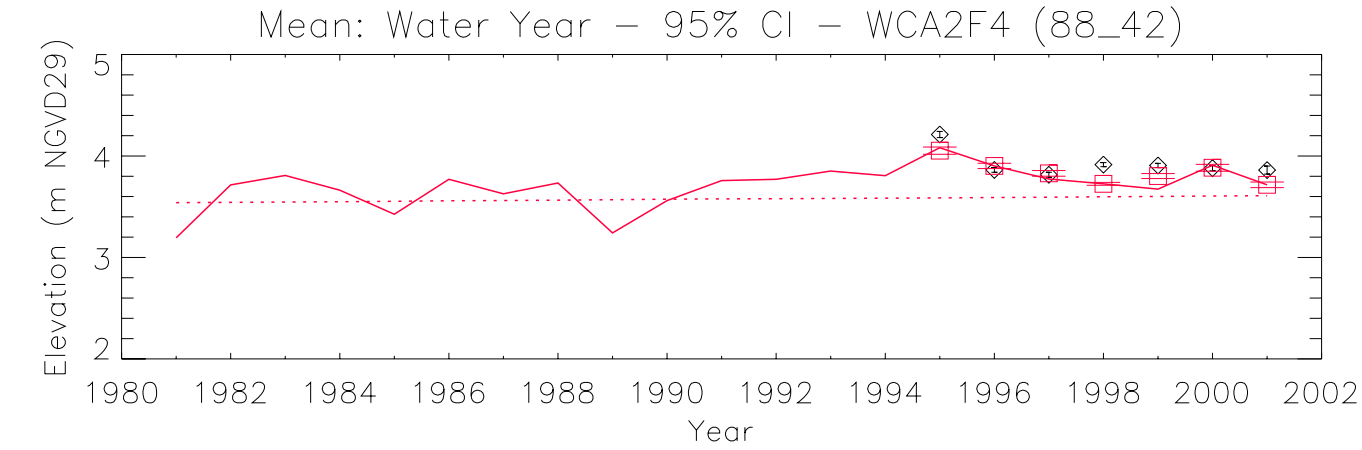

Mean: Season – 95% CI – WCA2F1 (90_38)
Elevation (m NGVD29)
Year

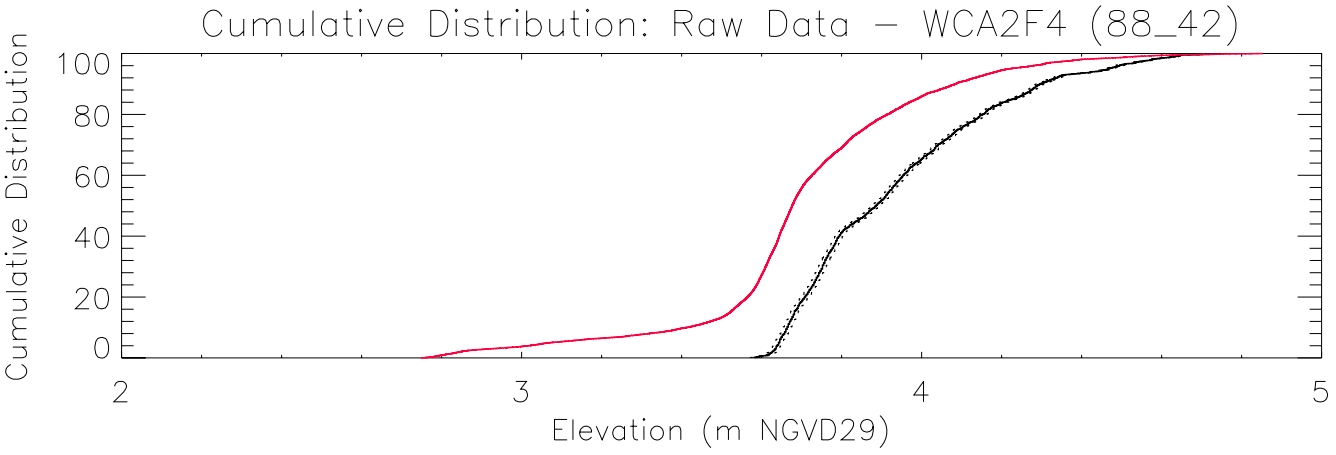

Mean: Water Year – 95% CI – WCA2F1 (90_38)
Elevation (m NGVD29)
Year

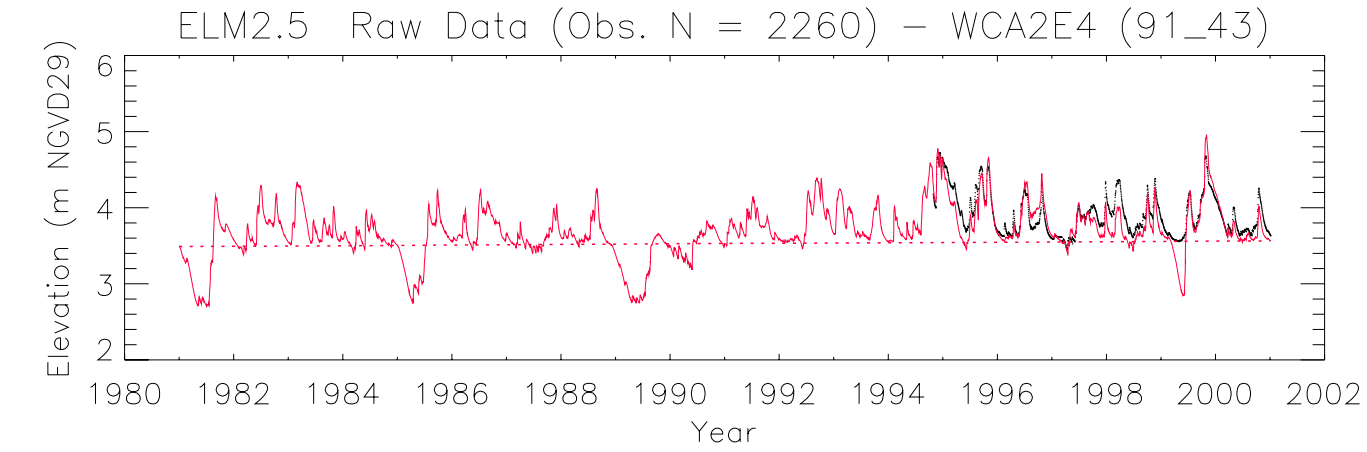

Cumulative Distribution: Raw Data – WCA2F1 (90_38)
Cumulative Distribution
Elevation (m NGVD29)

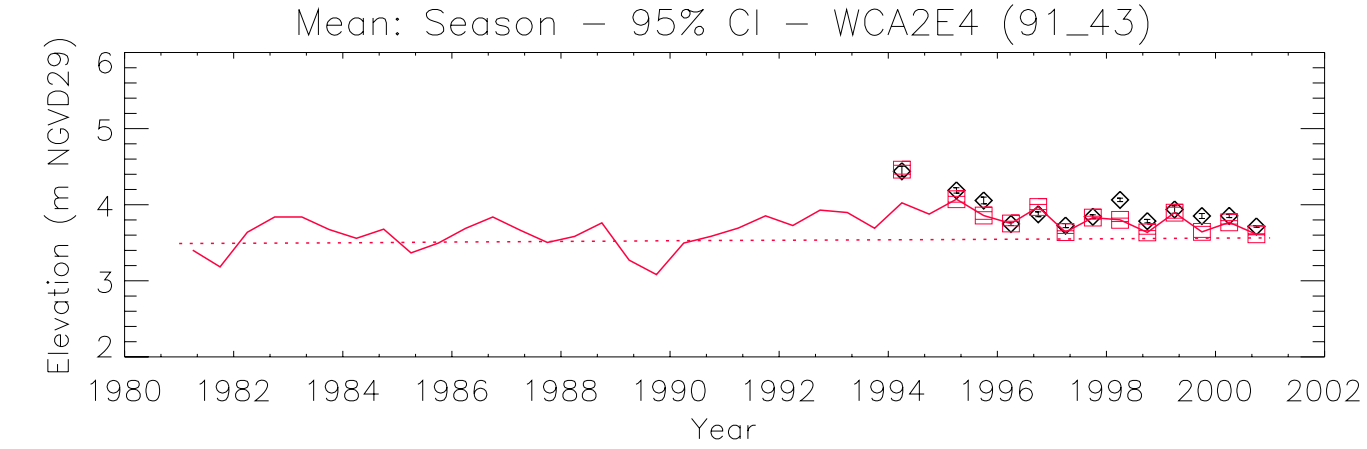

ELM2.5 Raw Data (Obs. N = 1941) – WCA2F4 (88_42)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

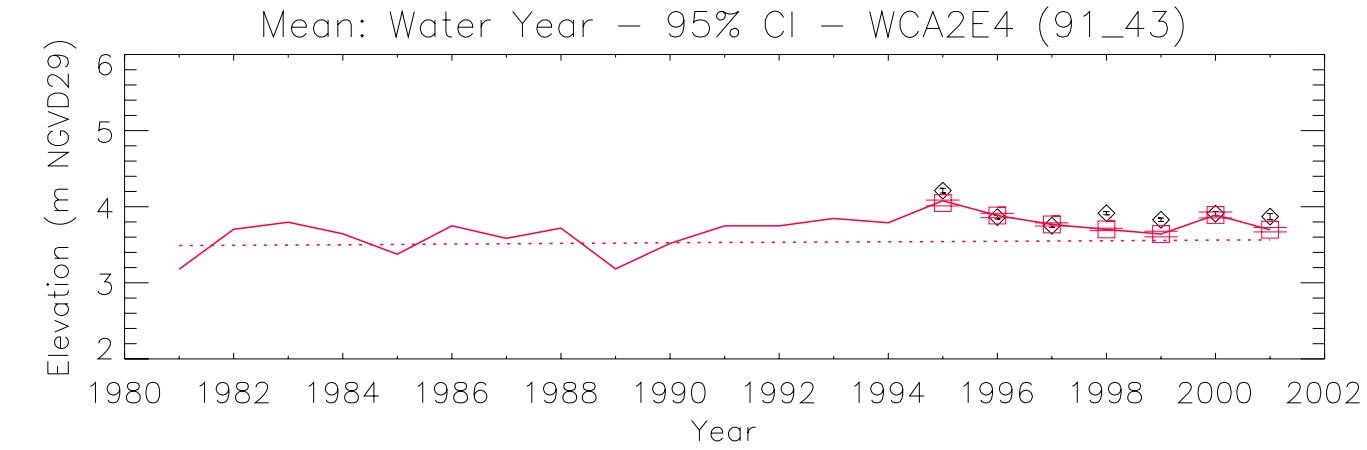

Mean: Season – 95% CI – WCA2F4 (88_42)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

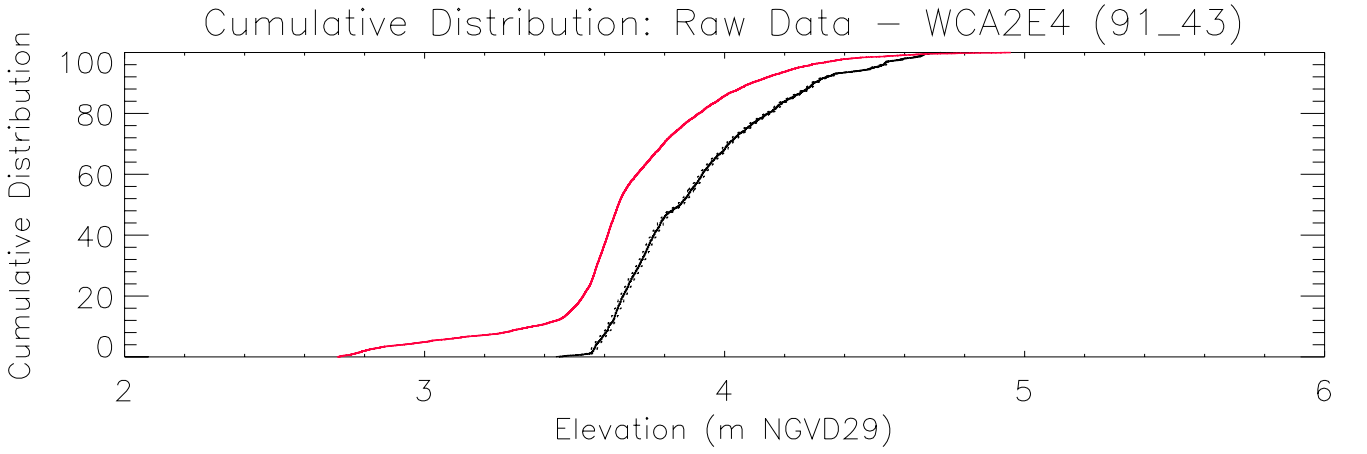

Mean: Water Year – 95% CI – WCA2F4 (88_42)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

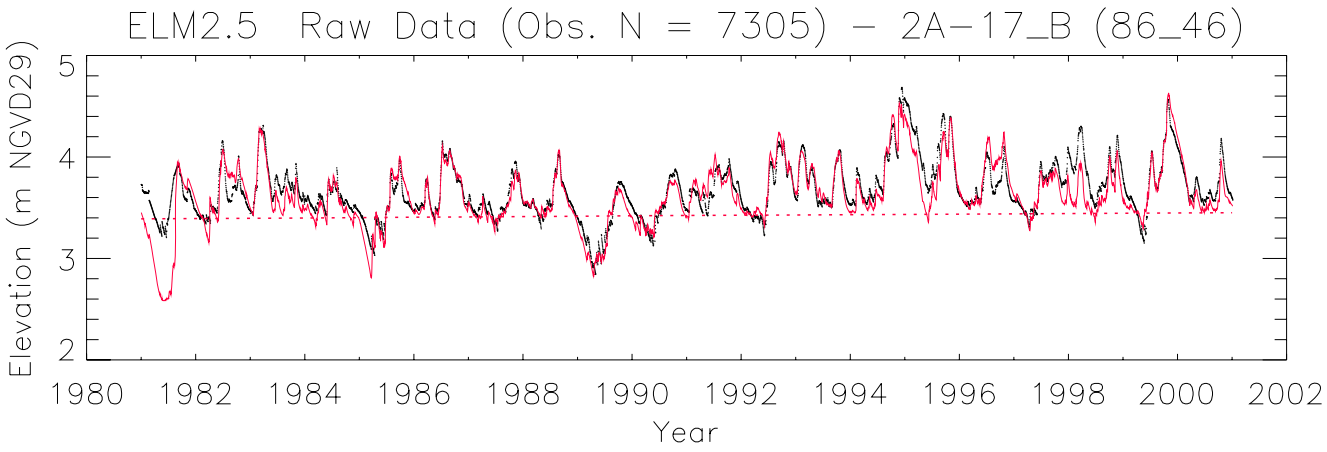

Cumulative Distribution: Raw Data – WCA2F4 (88_42)
Cumulative Distribution
100
80
60
40
20
0
2
3
4
5
Elevation (m NGVD29)

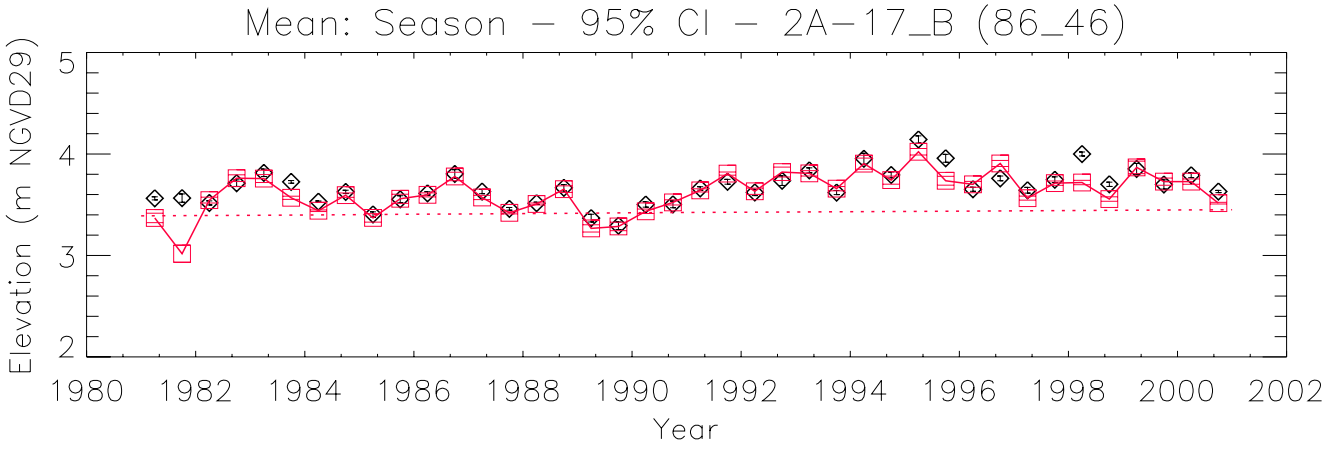

ELM2.5 Raw Data (Obs. N = 2260) – WCA2E4 (91_43)
Elevation (m NGVD29)
Year

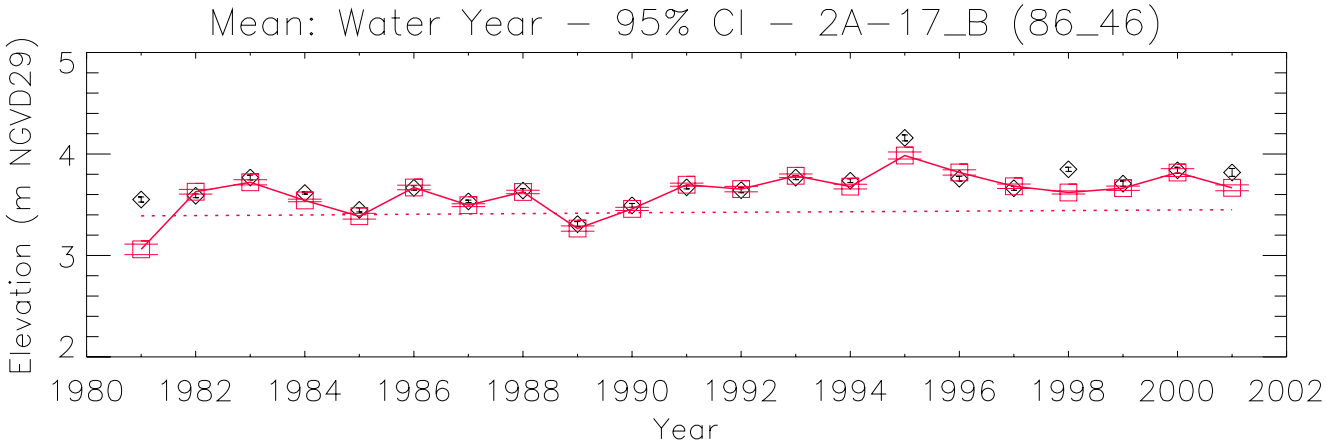

Mean: Season – 95% CI – WCA2E4 (91_43)
Elevation (m NGVD29)
Year

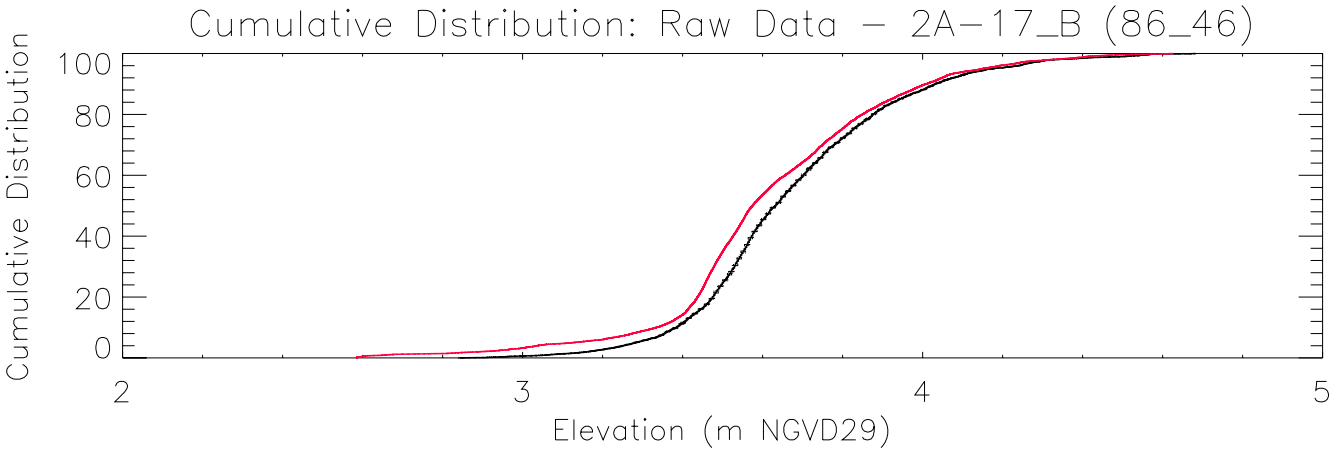

Mean: Water Year – 95% CI – WCA2E4 (91_43)
Elevation (m NGVD29)
Year

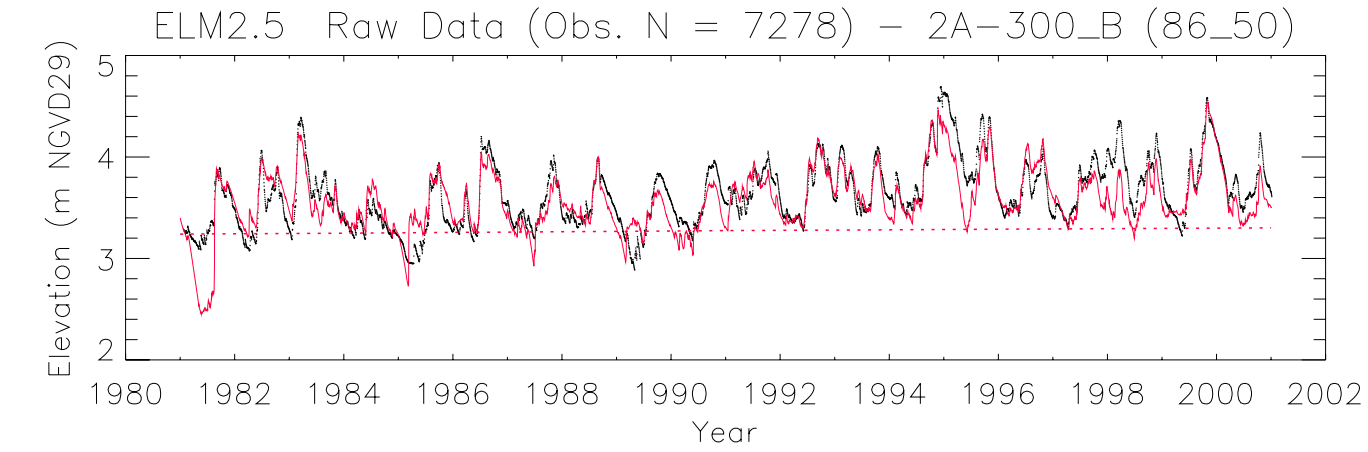

Cumulative Distribution: Raw Data – WCA2E4 (91_43)
Cumulative Distribution
Elevation (m NGVD29)

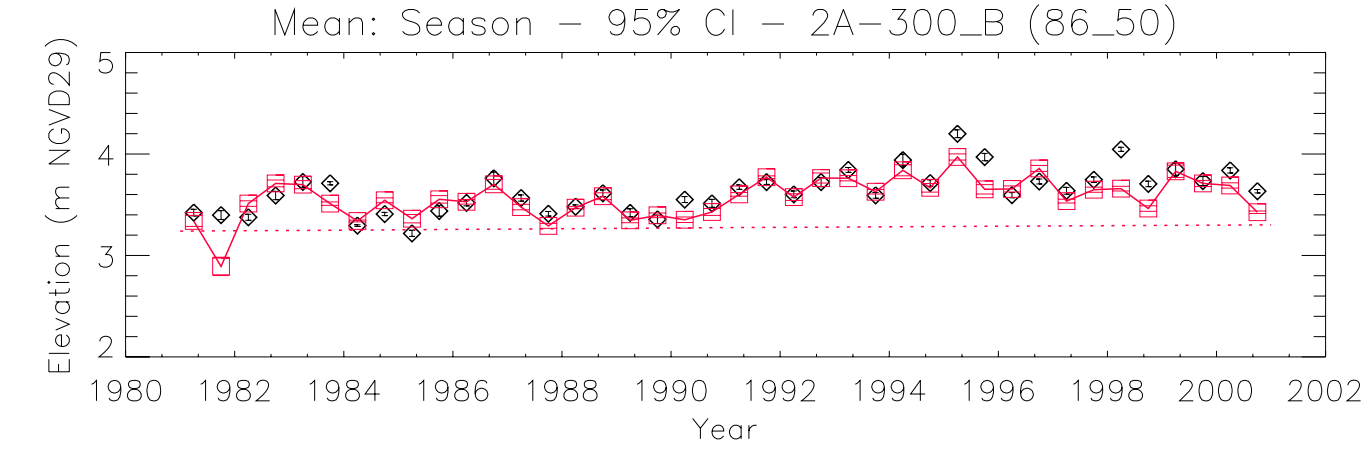

ELM2.5 Raw Data (Obs. N = 7305) – 2A–17_B (86_46)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

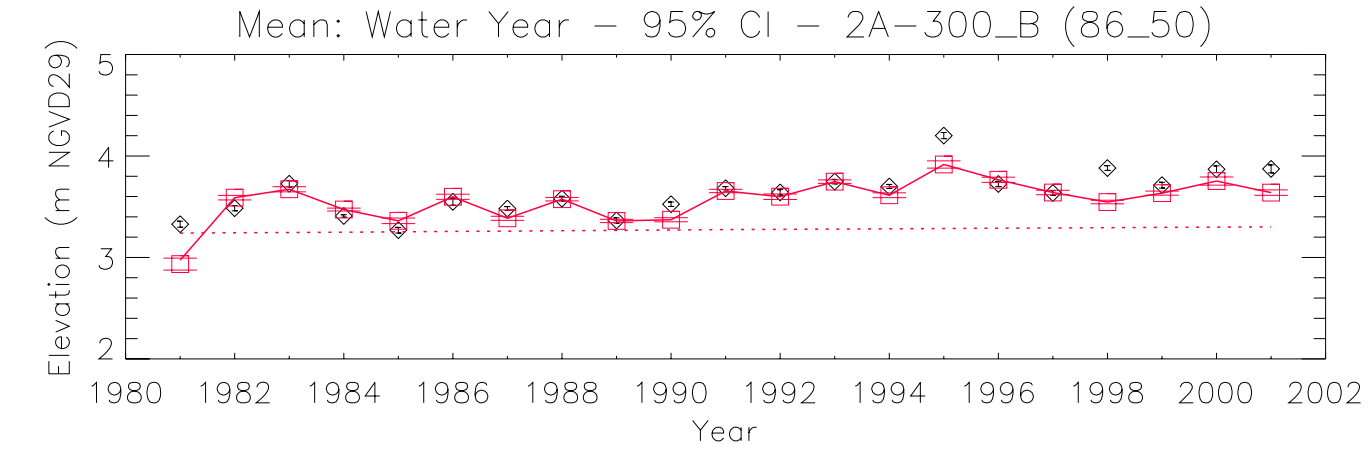

Mean: Season – 95% CI – 2A–17_B (86_46)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

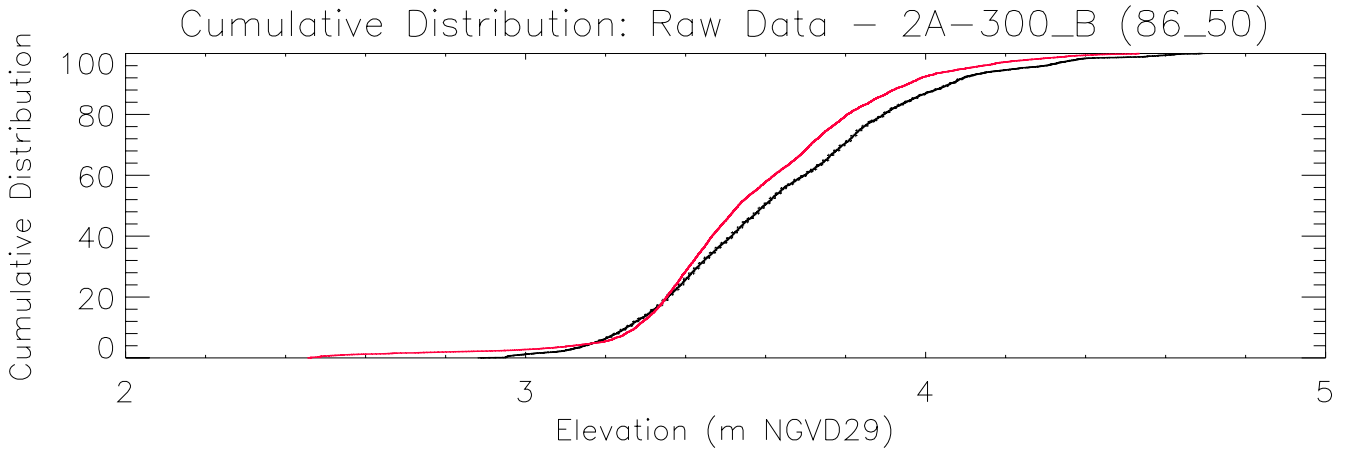

Mean: Water Year – 95% CI – 2A–17_B (86_46)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

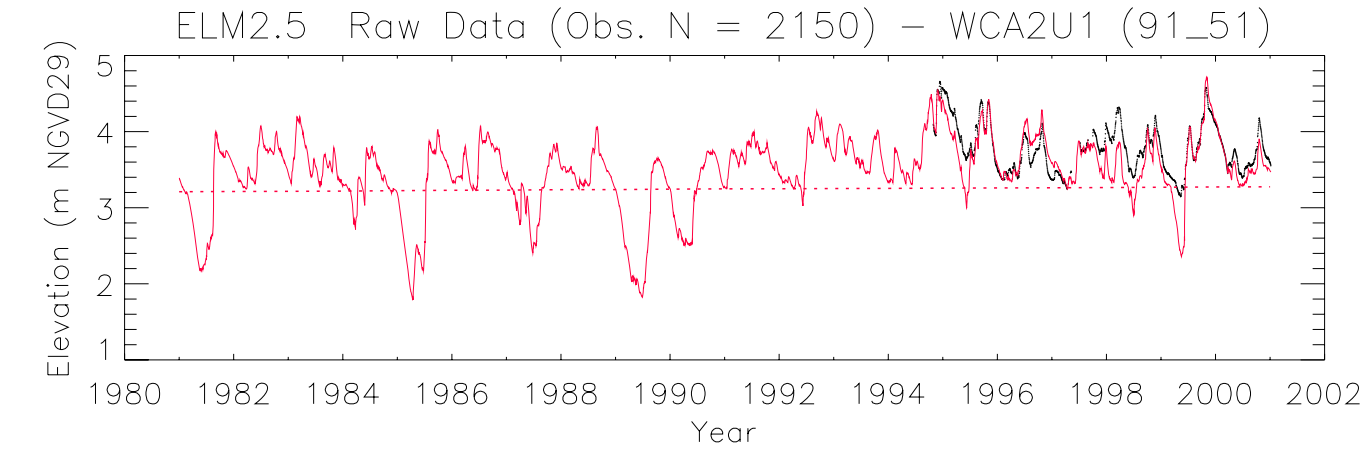

Cumulative Distribution: Raw Data – 2A–17_B (86_46)
Cumulative Distribution
100
80
60
40
20
0
2
3
4
5
Elevation (m NGVD29)

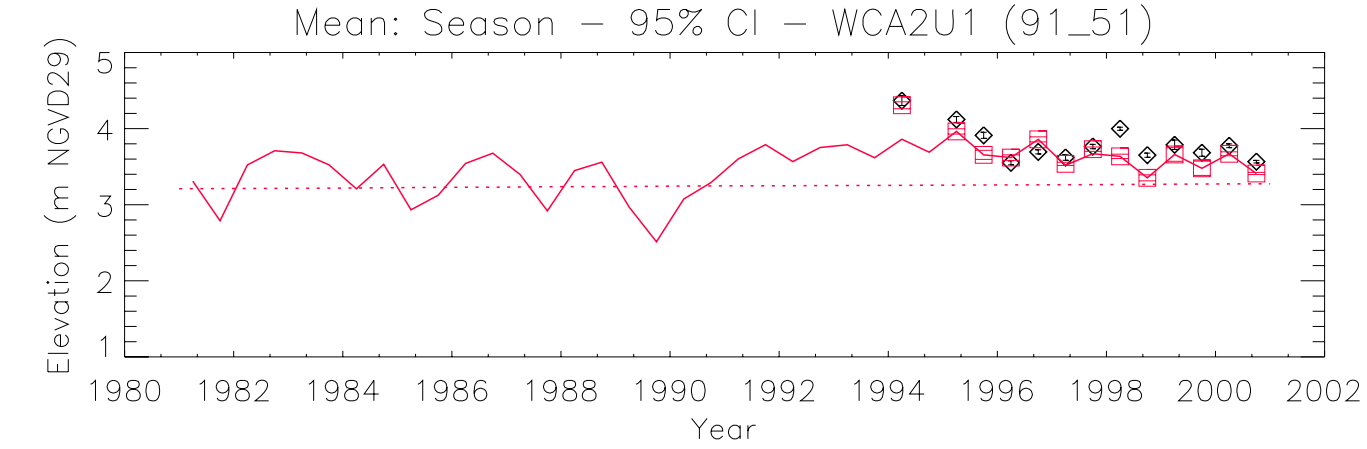

ELM2.5 Raw Data (Obs. N = 7278) – 2A–300_B (86_50)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

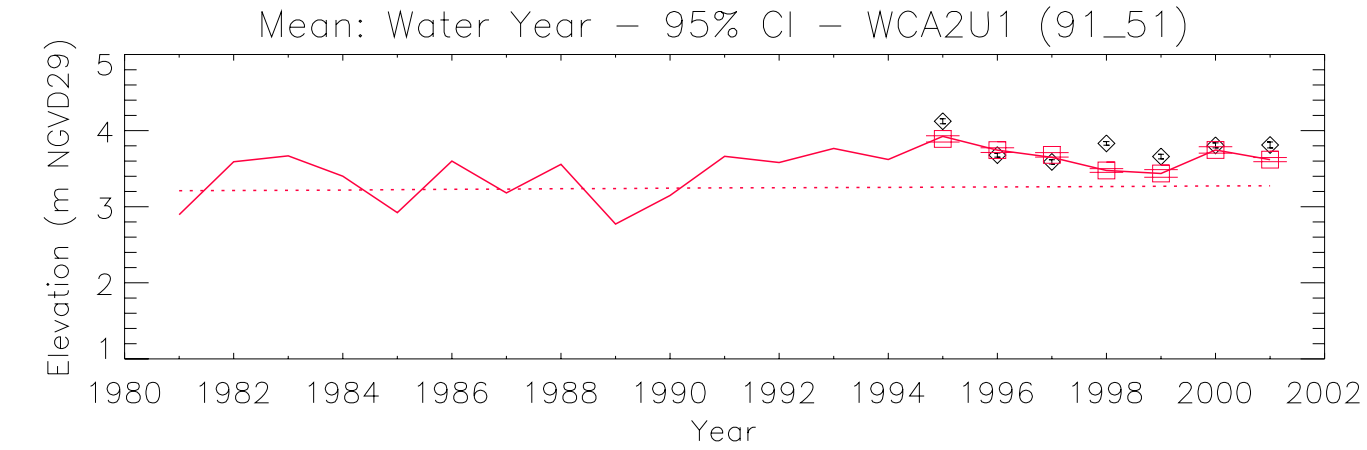

Mean: Season – 95% CI – 2A–300_B (86_50)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

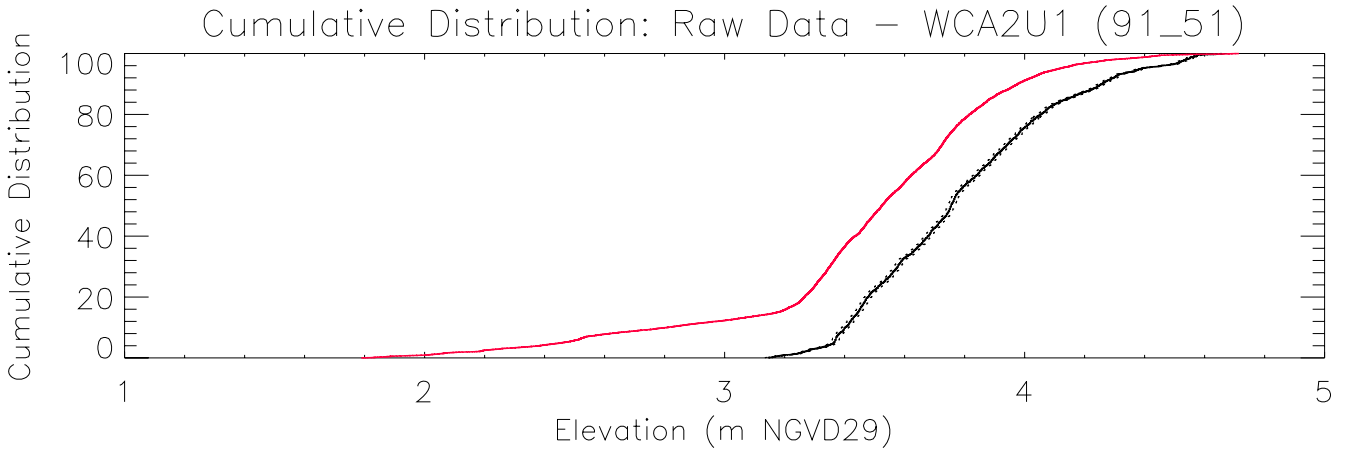

Mean: Water Year – 95% CI – 2A–300_B (86_50)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

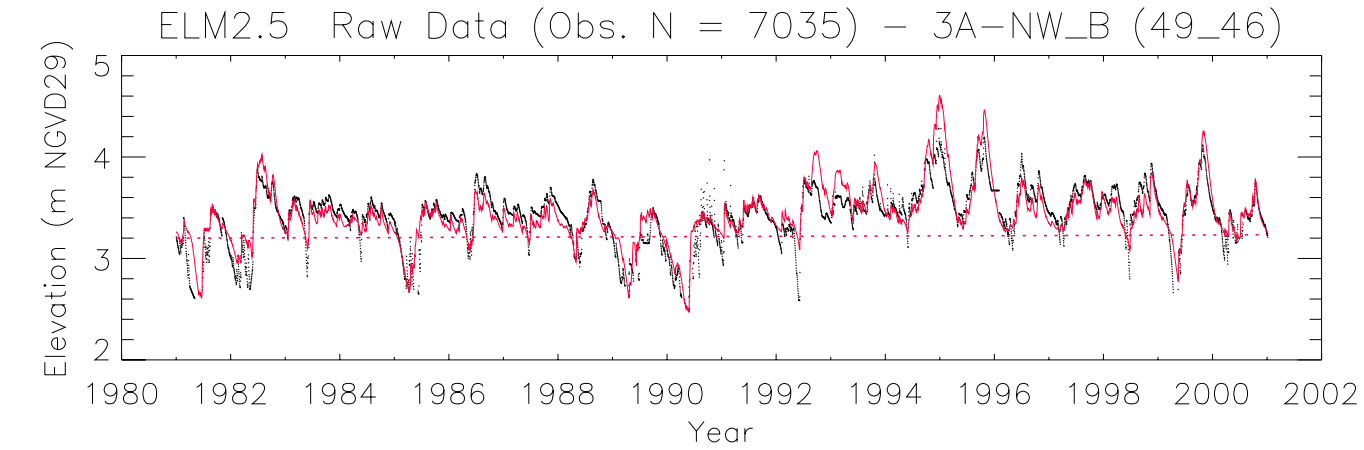

Cumulative Distribution: Raw Data – 2A–300_B (86_50)
Cumulative Distribution
100
80
60
40
20
0
2 3 4 5
Elevation (m NGVD29)

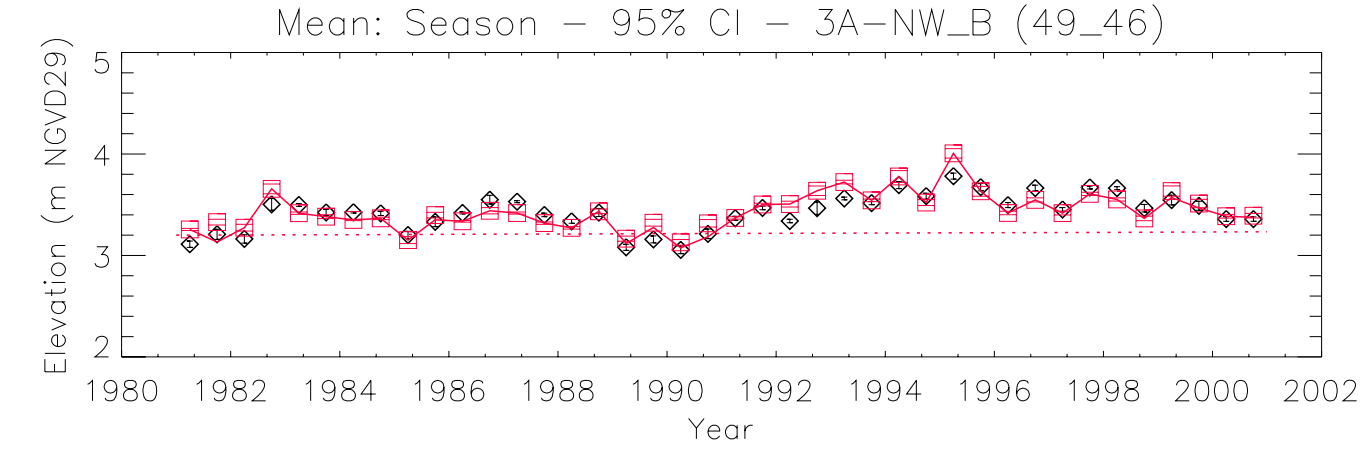

ELM2.5 Raw Data (Obs. N = 2150) – WCA2U1 (91_51)
Elevation (m NGVD29)
1
2
3
4
5
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

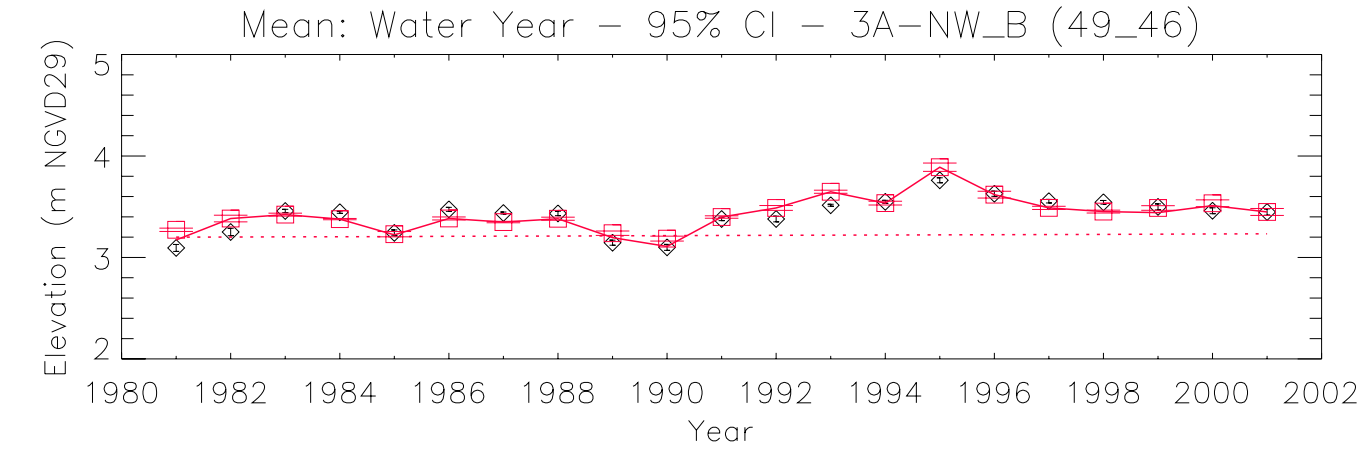

Mean: Season – 95% CI – WCA2U1 (91_51)
Elevation (m NGVD29)
1
2
3
4
5
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

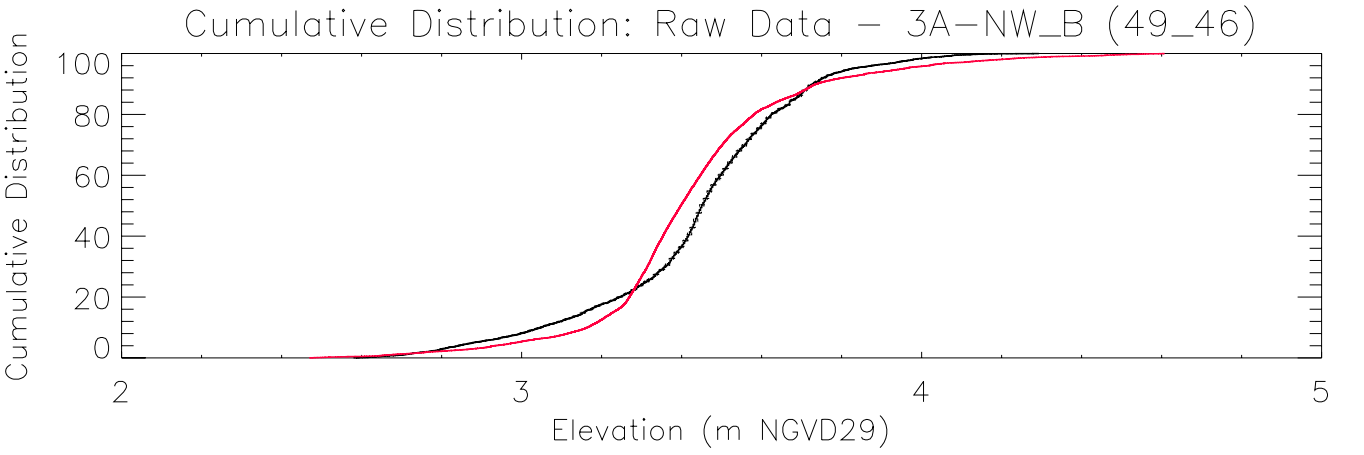

Mean: Water Year – 95% CI – WCA2U1 (91_51)
Elevation (m NGVD29)
1
2
3
4
5
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

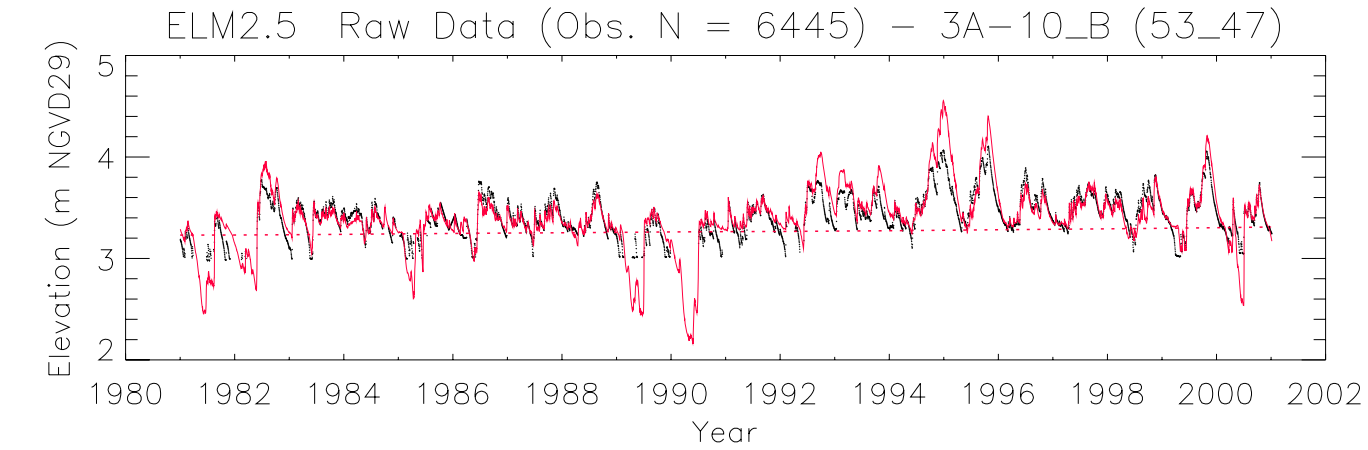

Cumulative Distribution: Raw Data – WCA2U1 (91_51)
Cumulative Distribution
0
20
40
60
80
100
1
2
3
4
5
Elevation (m NGVD29)

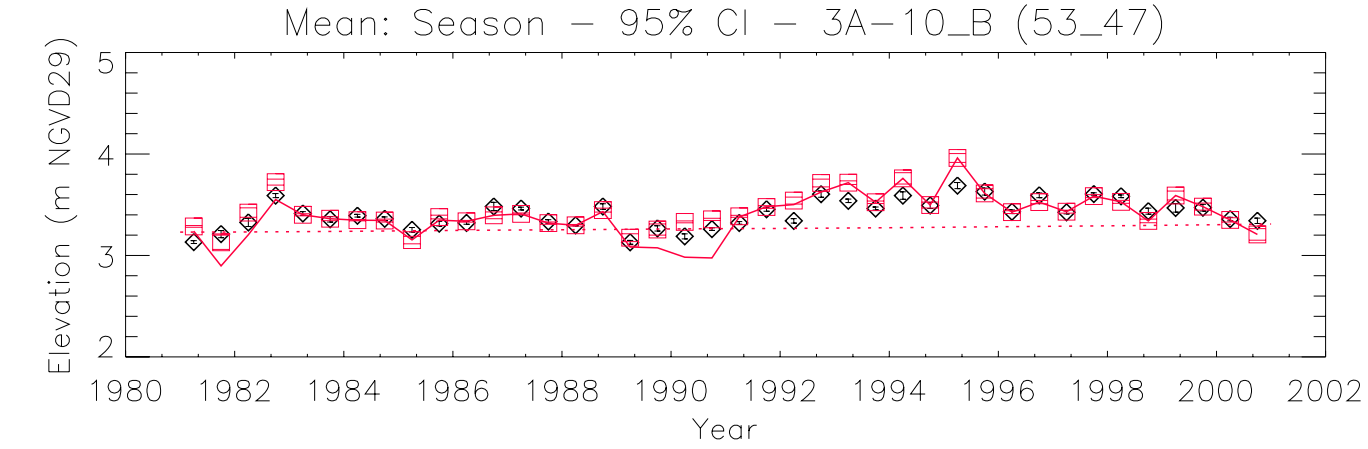

ELM2.5 Raw Data (Obs. N = 7035) – 3A–NW_B (49_46)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

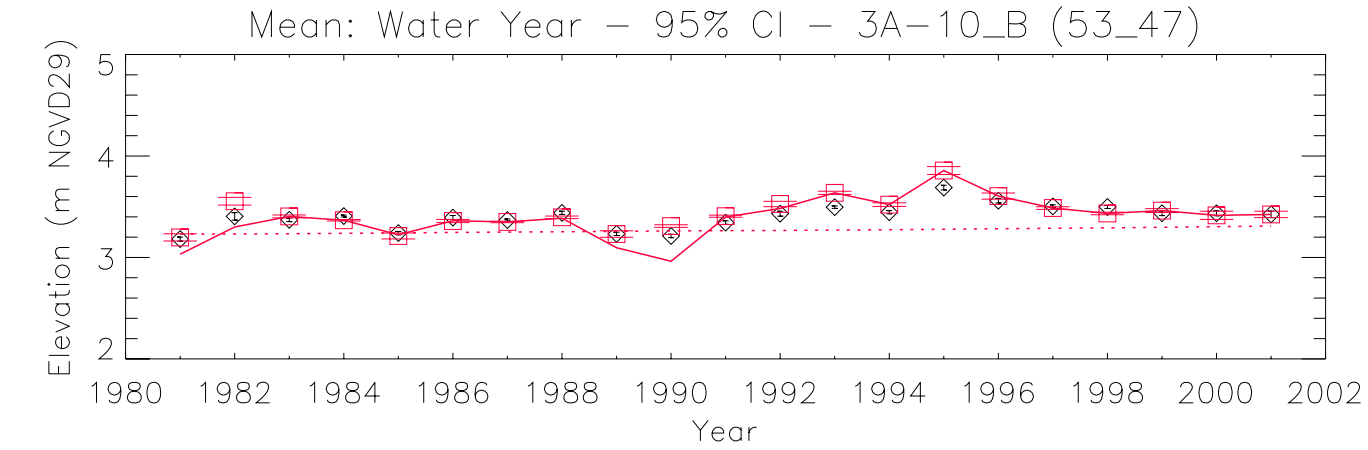

Mean: Season – 95% CI – 3A–NW_B (49_46)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

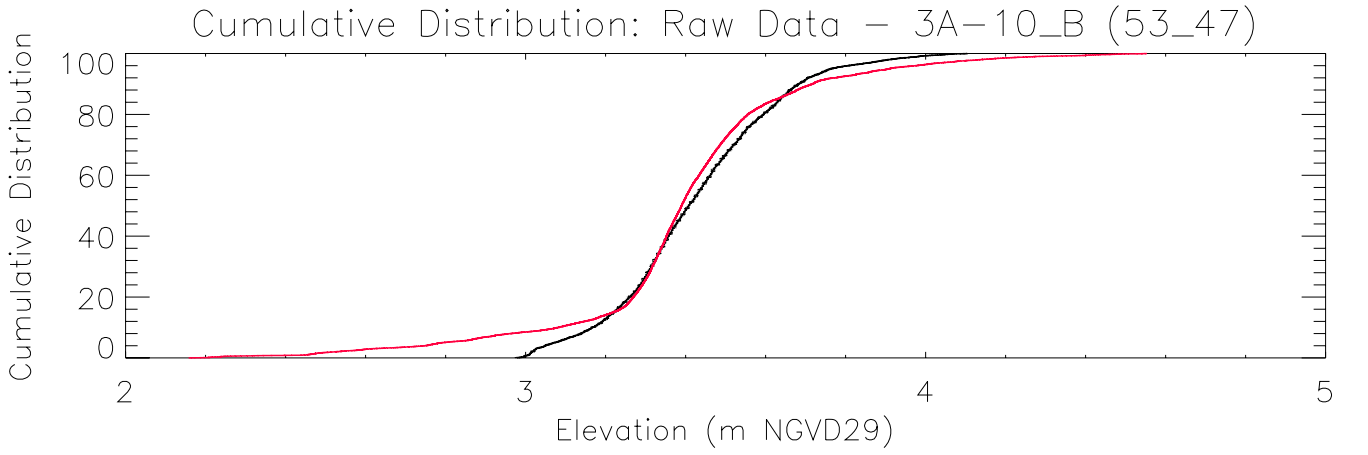

Mean: Water Year – 95% CI – 3A–NW_B (49_46)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

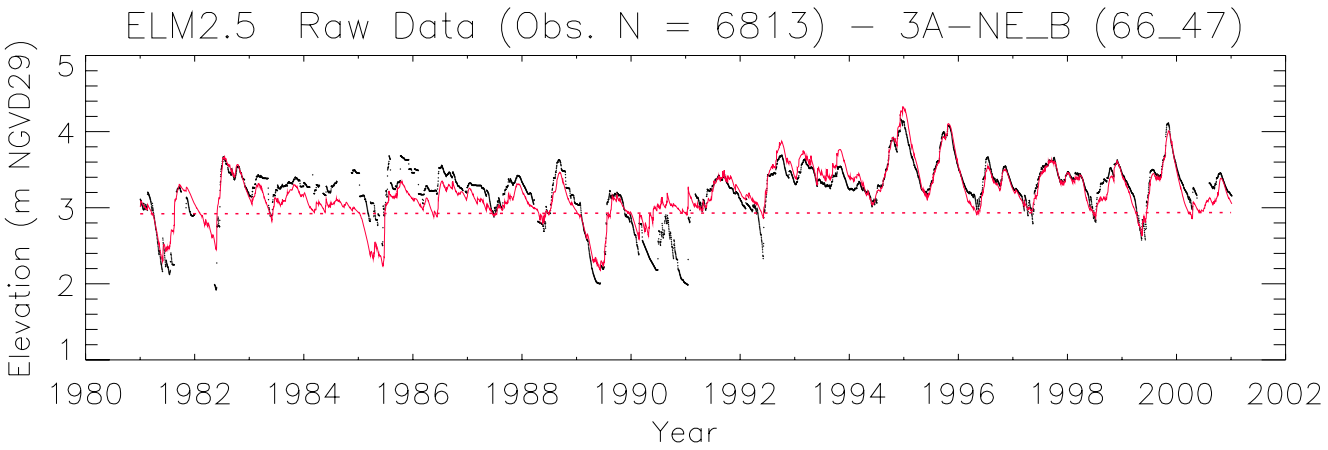

Cumulative Distribution: Raw Data – 3A–NW_B (49_46)
Cumulative Distribution
100
80
60
40
20
0
2
3
4
5
Elevation (m NGVD29)

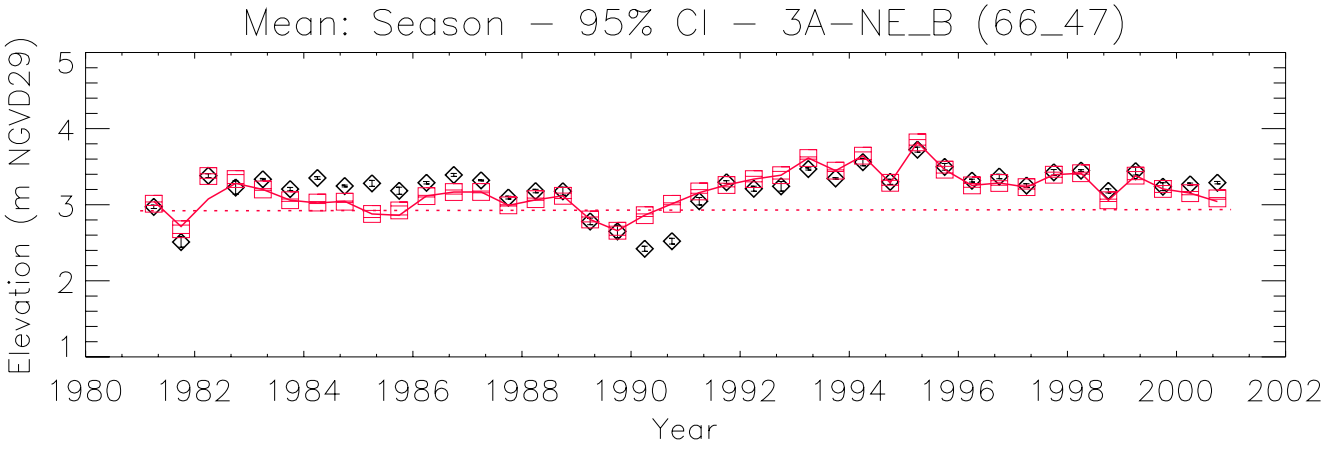

ELM2.5 Raw Data (Obs. N = 6445) – 3A–10_B (53_47)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

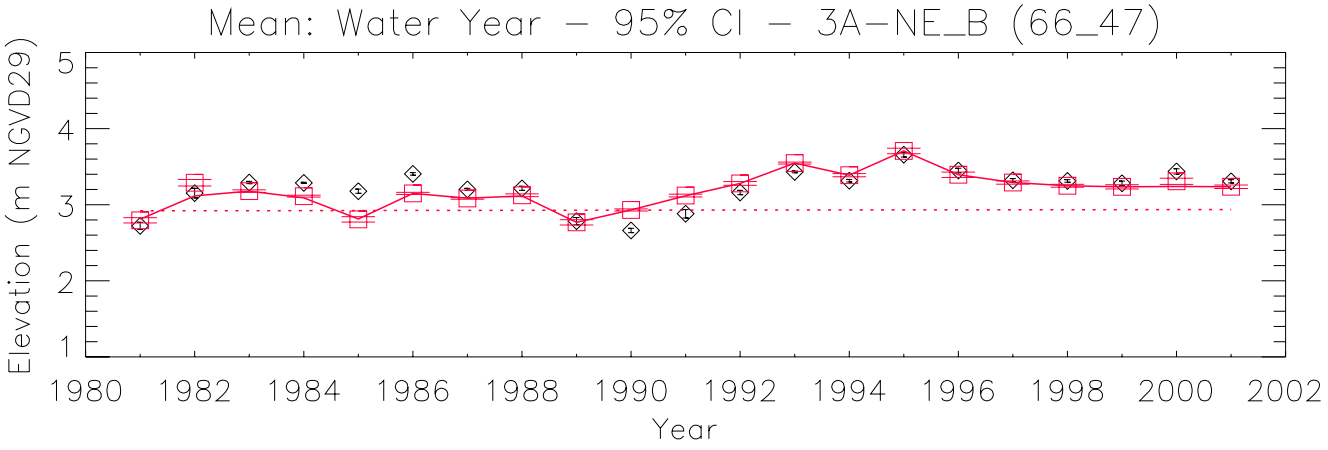

Mean: Season – 95% CI – 3A–10_B (53_47)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

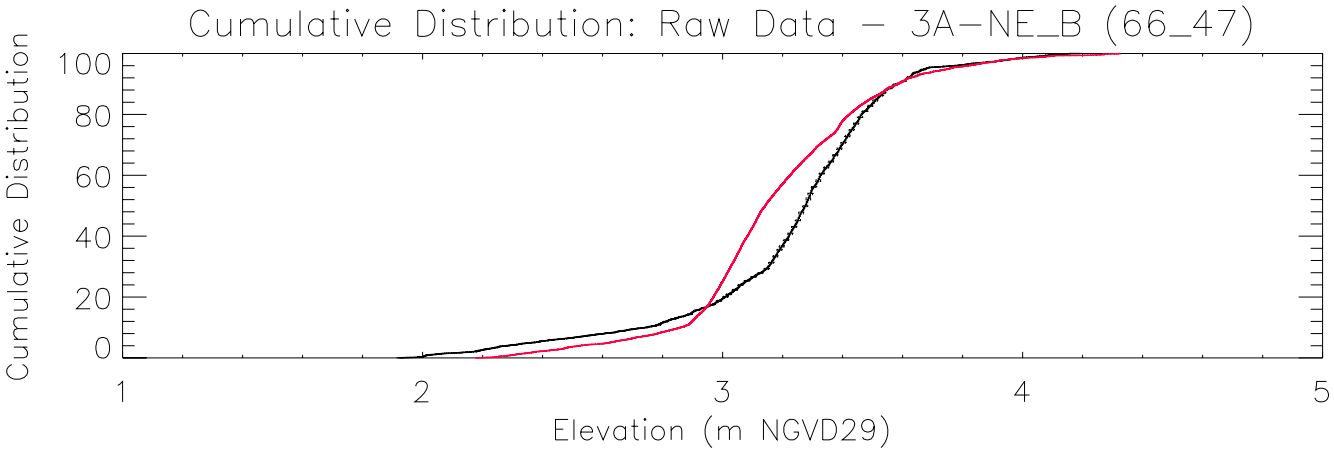

Mean: Water Year – 95% CI – 3A–10_B (53_47)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

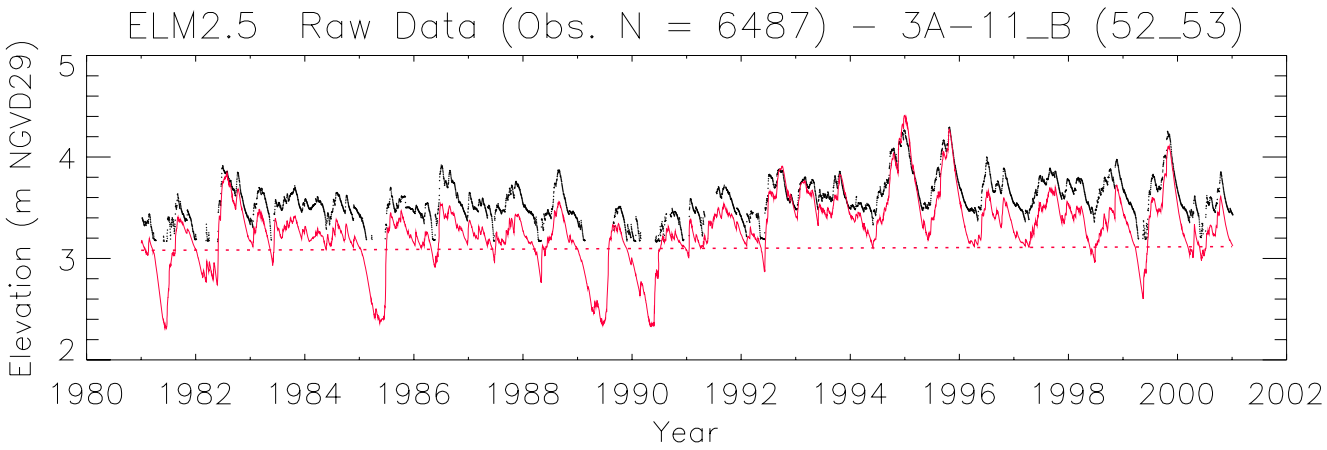

Cumulative Distribution: Raw Data – 3A–10_B (53_47)
Cumulative Distribution
100
80
60
40
20
0
2
3
4
5
Elevation (m NGVD29)

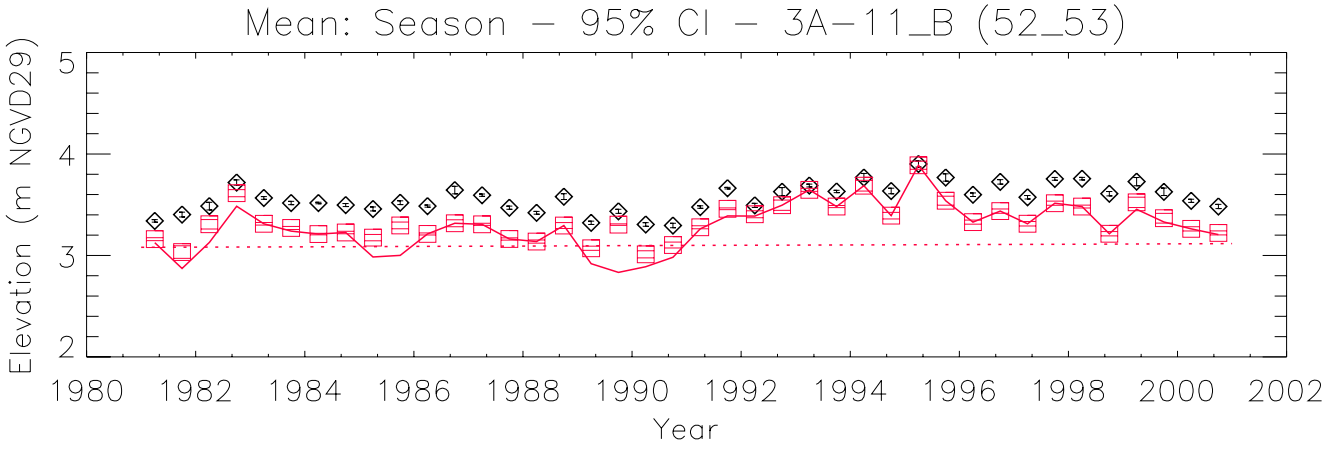

ELM2.5 Raw Data (Obs. N = 6813) – 3A–NE_B (66_47)
Elevation (m NGVD29)
1
2
3
4
5
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

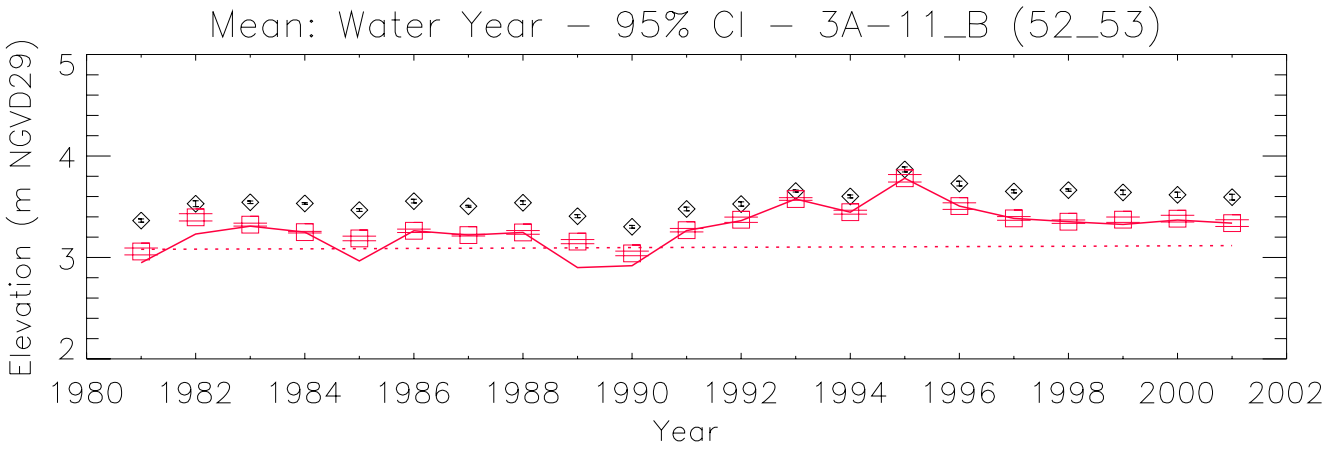

Mean: Season – 95% CI – 3A–NE_B (66_47)
Elevation (m NGVD29)
1
2
3
4
5
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

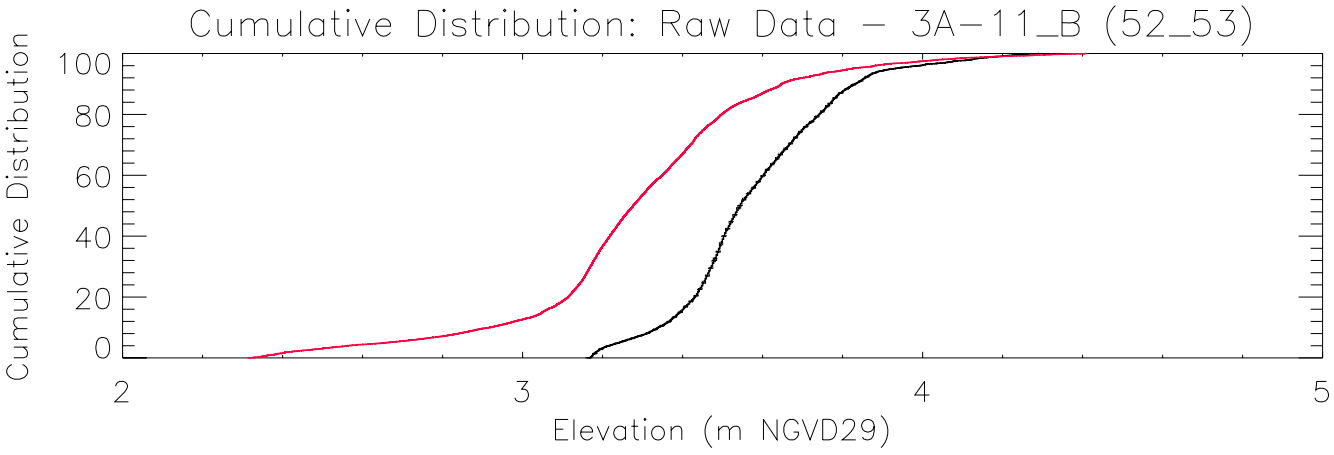

Mean: Water Year – 95% CI – 3A–NE_B (66_47)
Elevation (m NGVD29)
1
2
3
4
5
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

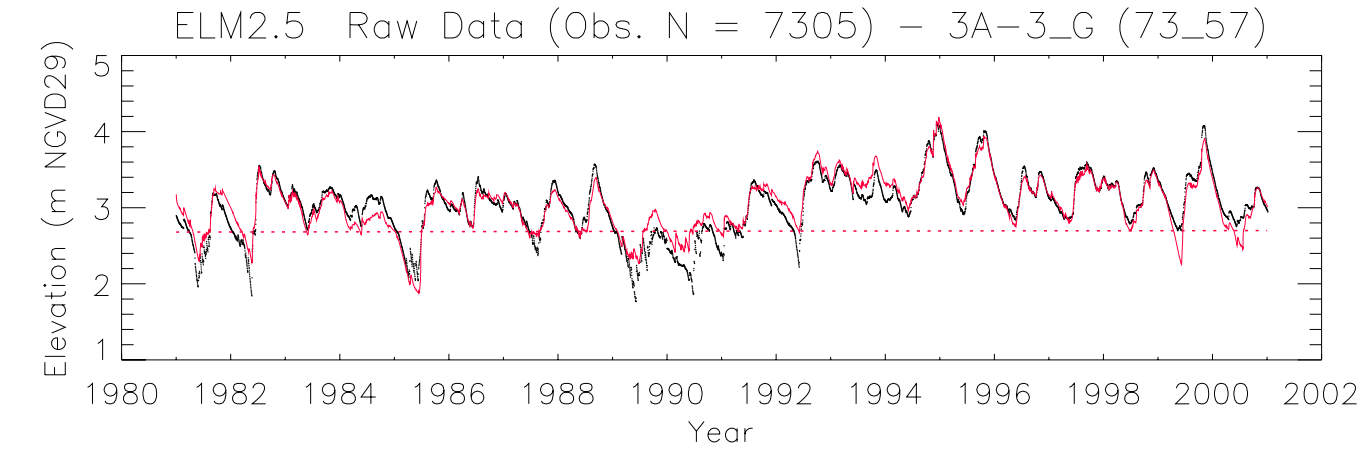

Cumulative Distribution: Raw Data – 3A–NE_B (66_47)
Cumulative Distribution
0
20
40
60
80
100
1
2
3
4
5
Elevation (m NGVD29)

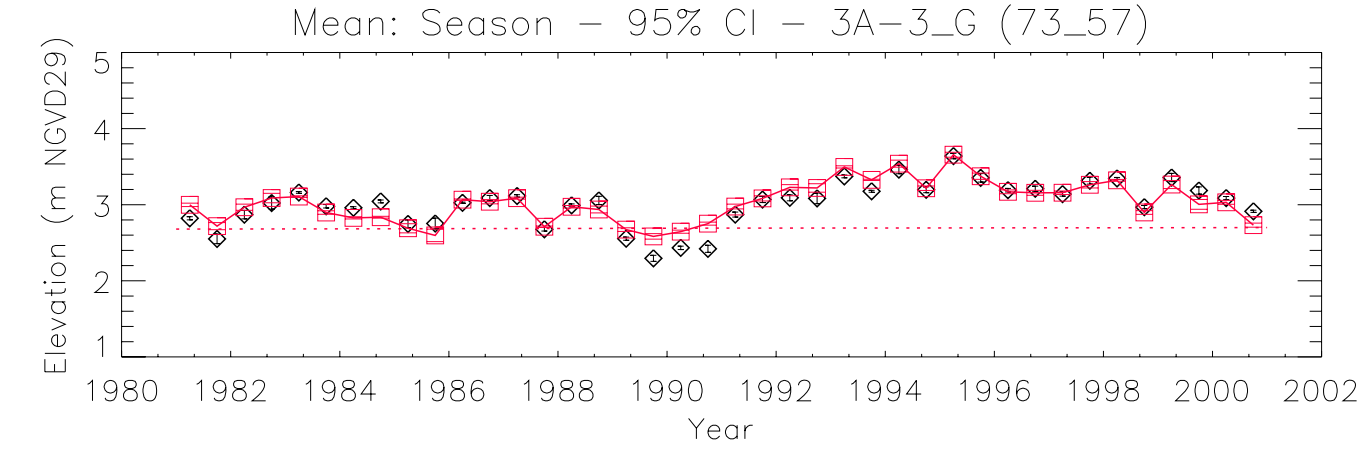

ELM2.5 Raw Data (Obs. N = 6487) – 3A–11_B (52_53)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

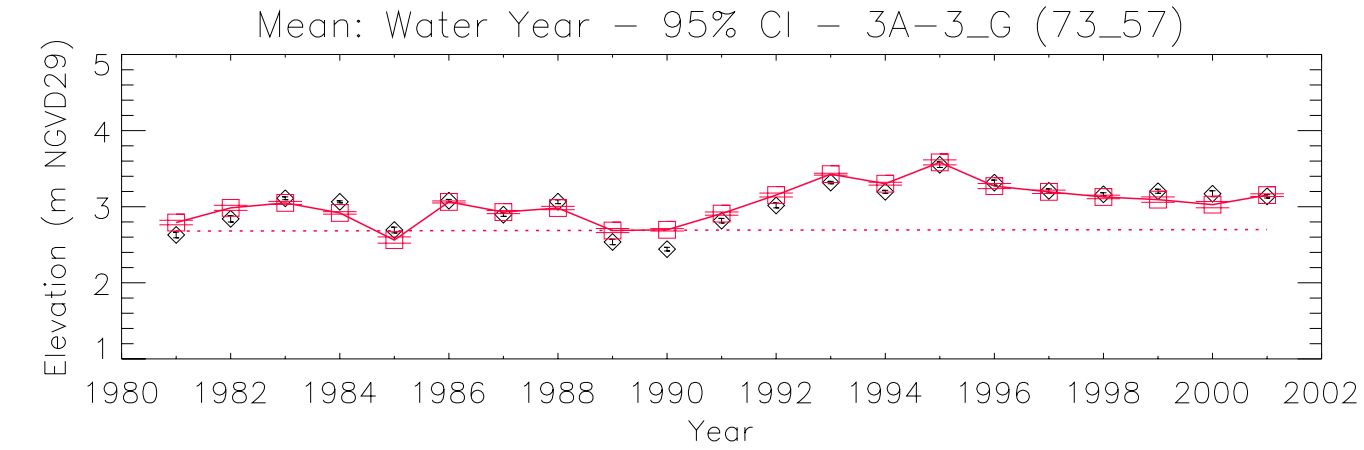

Mean: Season – 95% CI – 3A–11_B (52_53)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

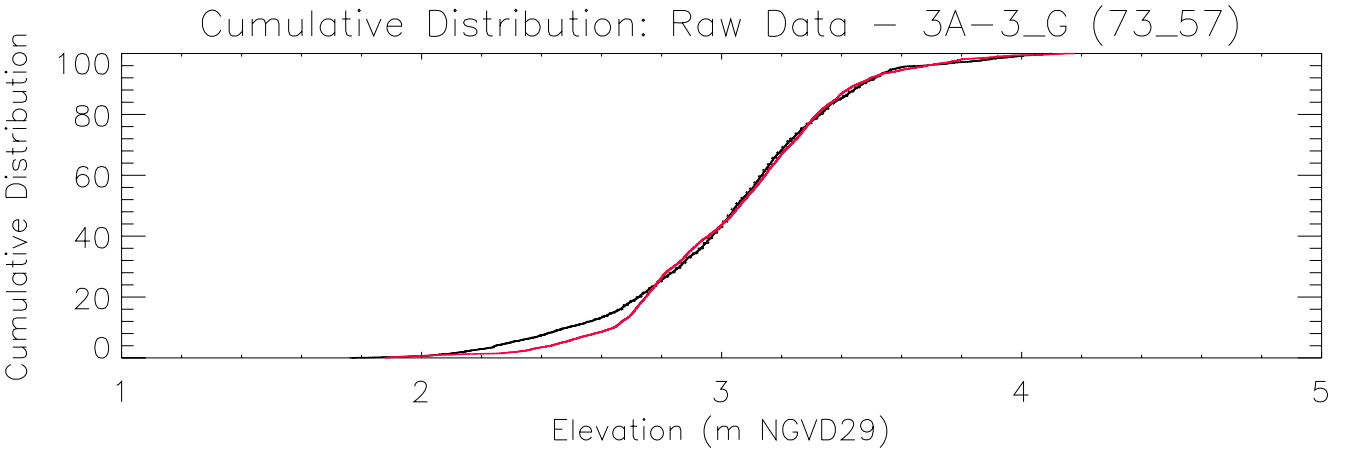

Mean: Water Year – 95% CI – 3A–11_B (52_53)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

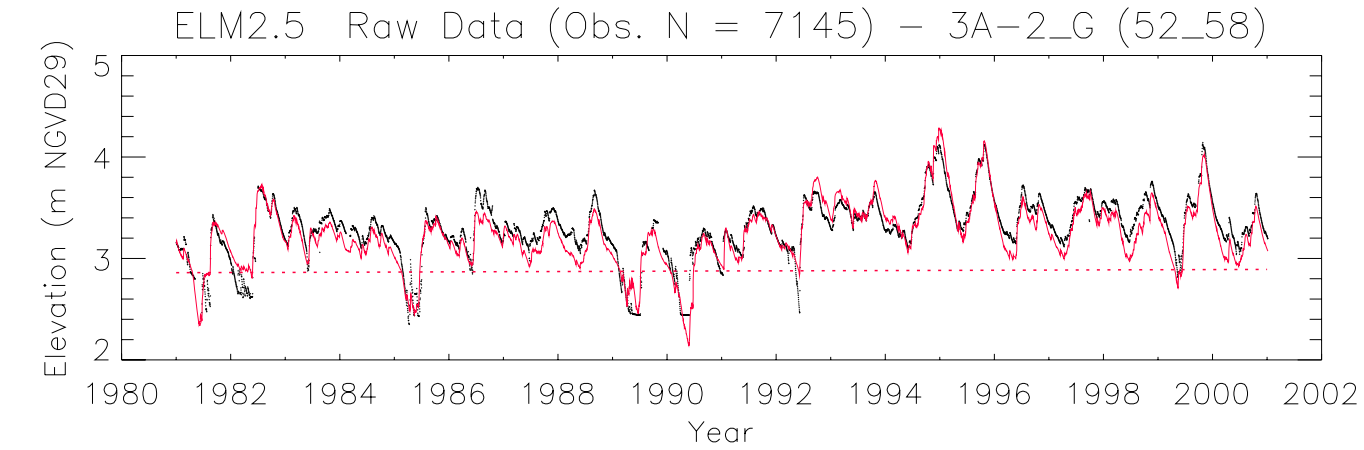

Cumulative Distribution: Raw Data – 3A–11_B (52_53)
Cumulative Distribution
100
80
60
40
20
0
2
3
4
5
Elevation (m NGVD29)

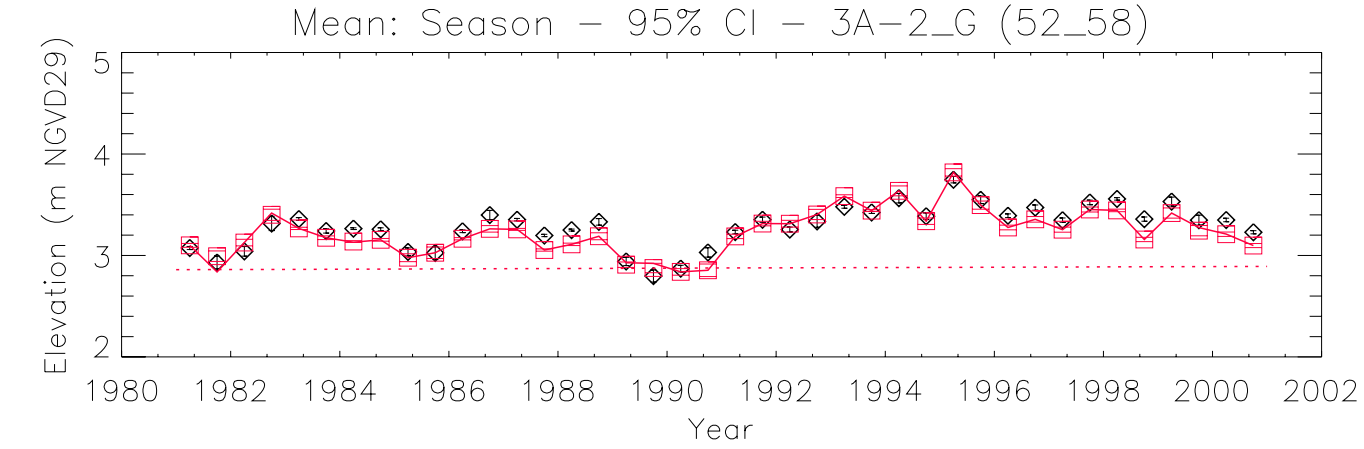

ELM2.5 Raw Data (Obs. N = 7305) – 3A–3_G (73_57)
Elevation (m NGVD29)
1
2
3
4
5
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

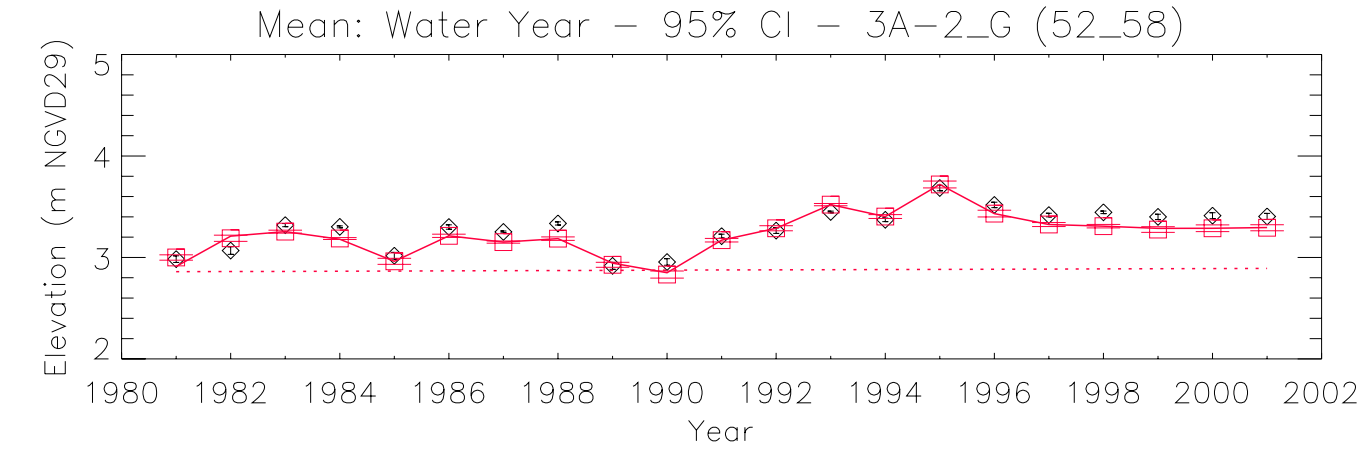

Mean: Season – 95% CI – 3A–3_G (73_57)
Elevation (m NGVD29)
1
2
3
4
5
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

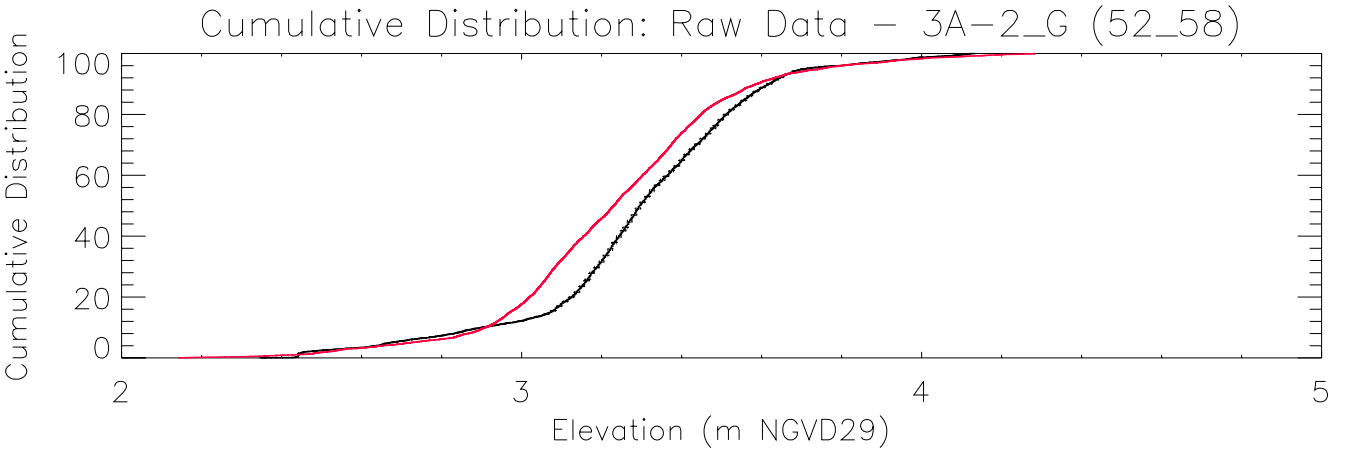

Mean: Water Year – 95% CI – 3A–3_G (73_57)
Elevation (m NGVD29)
1
2
3
4
5
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

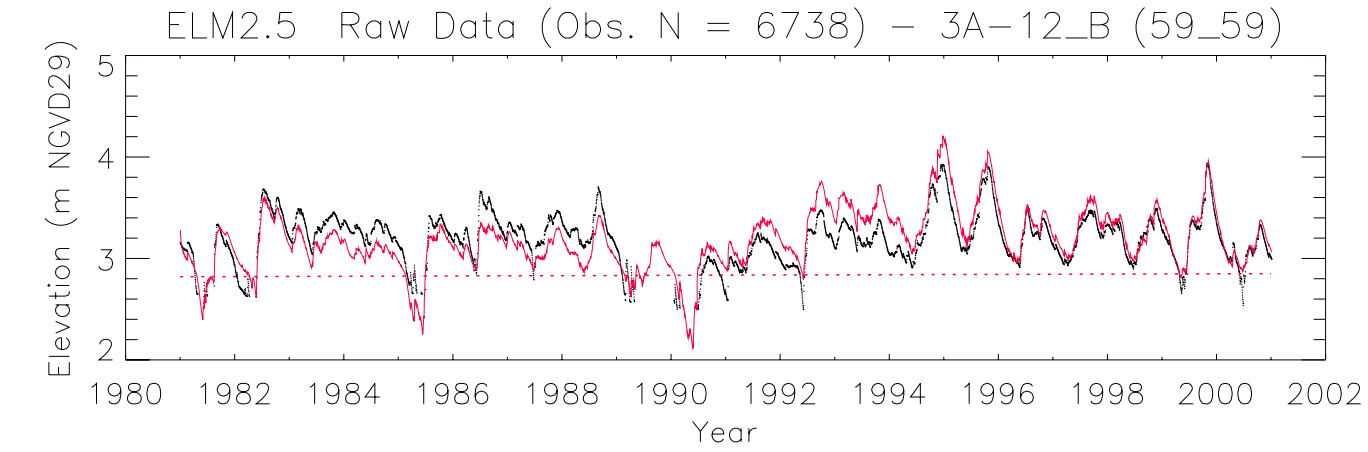

Cumulative Distribution: Raw Data – 3A–3_G (73_57)
Cumulative Distribution
0
20
40
60
80
100
1
2
3
4
5
Elevation (m NGVD29)

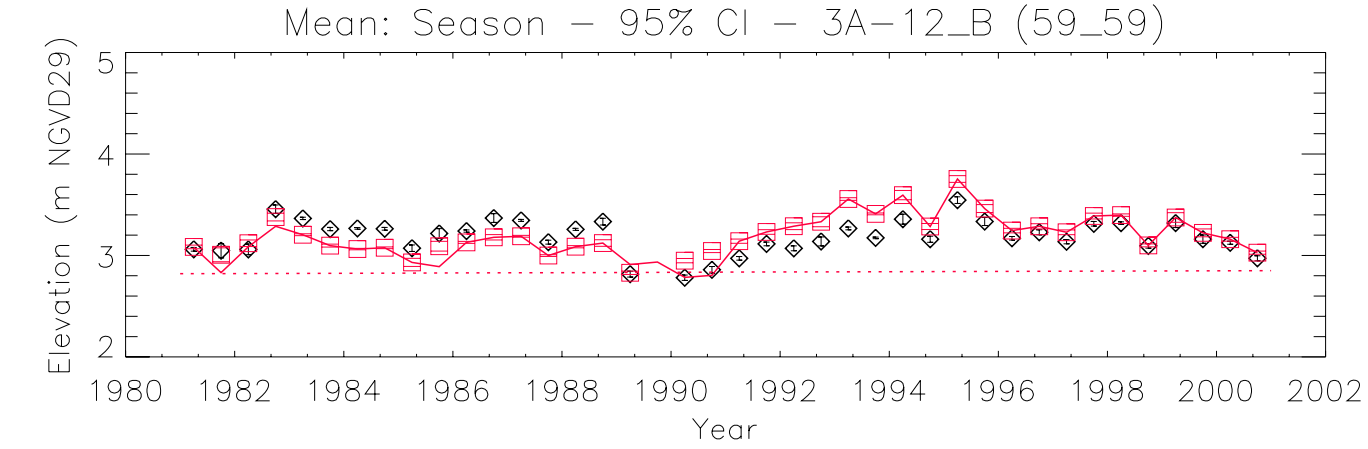

ELM2.5 Raw Data (Obs. N = 7145) – 3A–2_G (52_58)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

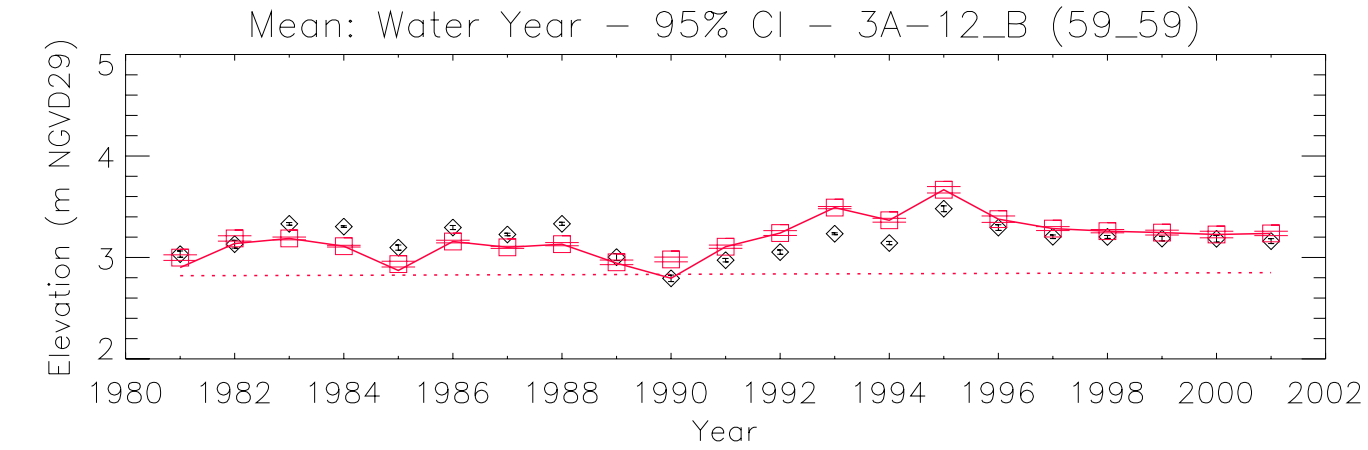

Mean: Season – 95% CI – 3A–2_G (52_58)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

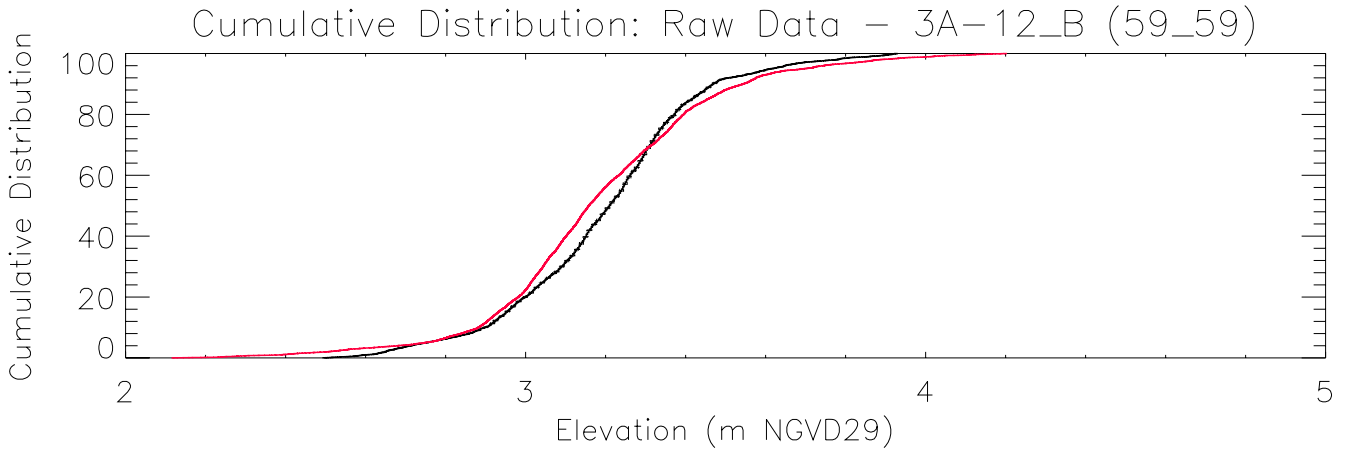

Mean: Water Year – 95% CI – 3A–2_G (52_58)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

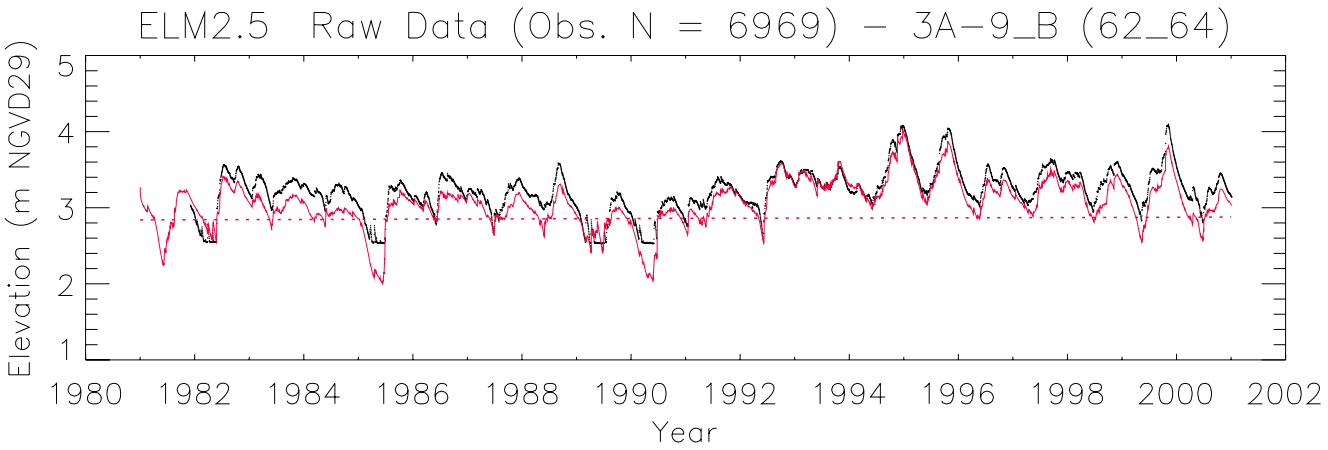

Cumulative Distribution: Raw Data – 3A–2_G (52_58)
Cumulative Distribution
100
80
60
40
20
0
2
3
4
5
Elevation (m NGVD29)

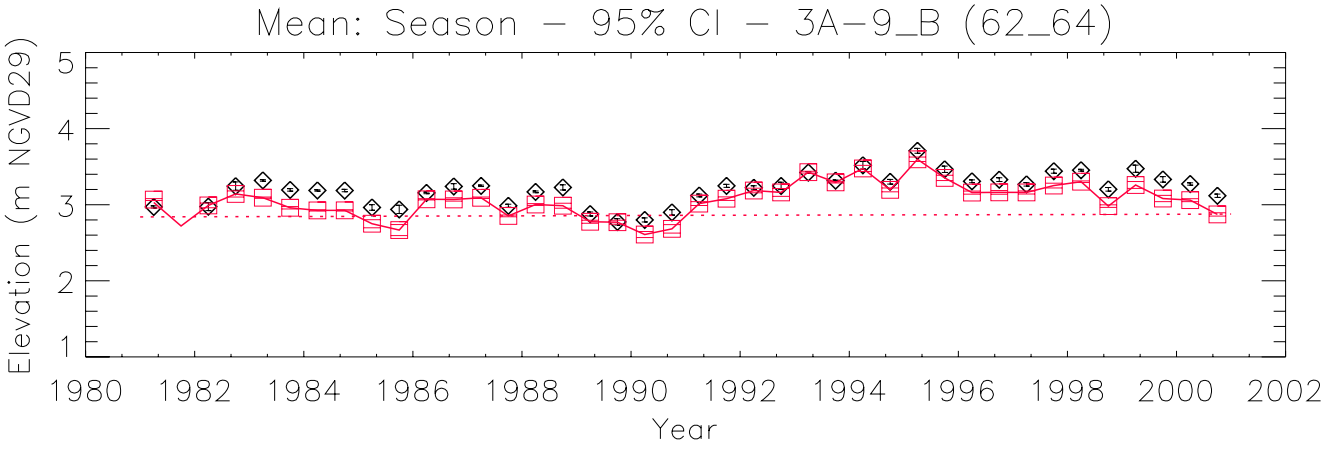

ELM2.5 Raw Data (Obs. N = 6738) – 3A–12_B (59_59)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

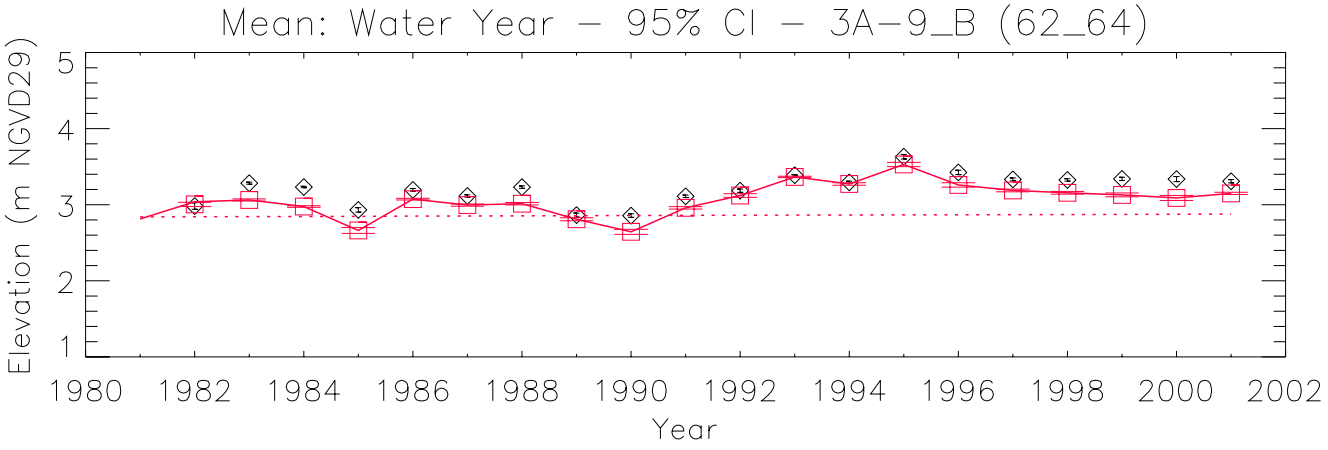

Mean: Season – 95% CI – 3A–12_B (59_59)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

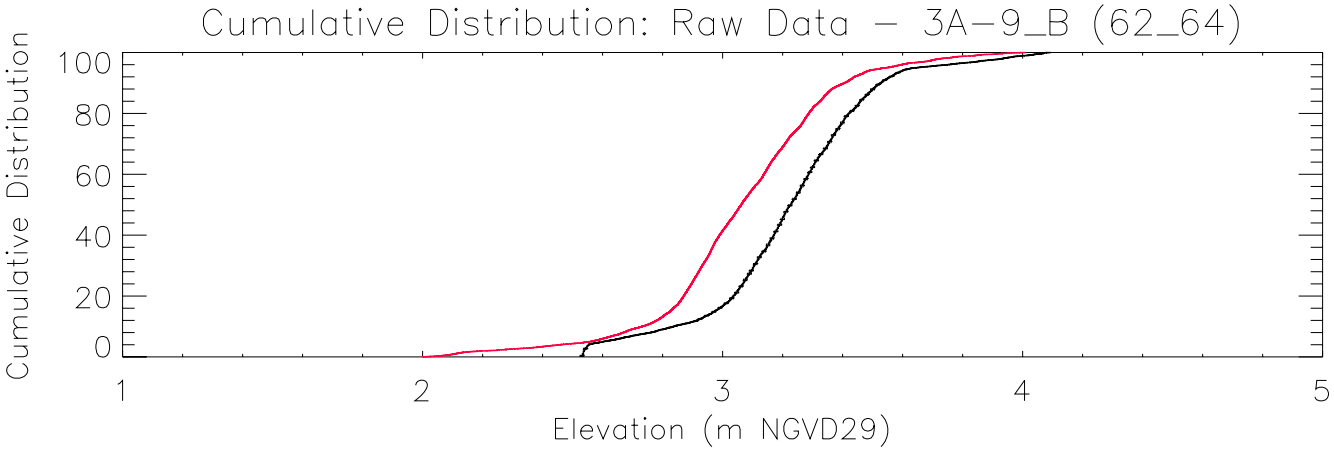

Mean: Water Year – 95% CI – 3A–12_B (59_59)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

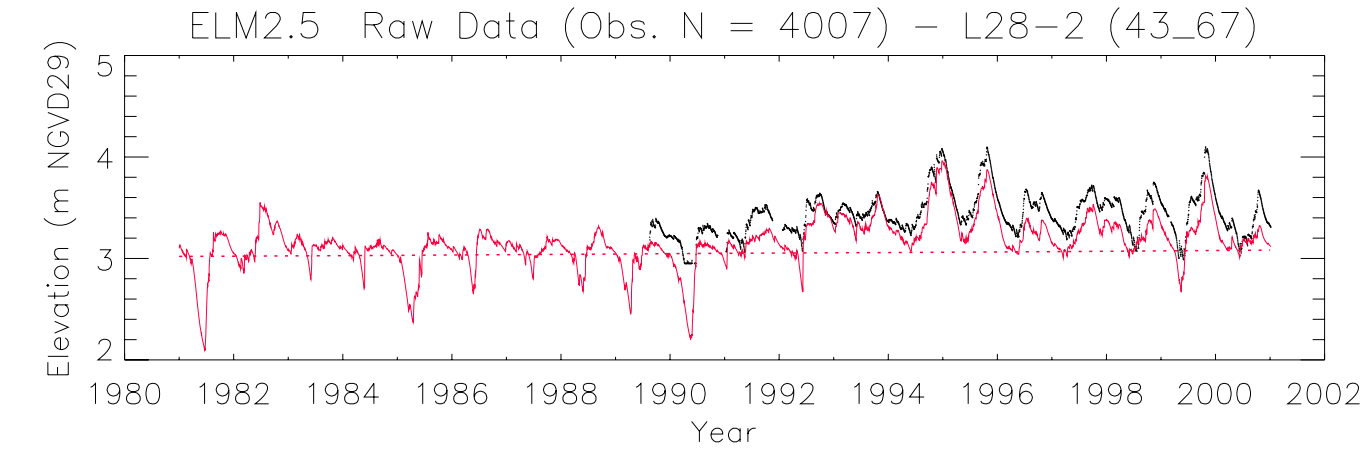

Cumulative Distribution: Raw Data – 3A–12_B (59_59)
Cumulative Distribution
100
80
60
40
20
0
2
3
4
5
Elevation (m NGVD29)

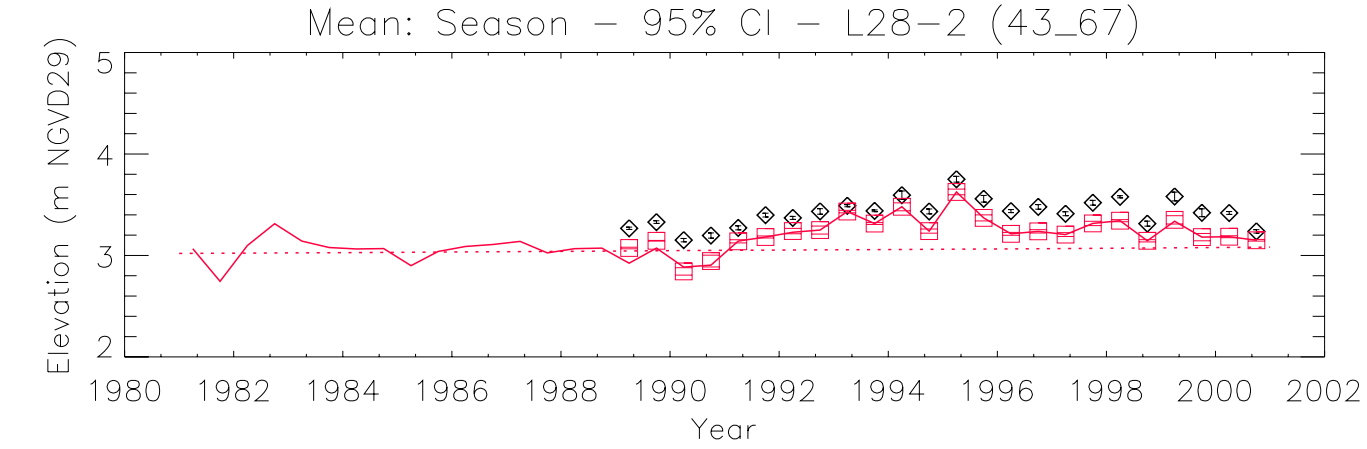

ELM2.5 Raw Data (Obs. N = 6969) – 3A–9_B (62_64)
Elevation (m NGVD29)
1
2
3
4
5
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

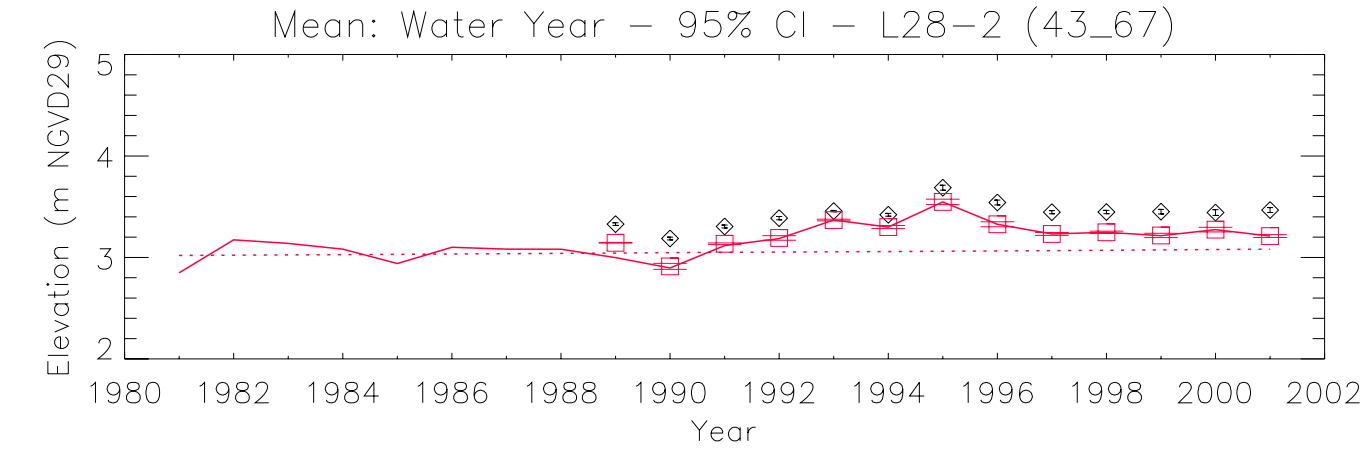

Mean: Season – 95% CI – 3A–9_B (62_64)
Elevation (m NGVD29)
1
2
3
4
5
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

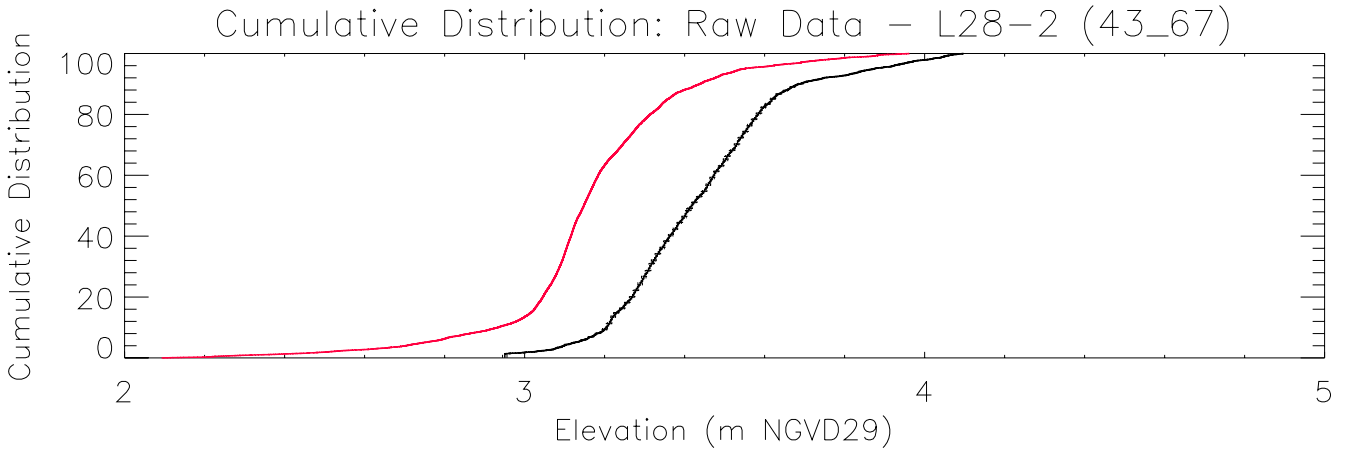

Mean: Water Year – 95% CI – 3A–9_B (62_64)
Elevation (m NGVD29)
1
2
3
4
5
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

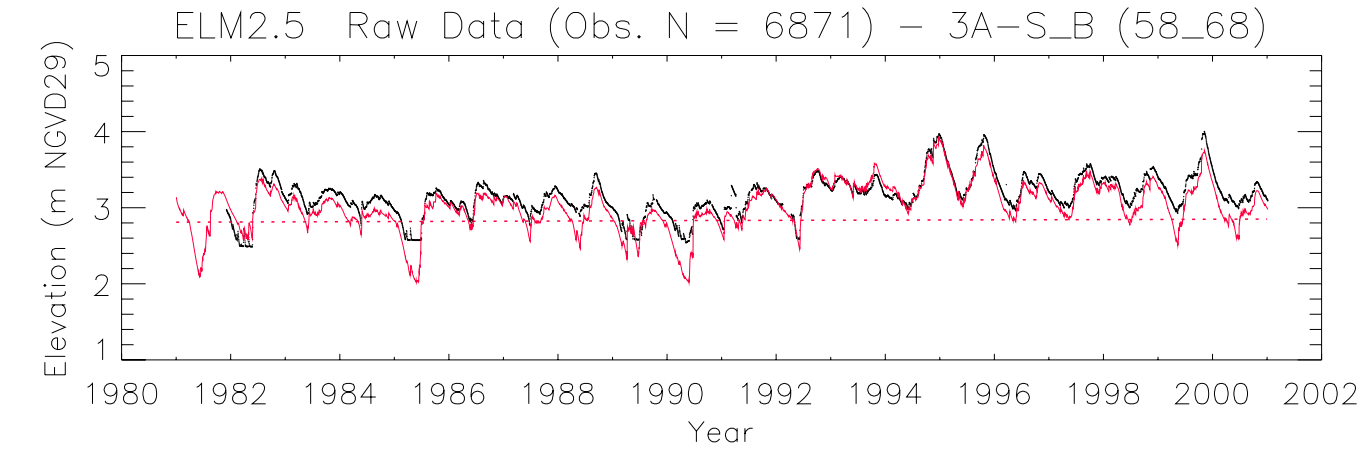

Cumulative Distribution: Raw Data – 3A–9_B (62_64)
Cumulative Distribution
0
20
40
60
80
100
1
2
3
4
5
Elevation (m NGVD29)

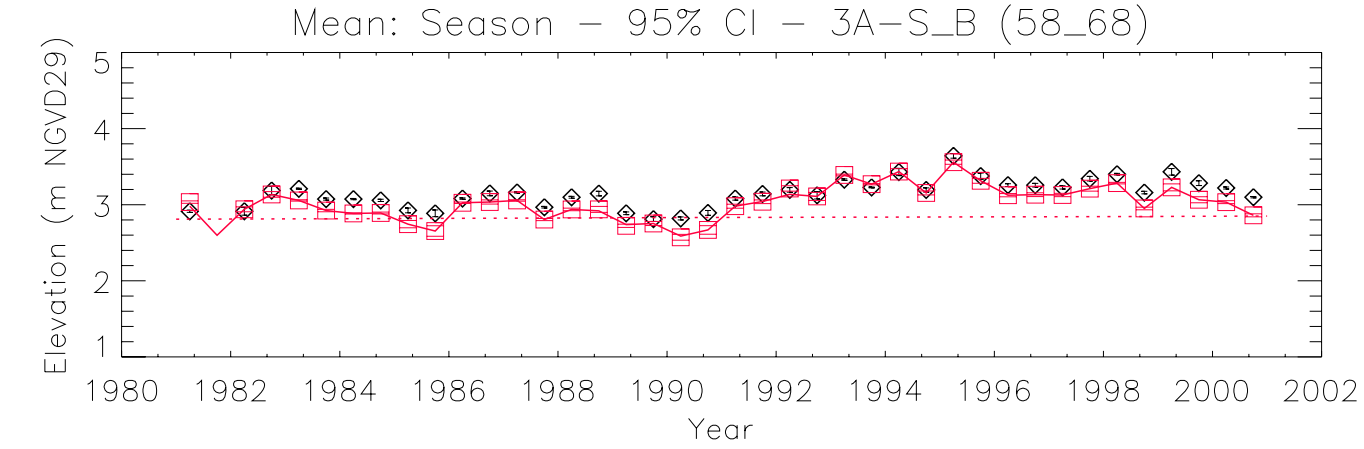

ELM2.5 Raw Data (Obs. N = 4007) – L28–2 (43_67)
Elevation (m NGVD29)
5
4
3
2
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

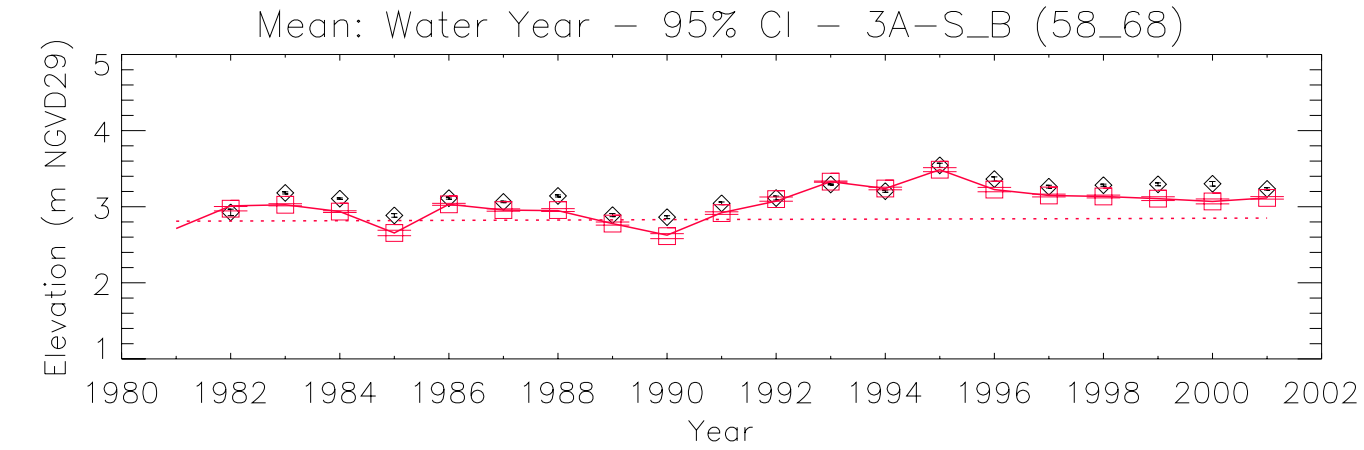

Mean: Season – 95% CI – L28–2 (43_67)
Elevation (m NGVD29)
5
4
3
2
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

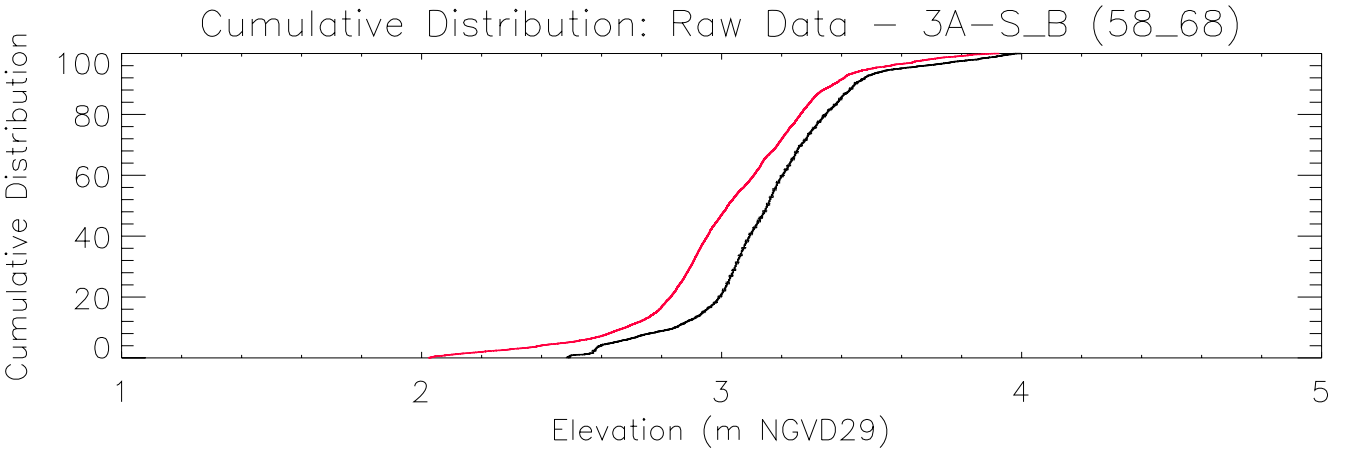

Mean: Water Year – 95% CI – L28–2 (43_67)
Elevation (m NGVD29)
5
4
3
2
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

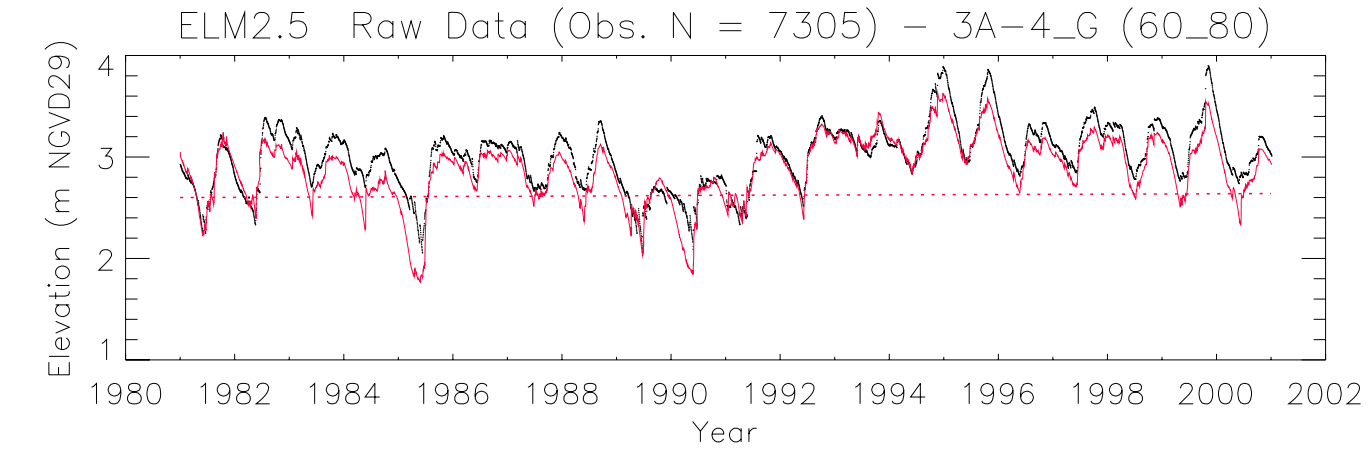

Cumulative Distribution: Raw Data – L28–2 (43_67)
Cumulative Distribution
100
80
60
40
20
0
2
3
4
5
Elevation (m NGVD29)

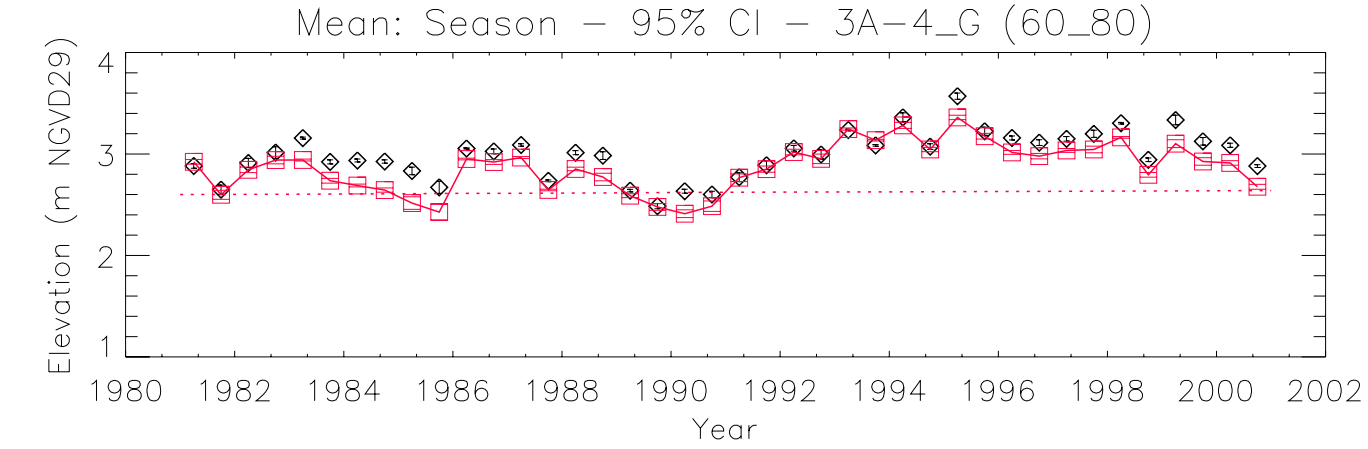

ELM2.5 Raw Data (Obs. N = 6871) – 3A–S_B (58_68)
Elevation (m NGVD29)
1
2
3
4
5
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

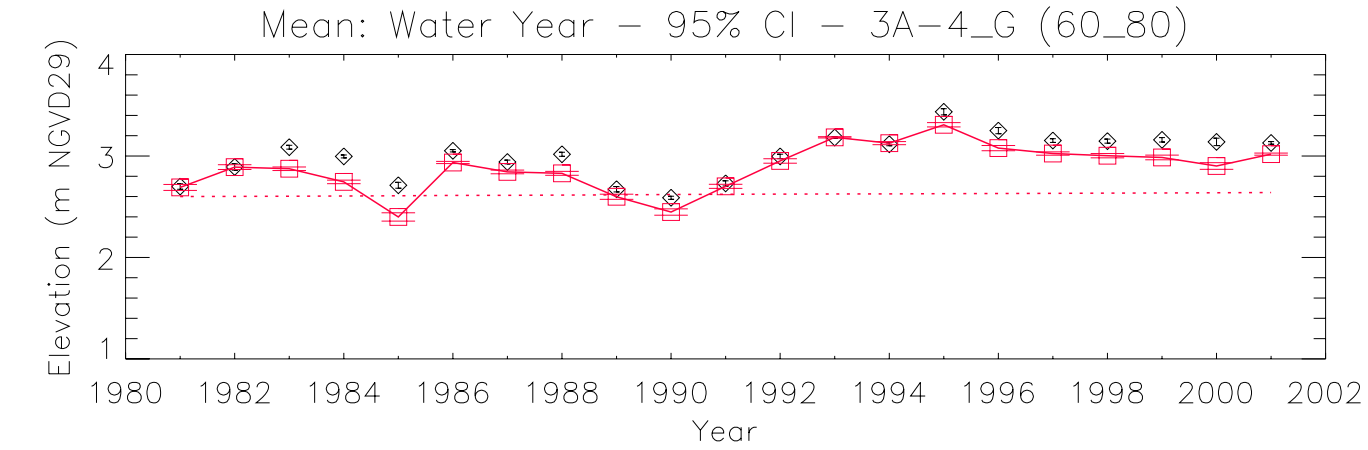

Mean: Season – 95% CI – 3A–S_B (58_68)
Elevation (m NGVD29)
1
2
3
4
5
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

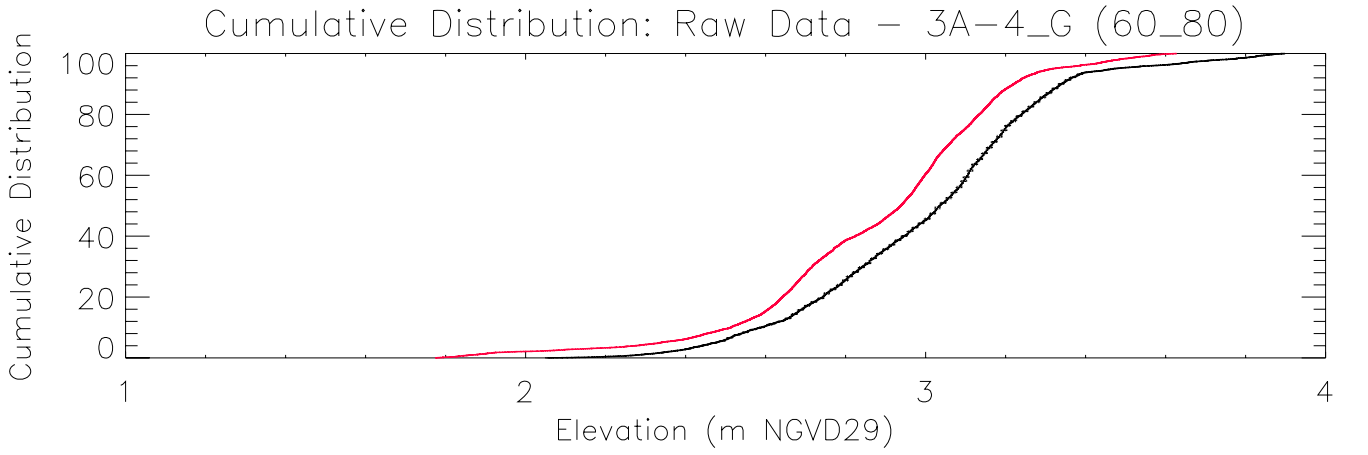

Mean: Water Year – 95% CI – 3A–S_B (58_68)
Elevation (m NGVD29)
1
2
3
4
5
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

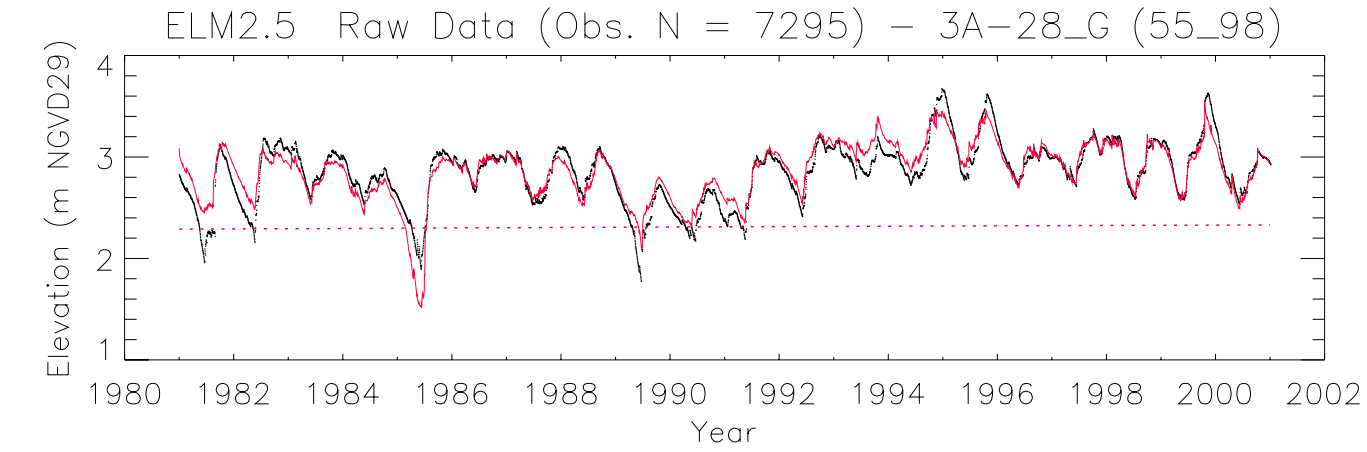

Cumulative Distribution: Raw Data – 3A–S_B (58_68)
Cumulative Distribution
0
20
40
60
80
100
1
2
3
4
5
Elevation (m NGVD29)

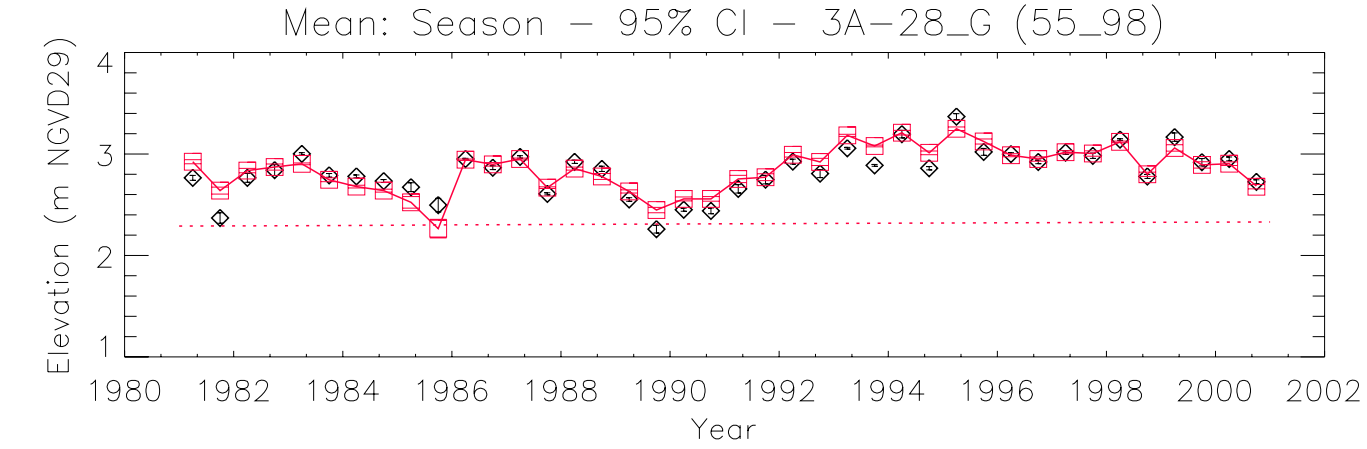

ELM2.5 Raw Data (Obs. N = 7305) – 3A–4_G (60_80)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

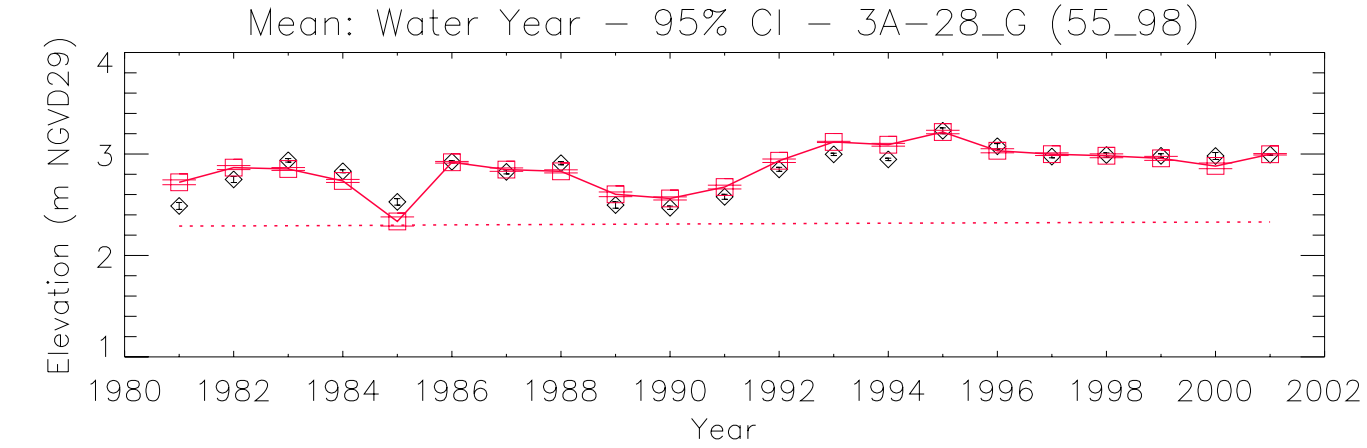

Mean: Season – 95% CI – 3A–4_G (60_80)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

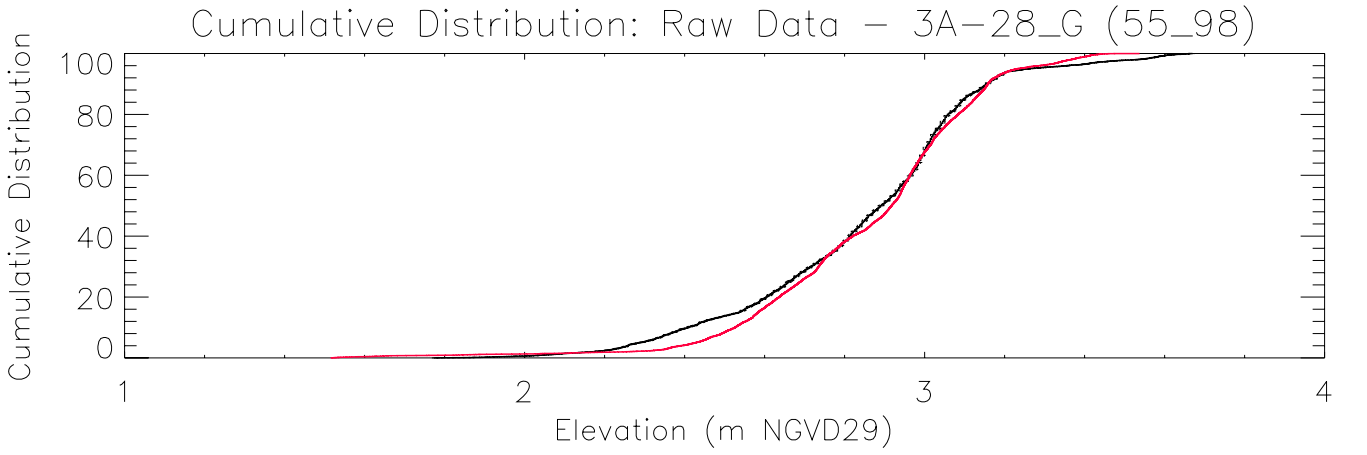

Mean: Water Year – 95% CI – 3A–4_G (60_80)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

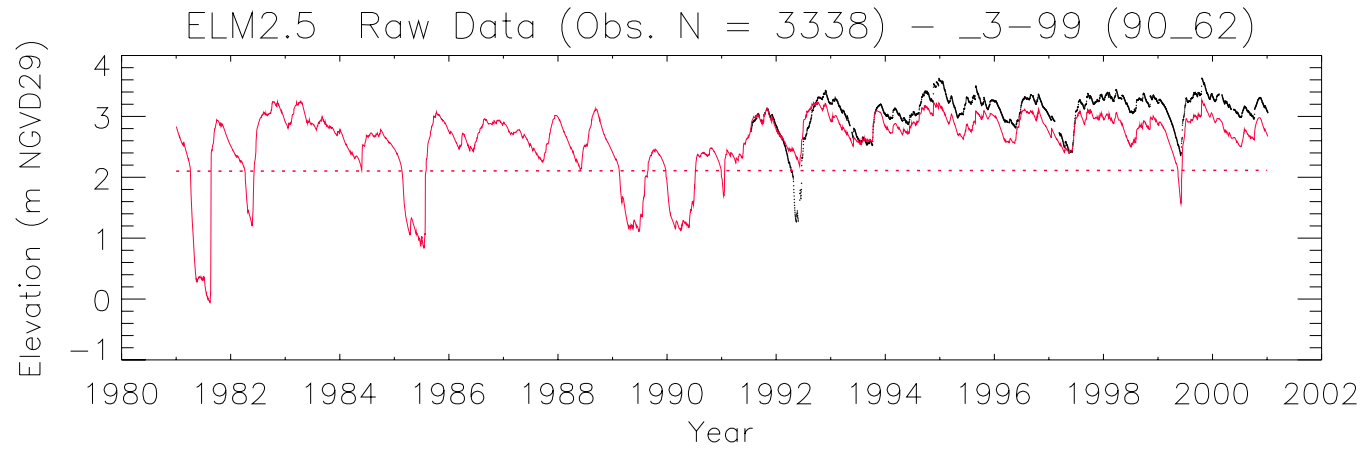

Cumulative Distribution: Raw Data – 3A–4_G (60_80)
Cumulative Distribution
0
20
40
60
80
100
1
2
3
4
Elevation (m NGVD29)

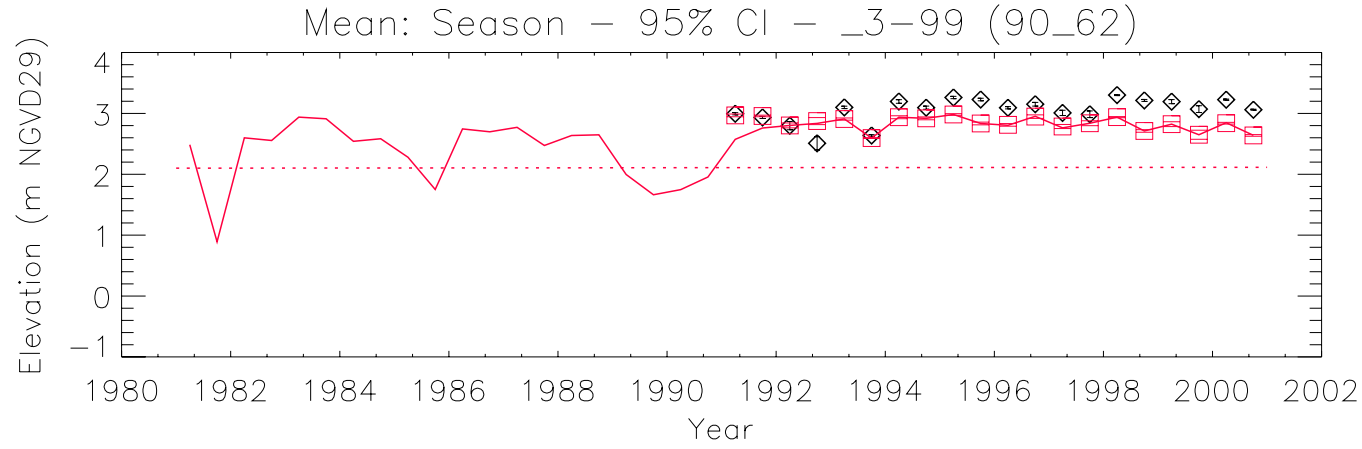

ELM2.5 Raw Data (Obs. N = 7295) – 3A–28_G (55_98)
Elevation (m NGVD29)
Year

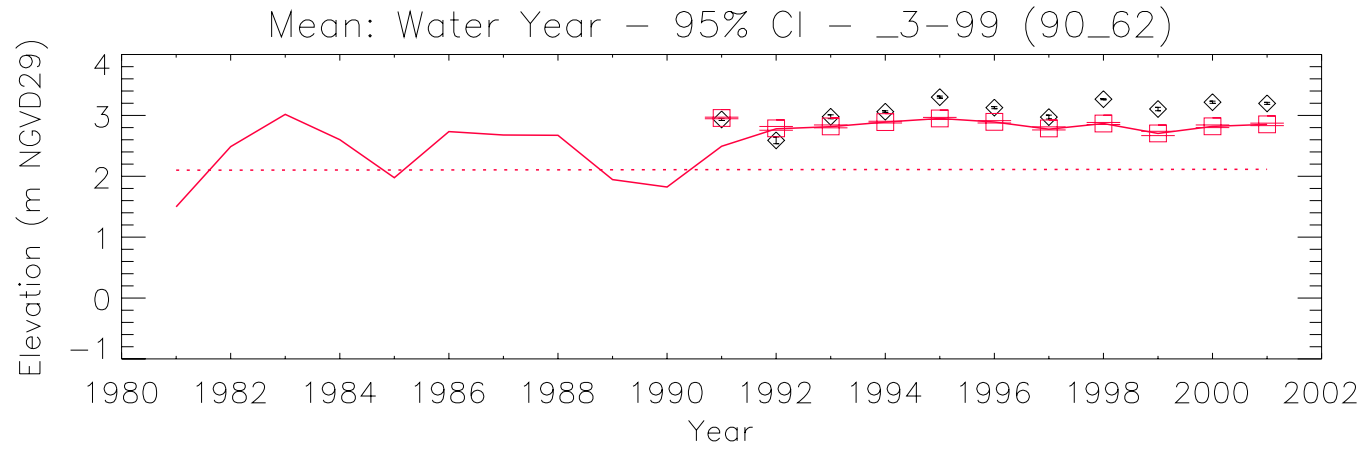

Mean: Season – 95% CI – 3A–28_G (55_98)
Elevation (m NGVD29)
Year

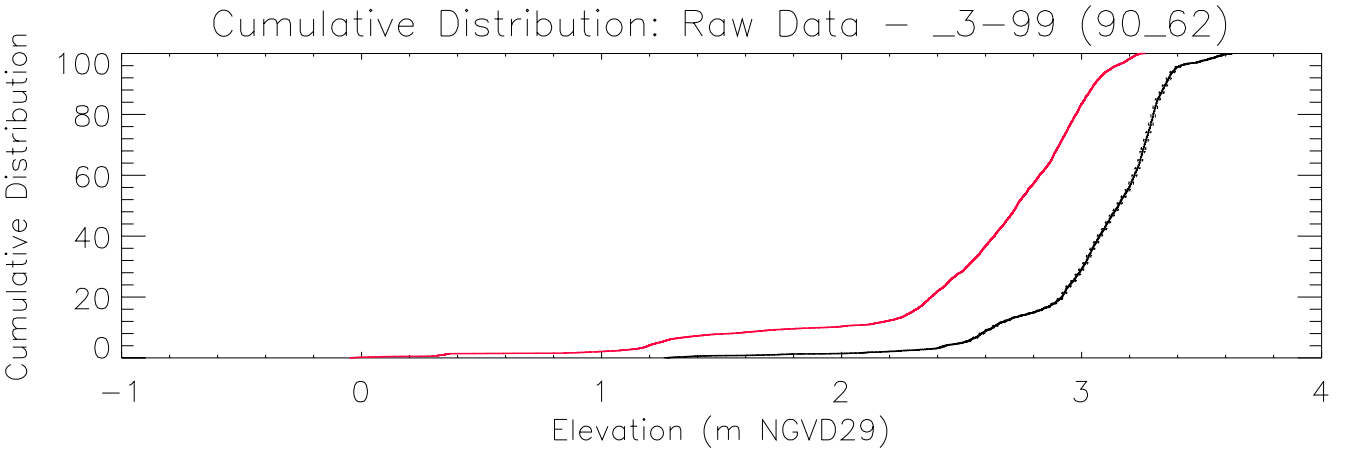

Mean: Water Year – 95% CI – 3A–28_G (55_98)
Elevation (m NGVD29)
Year

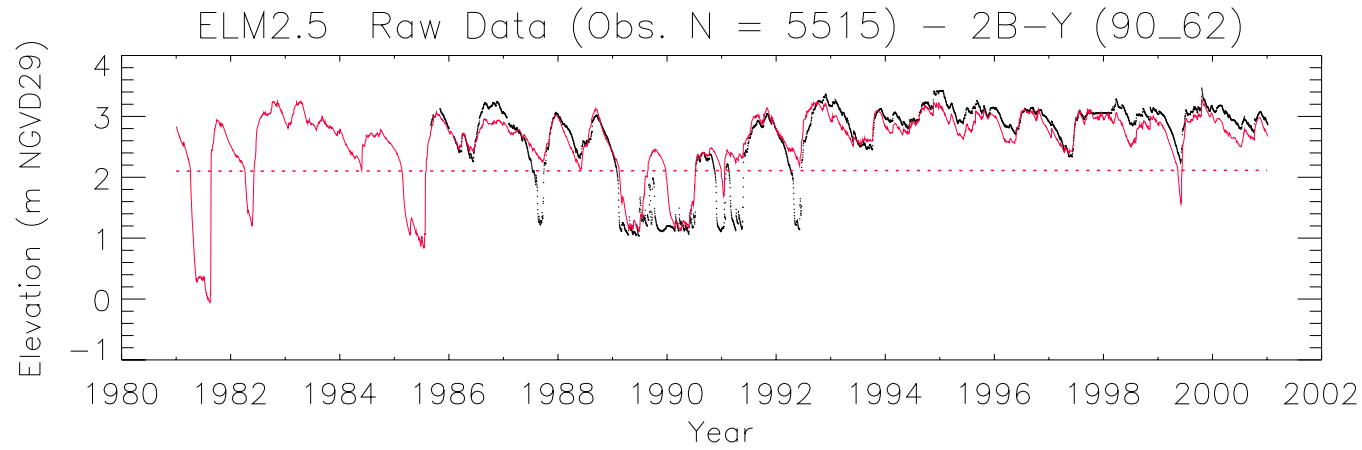

Cumulative Distribution: Raw Data – 3A–28_G (55_98)
Cumulative Distribution
Elevation (m NGVD29)

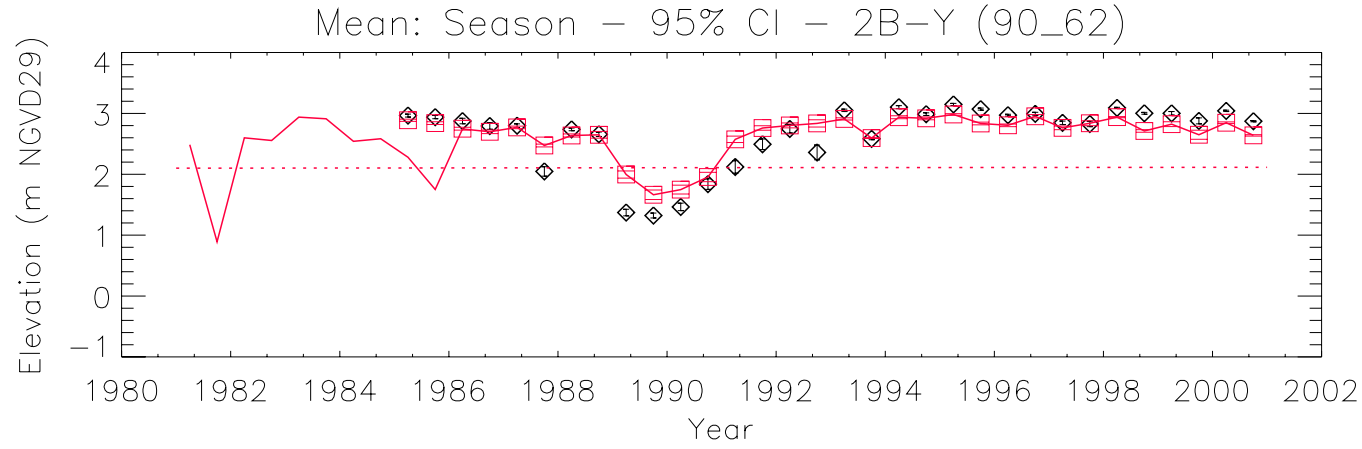

ELM2.5 Raw Data (Obs. N = 3338) – _3–99 (90_62)
Elevation (m NGVD29)
4
3
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

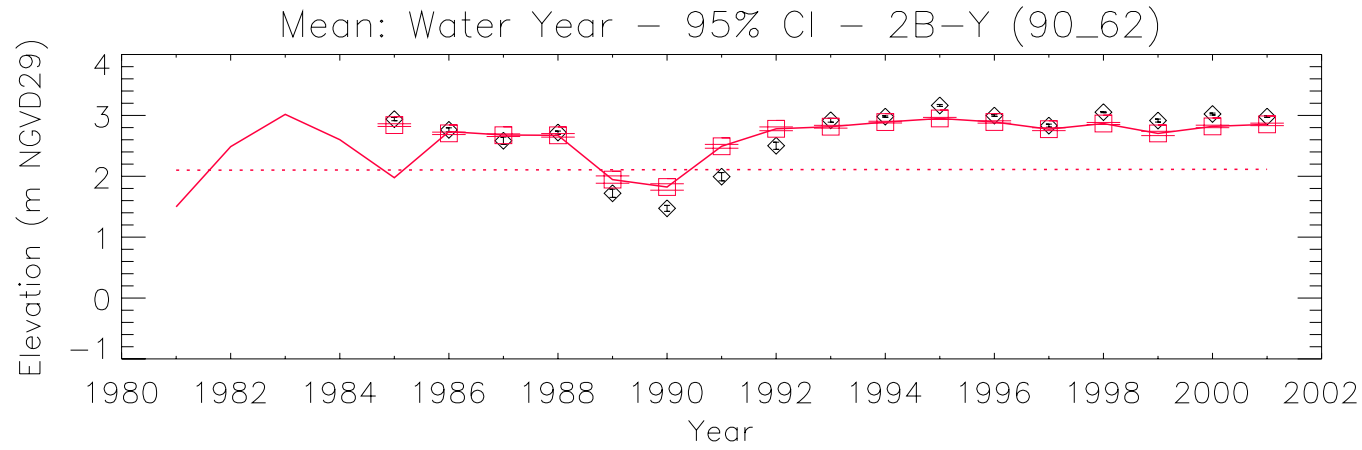

Mean: Season – 95% CI – _3–99 (90_62)
Elevation (m NGVD29)
4
3
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

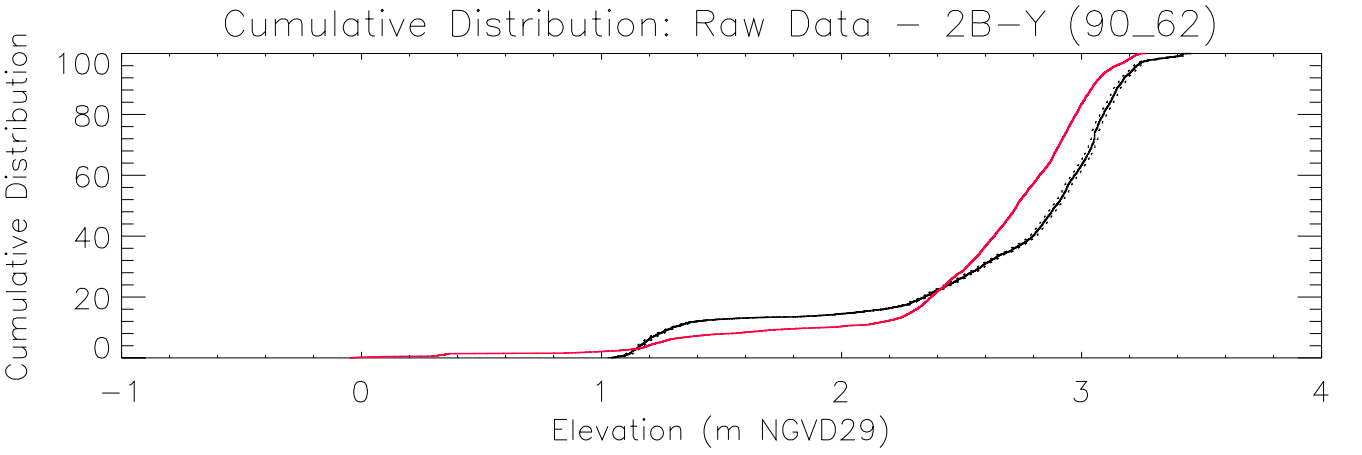

Mean: Water Year – 95% CI – _3–99 (90_62)
Elevation (m NGVD29)
4
3
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

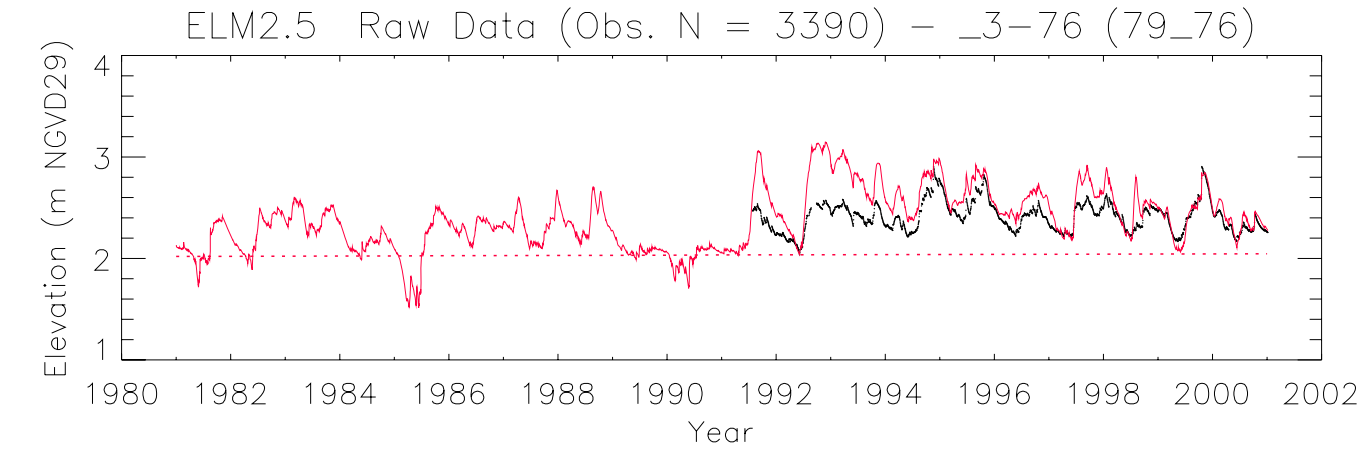

Cumulative Distribution: Raw Data – _3–99 (90_62)
Cumulative Distribution
100
80
60
40
20
0
–1
0
1
2
3
4
Elevation (m NGVD29)

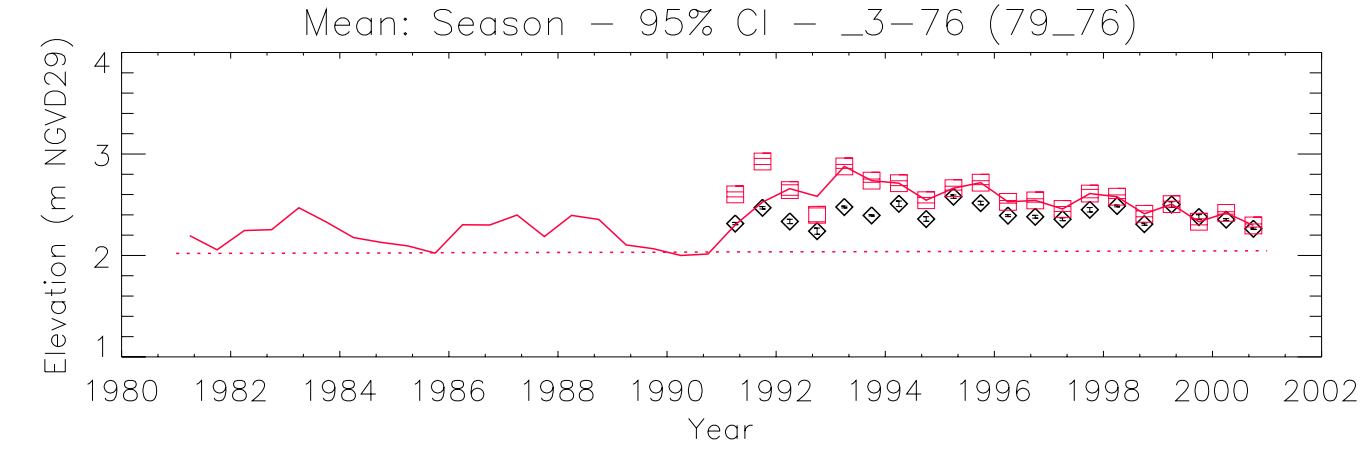

ELM2.5 Raw Data (Obs. N = 5515) – 2B–Y (90_62)
Elevation (m NGVD29)
4
3
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

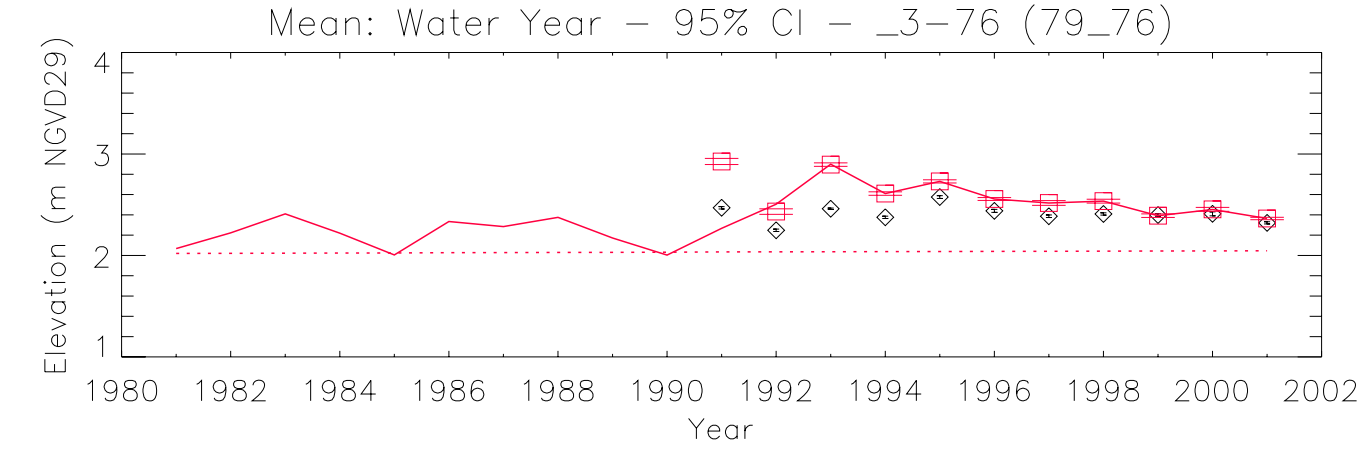

Mean: Season – 95% CI – 2B–Y (90_62)
Elevation (m NGVD29)
4
3
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

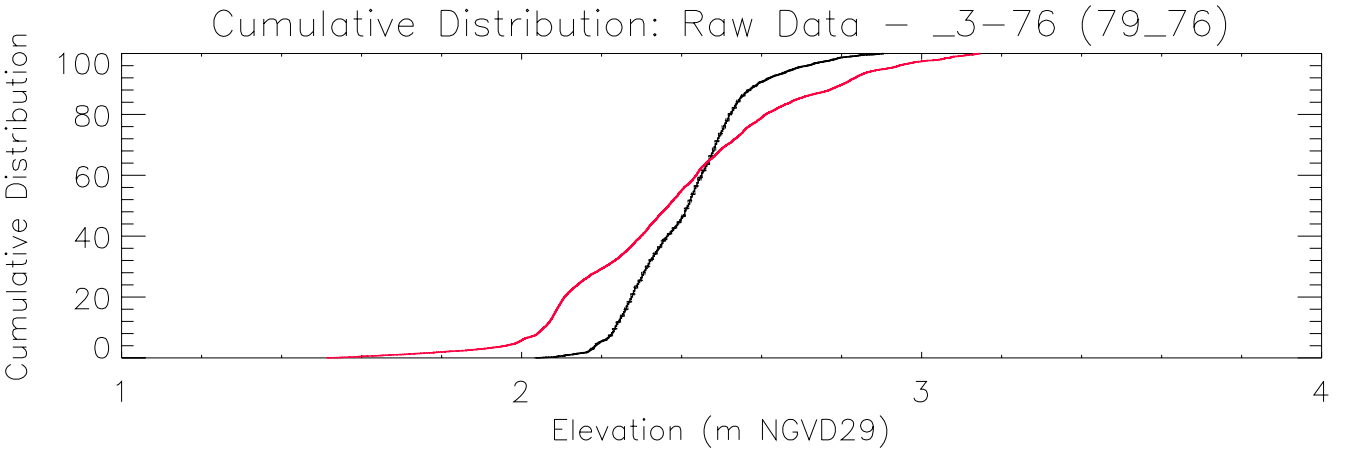

Mean: Water Year – 95% CI – 2B–Y (90_62)
Elevation (m NGVD29)
4
3
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

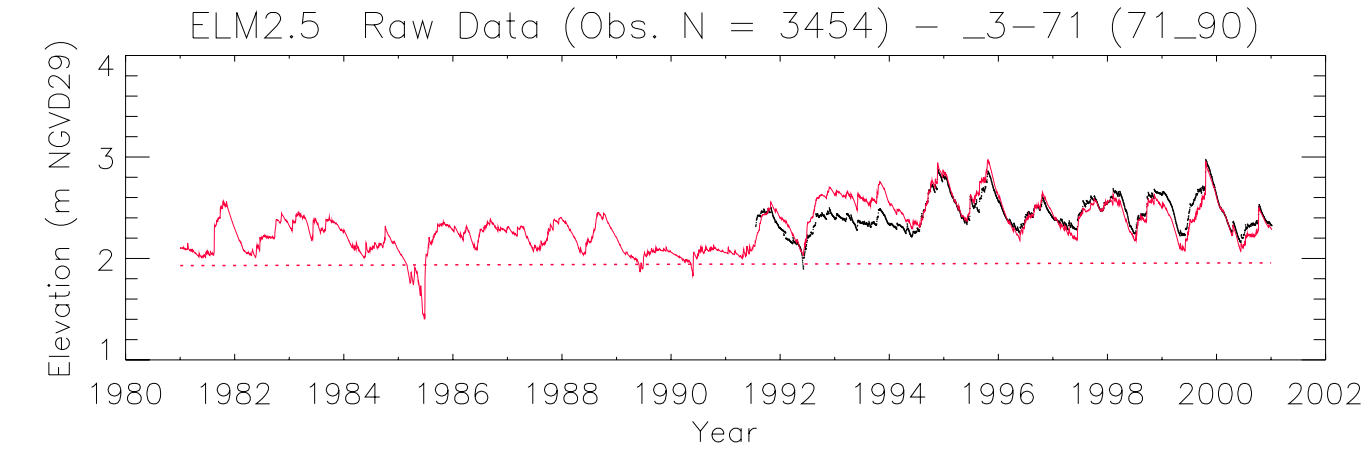

Cumulative Distribution: Raw Data – 2B–Y (90_62)
Cumulative Distribution
100
80
60
40
20
0
–1
0
1
2
3
4
Elevation (m NGVD29)

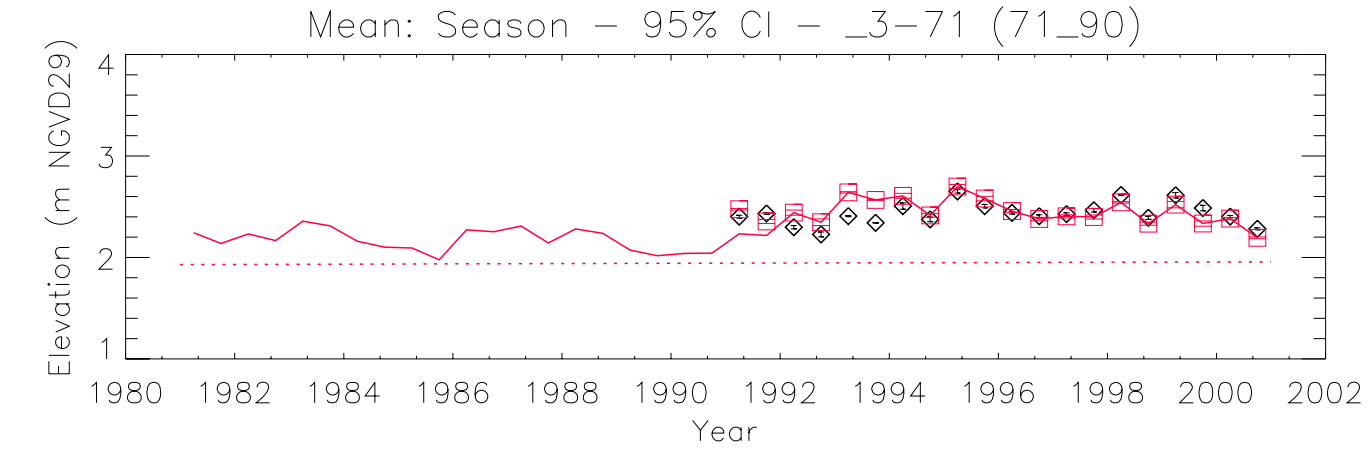

ELM2.5 Raw Data (Obs. N = 3390) – _3–76 (79_76)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

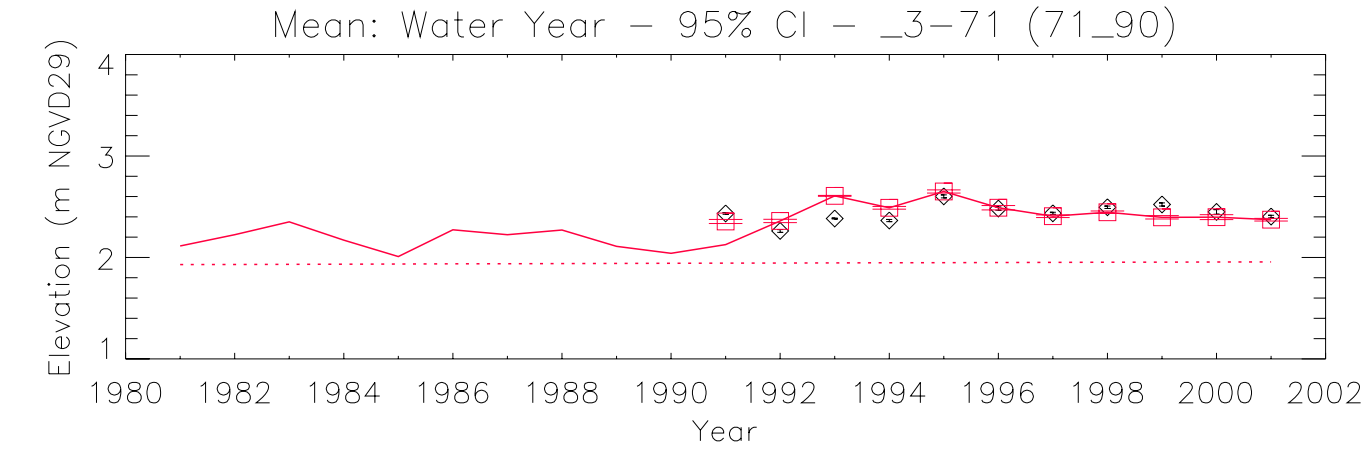

Mean: Season – 95% CI – _3–76 (79_76)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

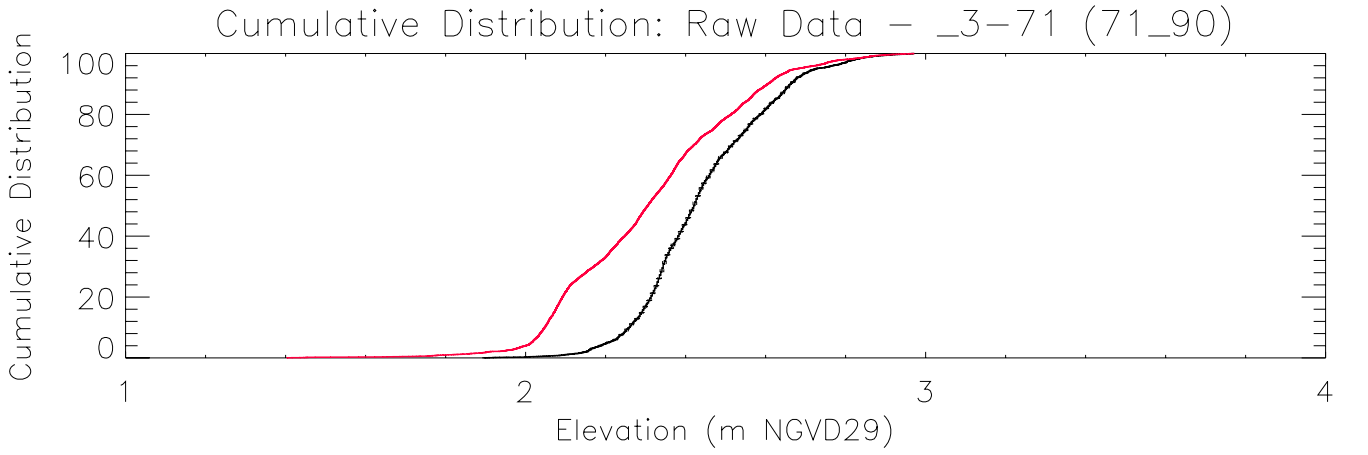

Mean: Water Year – 95% CI – _3–76 (79_76)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

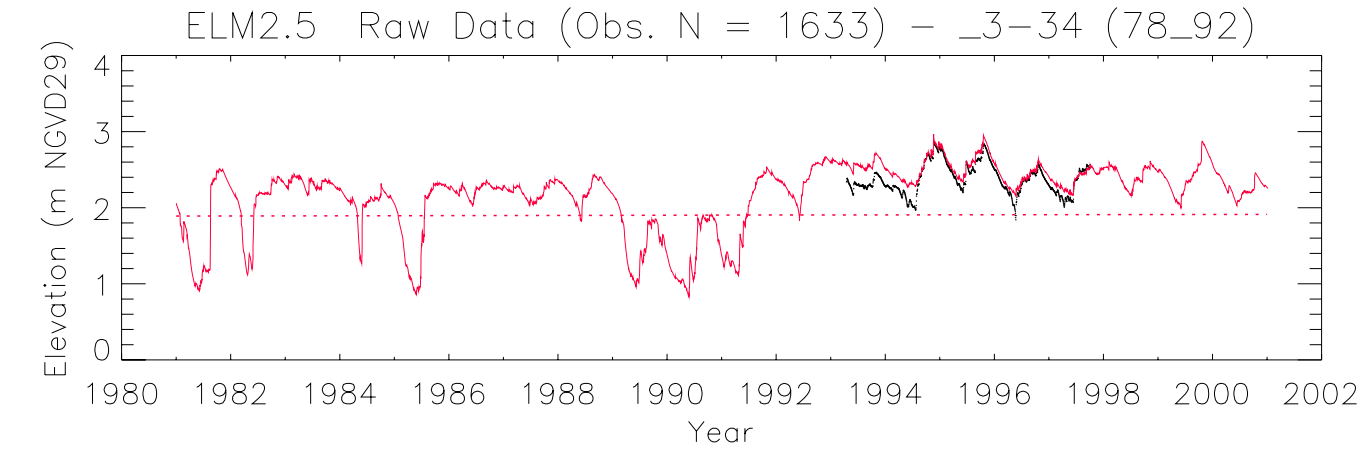

Cumulative Distribution: Raw Data – _3–76 (79_76)
Cumulative Distribution
0
20
40
60
80
100
1
2
3
4
Elevation (m NGVD29)

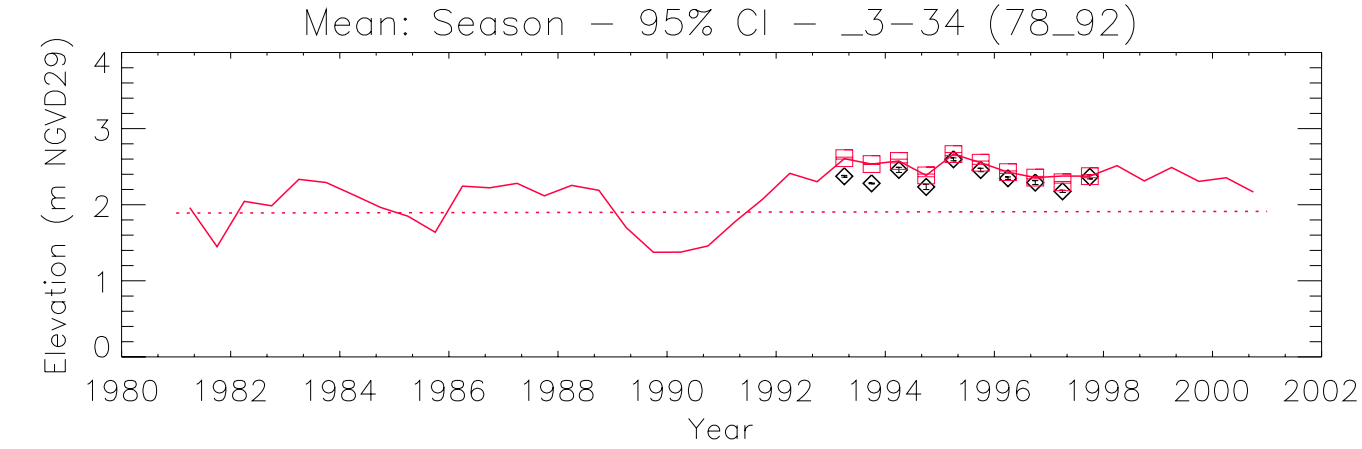

ELM2.5 Raw Data (Obs. N = 3454) – _3–71 (71_90)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

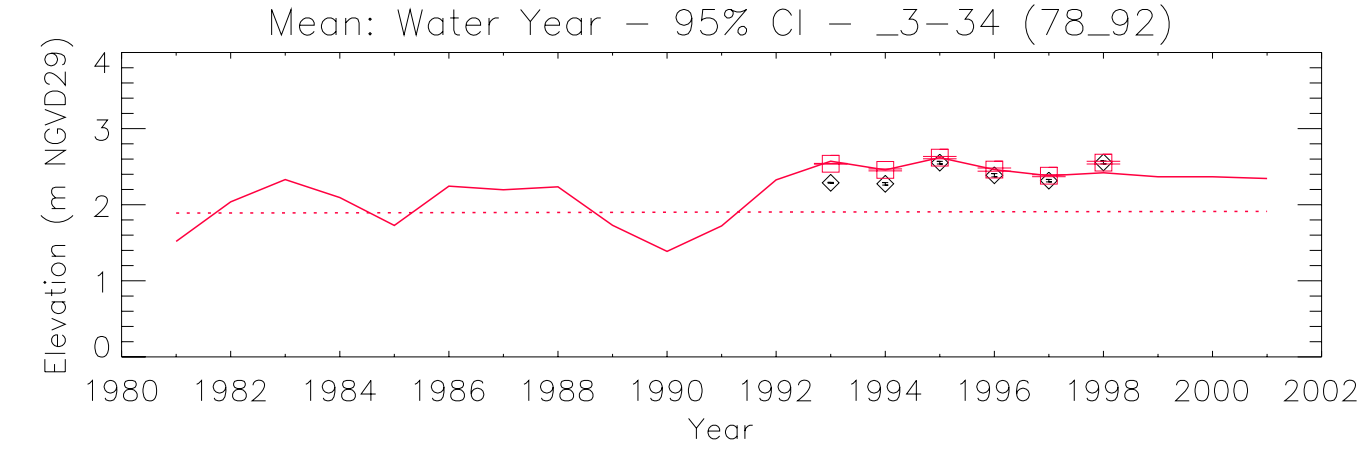

Mean: Season – 95% CI – _3–71 (71_90)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

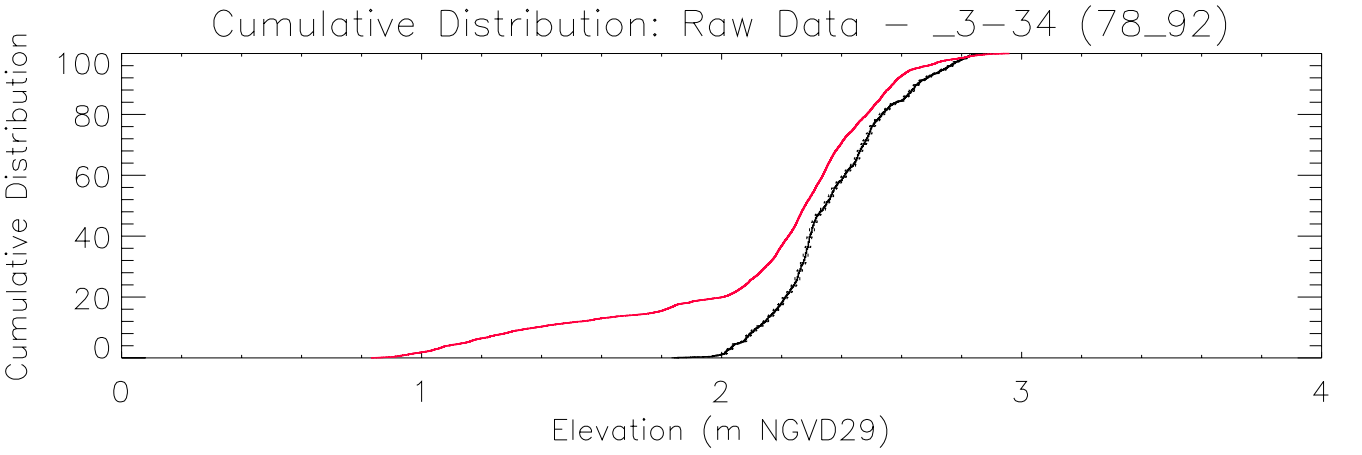

Mean: Water Year – 95% CI – _3–71 (71_90)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

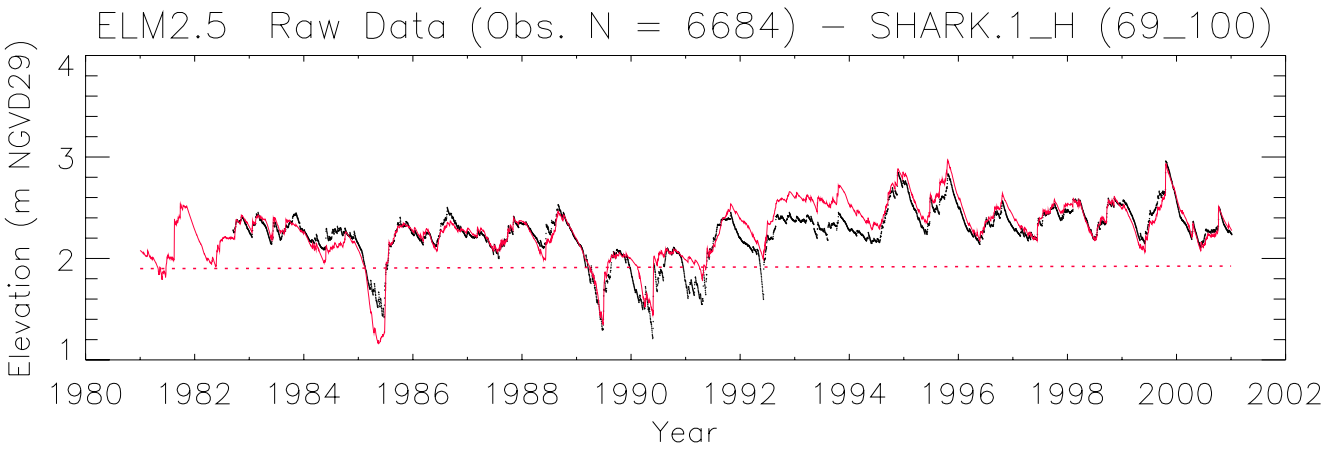

Cumulative Distribution: Raw Data – _3–71 (71_90)
Cumulative Distribution
0
20
40
60
80
100
1
2
3
4
Elevation (m NGVD29)

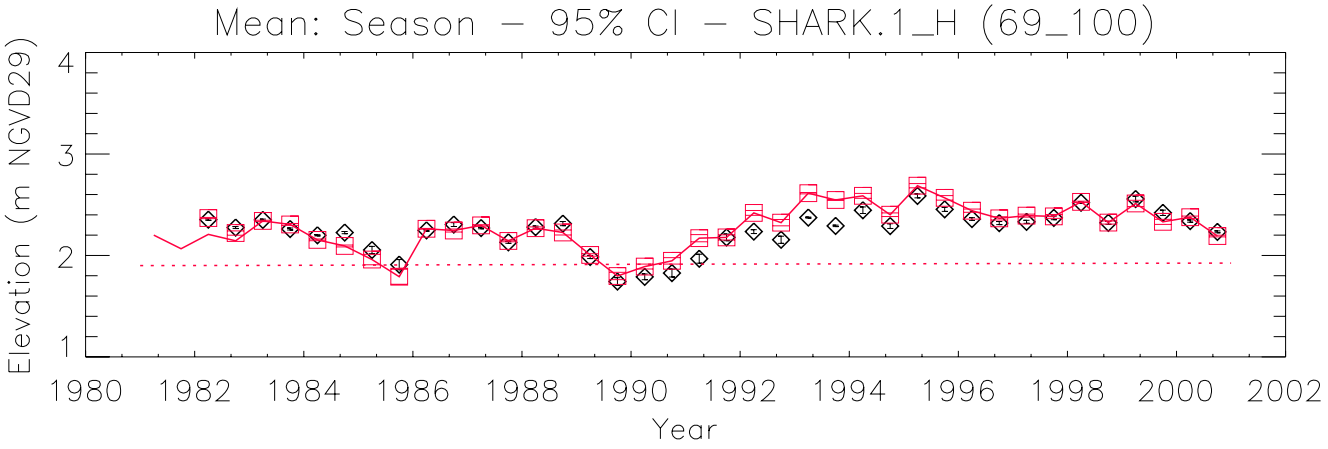

ELM2.5 Raw Data (Obs. N = 1633) – _3–34 (78_92)
Elevation (m NGVD29)
0
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

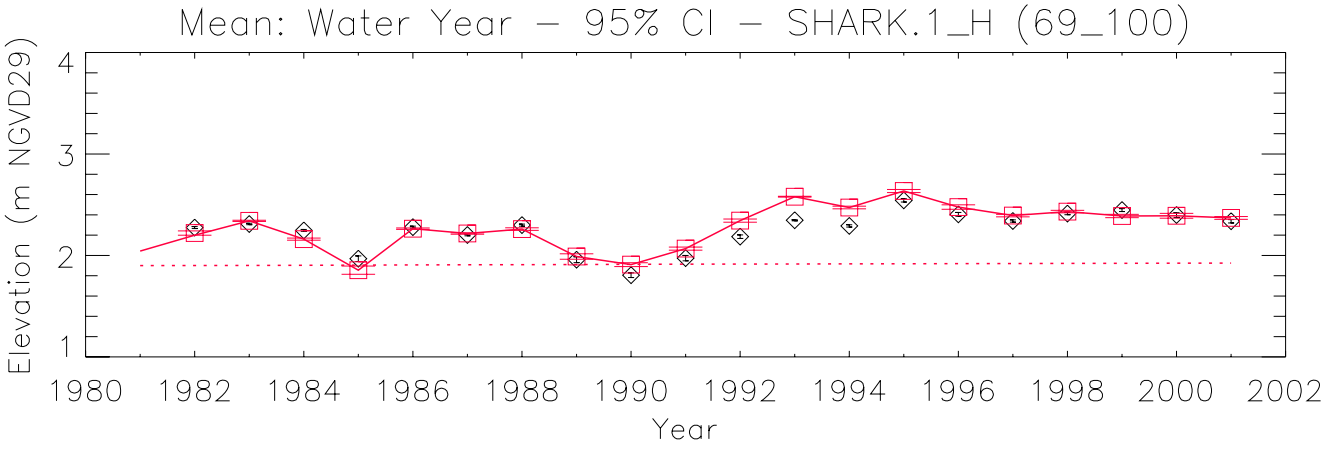

Mean: Season – 95% CI – _3–34 (78_92)
Elevation (m NGVD29)
0
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

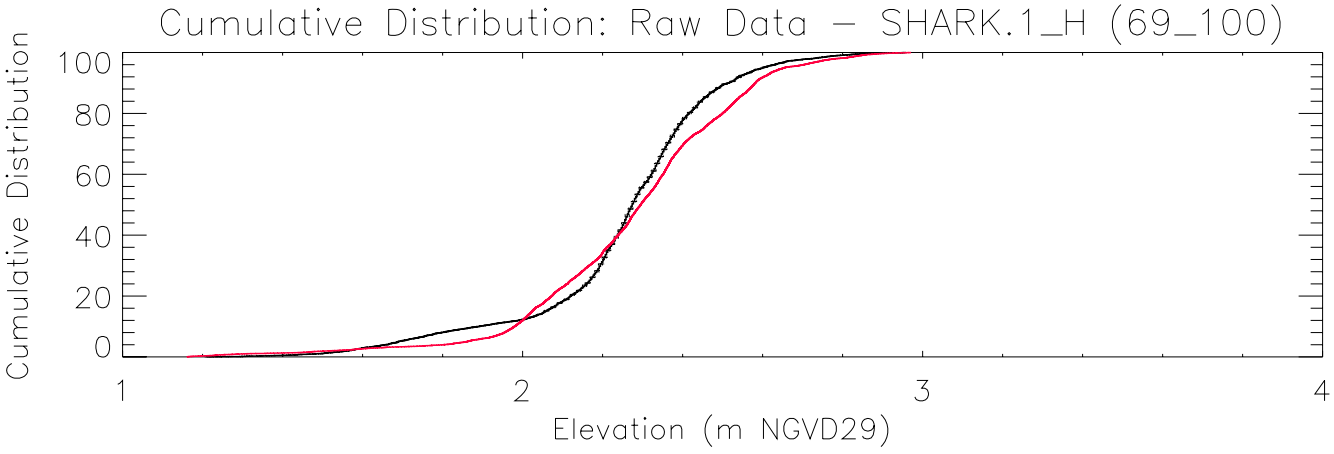

Mean: Water Year – 95% CI – _3–34 (78_92)
Elevation (m NGVD29)
0
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

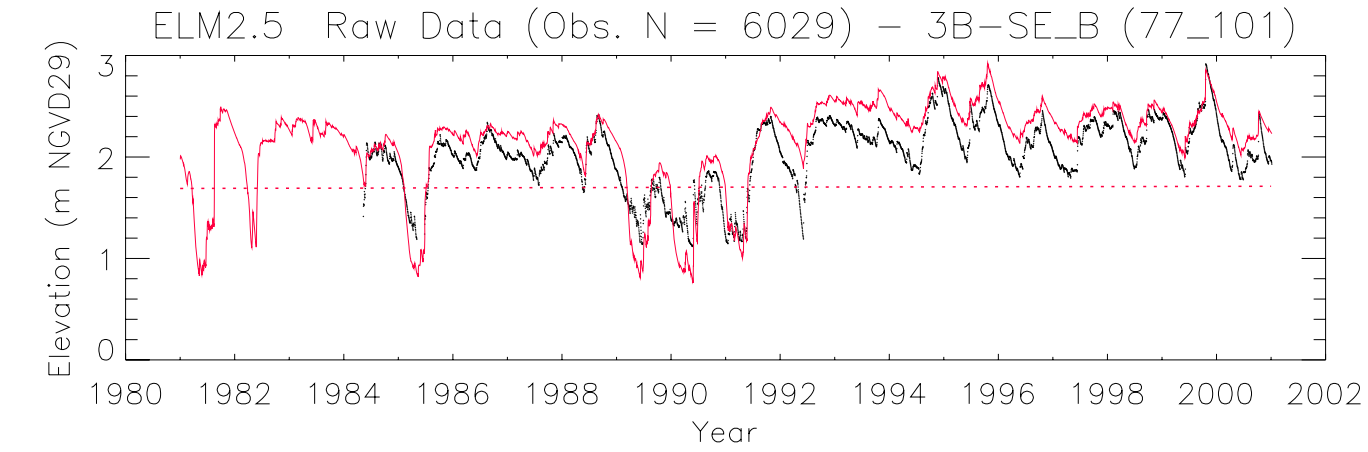

Cumulative Distribution: Raw Data – _3–34 (78_92)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
4
Elevation (m NGVD29)

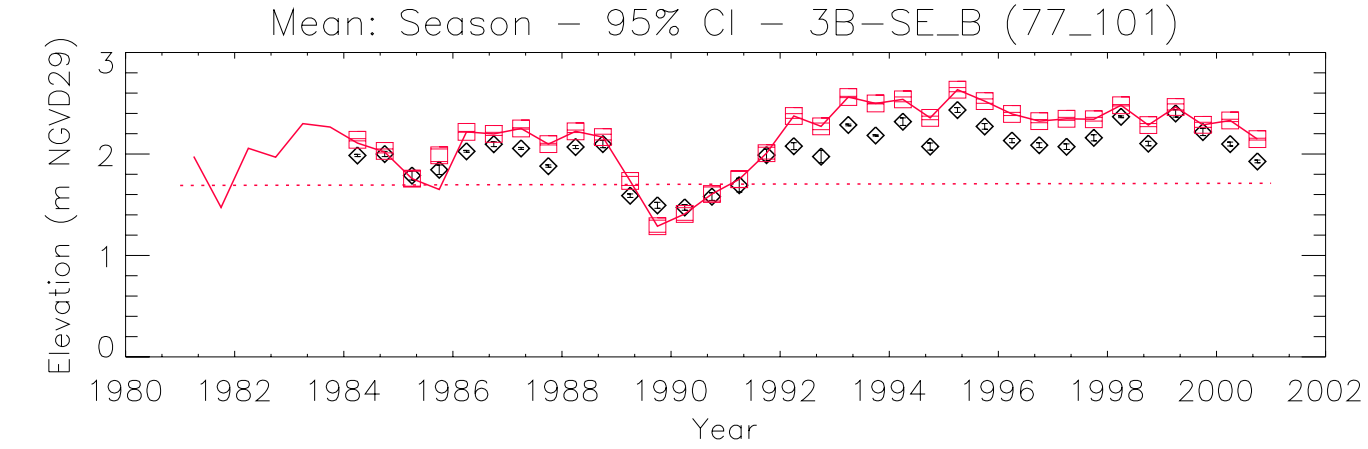

ELM2.5 Raw Data (Obs. N = 6684) – SHARK.1_H (69_100)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

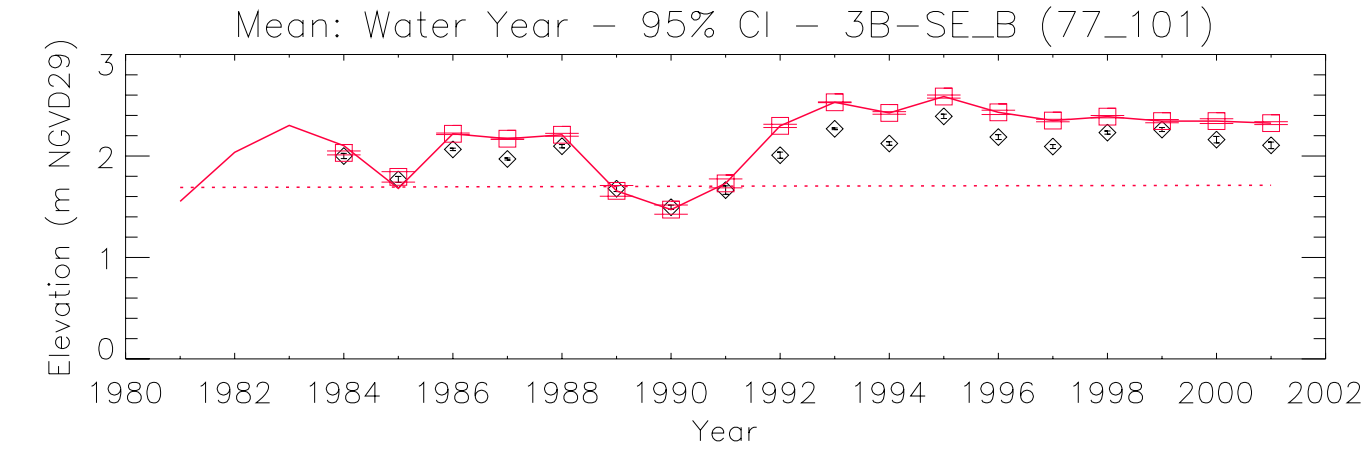

Mean: Season – 95% CI – SHARK.1_H (69_100)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

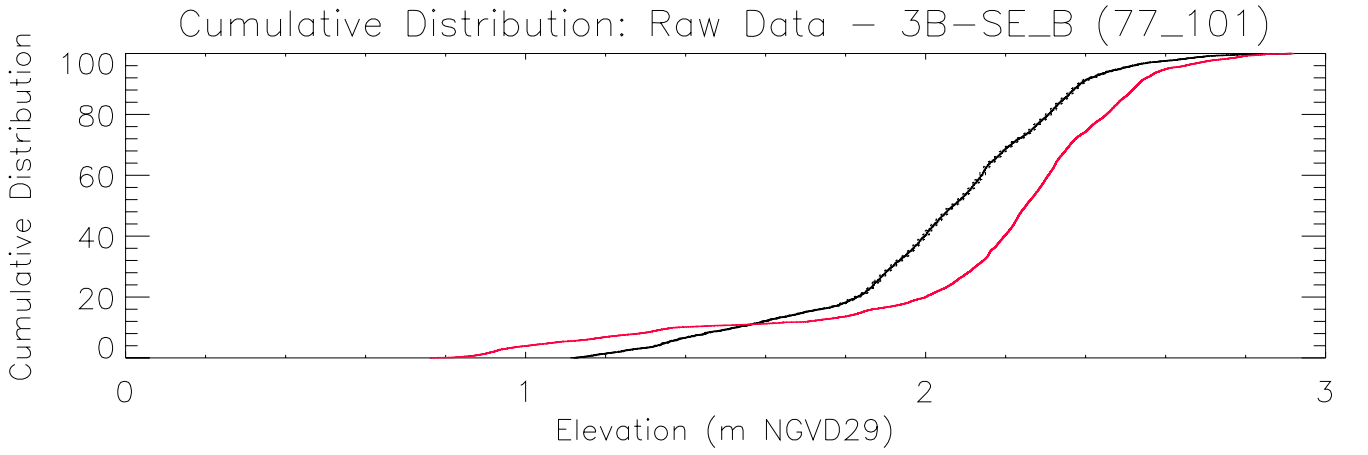

Mean: Water Year – 95% CI – SHARK.1_H (69_100)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

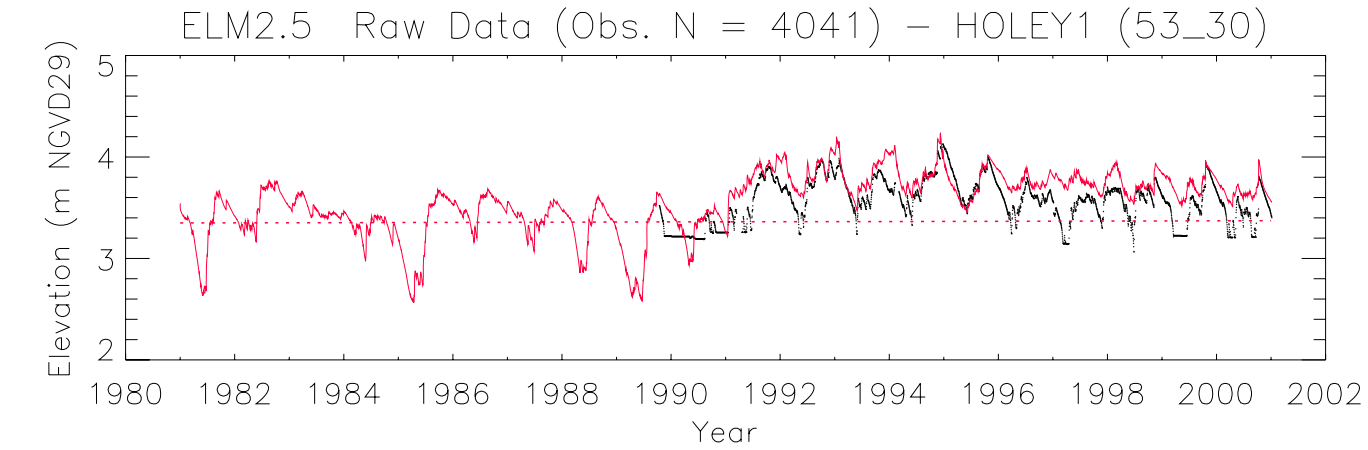

Cumulative Distribution: Raw Data – SHARK.1_H (69_100)
Cumulative Distribution
0
20
40
60
80
100
1
2
3
4
Elevation (m NGVD29)

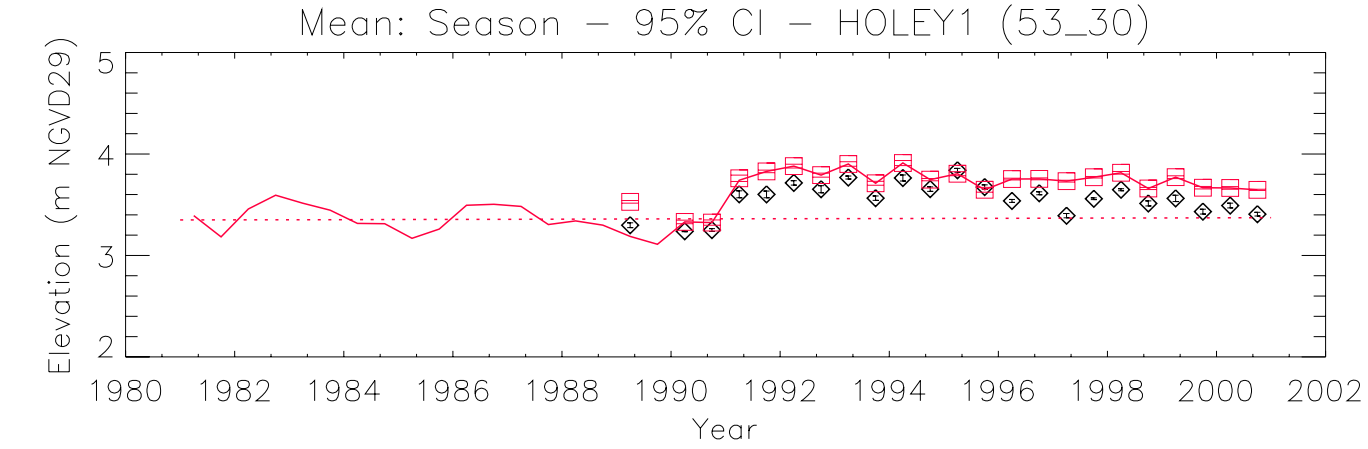

ELM2.5 Raw Data (Obs. N = 6029) – 3B–SE_B (77_101)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

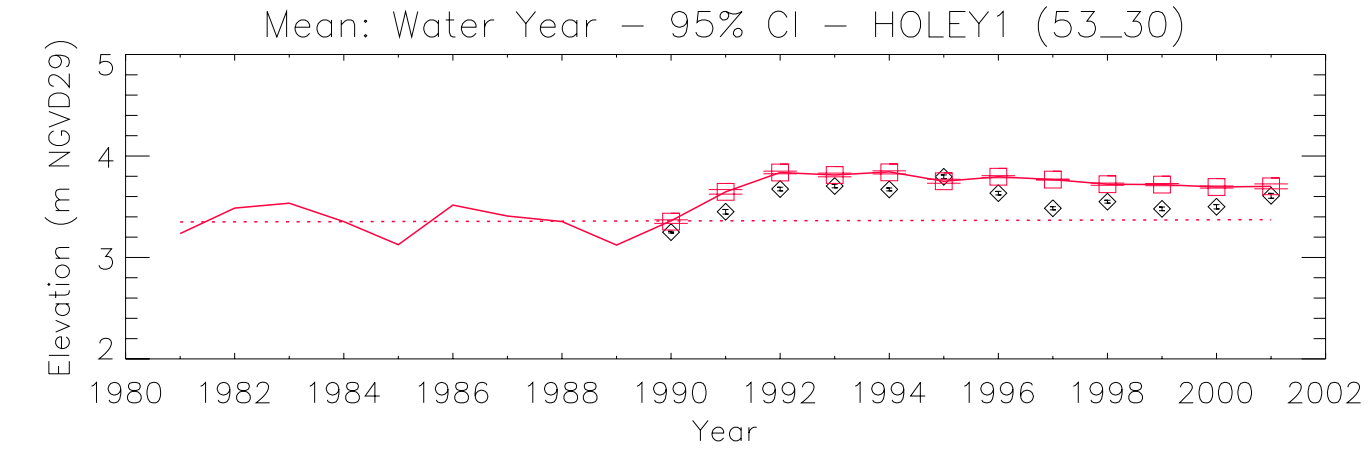

Mean: Season – 95% CI – 3B–SE_B (77_101)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

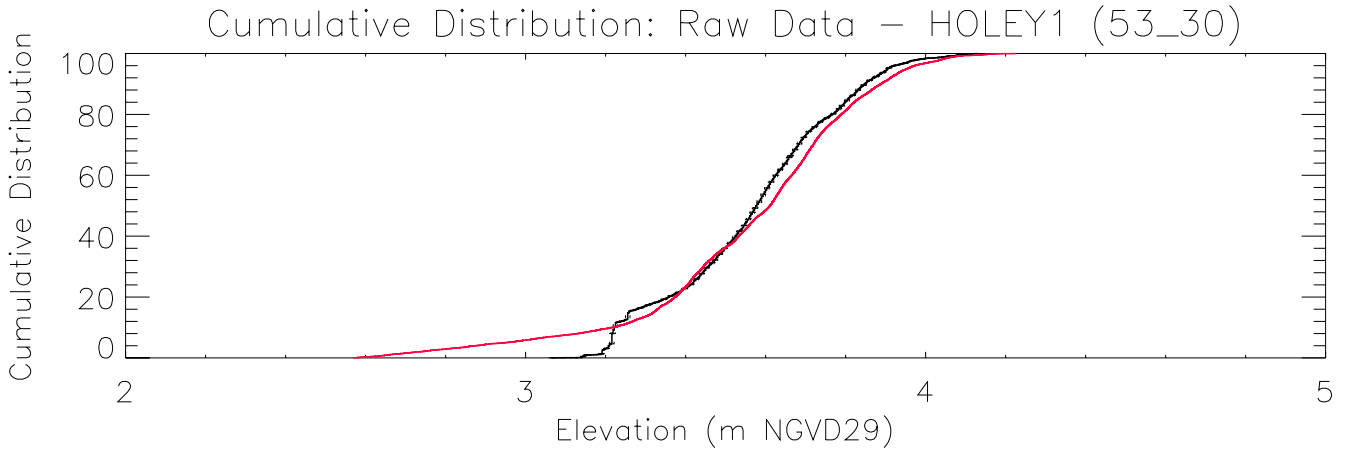

Mean: Water Year – 95% CI – 3B–SE_B (77_101)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

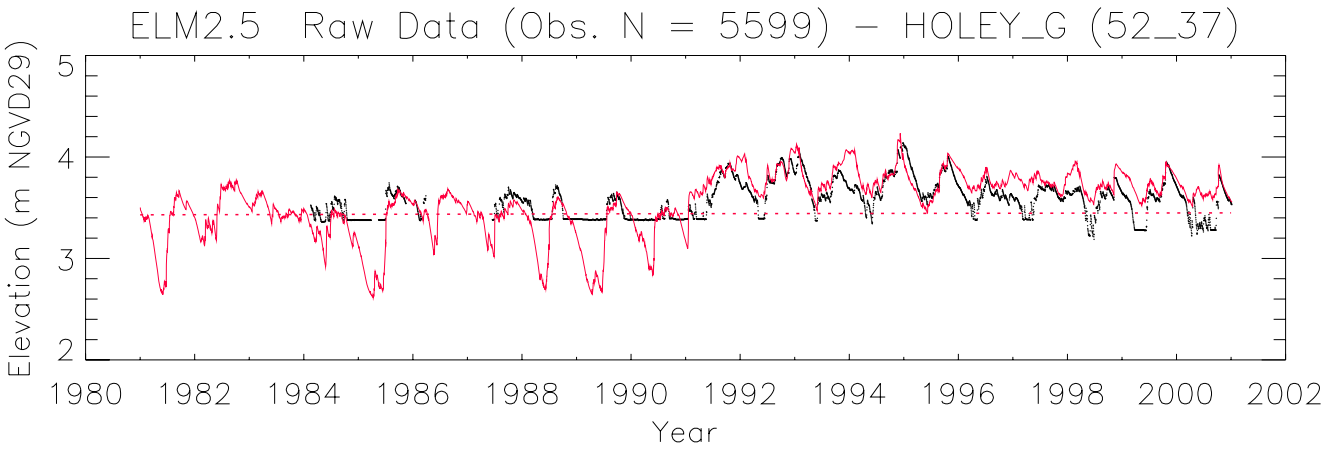

Cumulative Distribution: Raw Data – 3B–SE_B (77_101)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)

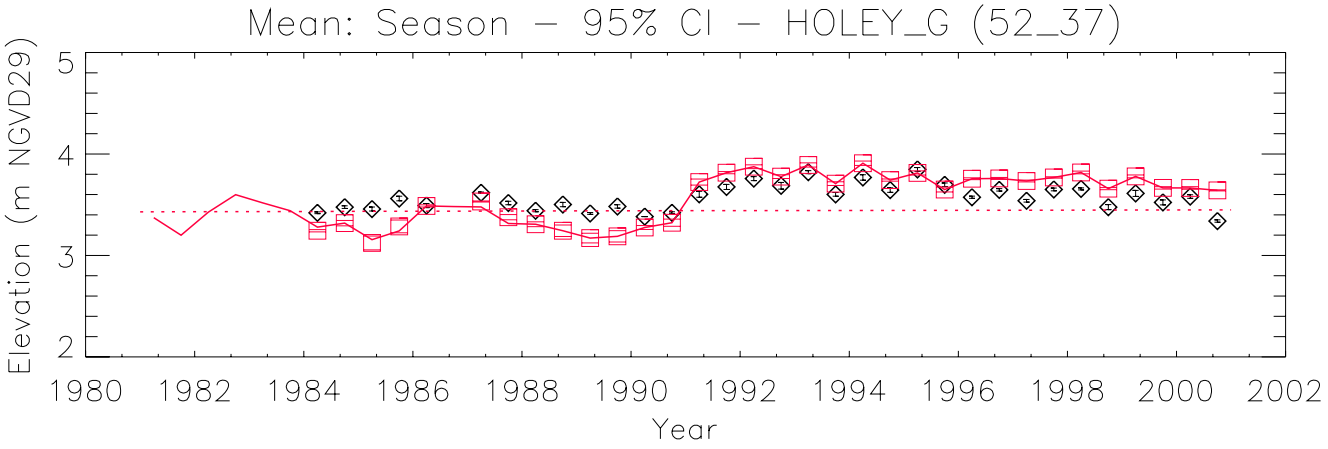

ELM2.5 Raw Data (Obs. N = 4041) – HOLEY1 (53_30)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

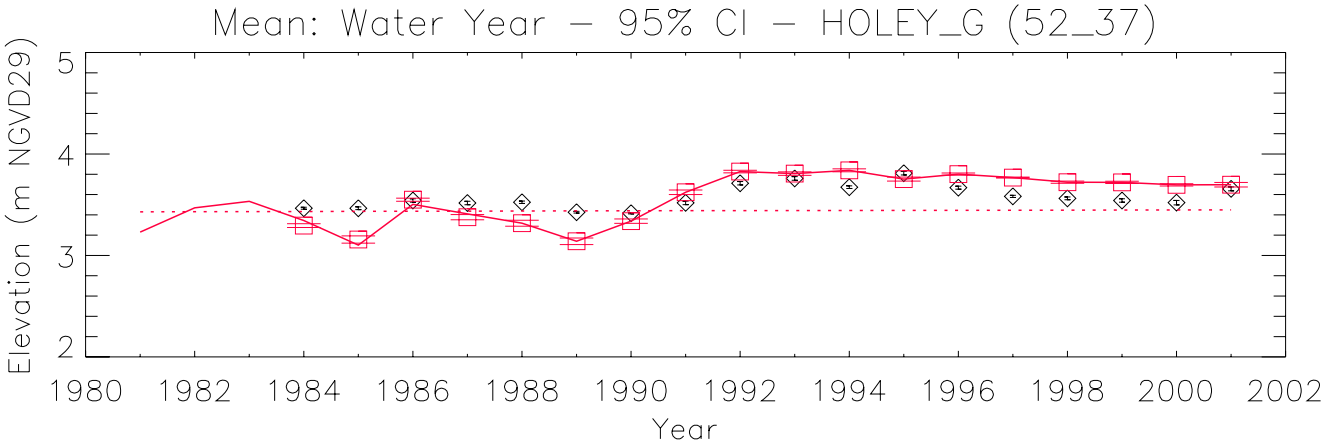

Mean: Season – 95% CI – HOLEY1 (53_30)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

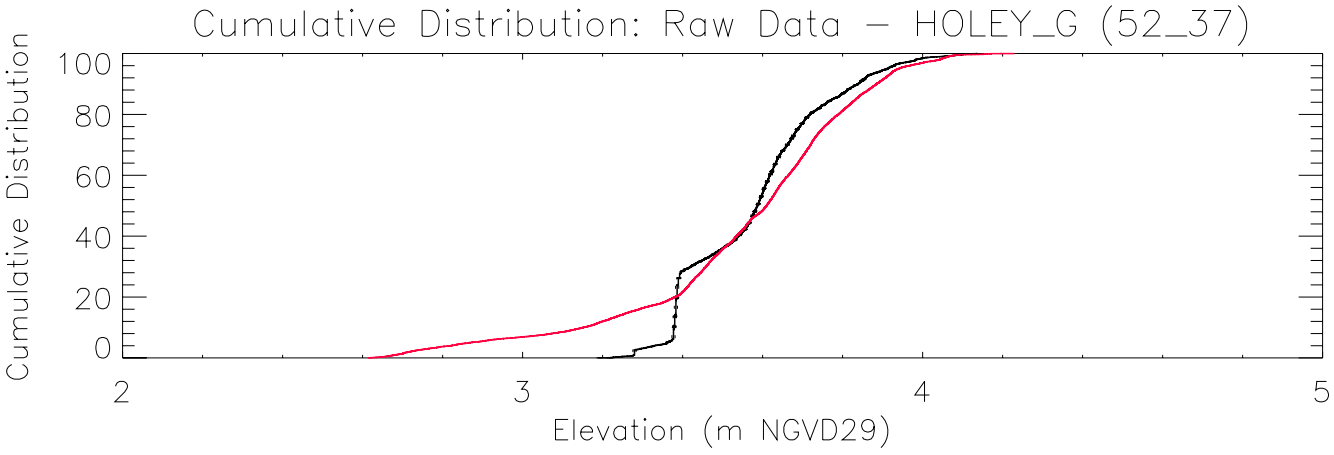

Mean: Water Year – 95% CI – HOLEY1 (53_30)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

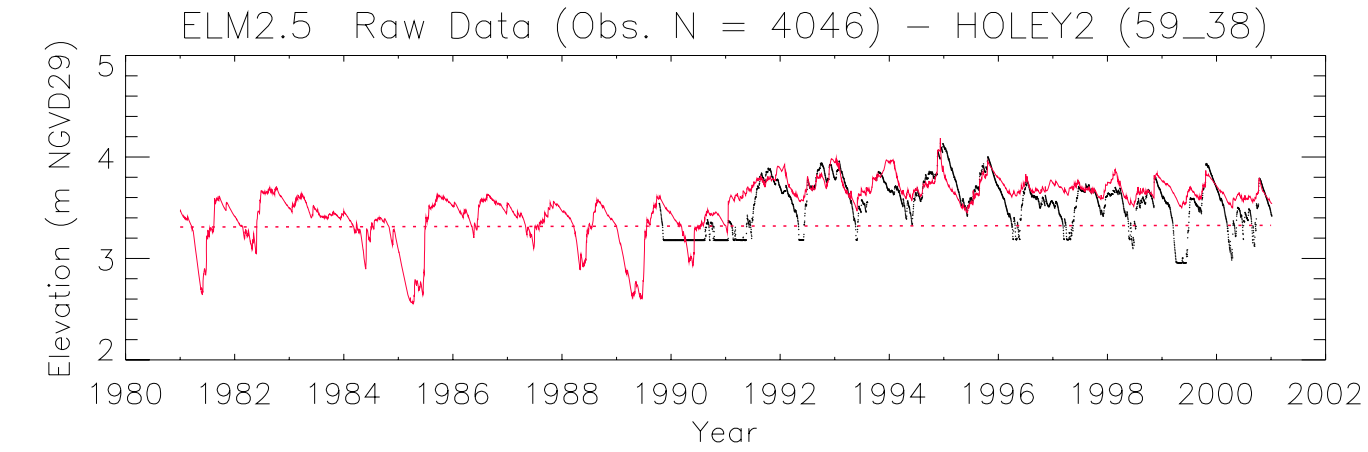

Cumulative Distribution: Raw Data – HOLEY1 (53_30)
Cumulative Distribution
100
80
60
40
20
0
2
3
4
5
Elevation (m NGVD29)

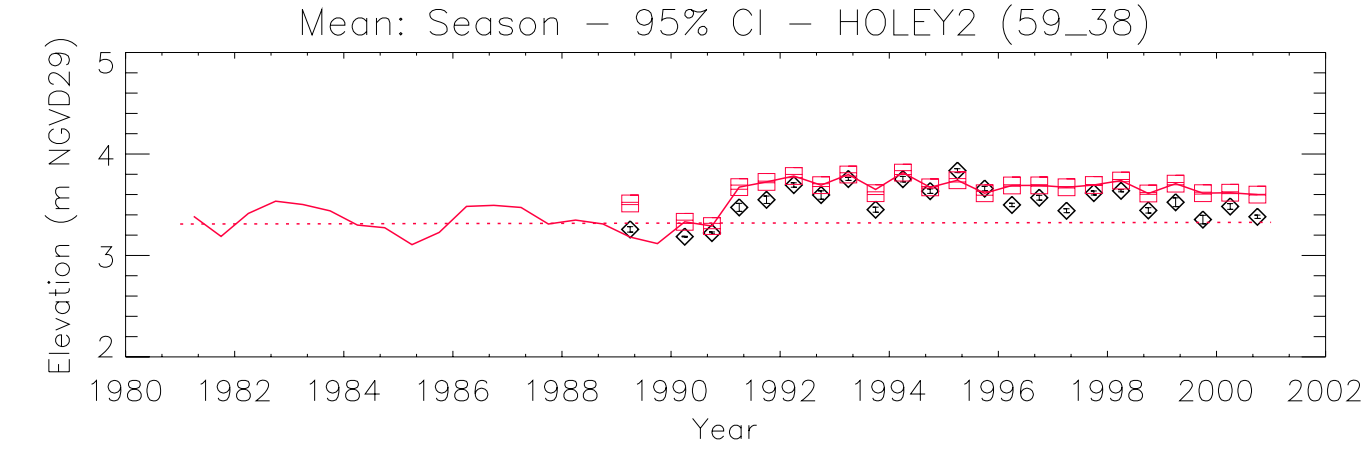

ELM2.5 Raw Data (Obs. N = 5599) – HOLEY_G (52_37)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

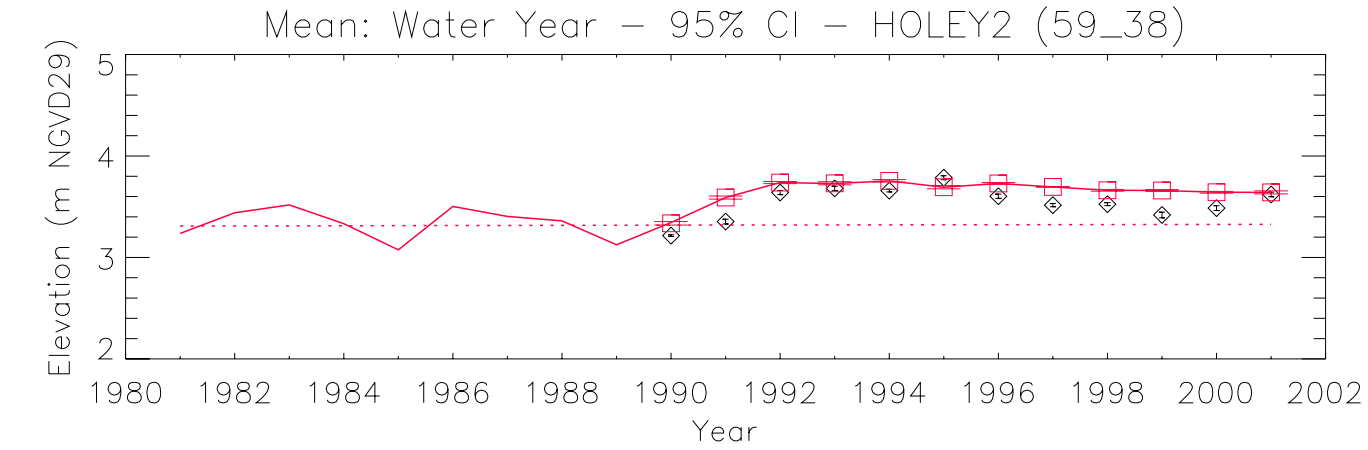

Mean: Season – 95% CI – HOLEY_G (52_37)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

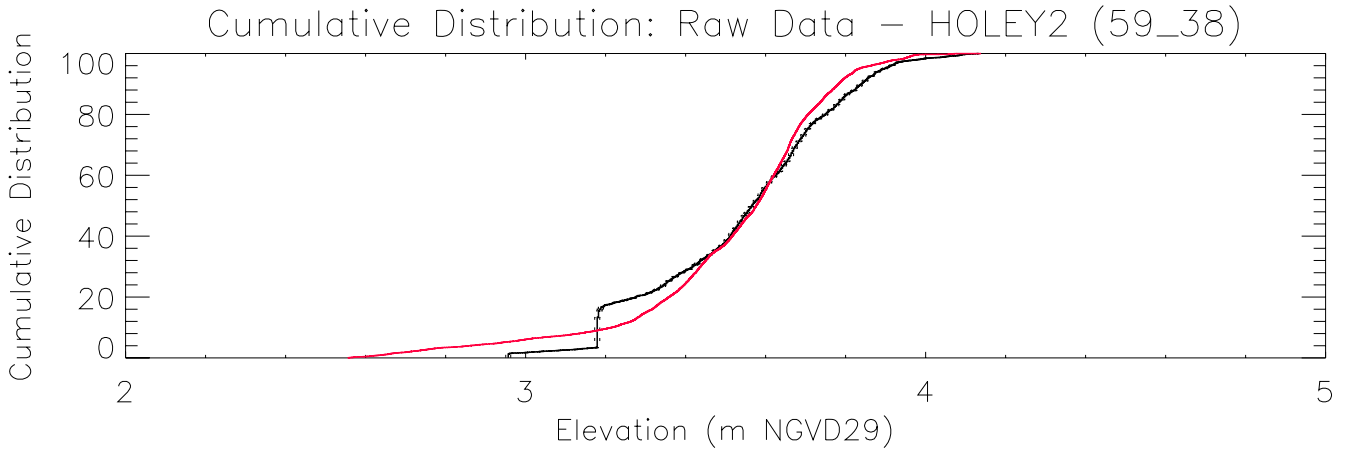

Mean: Water Year – 95% CI – HOLEY_G (52_37)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

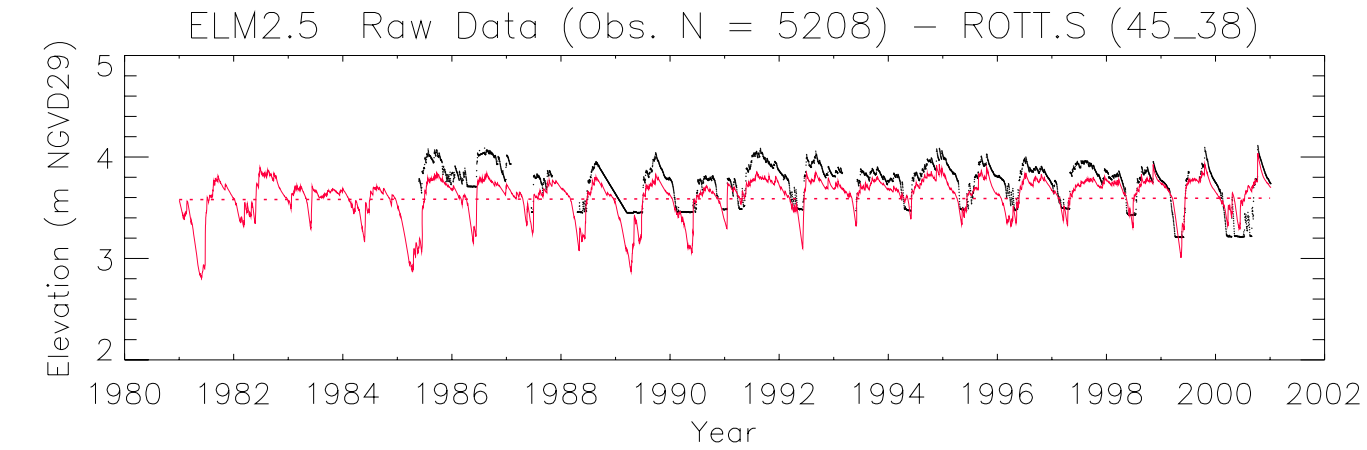

Cumulative Distribution: Raw Data – HOLEY_G (52_37)
Cumulative Distribution
100
80
60
40
20
0
2 3 4 5
Elevation (m NGVD29)

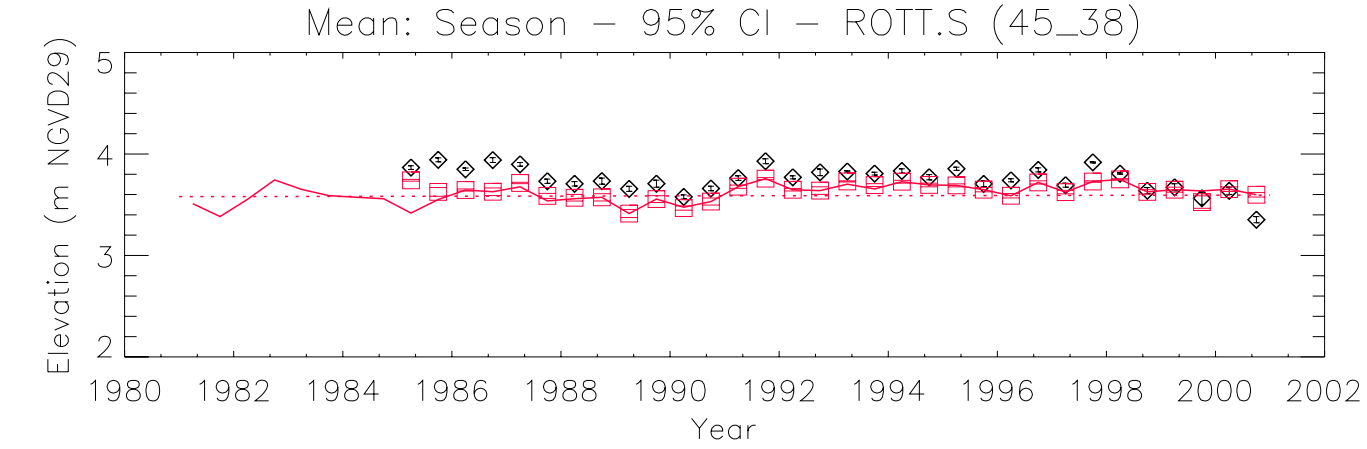

ELM2.5 Raw Data (Obs. N = 4046) – HOLEY2 (59_38)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

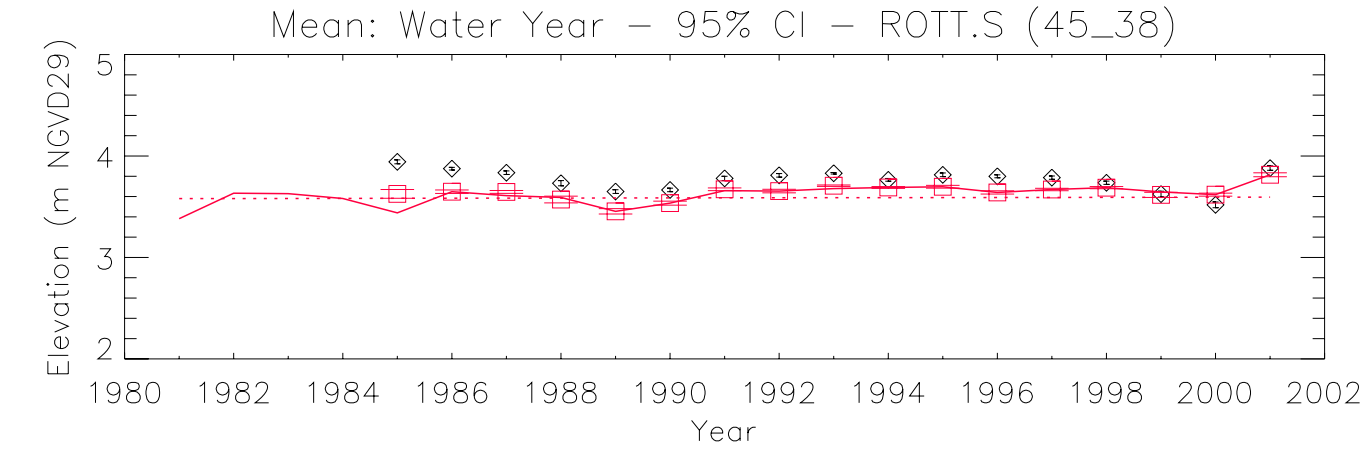

Mean: Season – 95% CI – HOLEY2 (59_38)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

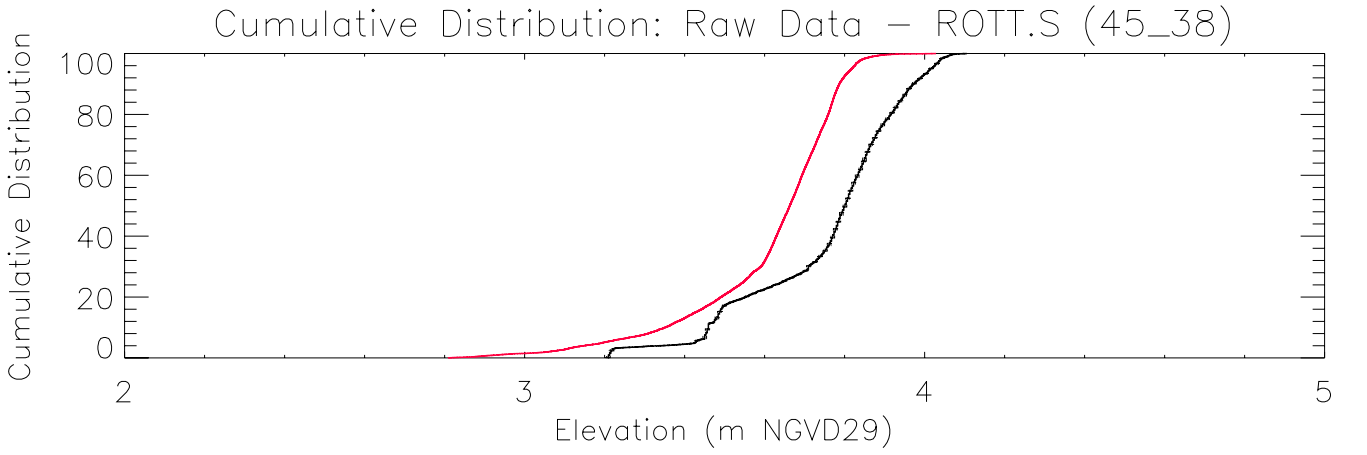

Mean: Water Year – 95% CI – HOLEY2 (59_38)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

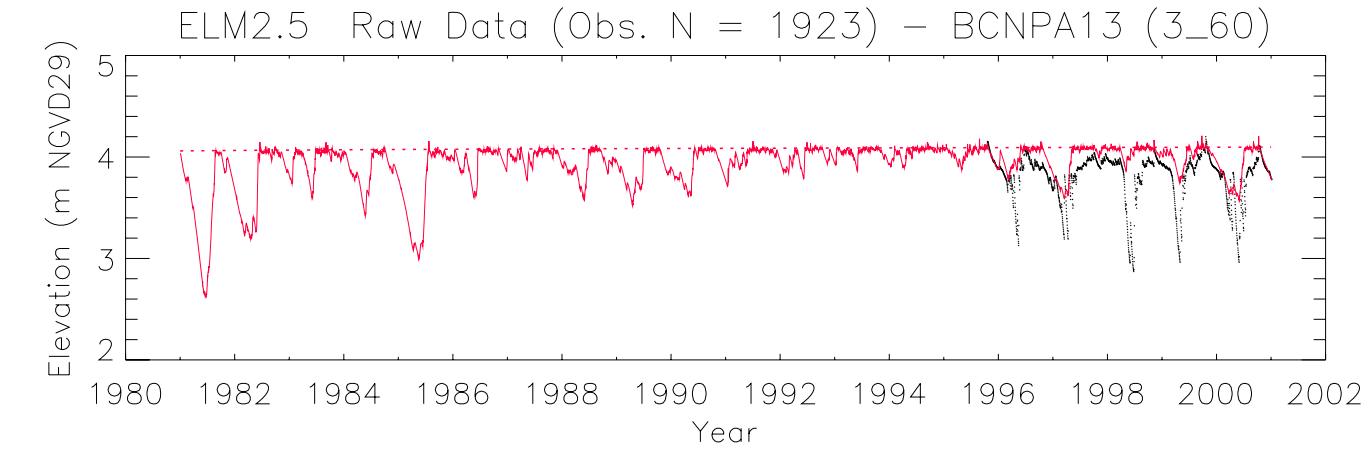

Cumulative Distribution: Raw Data – HOLEY2 (59_38)
Cumulative Distribution
100
80
60
40
20
0
2
3
4
5
Elevation (m NGVD29)

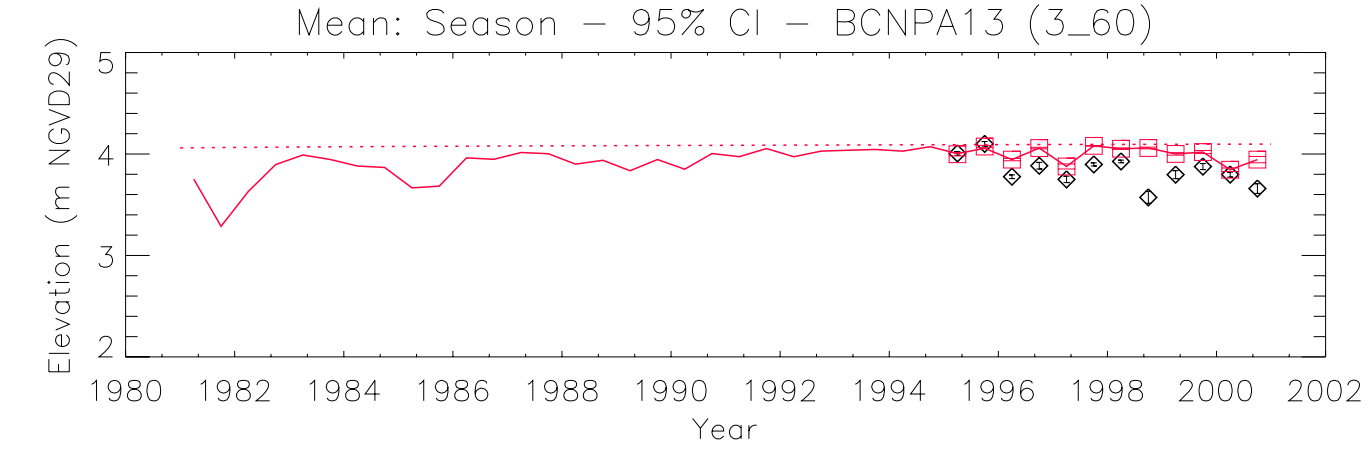

ELM2.5 Raw Data (Obs. N = 5208) – ROTT.S (45_38)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

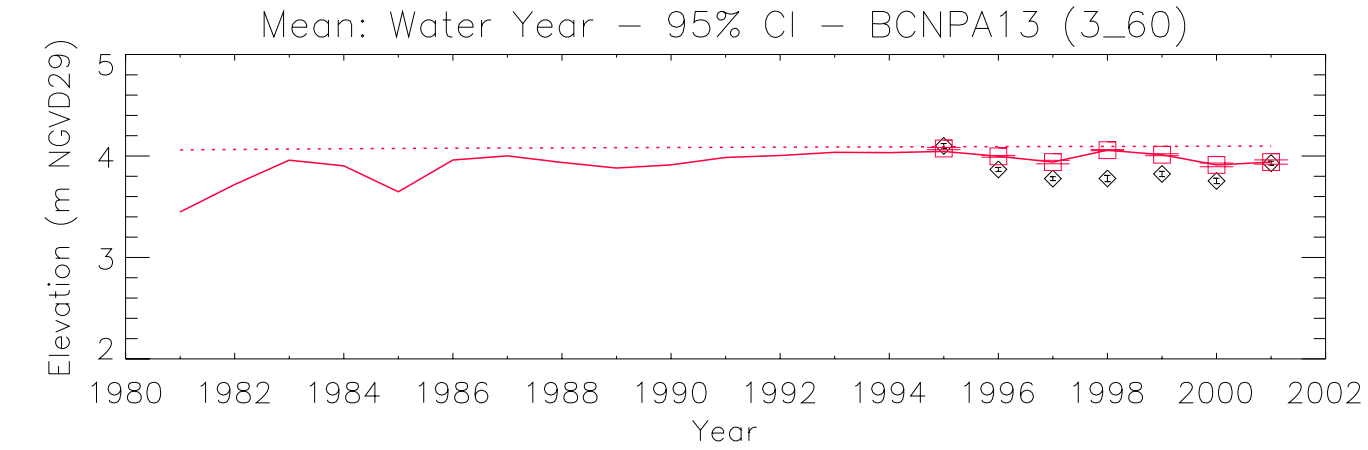

Mean: Season – 95% CI – ROTT.S (45_38)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

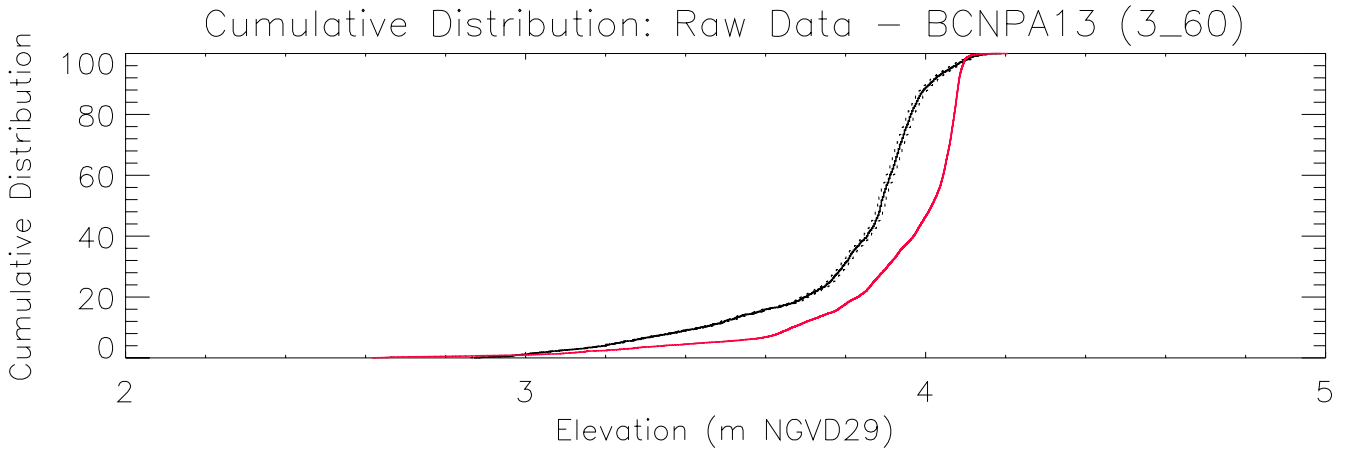

Mean: Water Year – 95% CI – ROTT.S (45_38)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

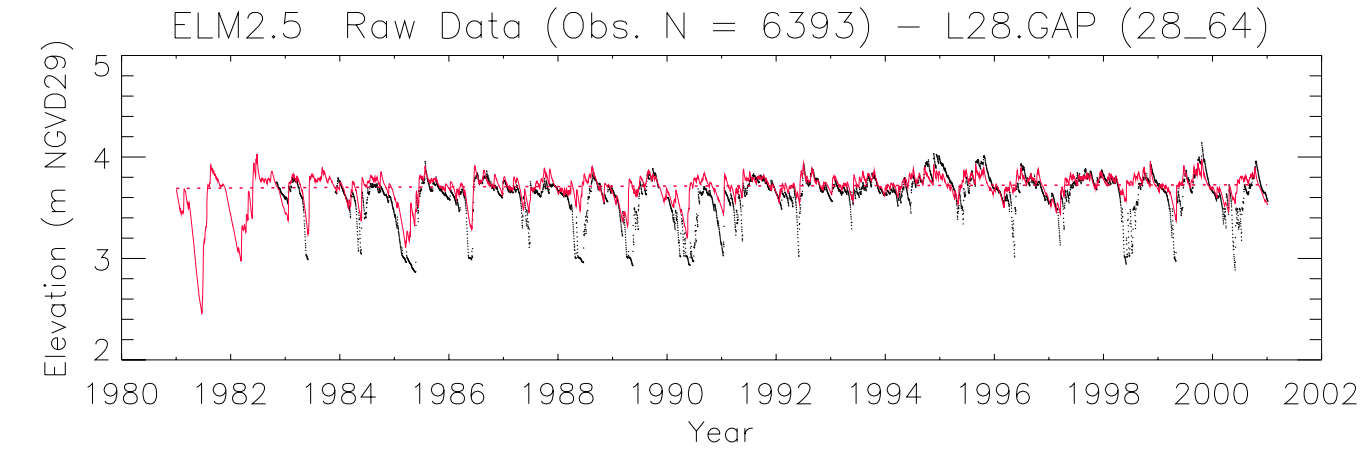

Cumulative Distribution: Raw Data – ROTT.S (45_38)
Cumulative Distribution
100
80
60
40
20
0
2
3
4
5
Elevation (m NGVD29)

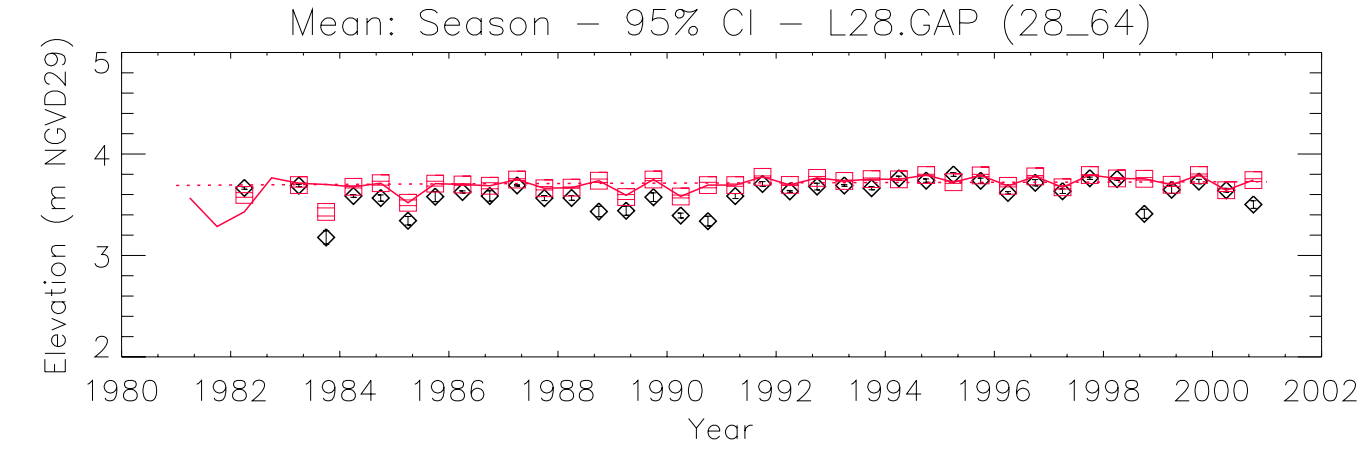

ELM2.5 Raw Data (Obs. N = 1923) – BCNPA13 (3_60)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

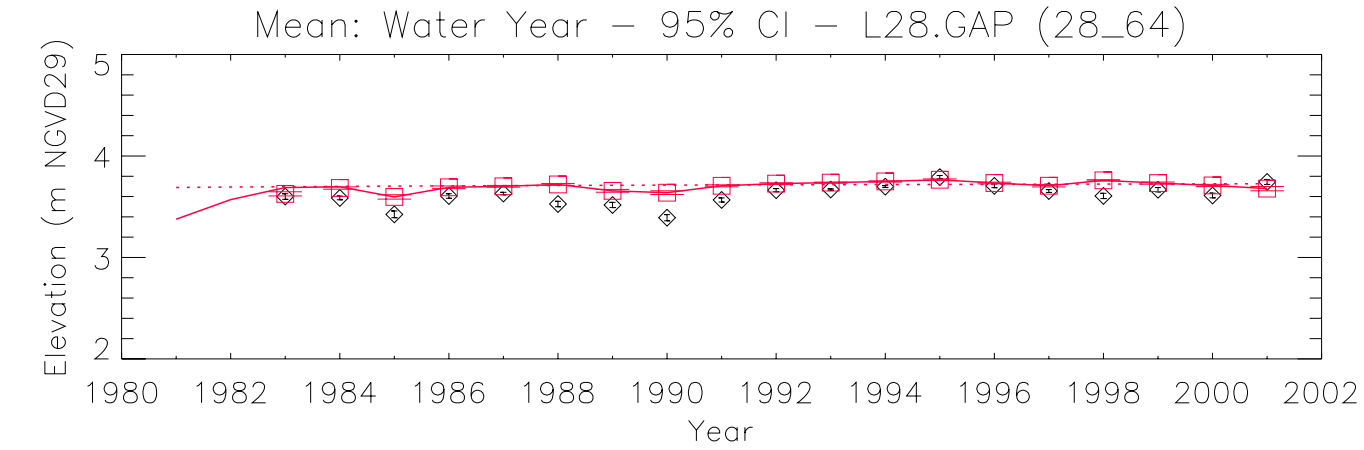

Mean: Season – 95% CI – BCNPA13 (3_60)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

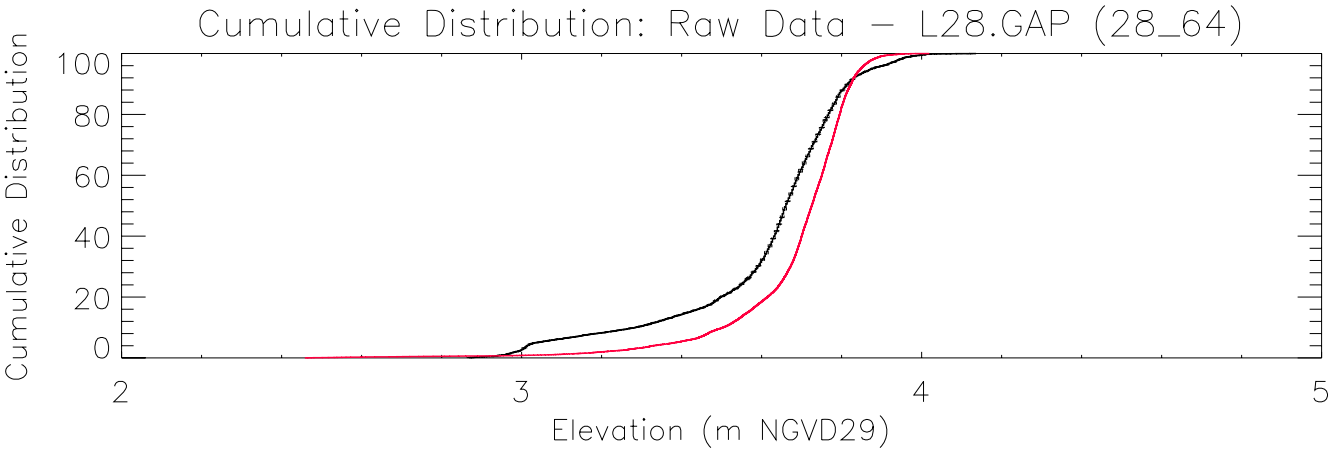

Mean: Water Year – 95% CI – BCNPA13 (3_60)
Elevation (m NGVD29)
5
4
3
2
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

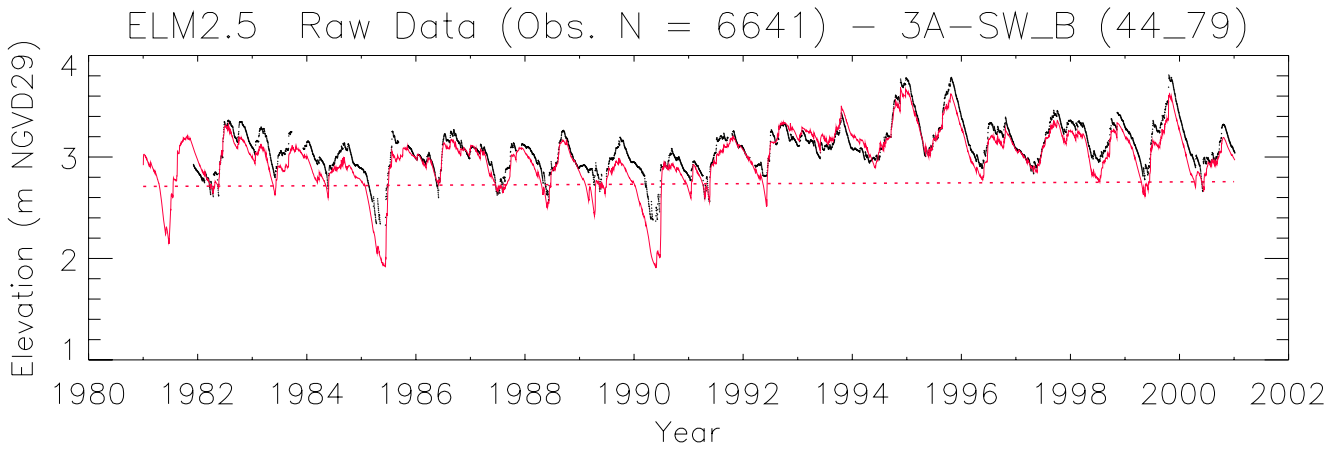

Cumulative Distribution: Raw Data – BCNPA13 (3_60)
Cumulative Distribution
100
80
60
40
20
0
2
3
4
5
Elevation (m NGVD29)

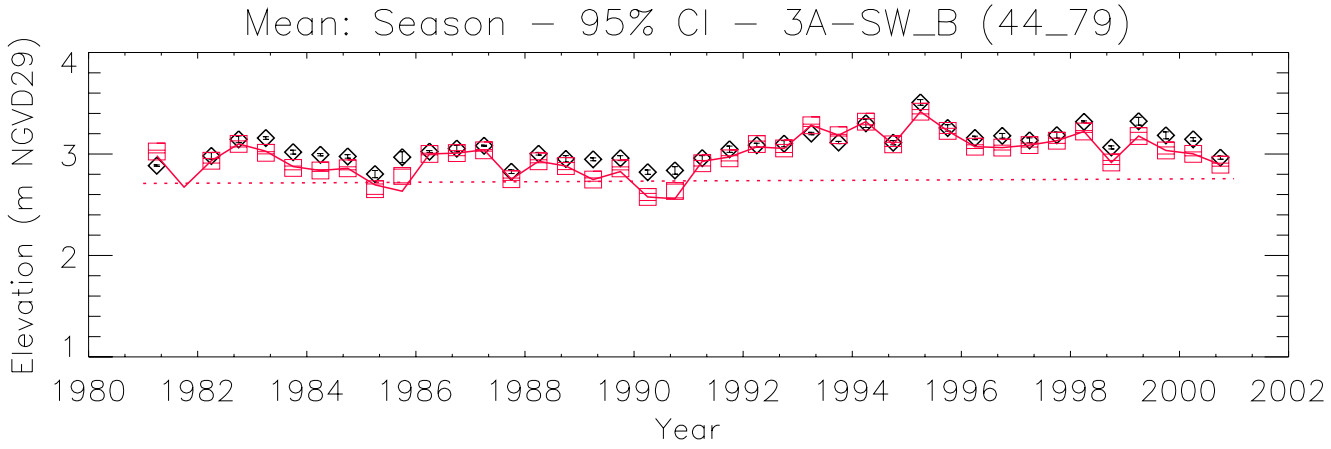

ELM2.5 Raw Data (Obs. N = 6393) – L28.GAP (28_64)
Elevation (m NGVD29)
5
4
3
2
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

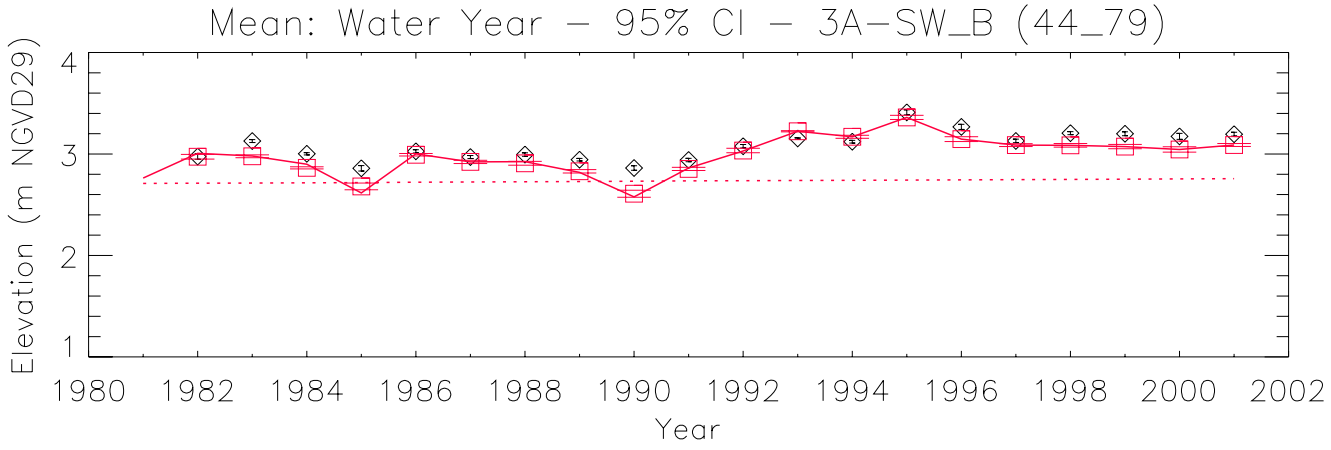

Mean: Season – 95% CI – L28.GAP (28_64)
Elevation (m NGVD29)
5
4
3
2
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

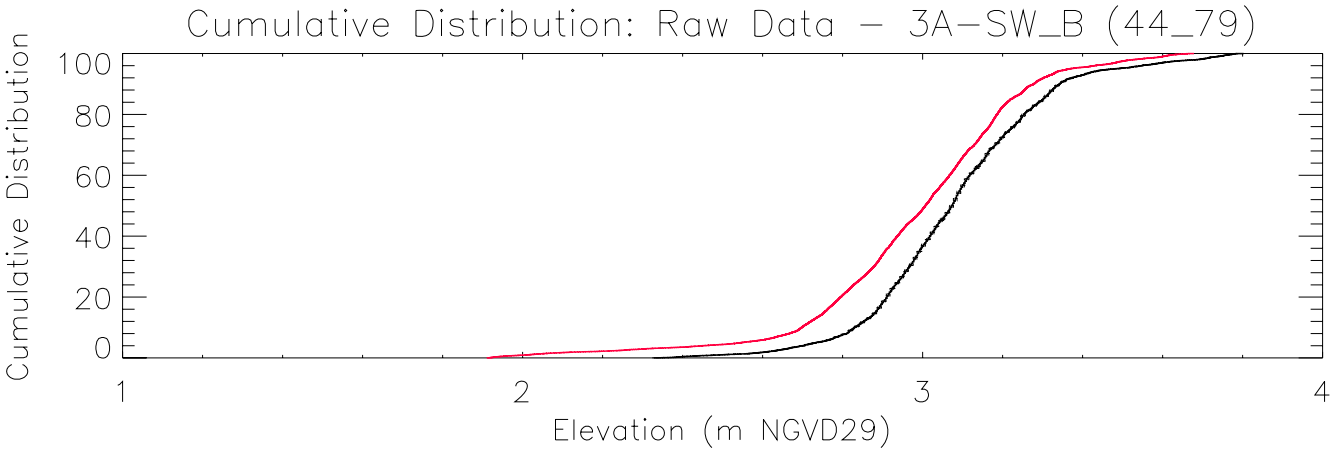

Mean: Water Year – 95% CI – L28.GAP (28_64)
Elevation (m NGVD29)
5
4
3
2
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

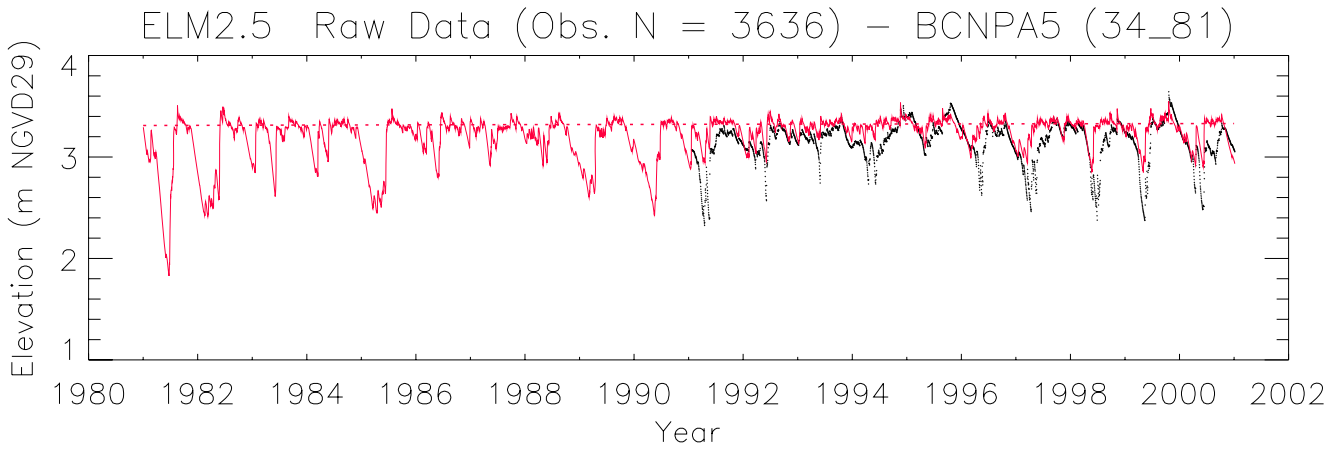

Cumulative Distribution: Raw Data – L28.GAP (28_64)
Cumulative Distribution
100
80
60
40
20
0
2
3
4
5
Elevation (m NGVD29)

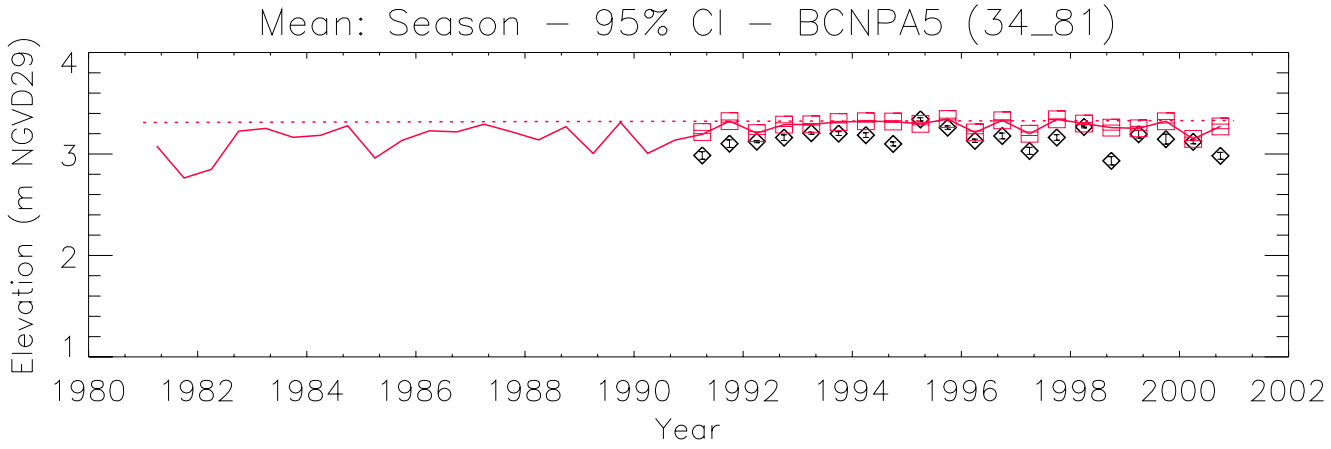

ELM2.5 Raw Data (Obs. N = 6641) – 3A–SW_B (44_79)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

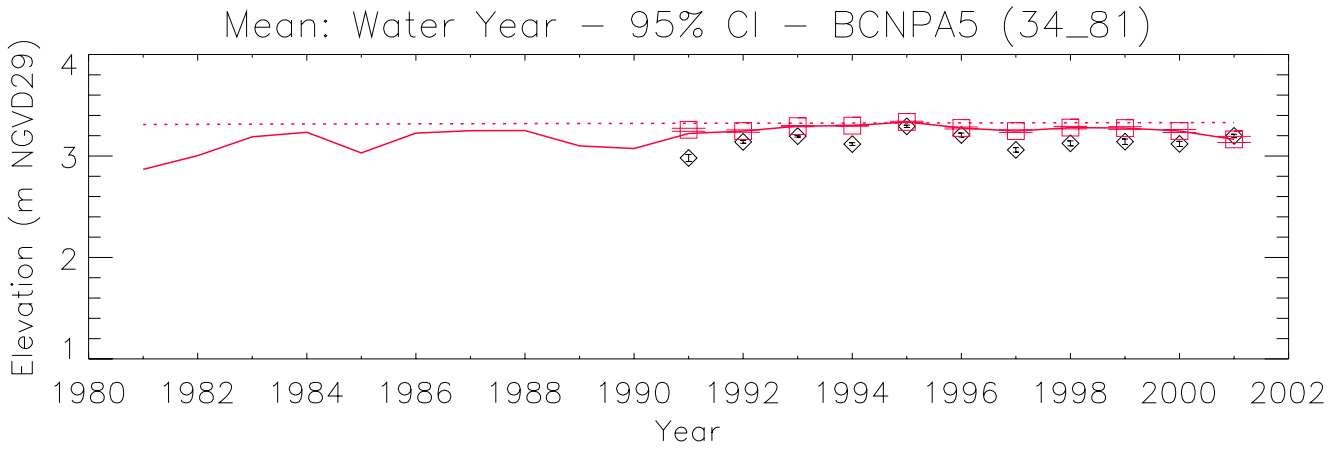

Mean: Season – 95% CI – 3A–SW_B (44_79)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

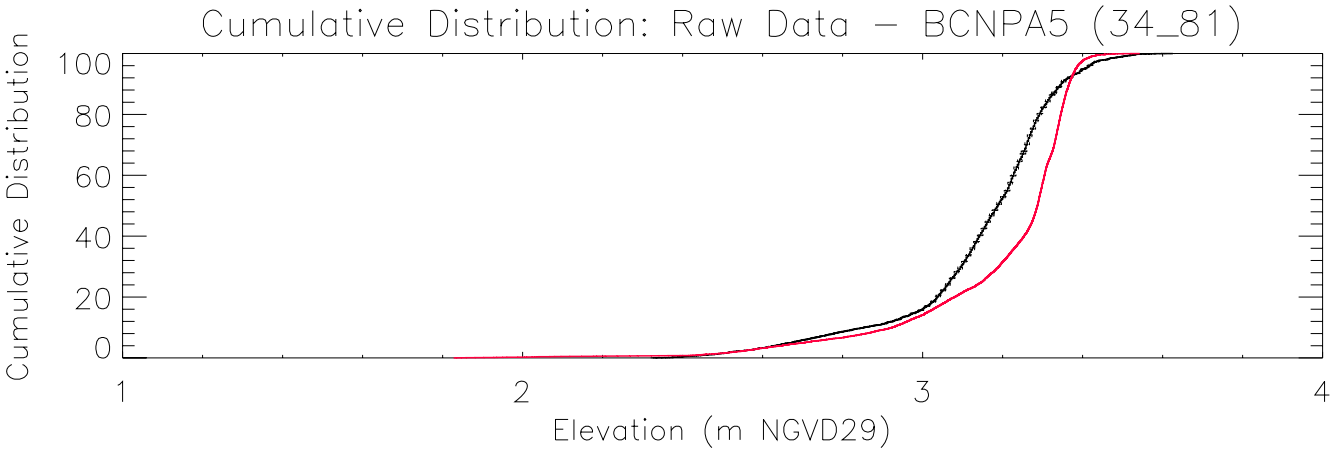

Mean: Water Year – 95% CI – 3A–SW_B (44_79)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

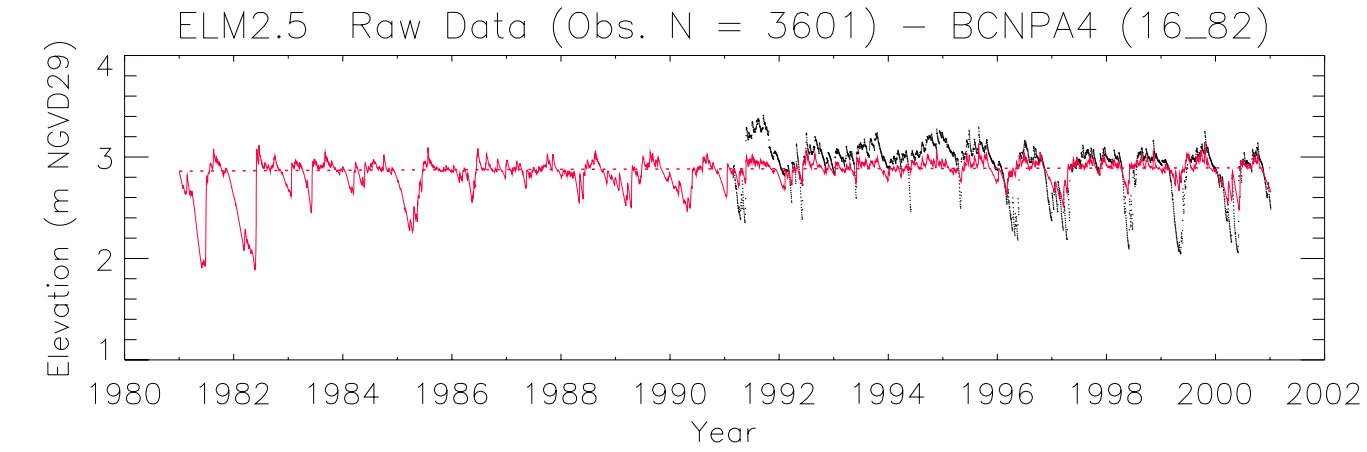

Cumulative Distribution: Raw Data – 3A–SW_B (44_79)
Cumulative Distribution
0
20
40
60
80
100
1
2
3
4
Elevation (m NGVD29)

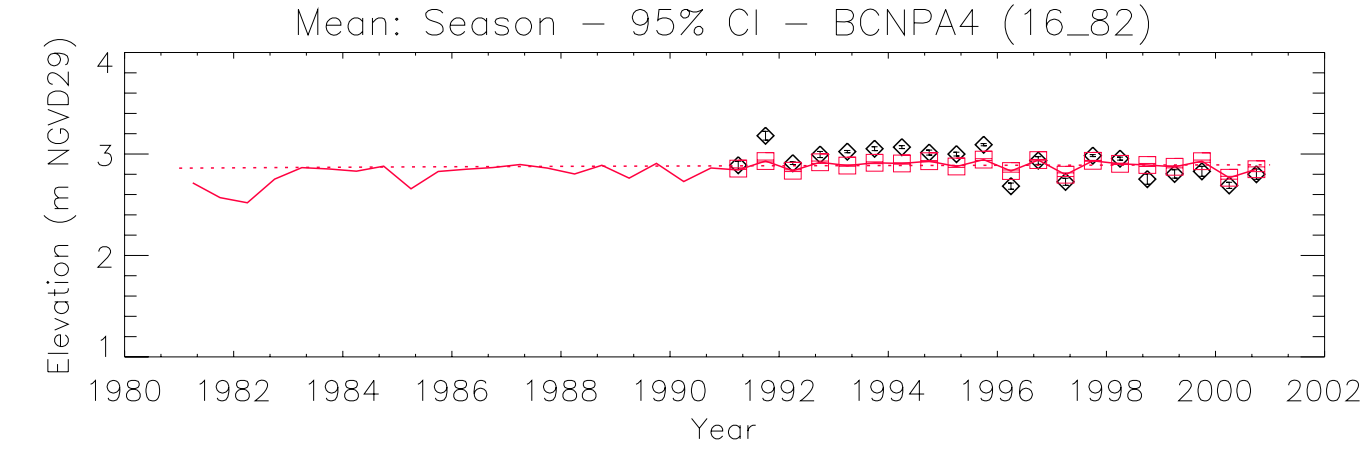

ELM2.5 Raw Data (Obs. N = 3636) – BCNPA5 (34_81)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

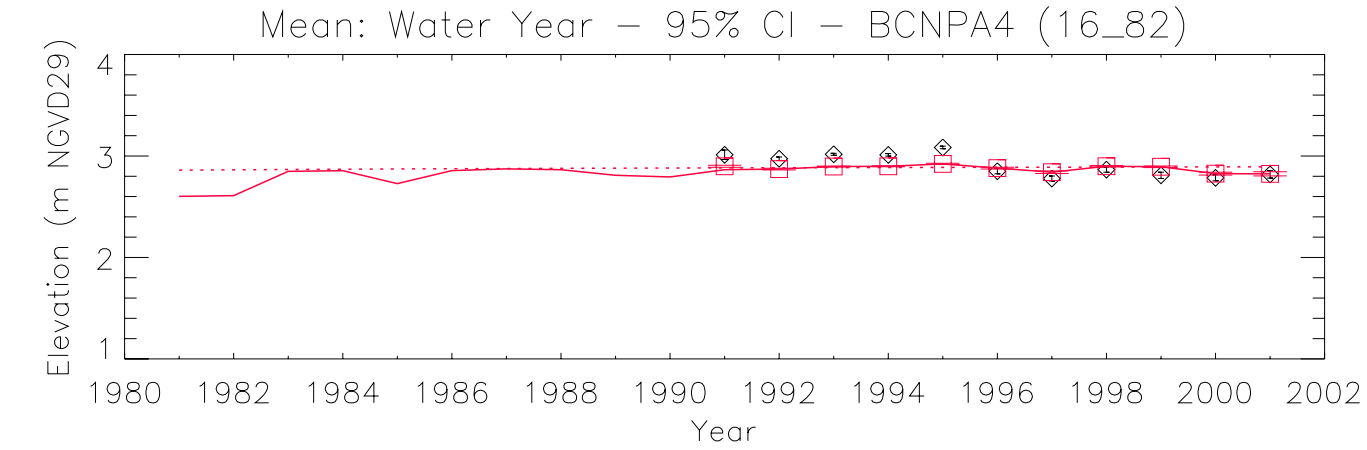

Mean: Season – 95% CI – BCNPA5 (34_81)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

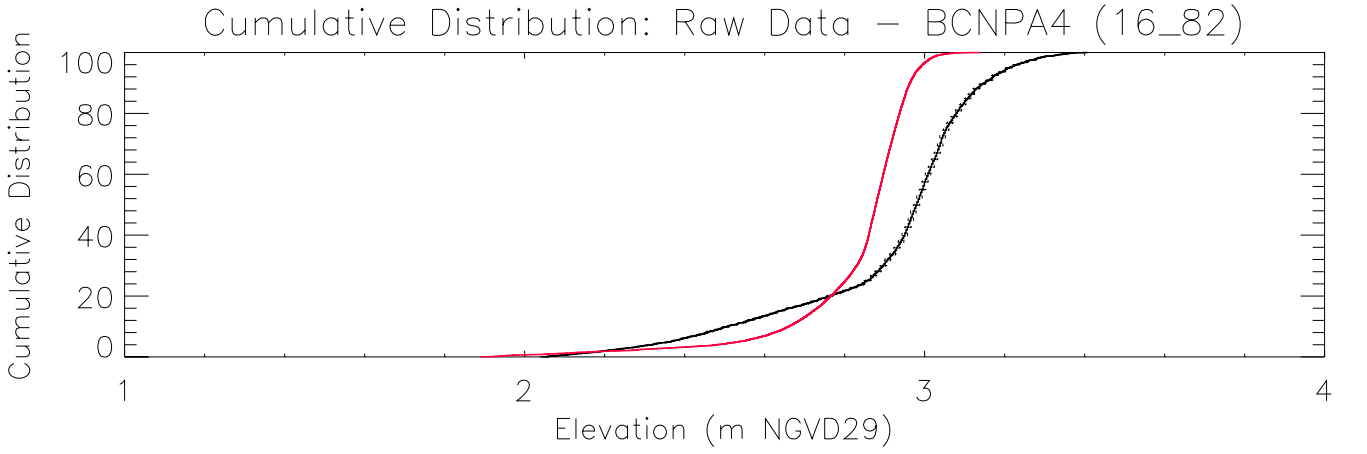

Mean: Water Year – 95% CI – BCNPA5 (34_81)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

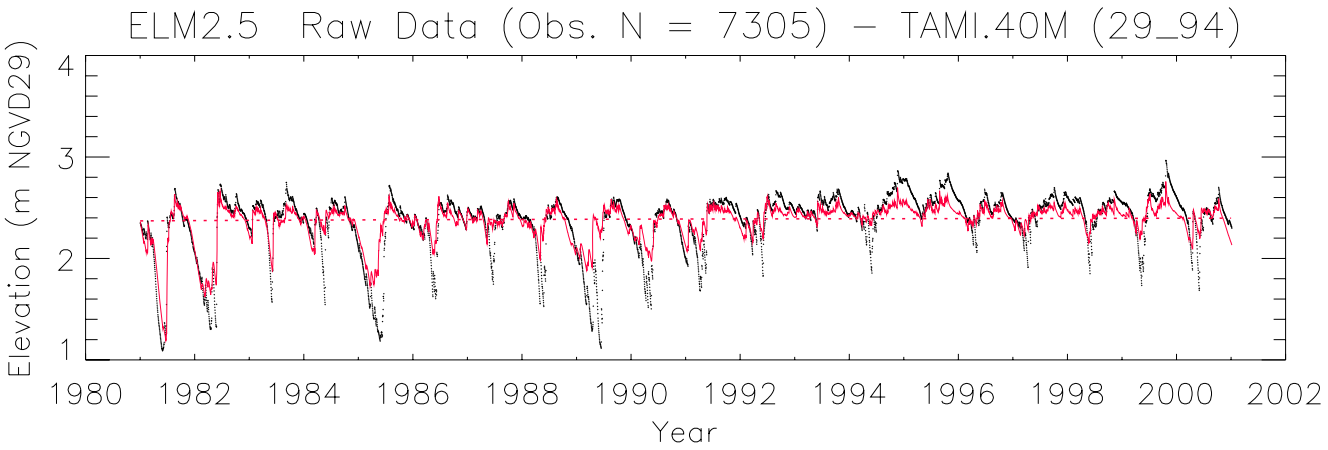

Cumulative Distribution: Raw Data – BCNPA5 (34_81)
Cumulative Distribution
0
20
40
60
80
100
1
2
3
4
Elevation (m NGVD29)

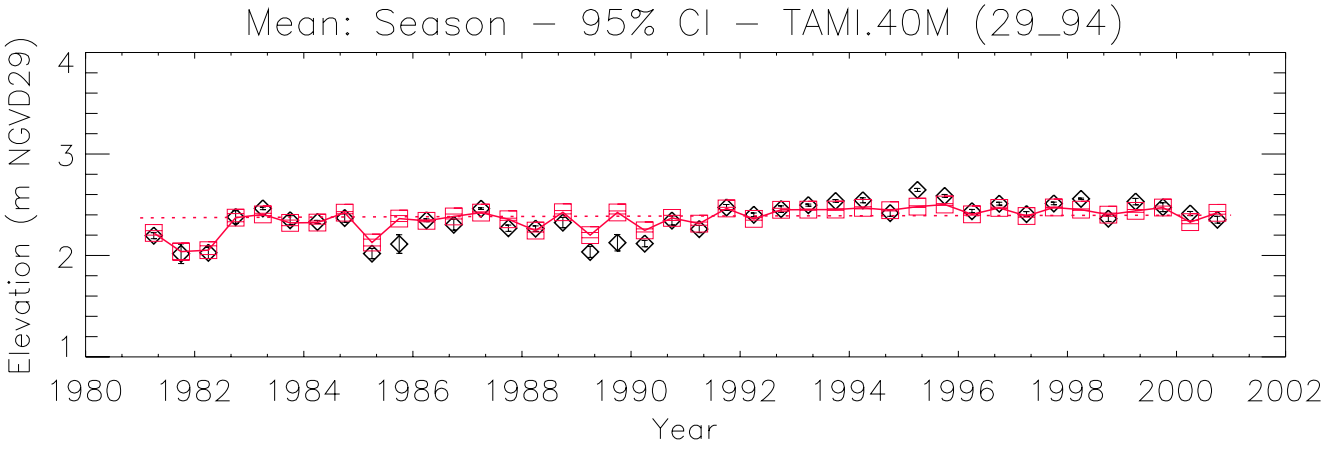

ELM2.5 Raw Data (Obs. N = 3601) – BCNPA4 (16_82)
Elevation (m NGVD29)
Year

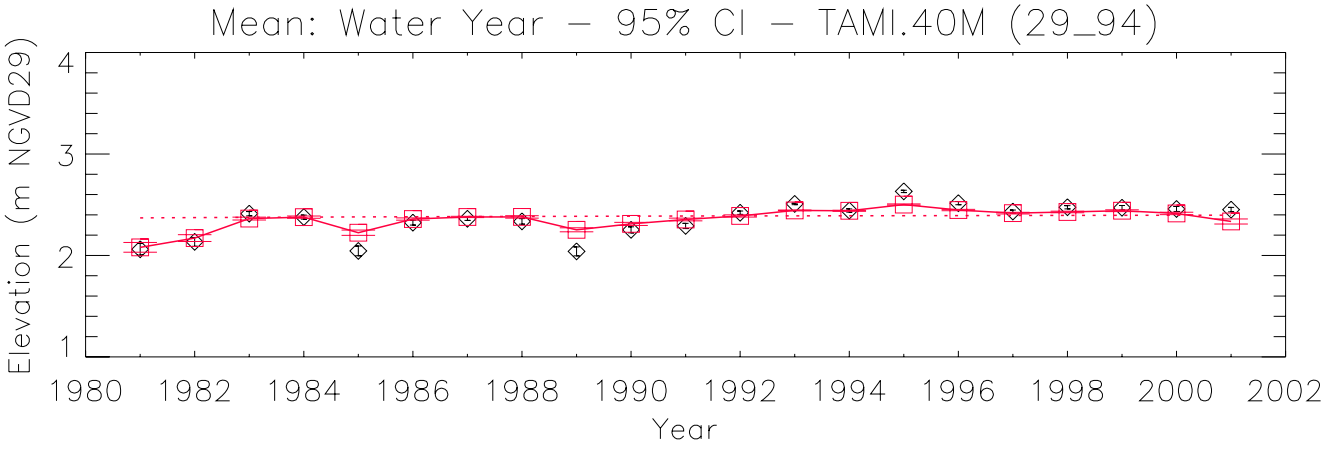

Mean: Season – 95% CI – BCNPA4 (16_82)
Elevation (m NGVD29)
Year

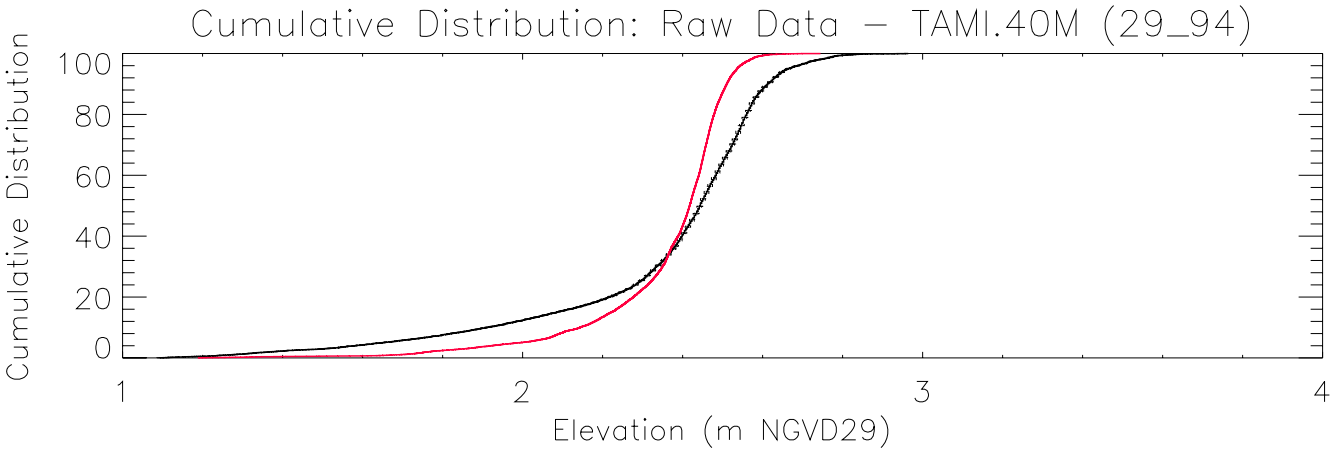

Mean: Water Year – 95% CI – BCNPA4 (16_82)
Elevation (m NGVD29)
Year

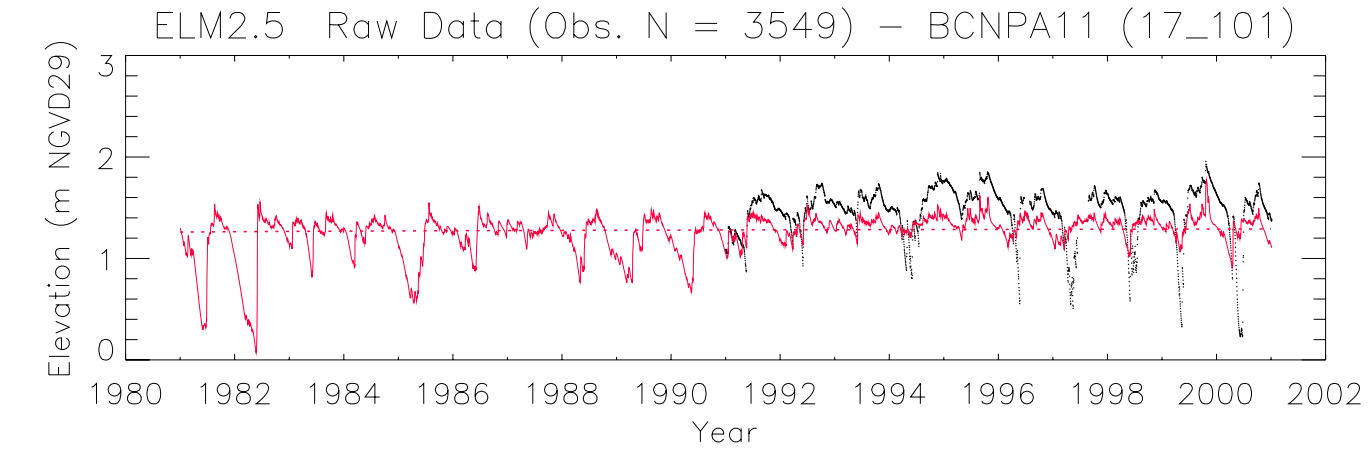

Cumulative Distribution: Raw Data – BCNPA4 (16_82)
Cumulative Distribution
Elevation (m NGVD29)

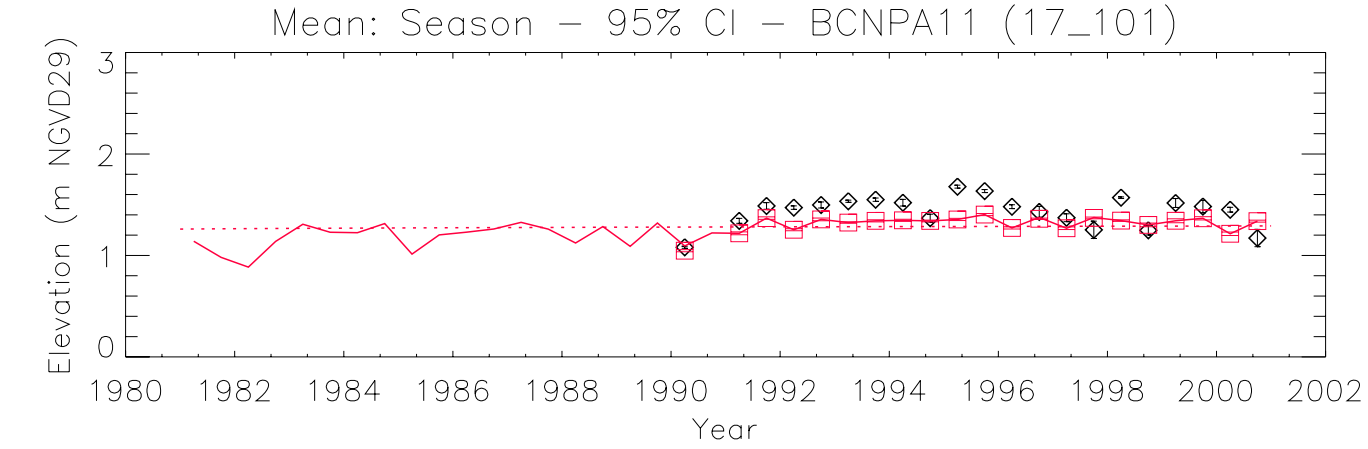

ELM2.5 Raw Data (Obs. N = 7305) – TAMI.40M (29_94)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

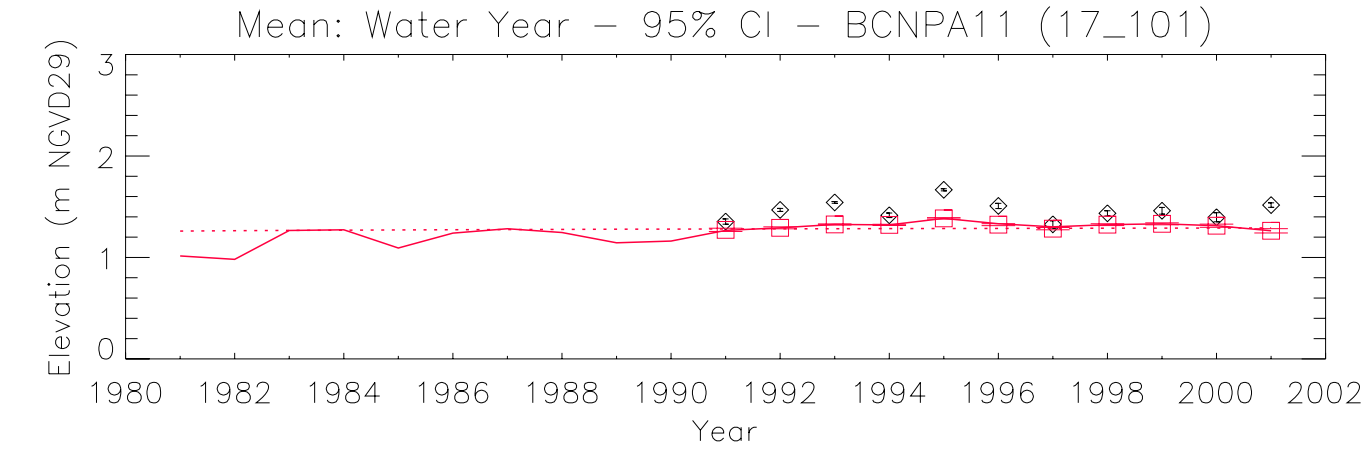

Mean: Season – 95% CI – TAMI.40M (29_94)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

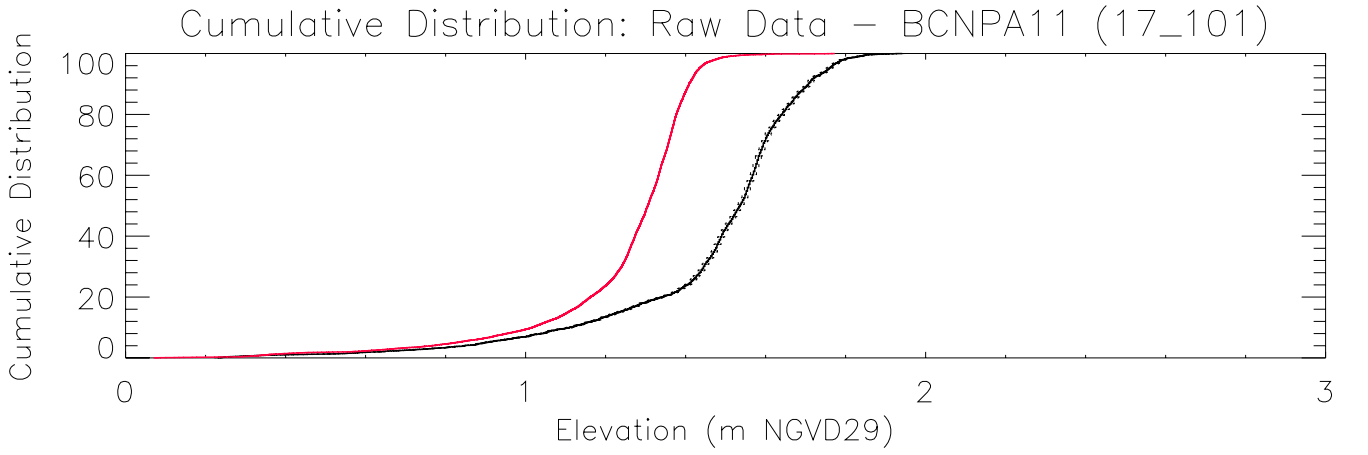

Mean: Water Year – 95% CI – TAMI.40M (29_94)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

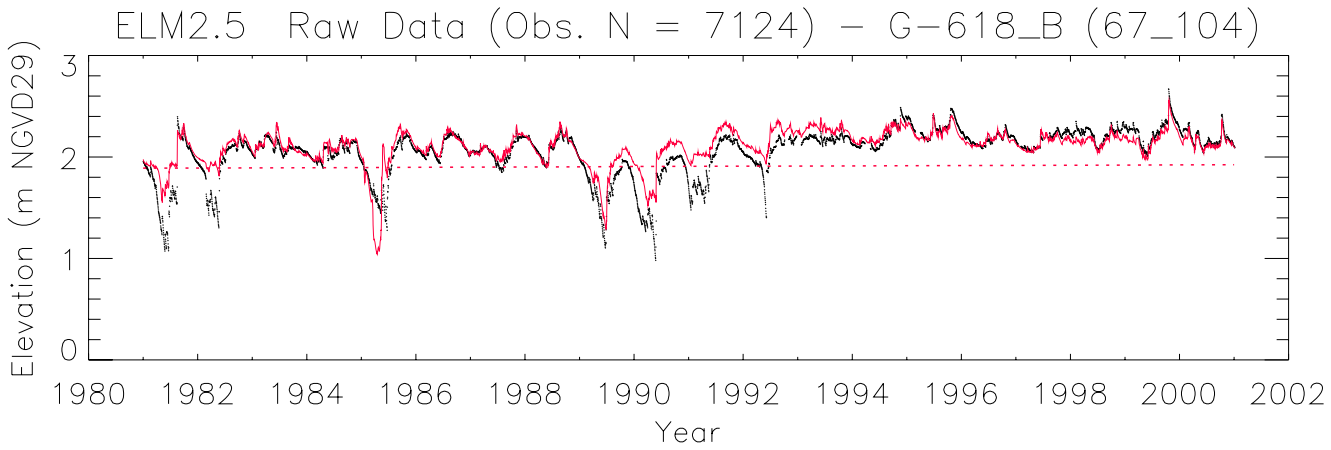

Cumulative Distribution: Raw Data – TAMI.40M (29_94)
Cumulative Distribution
0
20
40
60
80
100
1
2
3
4
Elevation (m NGVD29)

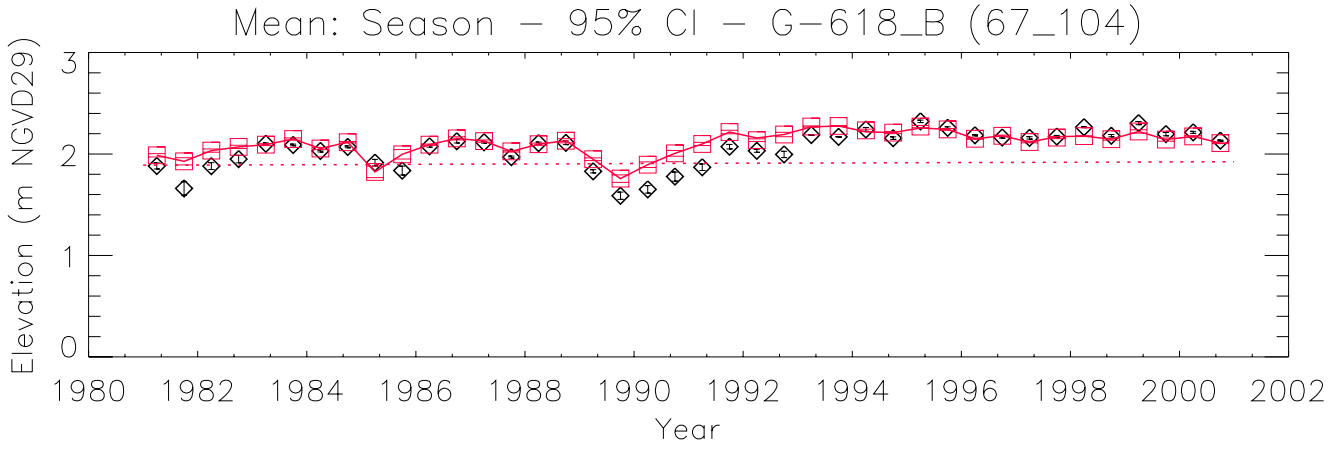

ELM2.5 Raw Data (Obs. N = 3549) – BCNPA11 (17_101)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

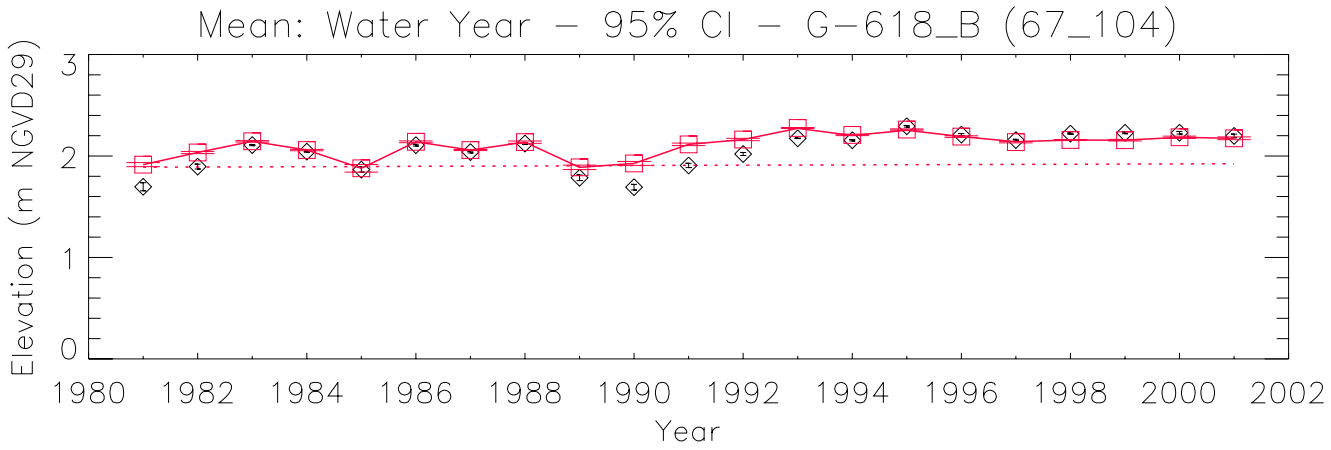

Mean: Season – 95% CI – BCNPA11 (17_101)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

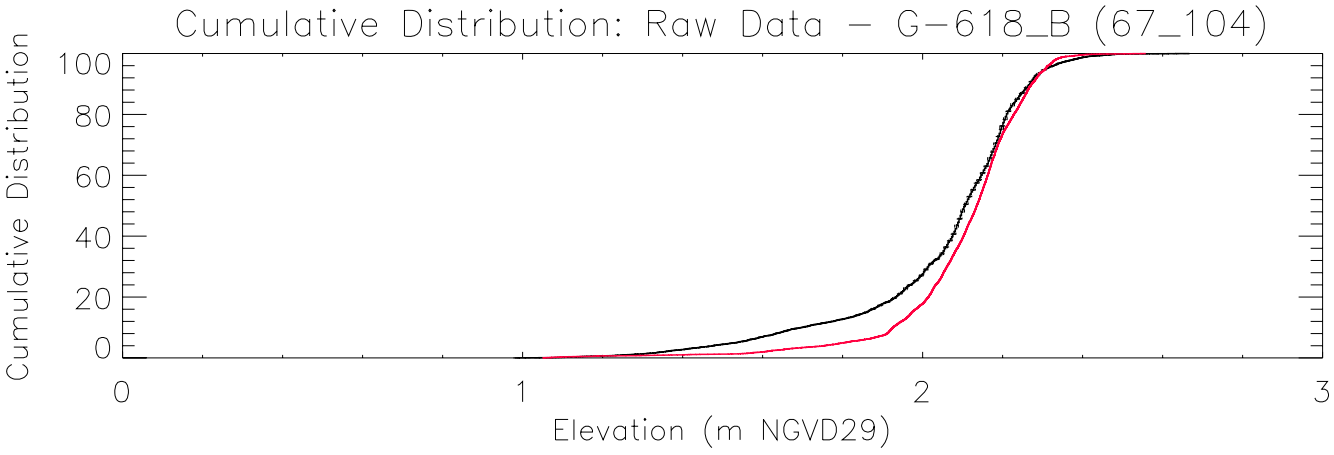

Mean: Water Year – 95% CI – BCNPA11 (17_101)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

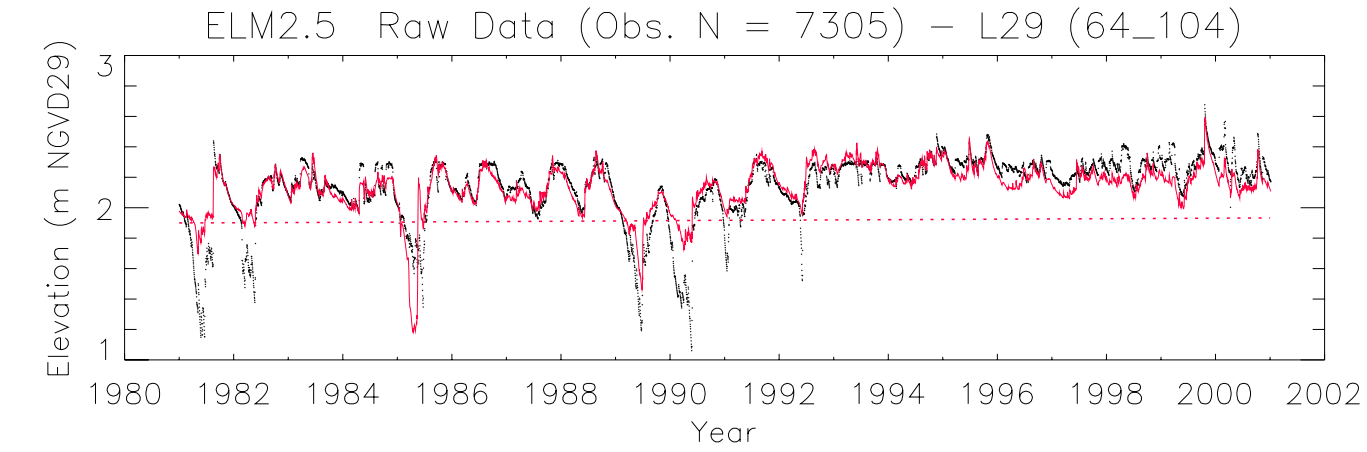

Cumulative Distribution: Raw Data – BCNPA11 (17_101)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)

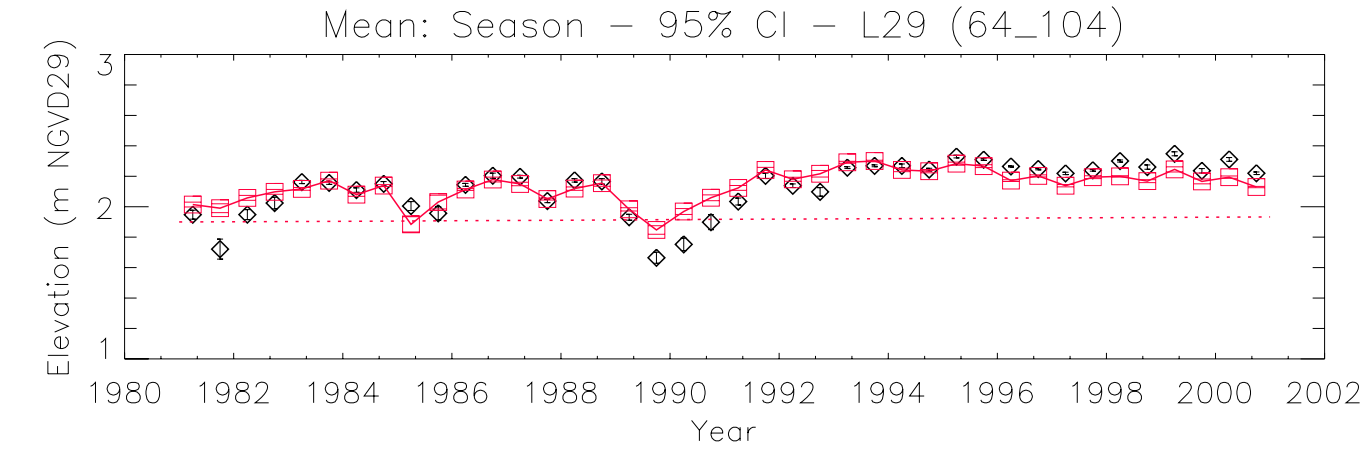

ELM2.5 Raw Data (Obs. N = 7124) – G–618_B (67_104)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

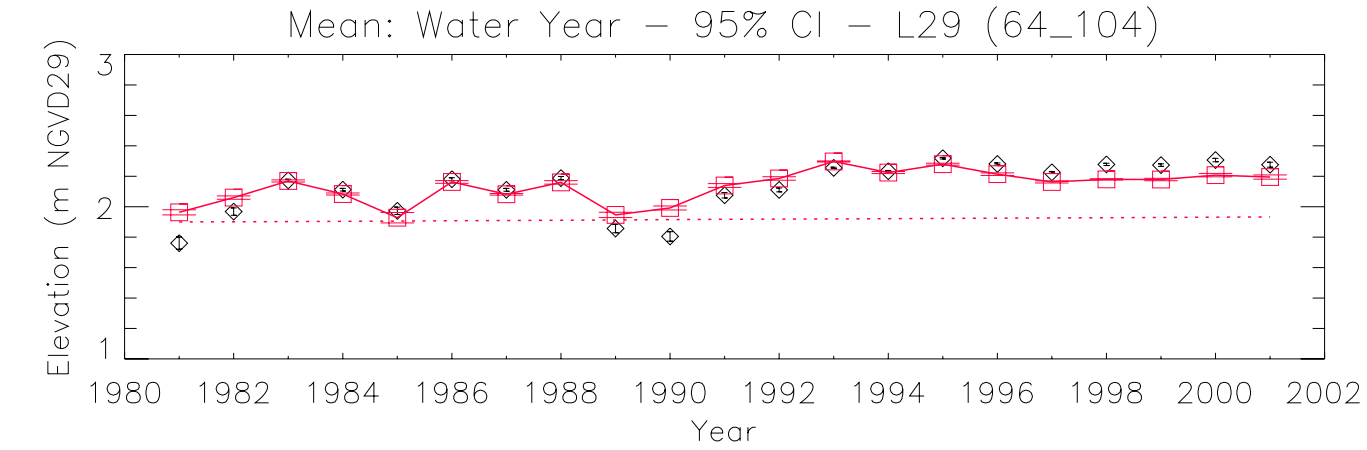

Mean: Season – 95% CI – G–618_B (67_104)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

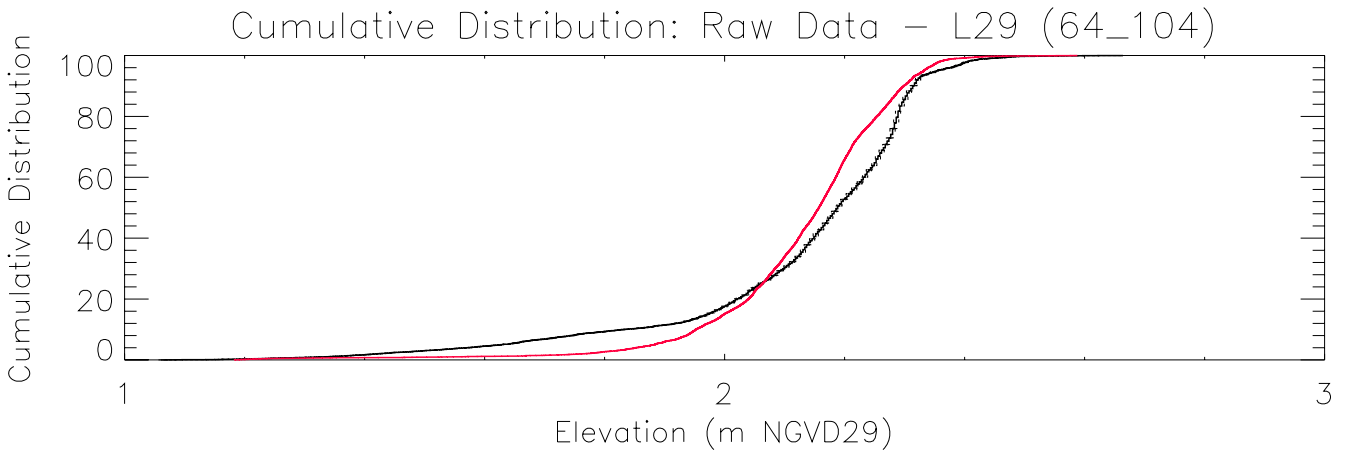

Mean: Water Year – 95% CI – G–618_B (67_104)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

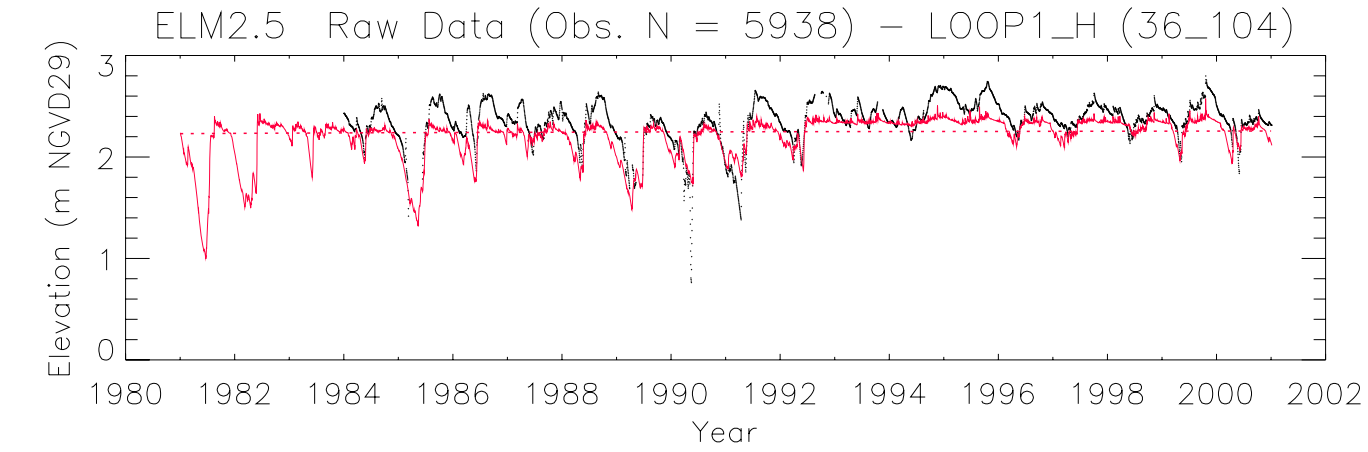

Cumulative Distribution: Raw Data – G–618_B (67_104)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)

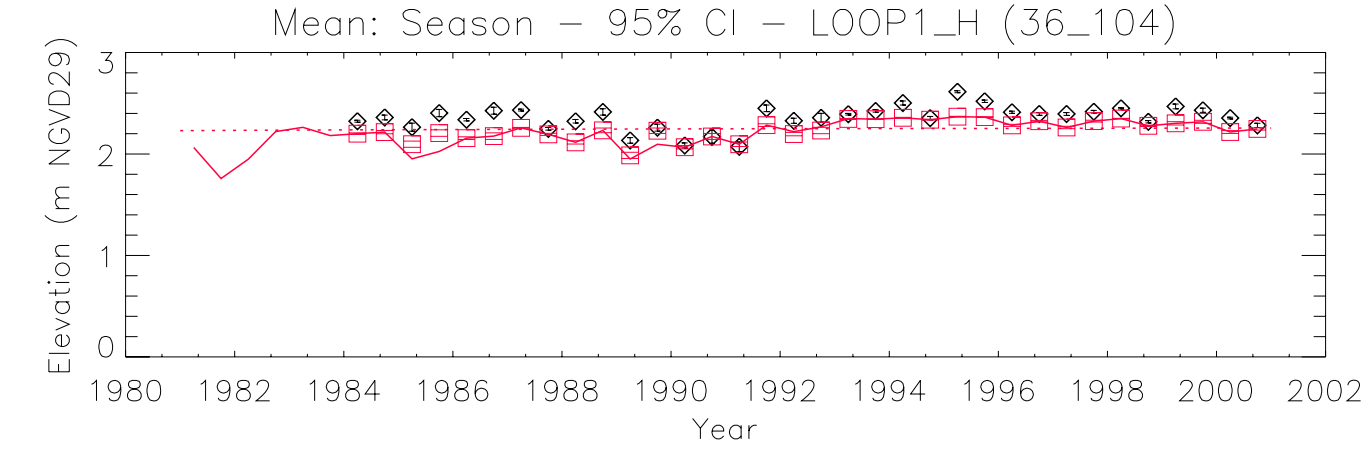

ELM2.5 Raw Data (Obs. N = 7305) – L29 (64_104)
Elevation (m NGVD29)
3
2
1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

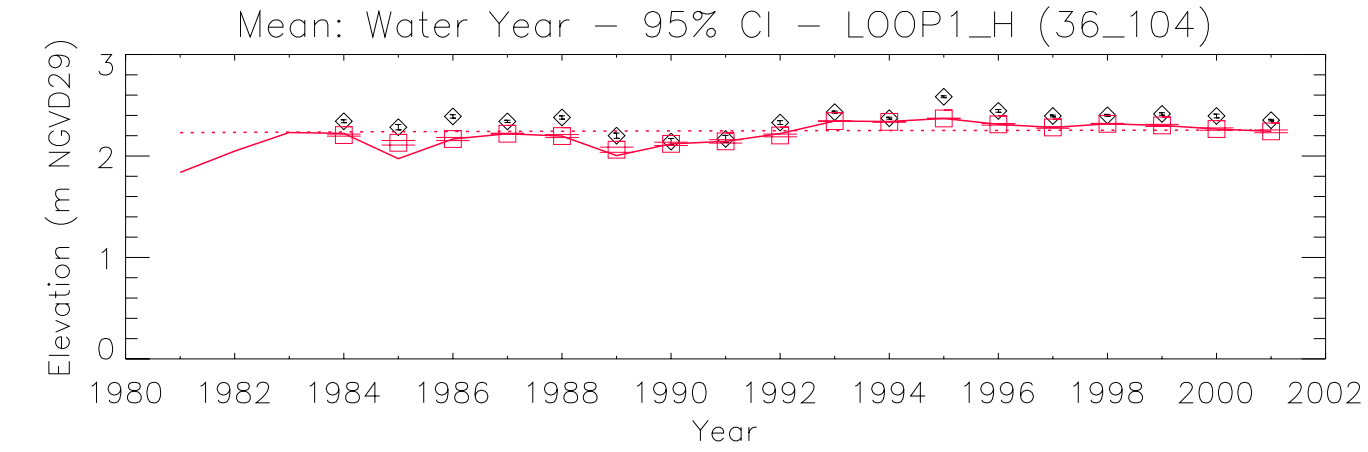

Mean: Season – 95% CI – L29 (64_104)
Elevation (m NGVD29)
3
2
1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

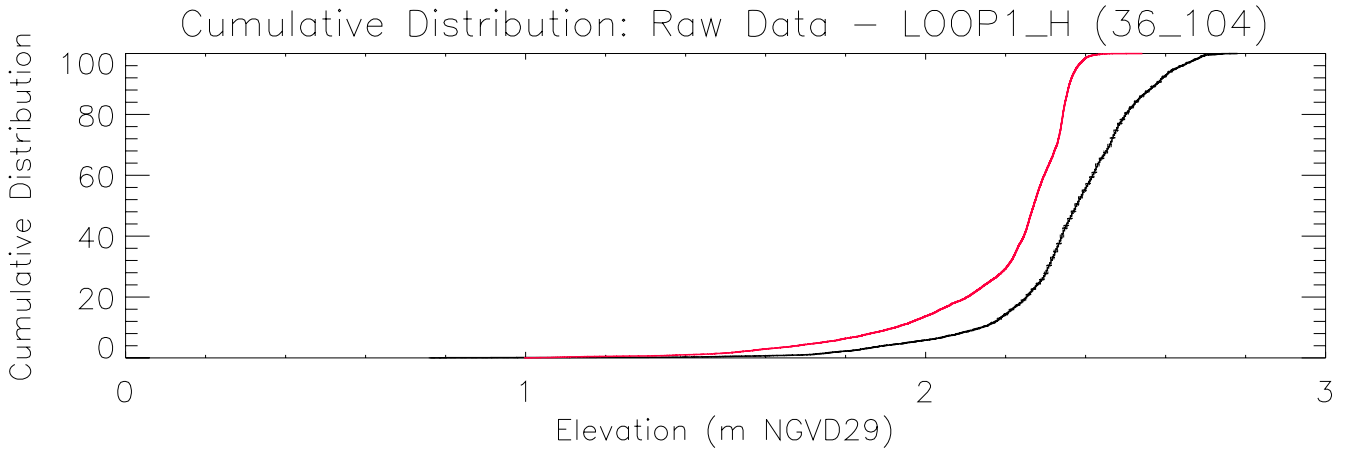

Mean: Water Year – 95% CI – L29 (64_104)
Elevation (m NGVD29)
3
2
1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

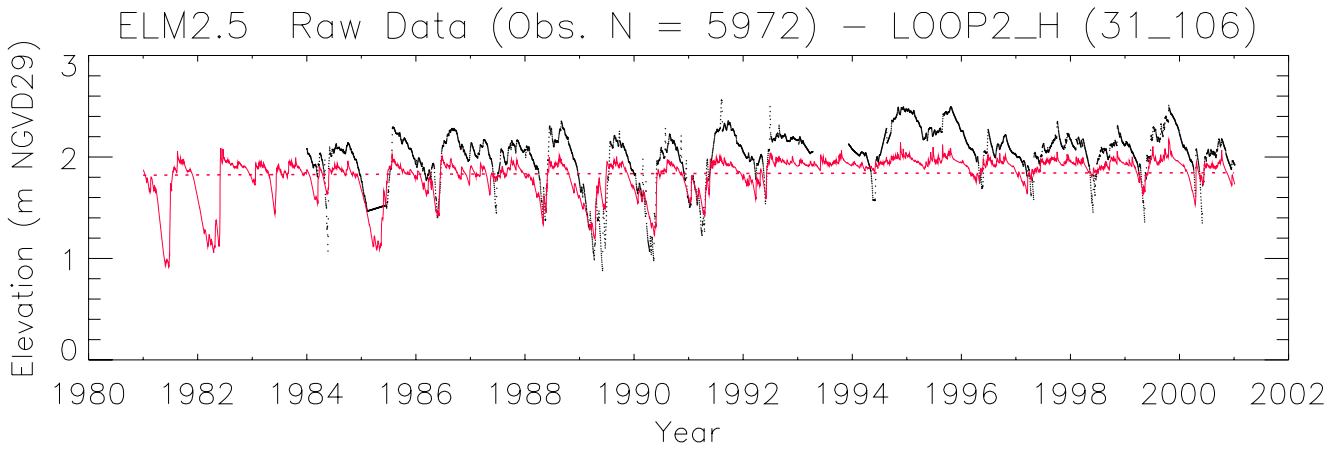

Cumulative Distribution: Raw Data – L29 (64_104)
Cumulative Distribution
100
80
60
40
20
0
1
2
3
Elevation (m NGVD29)

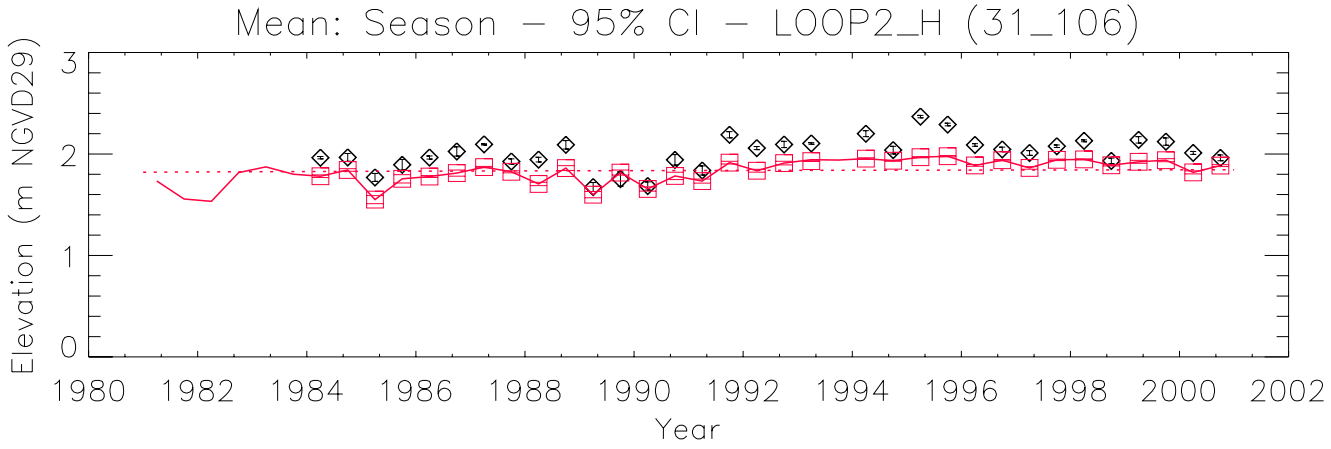

ELM2.5 Raw Data (Obs. N = 5938) – LOOP1_H (36_104)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

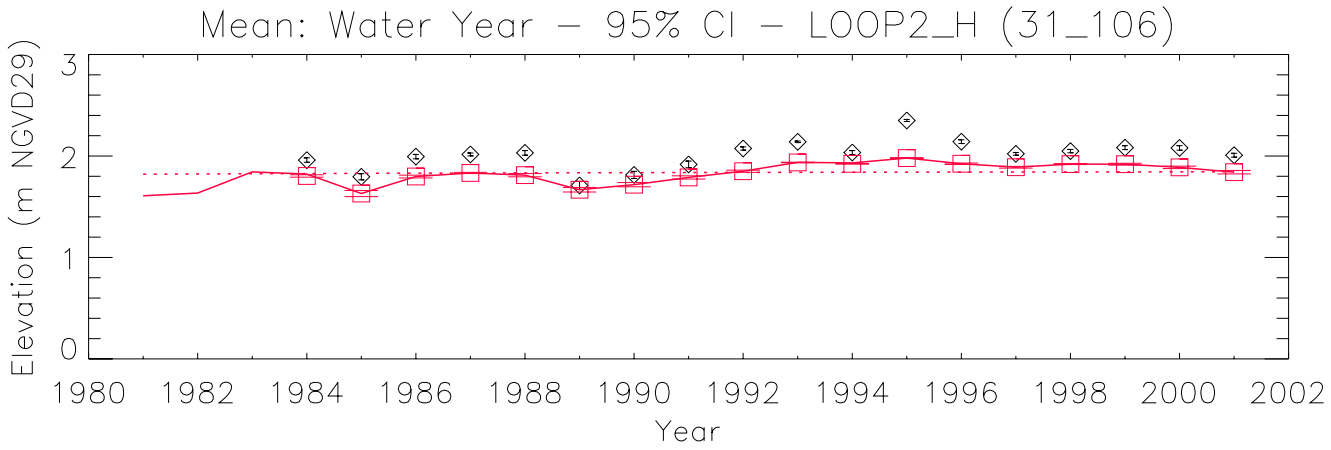

Mean: Season – 95% CI – LOOP1_H (36_104)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

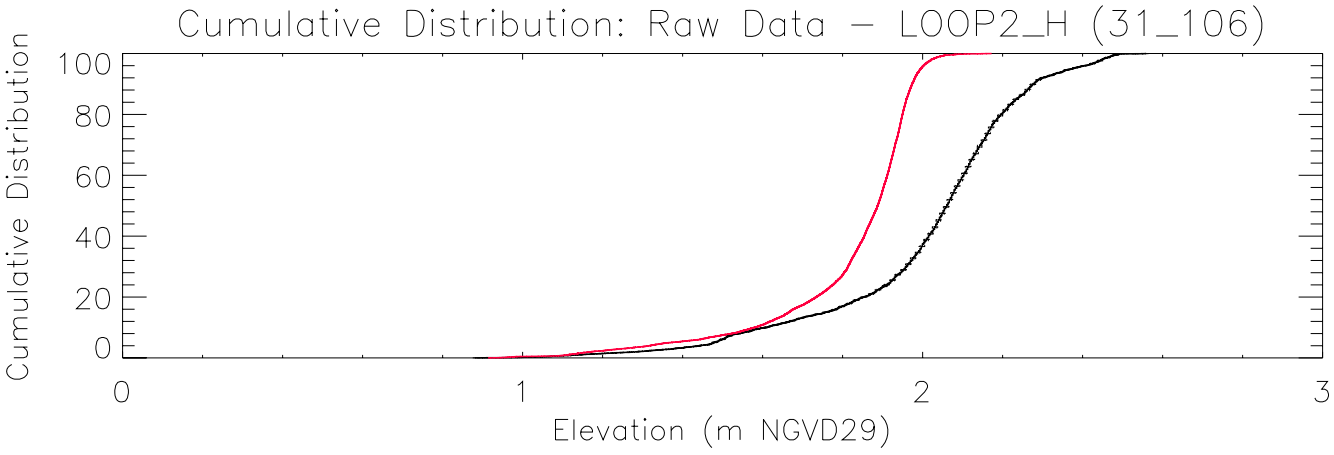

Mean: Water Year – 95% CI – LOOP1_H (36_104)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

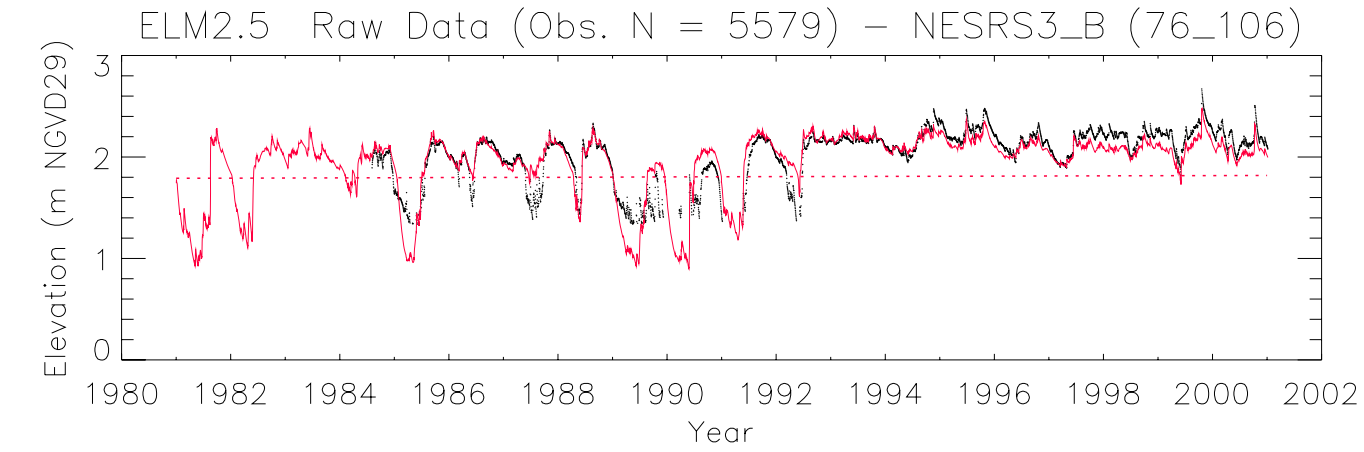

Cumulative Distribution: Raw Data – LOOP1_H (36_104)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)

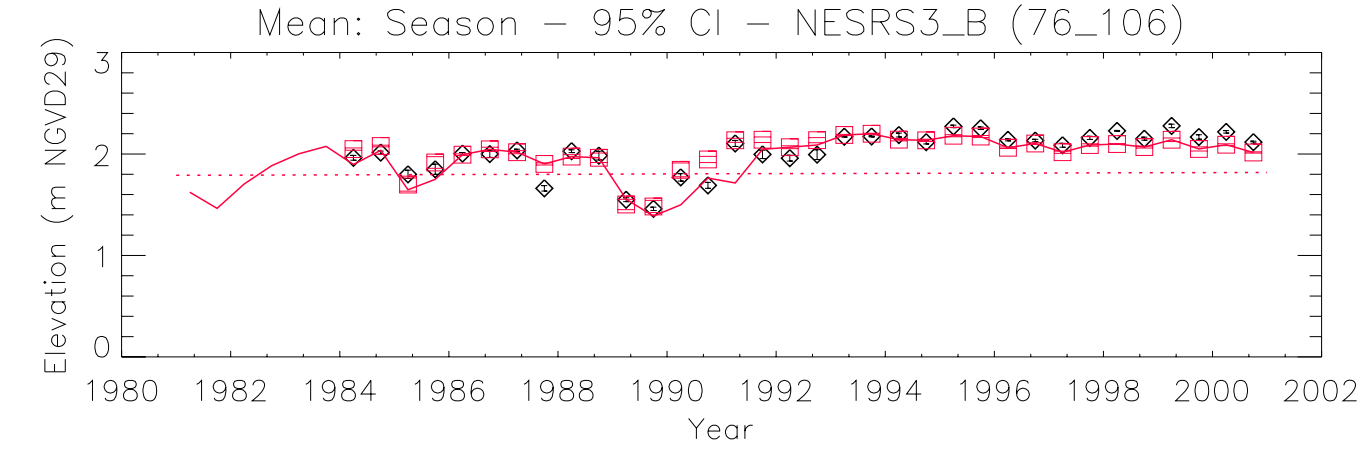

ELM2.5 Raw Data (Obs. N = 5972) – LOOP2_H (31_106)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

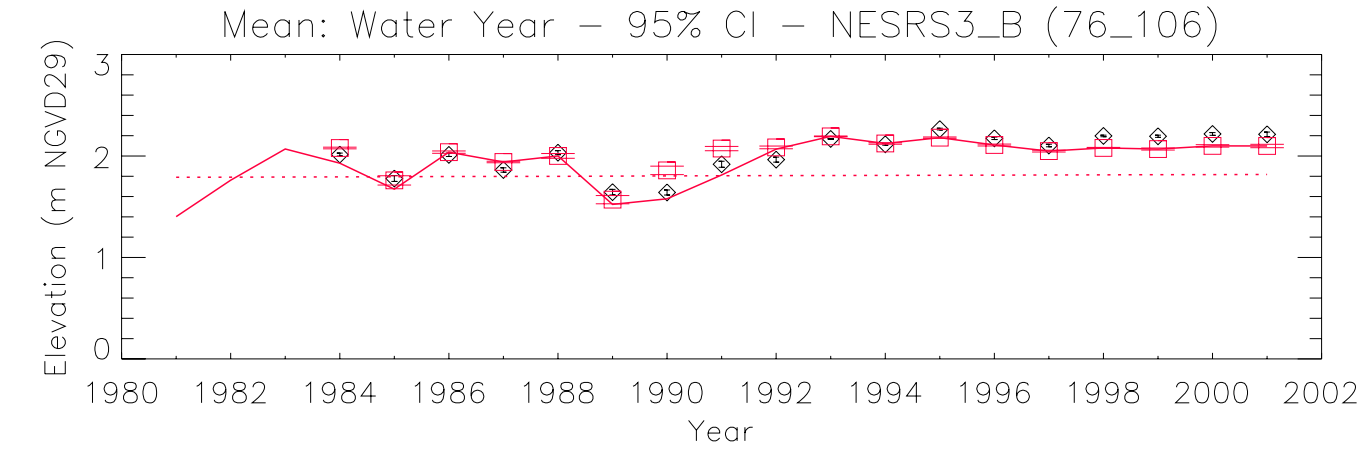

Mean: Season – 95% CI – LOOP2_H (31_106)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

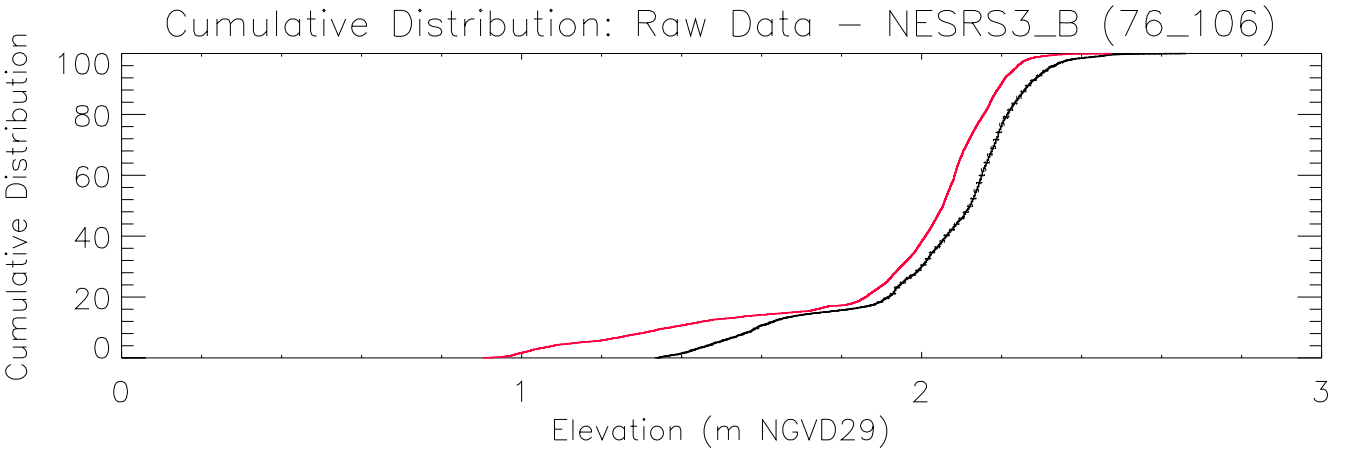

Mean: Water Year – 95% CI – LOOP2_H (31_106)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

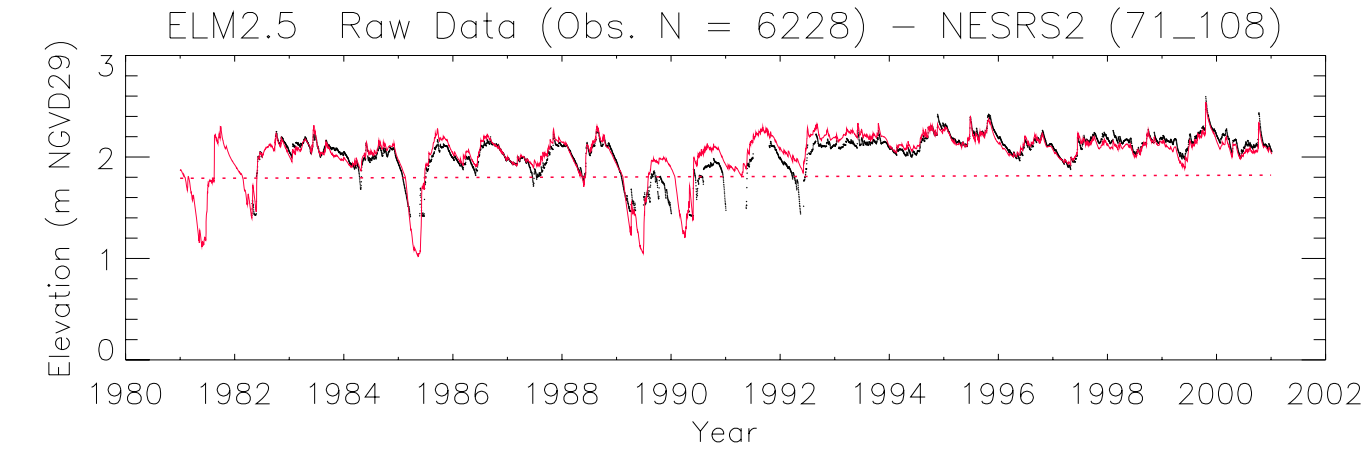

Cumulative Distribution: Raw Data – LOOP2_H (31_106)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)

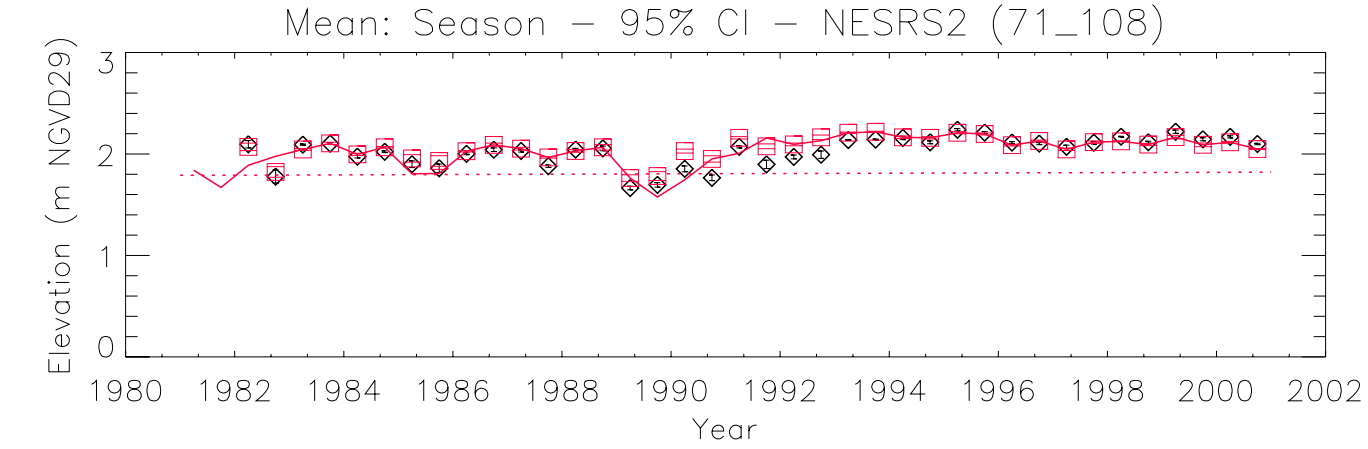

ELM2.5 Raw Data (Obs. N = 5579) – NESRS3_B (76_106)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

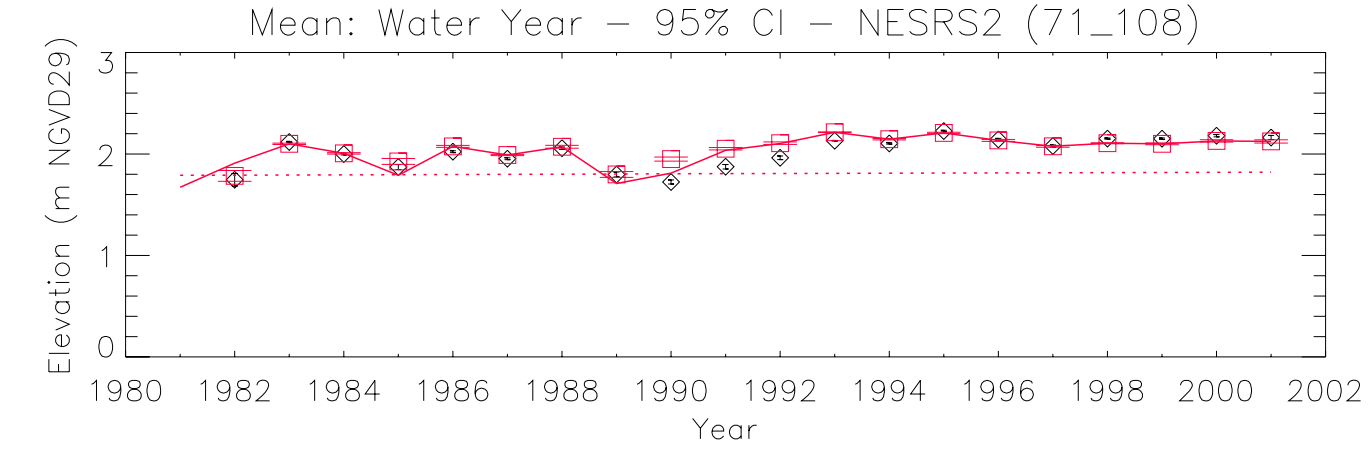

Mean: Season – 95% CI – NESRS3_B (76_106)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

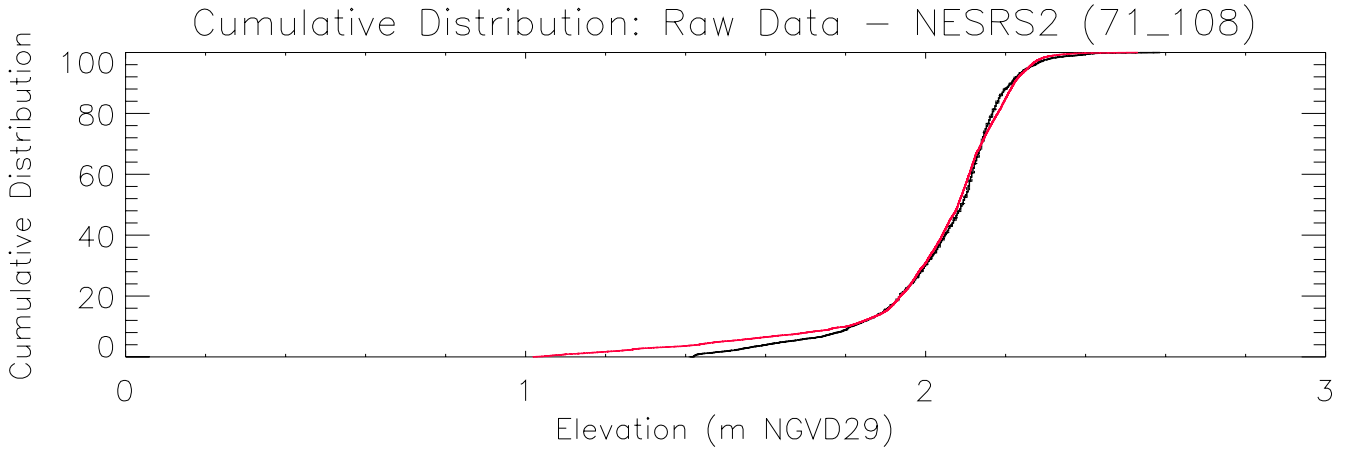

Mean: Water Year – 95% CI – NESRS3_B (76_106)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

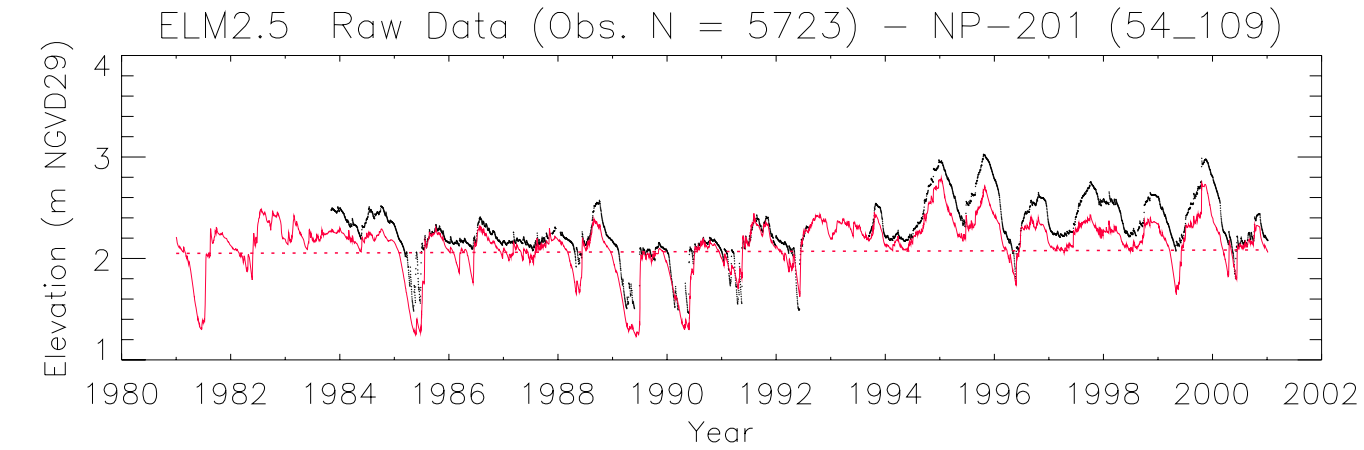

Cumulative Distribution: Raw Data – NESRS3_B (76_106)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)

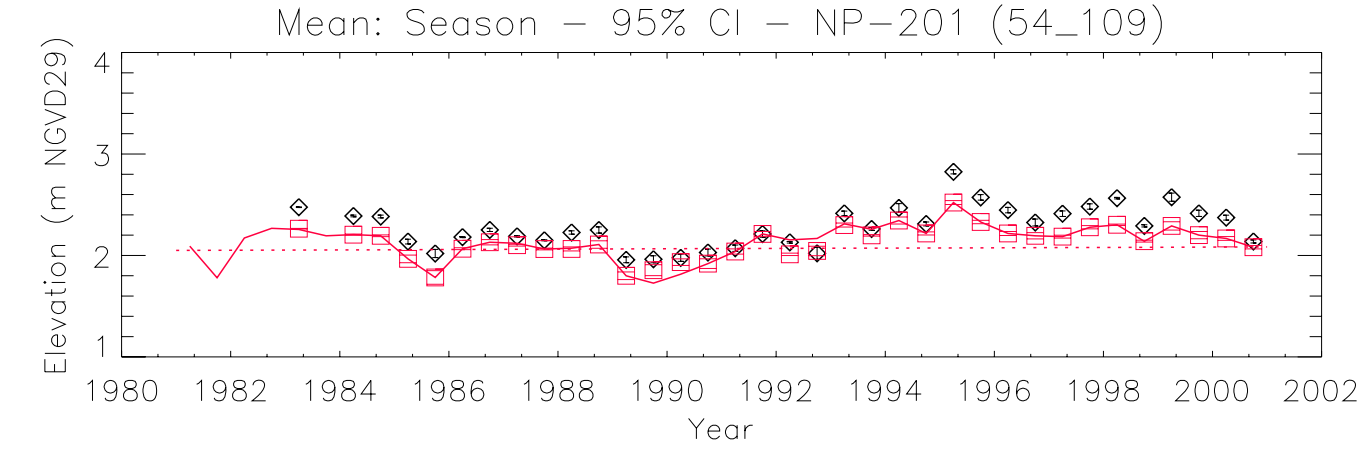

ELM2.5 Raw Data (Obs. N = 6228) – NESRS2 (71_108)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

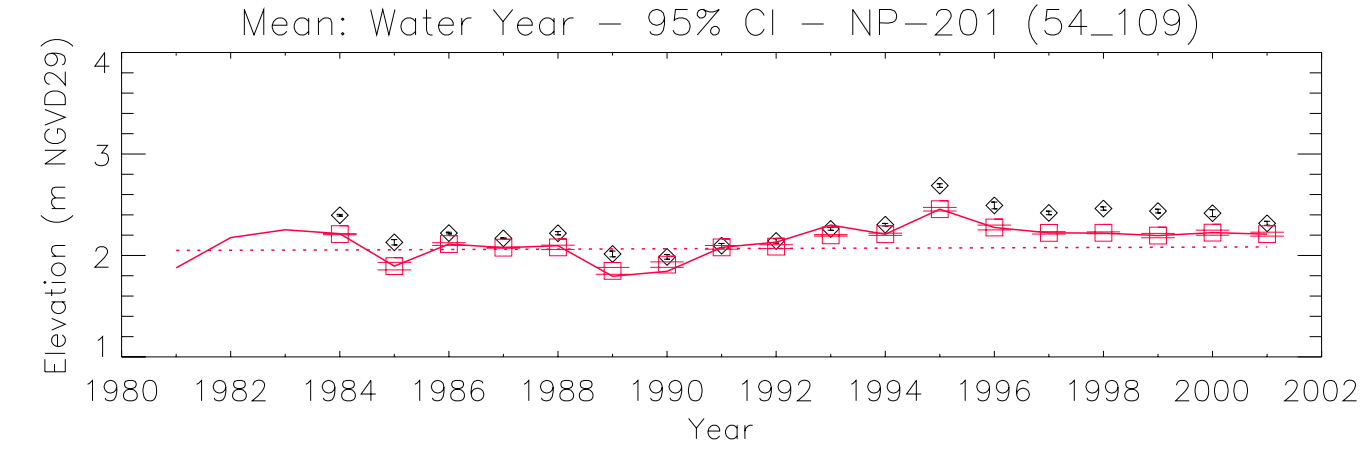

Mean: Season – 95% CI – NESRS2 (71_108)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

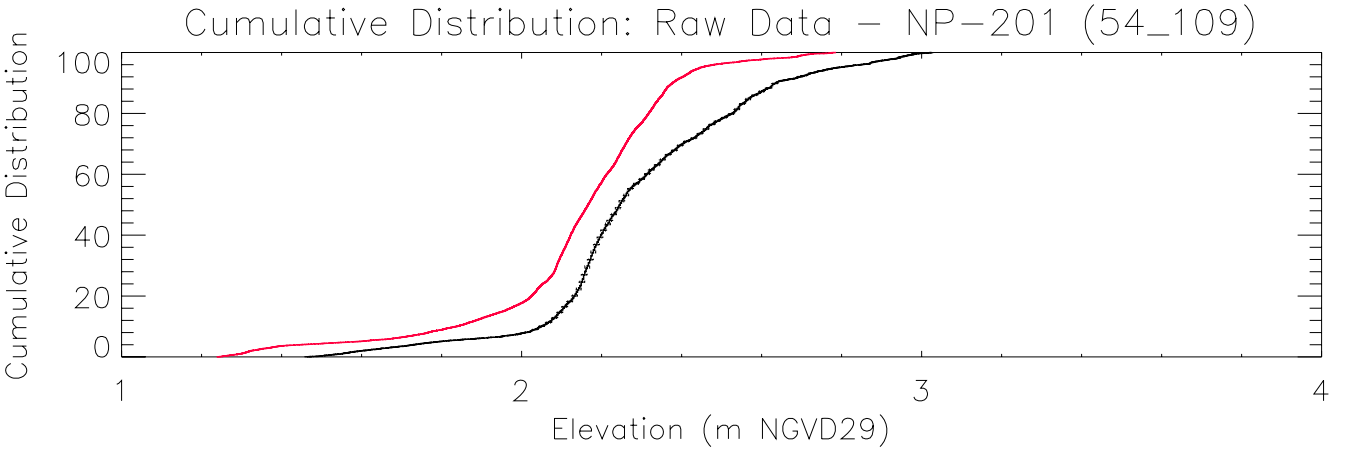

Mean: Water Year – 95% CI – NESRS2 (71_108)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

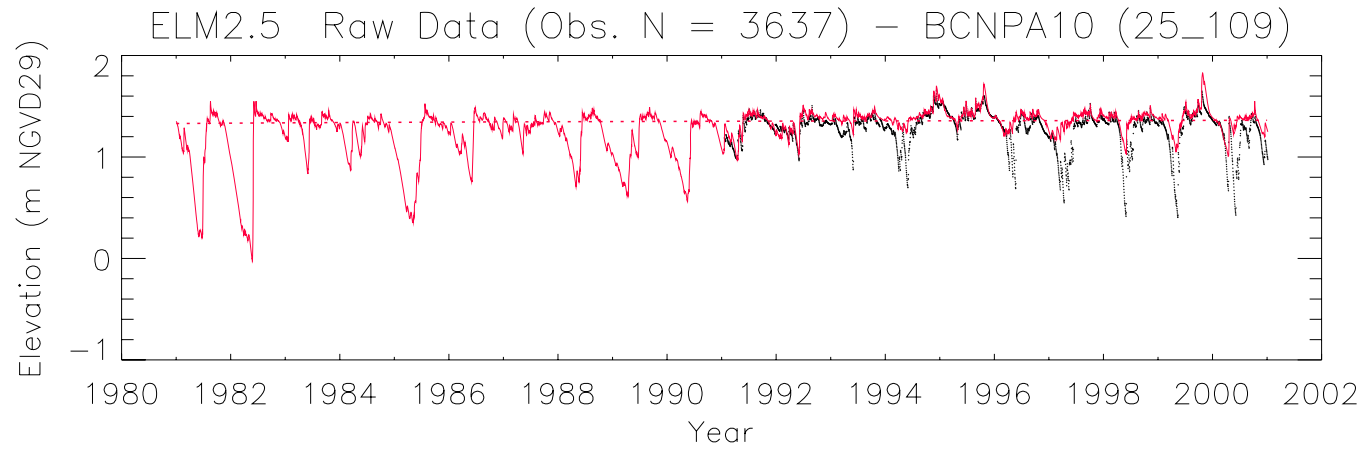

Cumulative Distribution: Raw Data – NESRS2 (71_108)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)

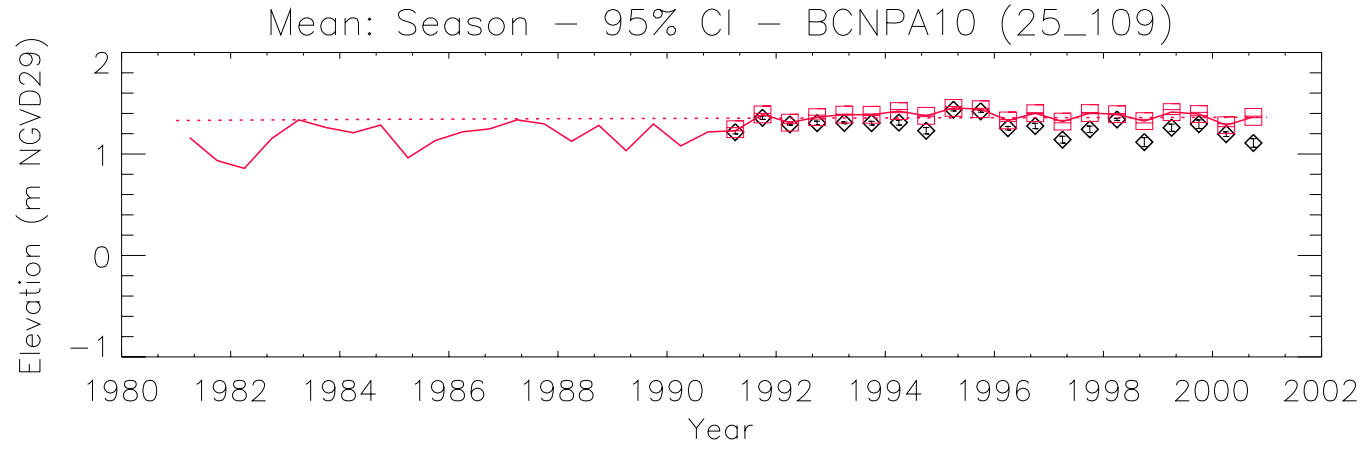

ELM2.5 Raw Data (Obs. N = 5723) – NP–201 (54_109)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

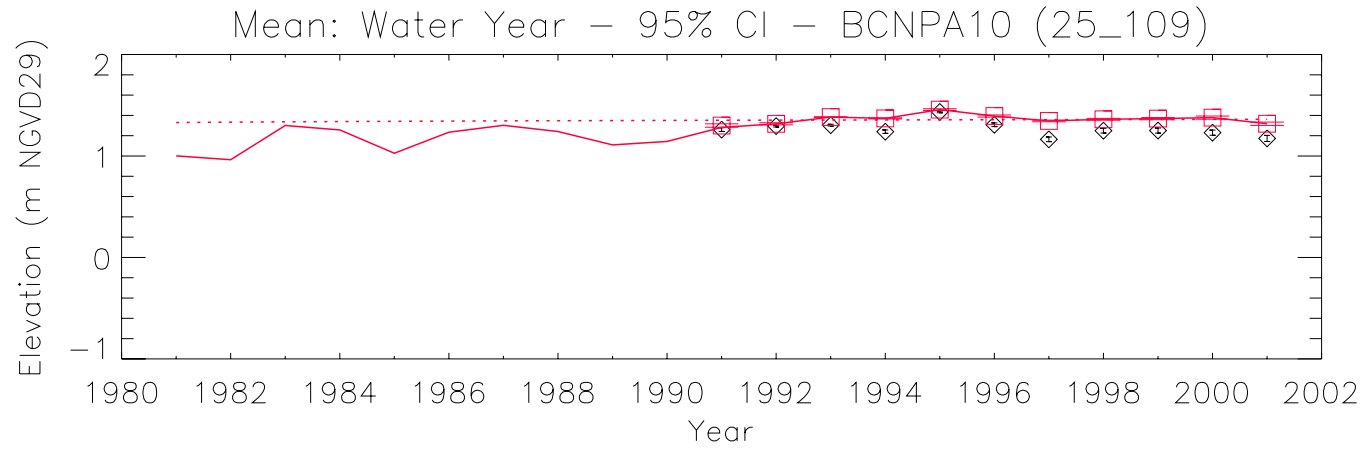

Mean: Season – 95% CI – NP–201 (54_109)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

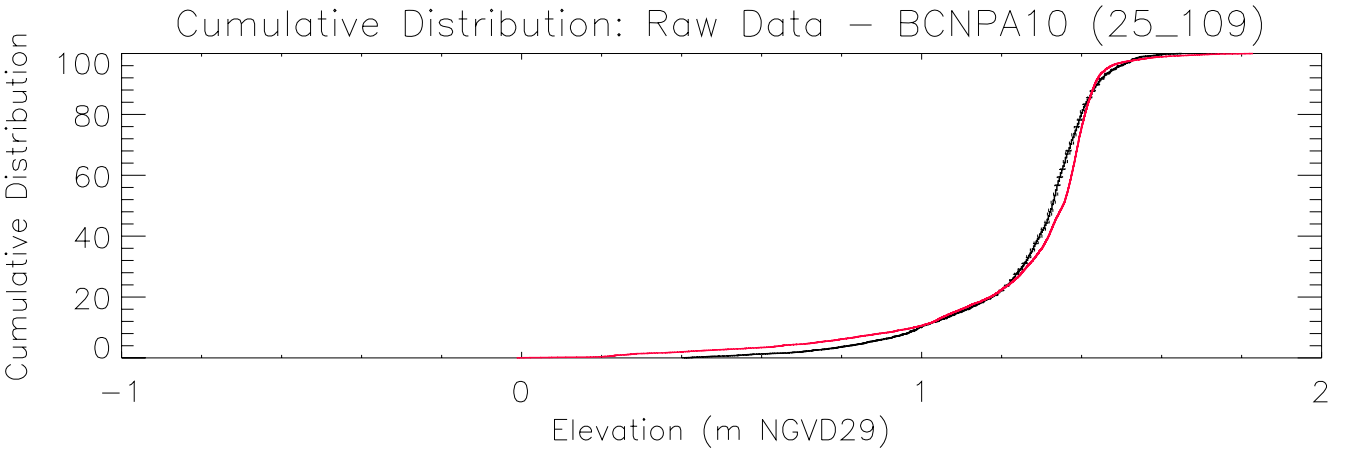

Mean: Water Year – 95% CI – NP–201 (54_109)
Elevation (m NGVD29)
1
2
3
4
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

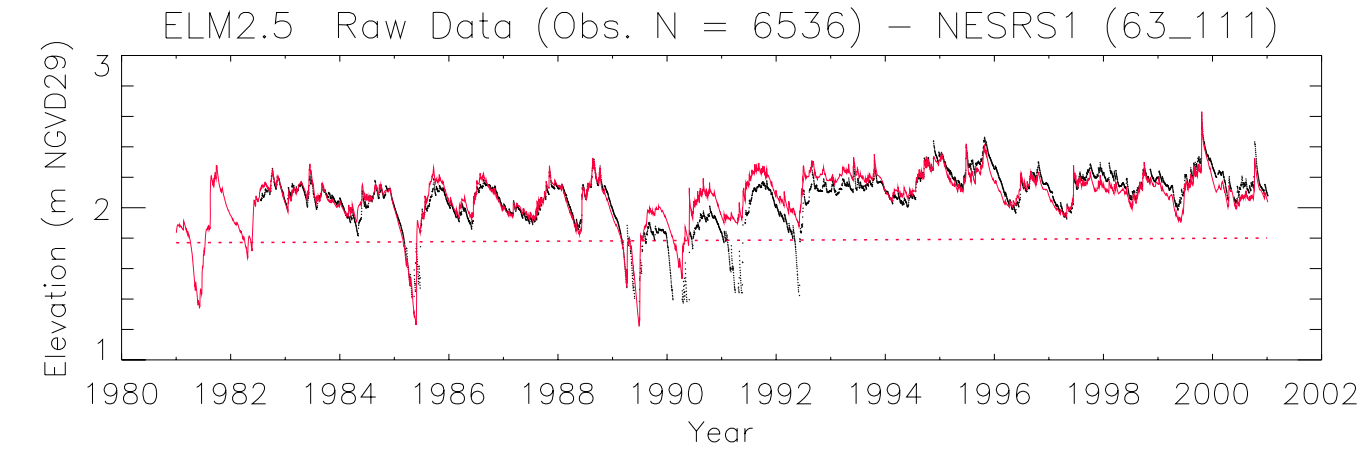

Cumulative Distribution: Raw Data – NP–201 (54_109)
Cumulative Distribution
0
20
40
60
80
100
1
2
3
4
Elevation (m NGVD29)

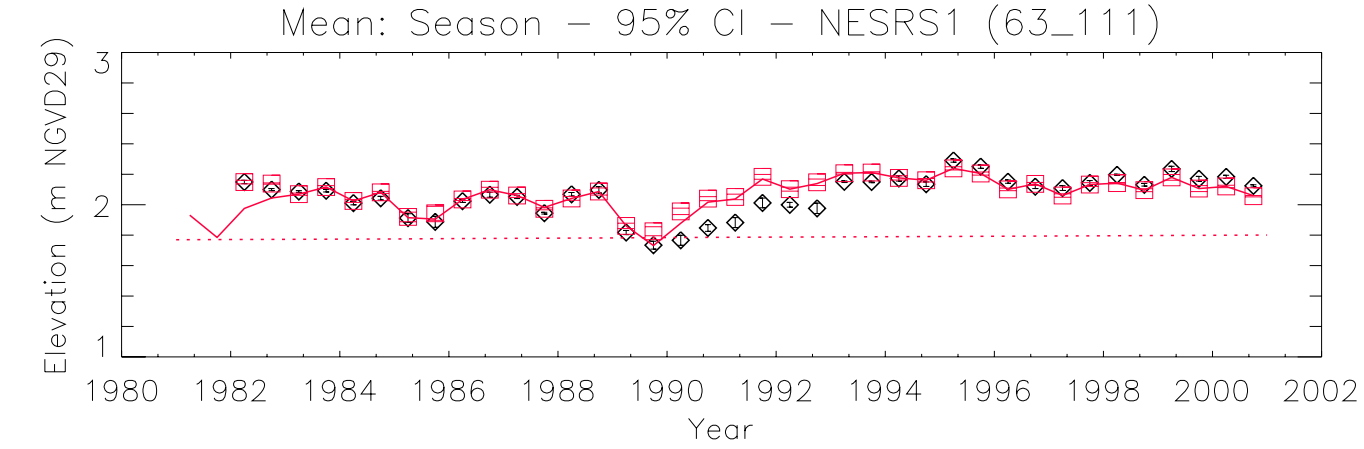

ELM2.5 Raw Data (Obs. N = 3637) – BCNPA10 (25_109)
Elevation (m NGVD29)
2
1
0
−1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

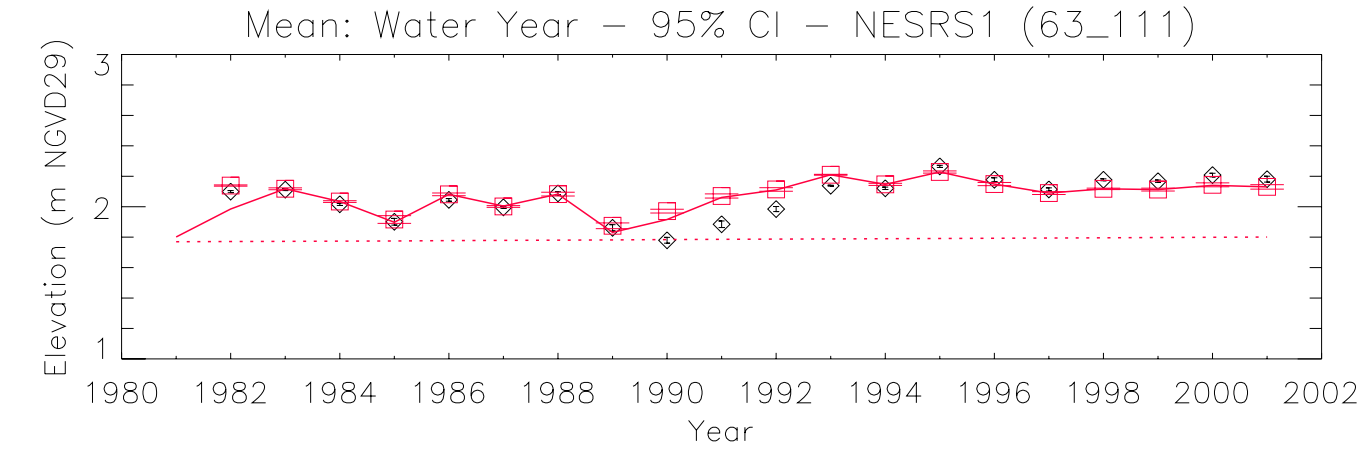

Mean: Season – 95% CI – BCNPA10 (25_109)
Elevation (m NGVD29)
2
1
0
−1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

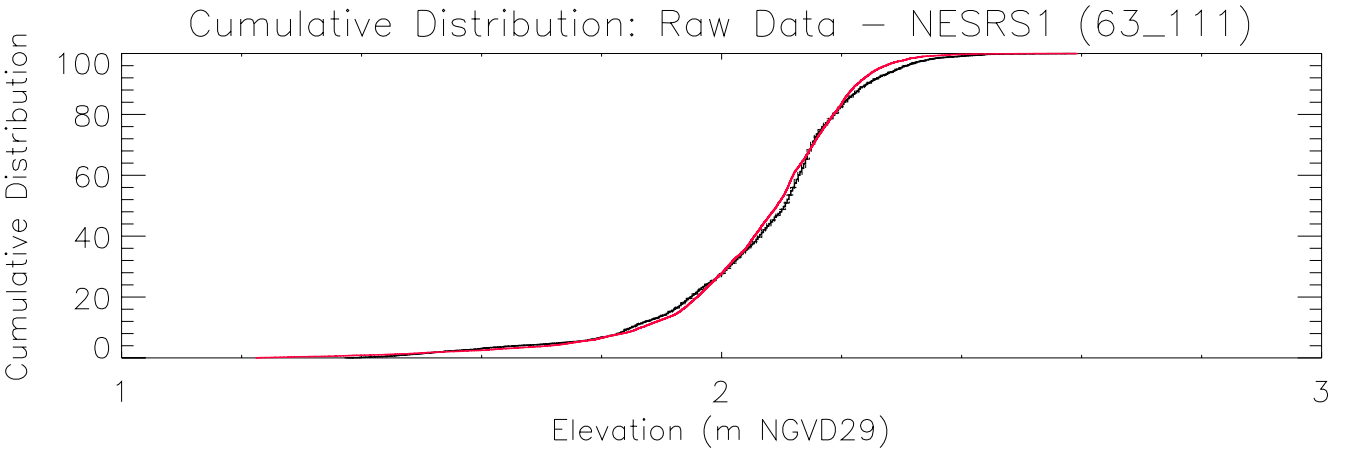

Mean: Water Year – 95% CI – BCNPA10 (25_109)
Elevation (m NGVD29)
2
1
0
−1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

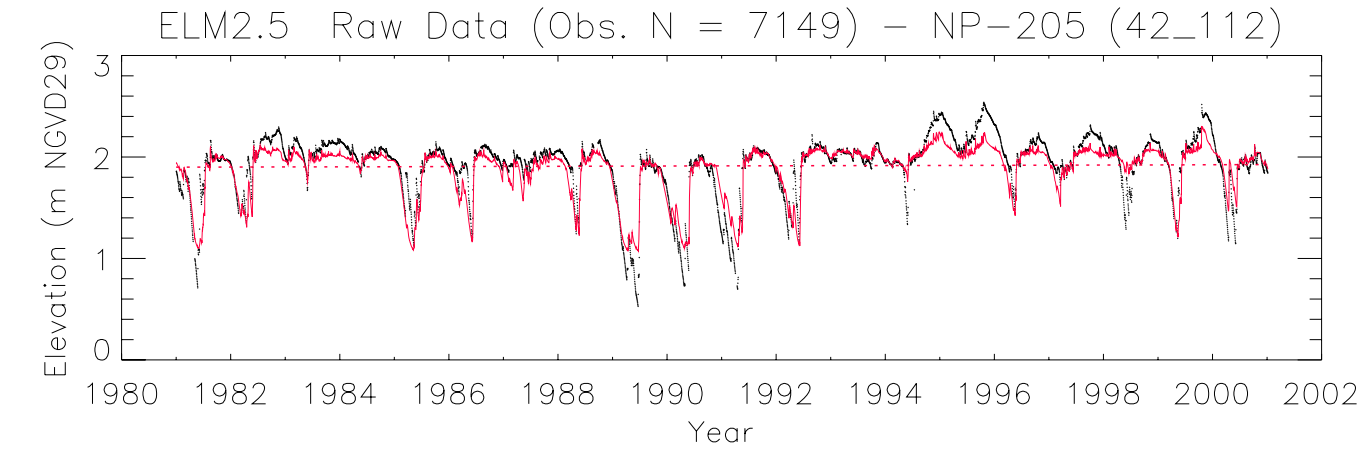

Cumulative Distribution: Raw Data – BCNPA10 (25_109)
Cumulative Distribution
100
80
60
40
20
0
−1
0
1
2
Elevation (m NGVD29)

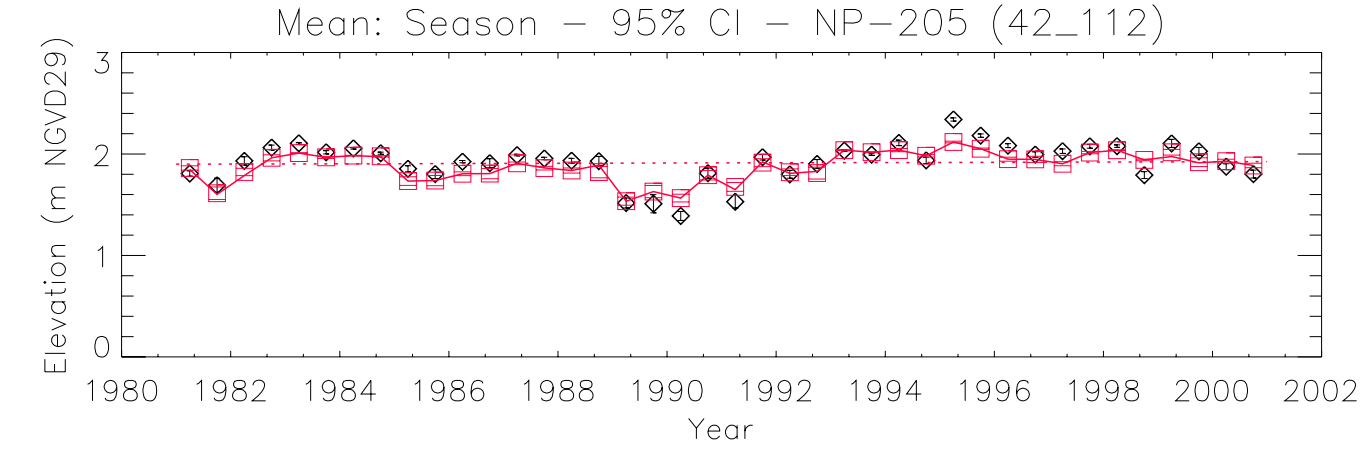

ELM2.5 Raw Data (Obs. N = 6536) – NESRS1 (63_111)
Elevation (m NGVD29)
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

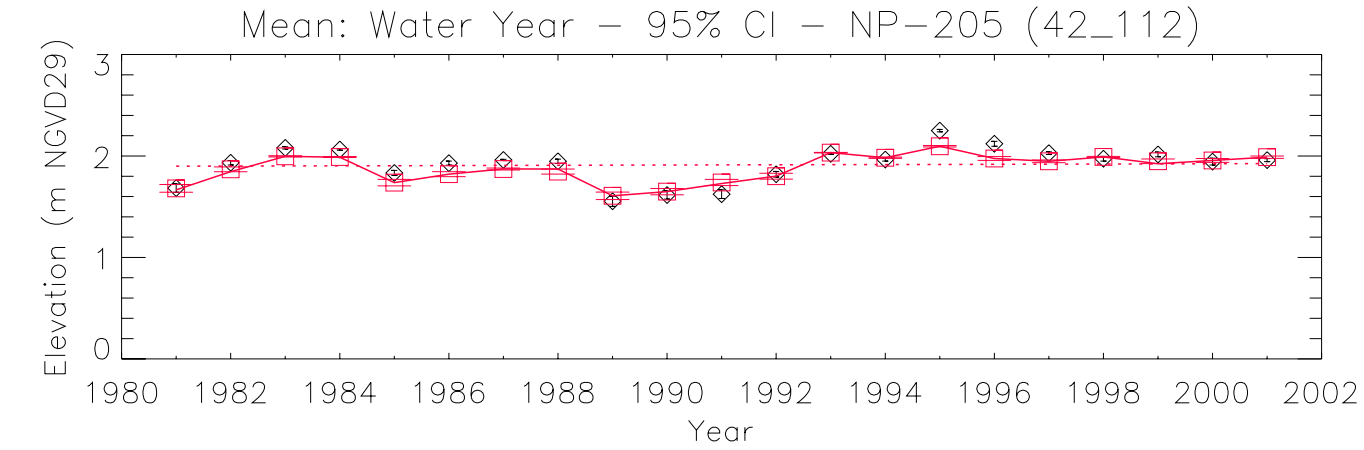

Mean: Season – 95% CI – NESRS1 (63_111)
Elevation (m NGVD29)
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

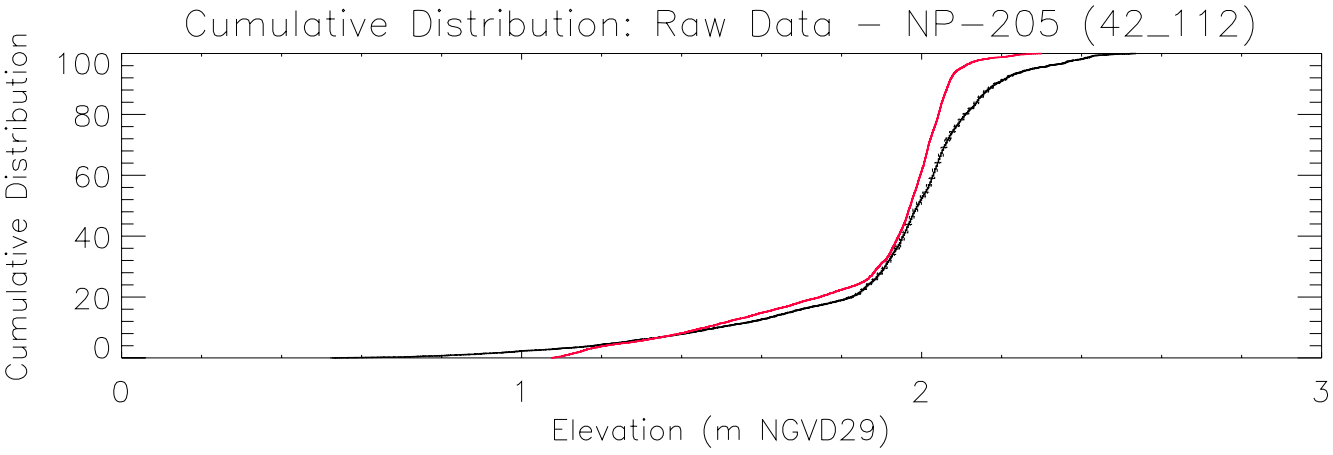

Mean: Water Year – 95% CI – NESRS1 (63_111)
Elevation (m NGVD29)
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

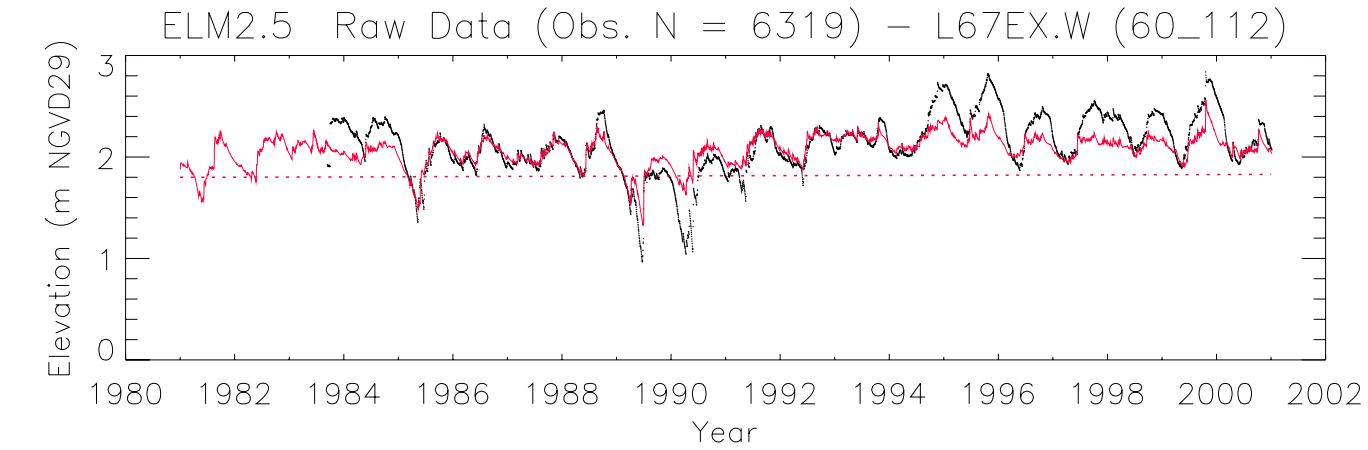

Cumulative Distribution: Raw Data – NESRS1 (63_111)
Cumulative Distribution
0
20
40
60
80
100
1
2
3
Elevation (m NGVD29)

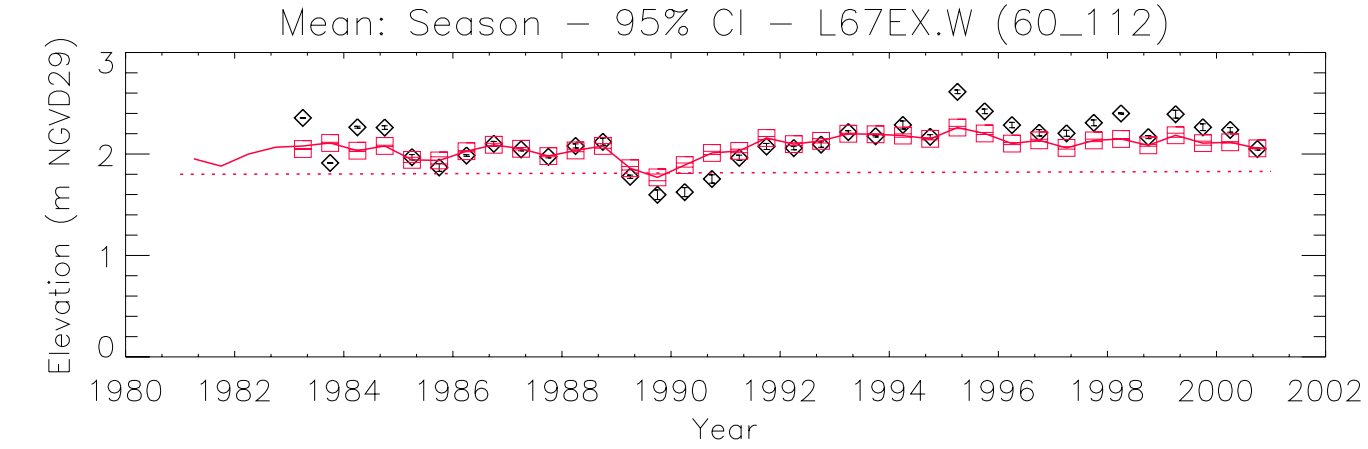

ELM2.5 Raw Data (Obs. N = 7149) – NP–205 (42_112)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

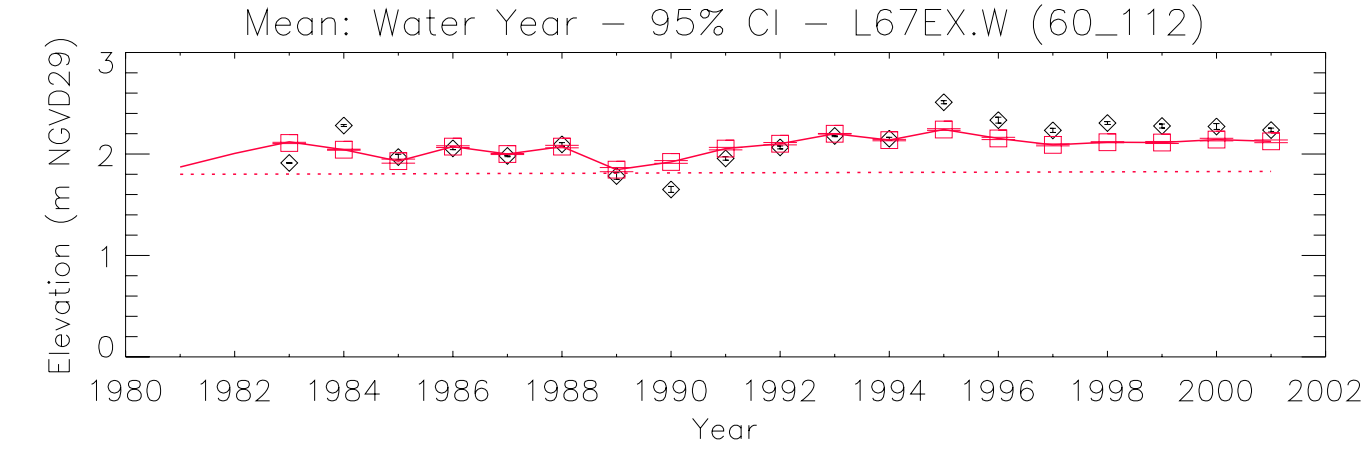

Mean: Season – 95% CI – NP–205 (42_112)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

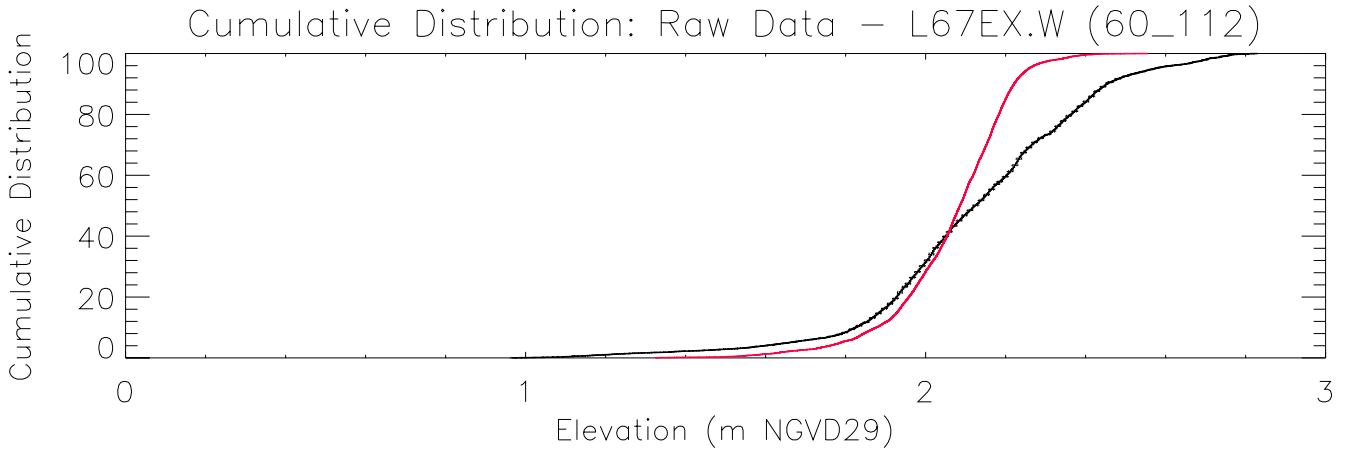

Mean: Water Year – 95% CI – NP–205 (42_112)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

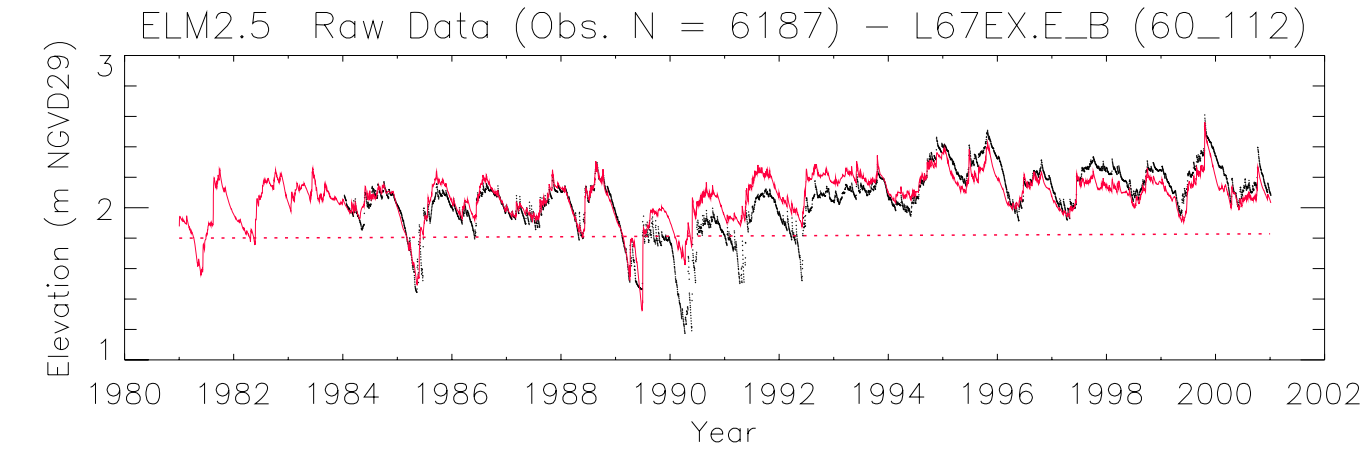

Cumulative Distribution: Raw Data – NP–205 (42_112)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)

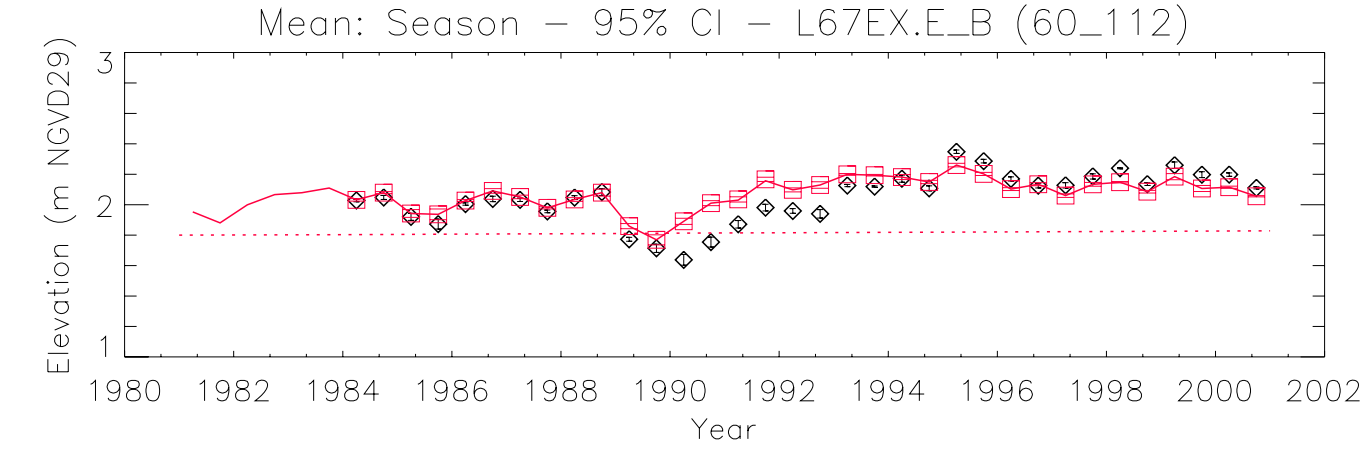

ELM2.5 Raw Data (Obs. N = 6319) – L67EX.W (60_112)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

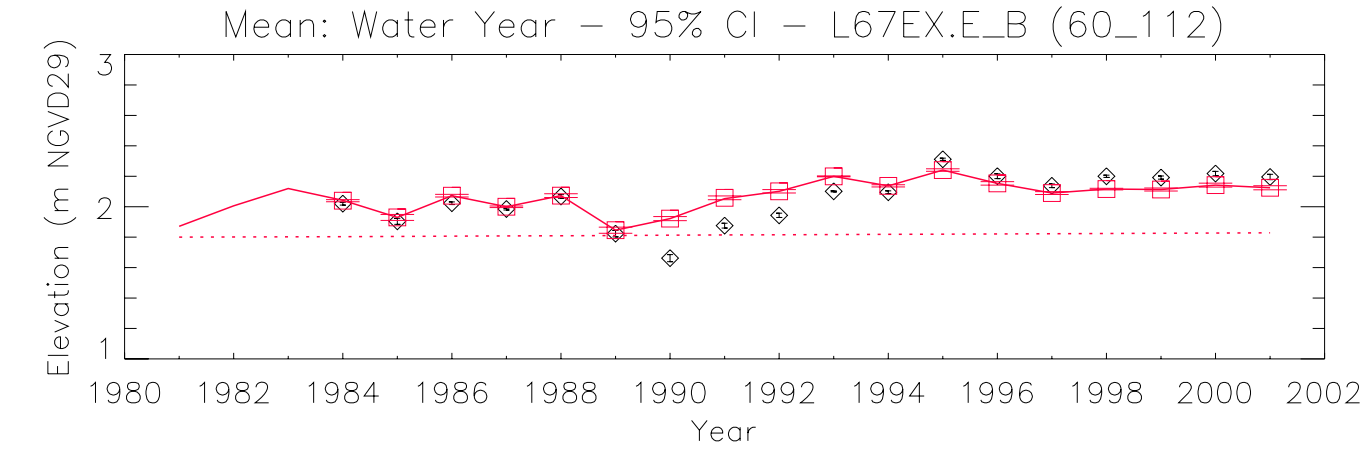

Mean: Season – 95% CI – L67EX.W (60_112)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

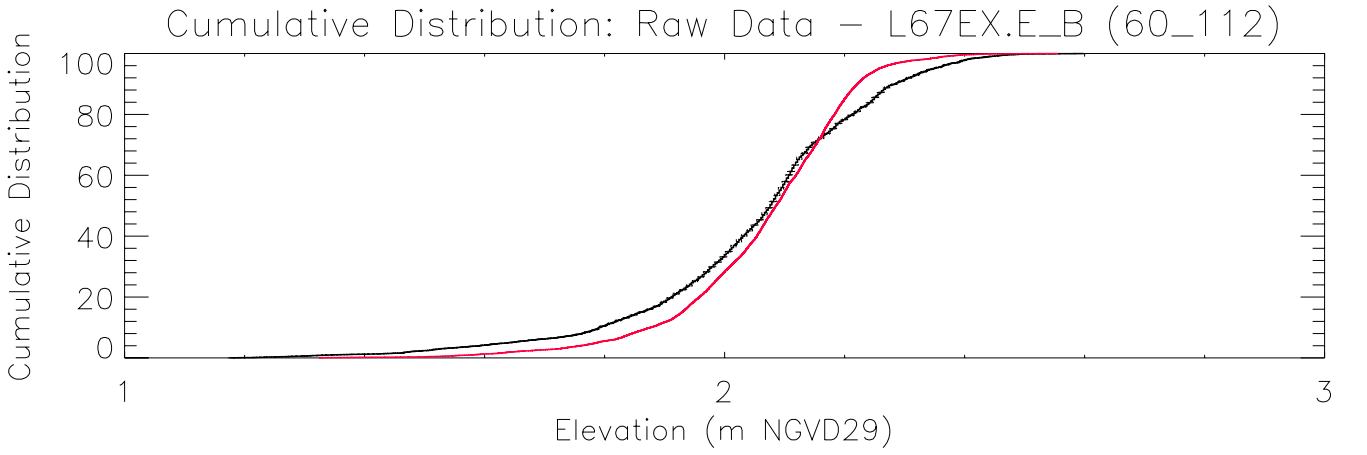

Mean: Water Year – 95% CI – L67EX.W (60_112)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

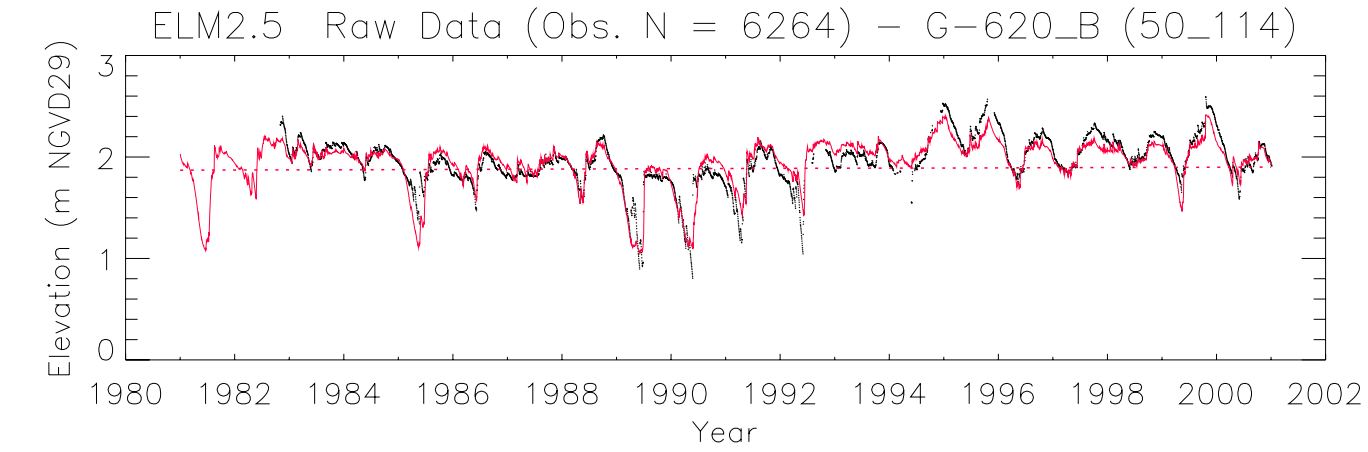

Cumulative Distribution: Raw Data – L67EX.W (60_112)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)

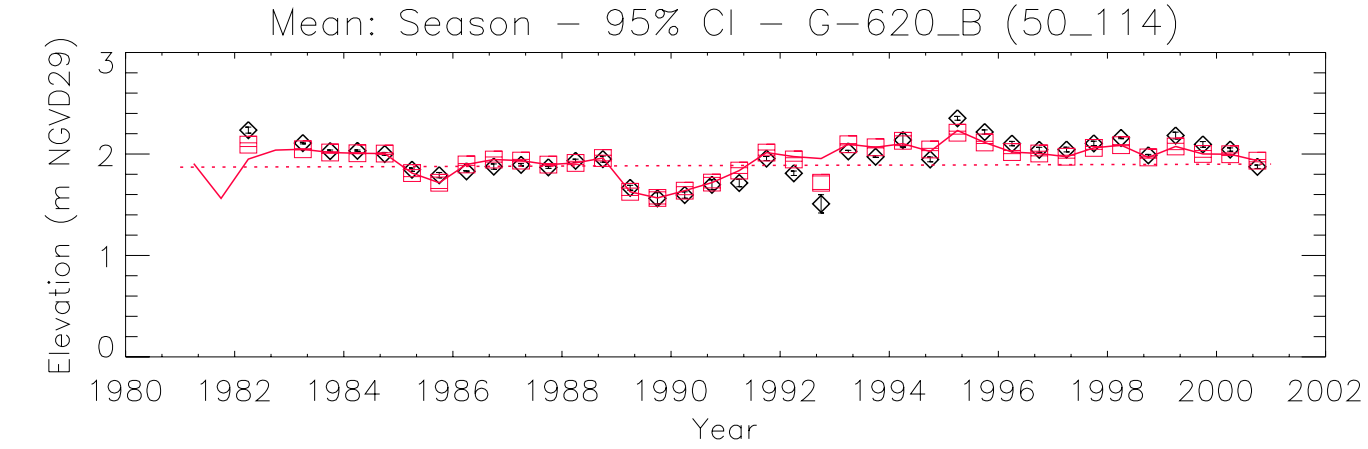

ELM2.5 Raw Data (Obs. N = 6187) – L67EX.E_B (60_112)
Elevation (m NGVD29)
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

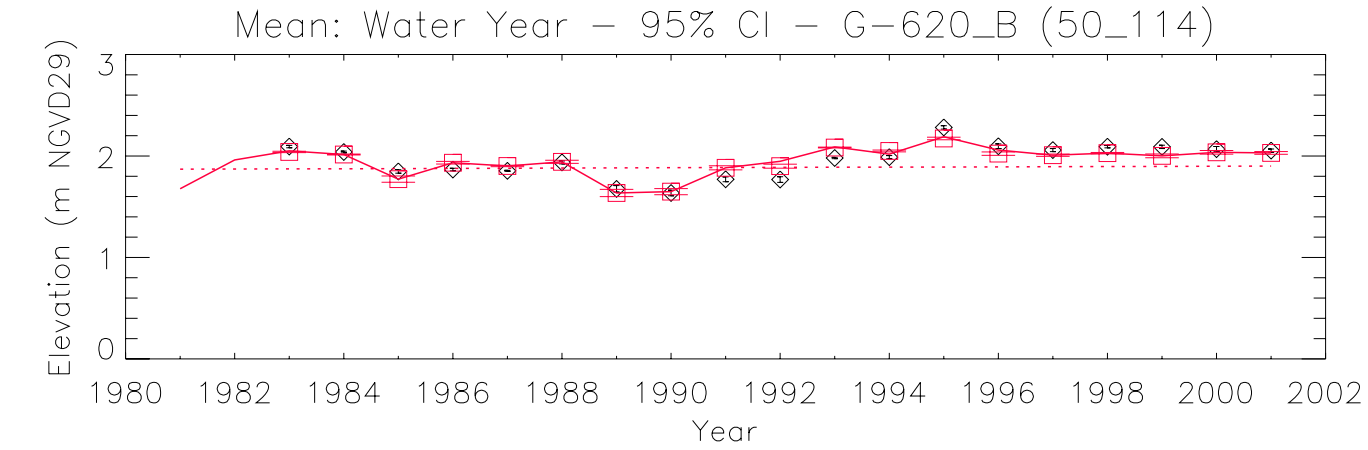

Mean: Season – 95% CI – L67EX.E_B (60_112)
Elevation (m NGVD29)
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

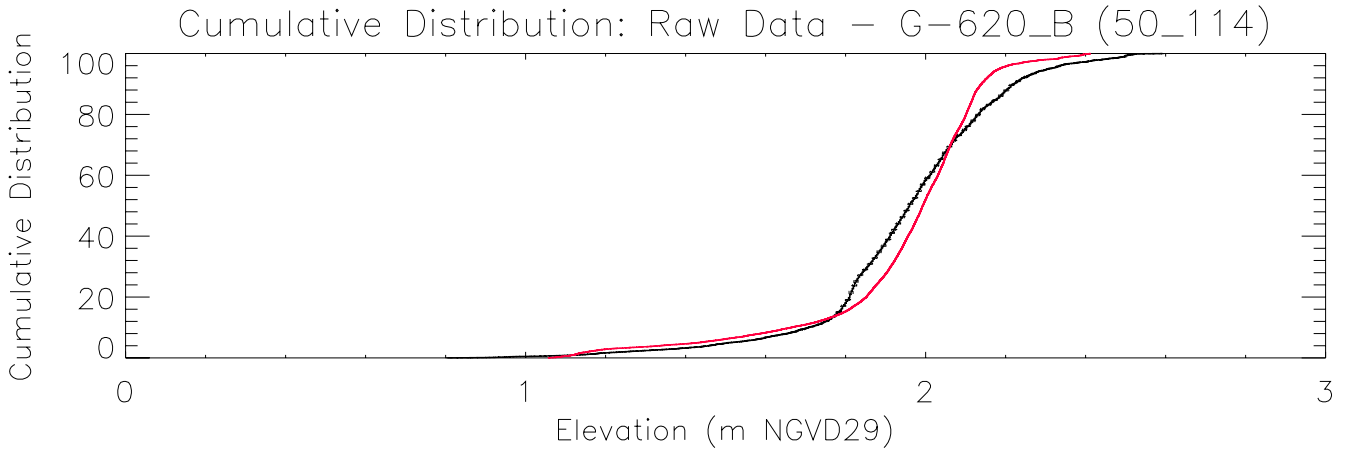

Mean: Water Year – 95% CI – L67EX.E_B (60_112)
Elevation (m NGVD29)
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – L67EX.E_B (60_112)
Cumulative Distribution
0
20
40
60
80
100
1
2
3
Elevation (m NGVD29)


ELM2.5 Raw Data (Obs. N = 6264) – G–620_B (50_114)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Season – 95% CI – G–620_B (50_114)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – G–620_B (50_114)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – G–620_B (50_114)
Cumulative Distribution
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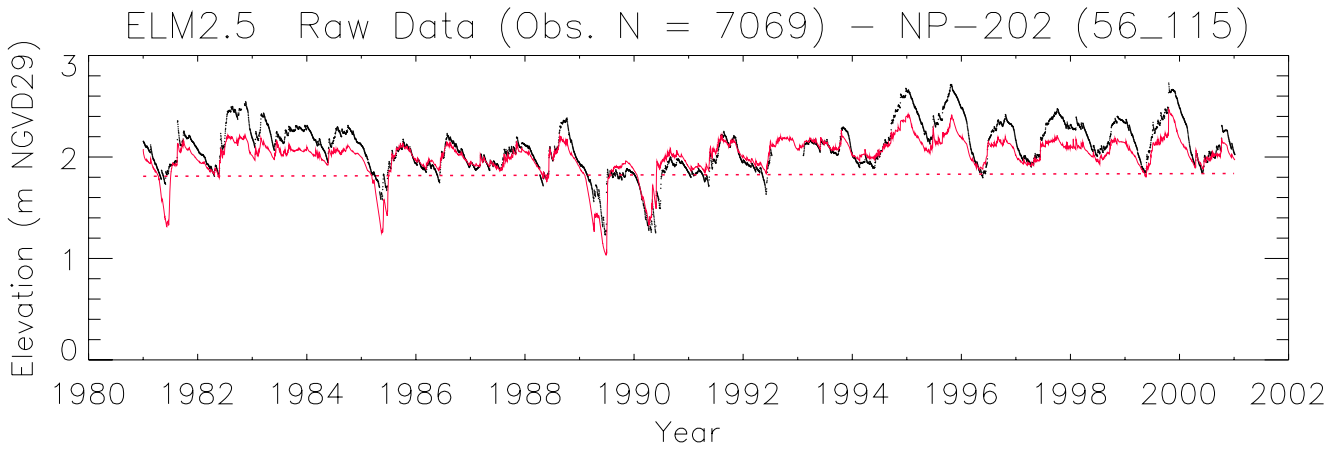
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)


ELM2.5 Raw Data (Obs. N = 7069) – NP–202 (56_115)
Elevation (m NGVD29)
0
1
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3
1980
1982
1984
1986
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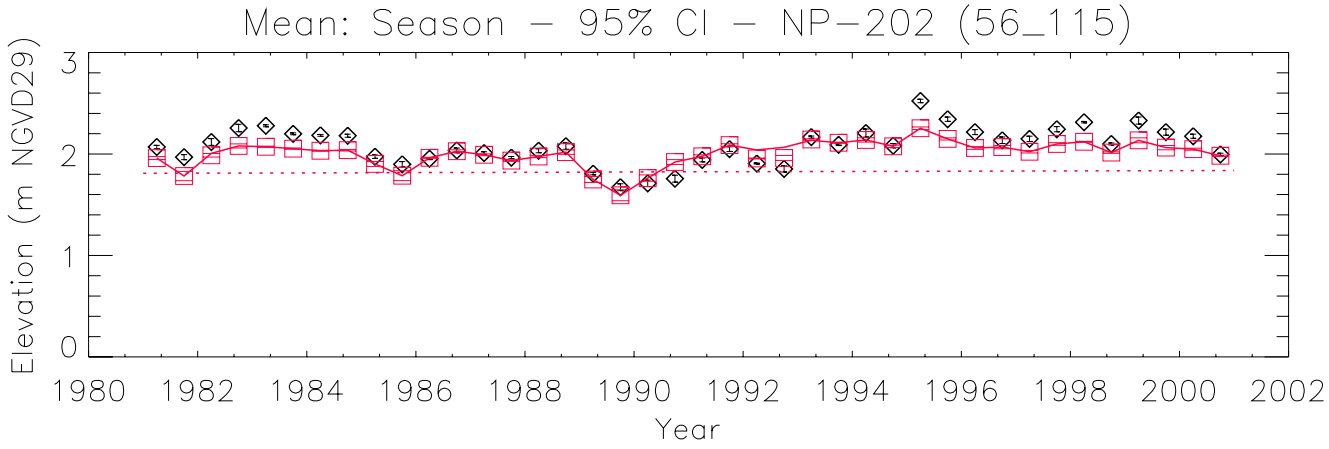
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Season – 95% CI – NP–202 (56_115)
Elevation (m NGVD29)
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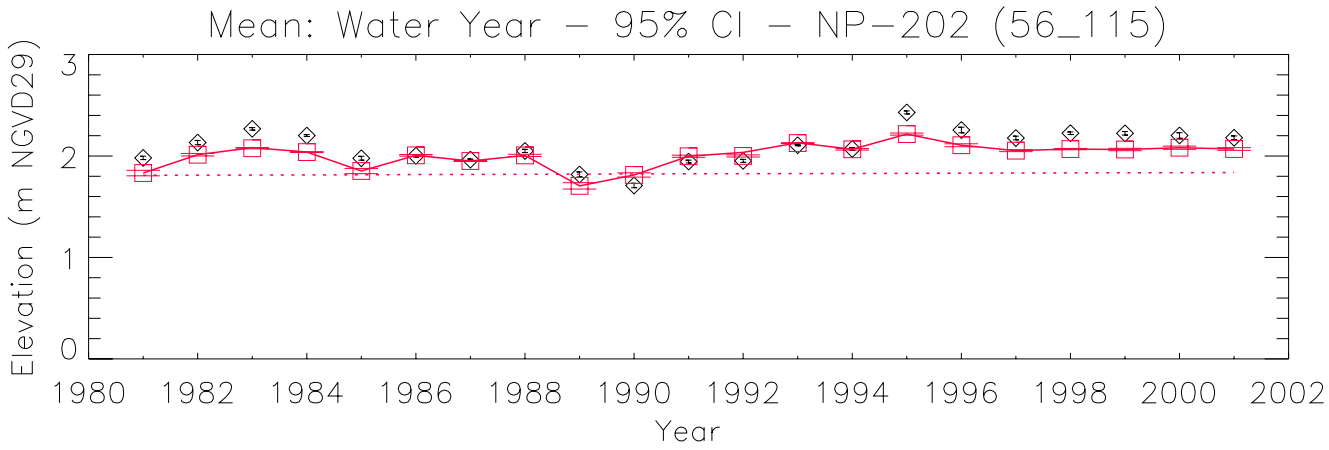
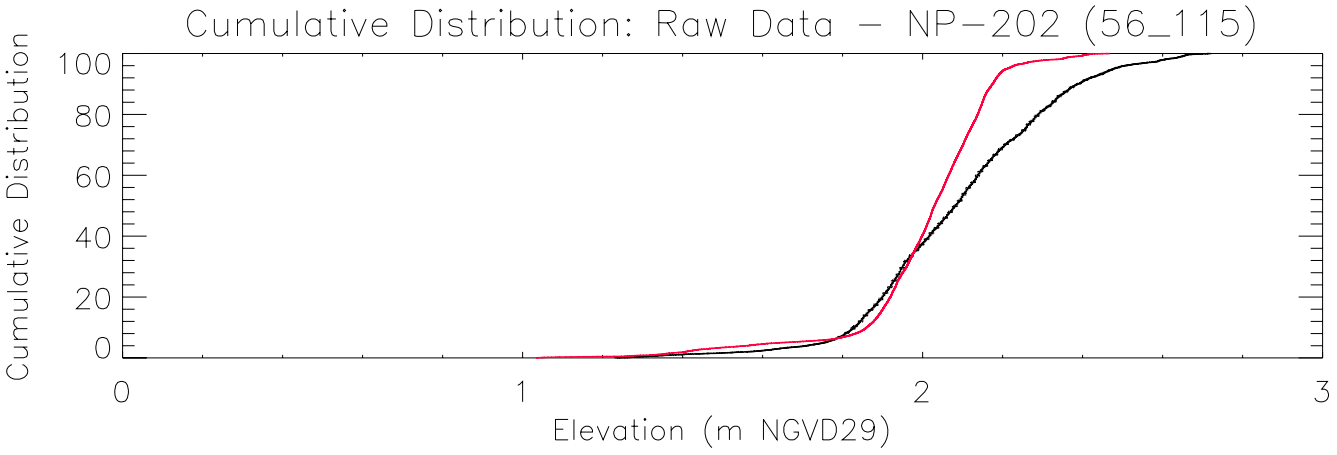
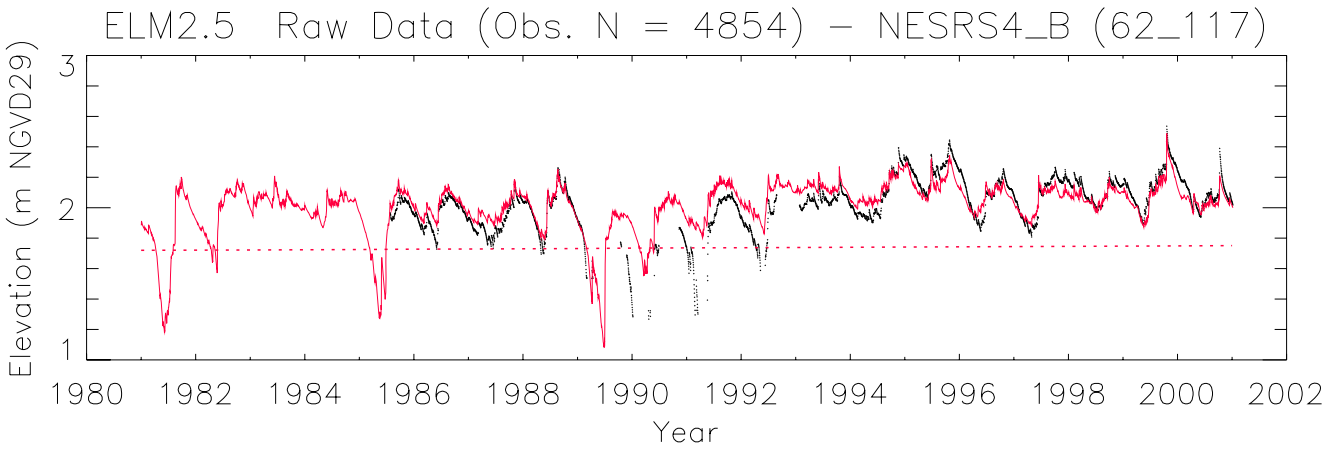
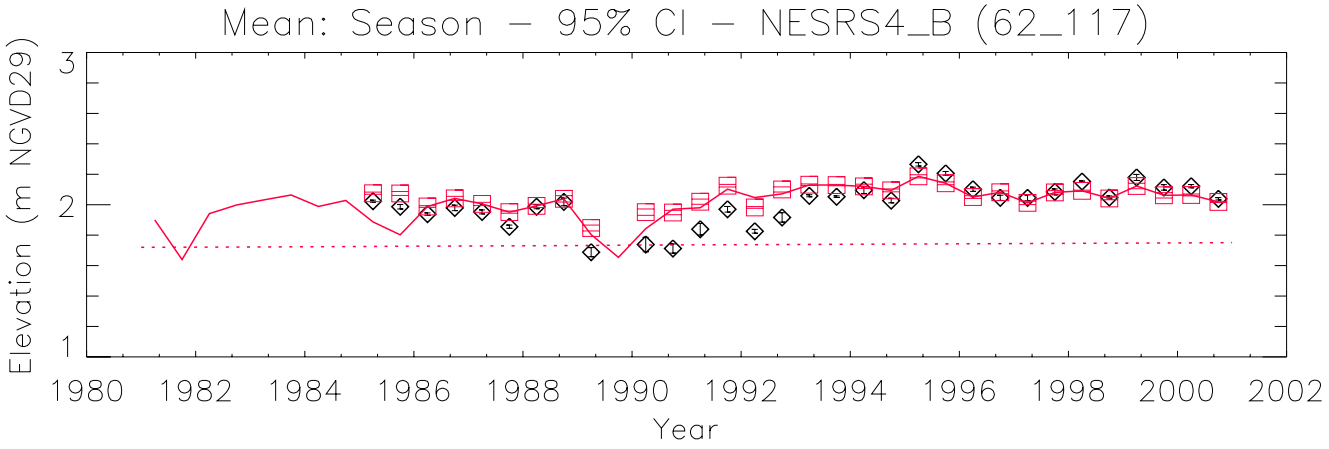
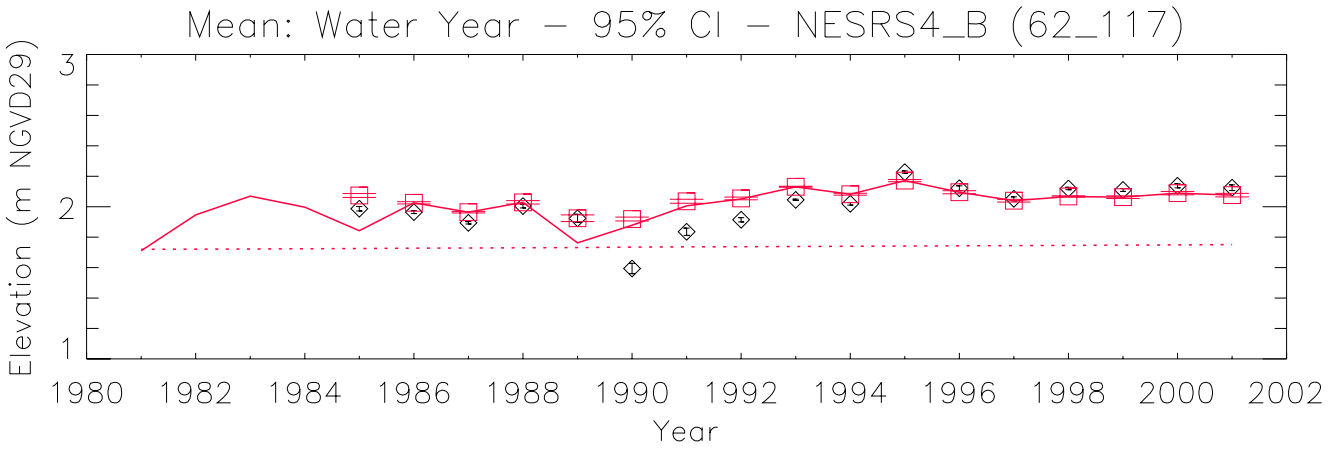
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

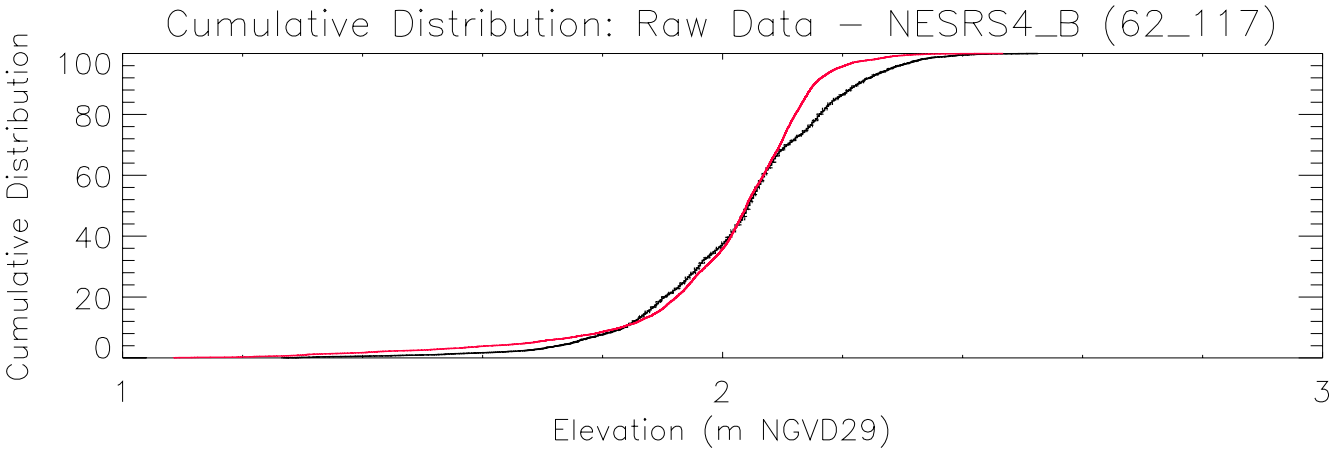

Mean: Water Year – 95% CI – NP–202 (56_115)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

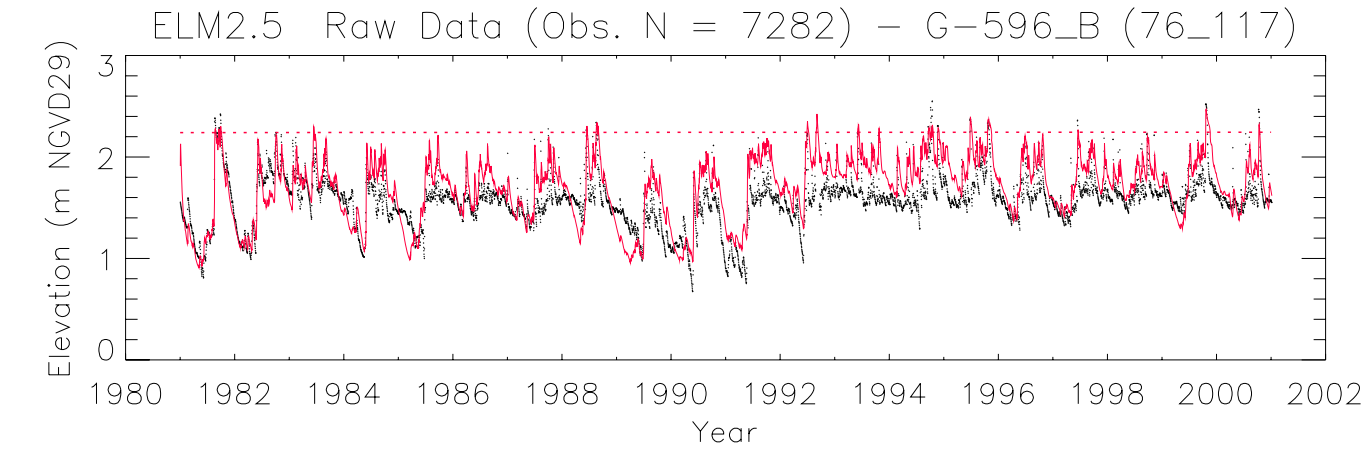

Cumulative Distribution: Raw Data – NP–202 (56_115)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)


ELM2.5 Raw Data (Obs. N = 4854) – NESRS4_B (62_117)
Elevation (m NGVD29)
3
2
1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year


Mean: Season – 95% CI – NESRS4_B (62_117)
Elevation (m NGVD29)
3
2
1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year


Mean: Water Year – 95% CI – NESRS4_B (62_117)
Elevation (m NGVD29)
3
2
1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year


Cumulative Distribution: Raw Data – NESRS4_B (62_117)
Cumulative Distribution
100
80
60
40
20
0
1
2
3
Elevation (m NGVD29)


ELM2.5 Raw Data (Obs. N = 7282) – G–596_B (76_117)
Elevation (m NGVD29)
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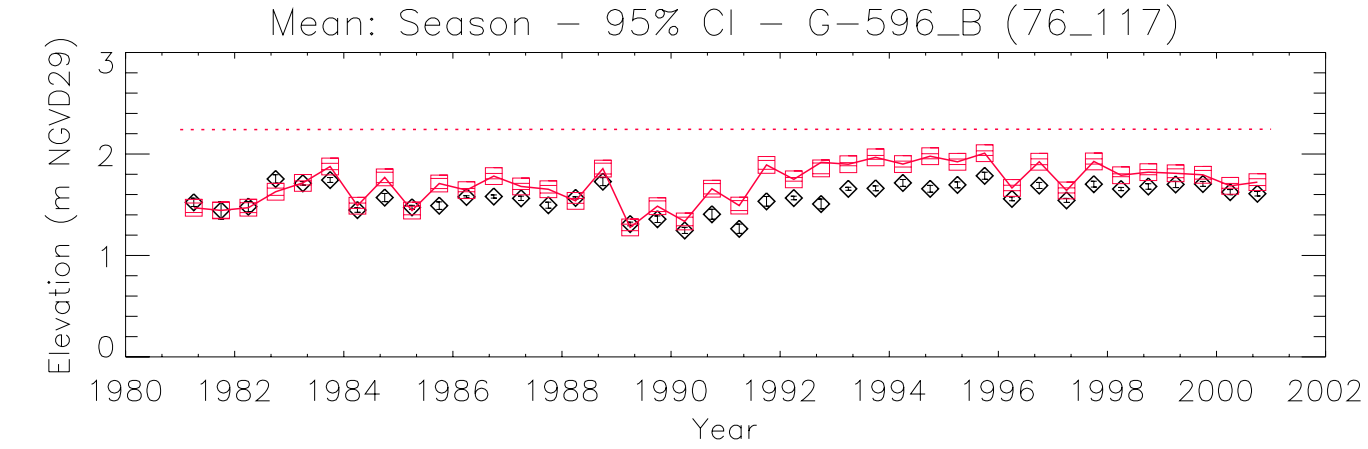
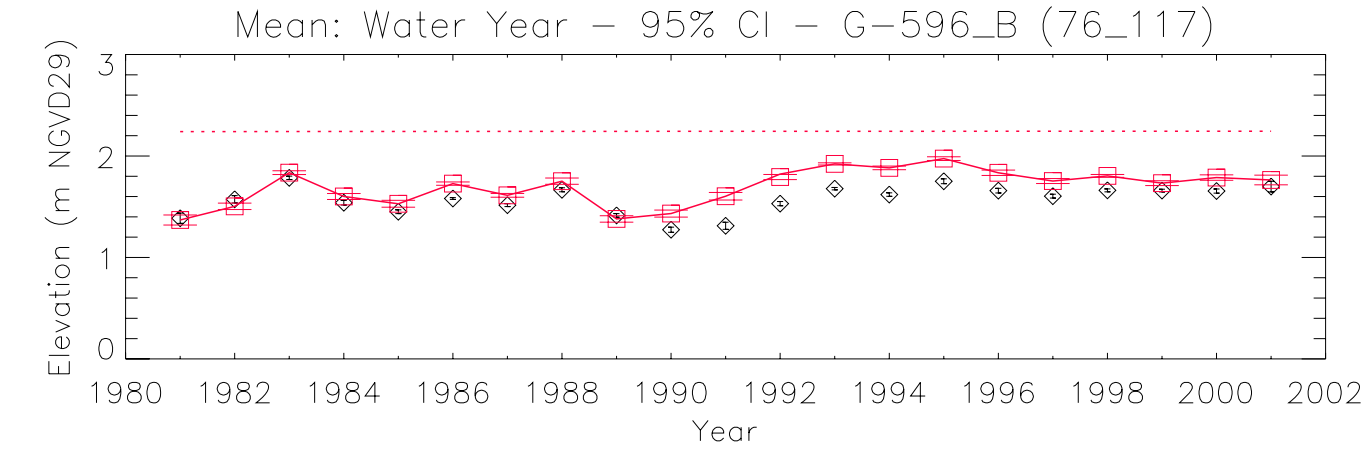
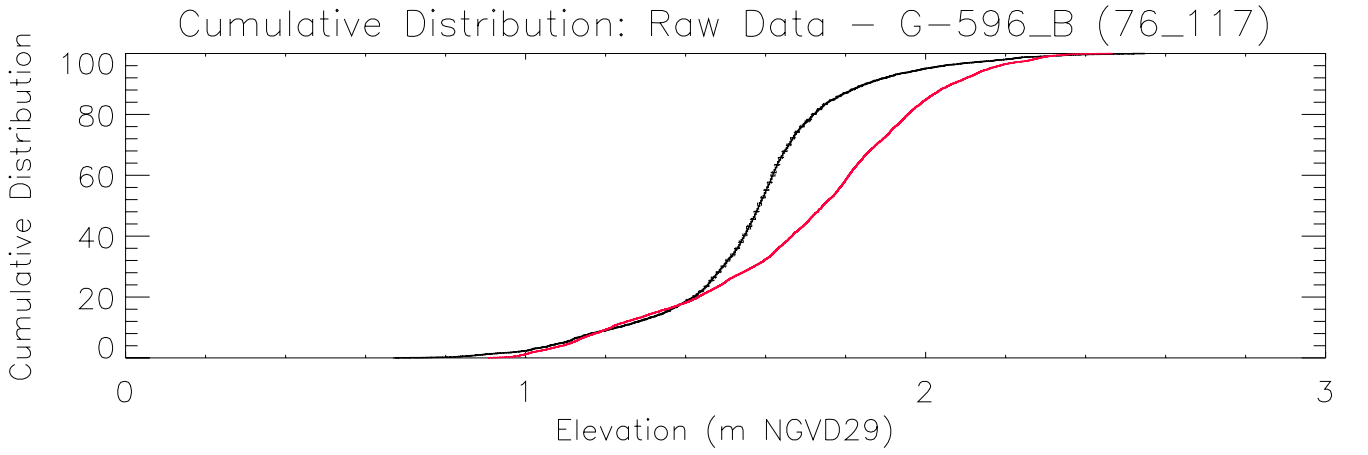
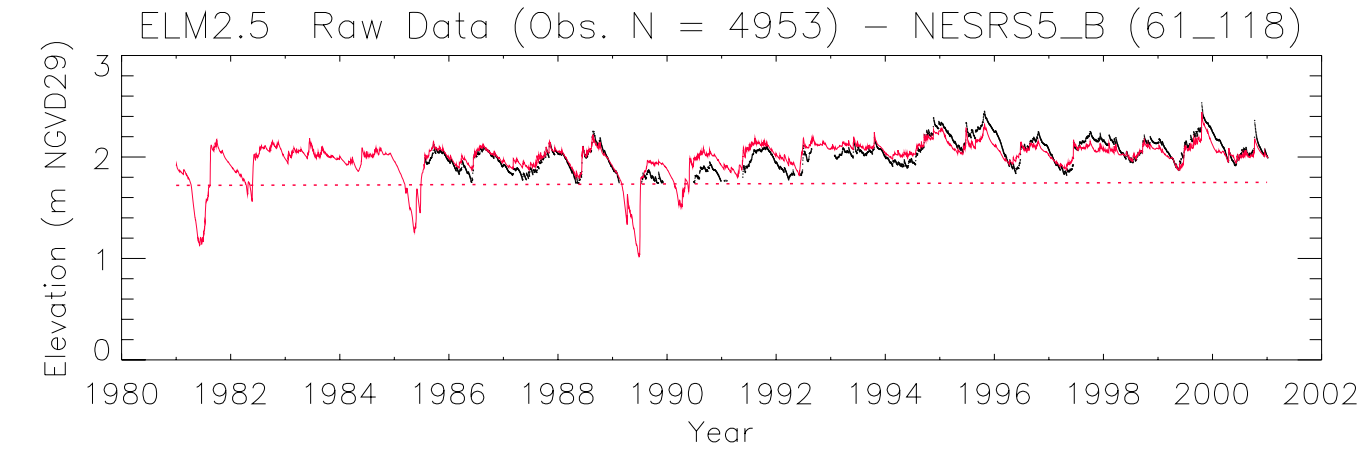
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Season – 95% CI – G–596_B (76_117)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – G–596_B (76_117)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – G–596_B (76_117)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)


ELM2.5 Raw Data (Obs. N = 4953) – NESRS5_B (61_118)
Elevation (m NGVD29)
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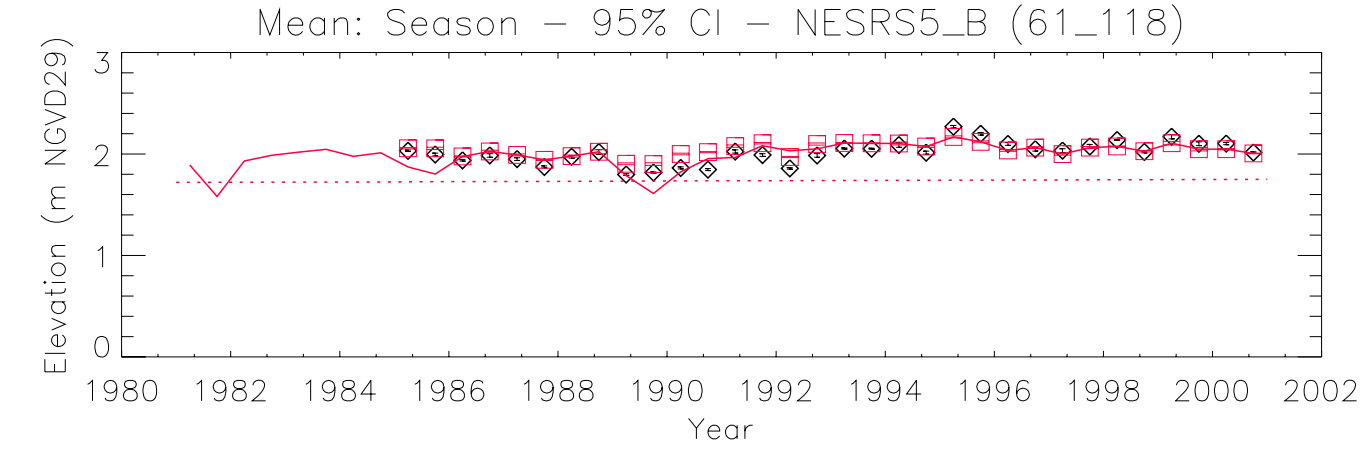
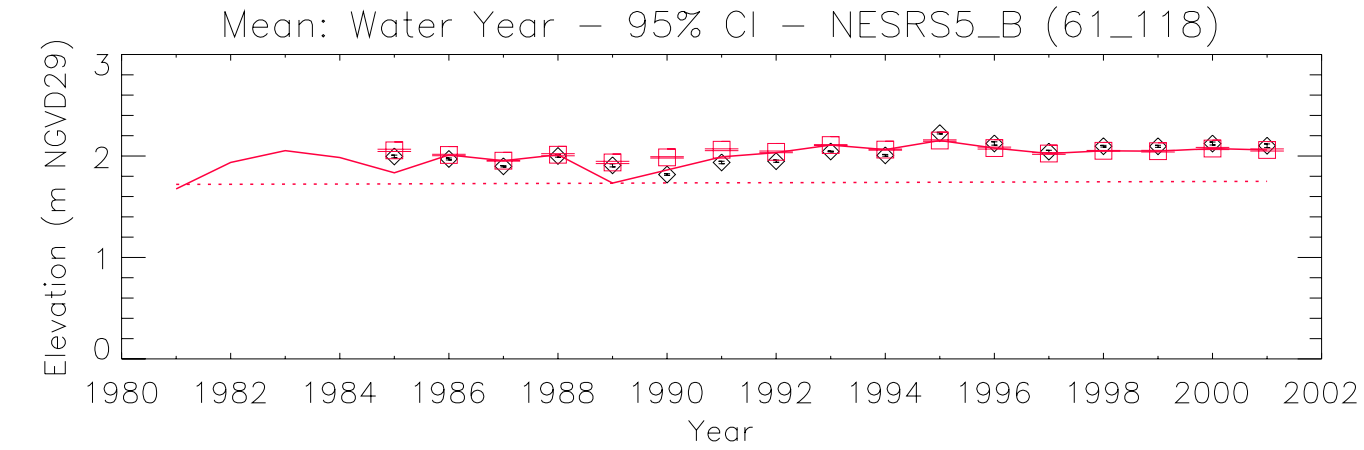
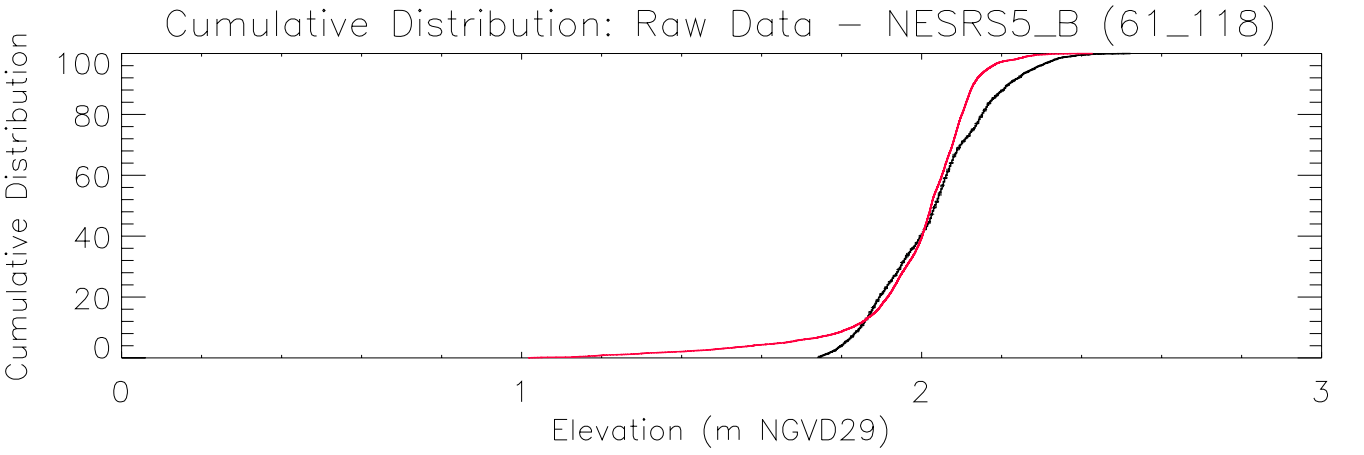
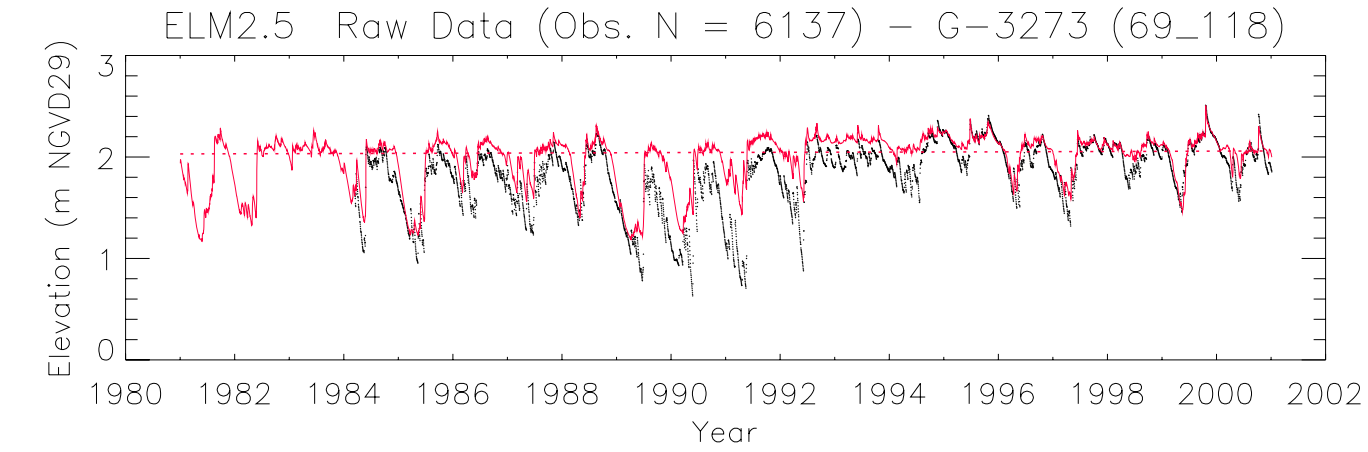
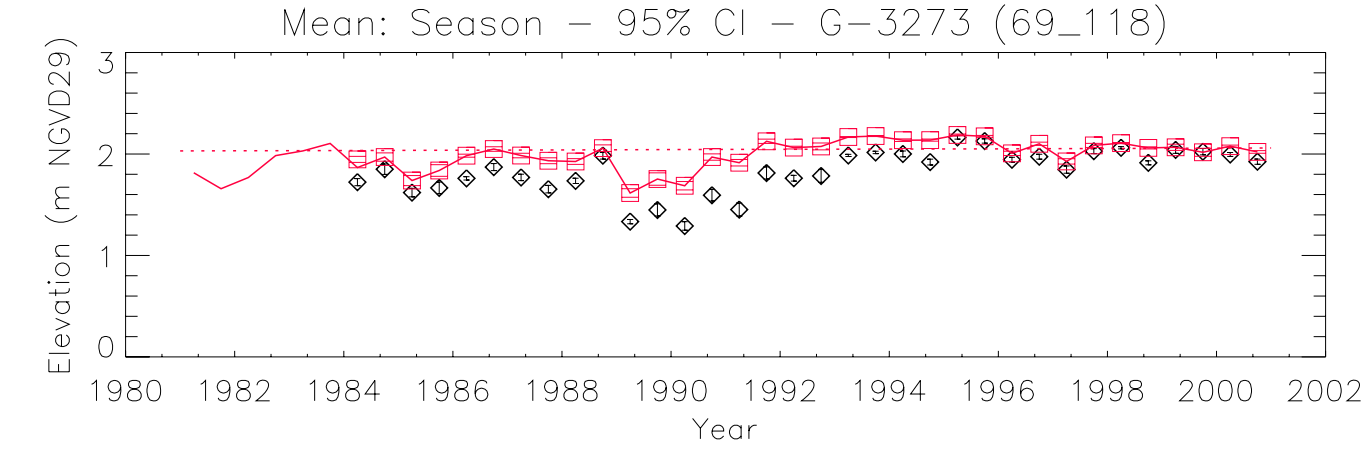
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

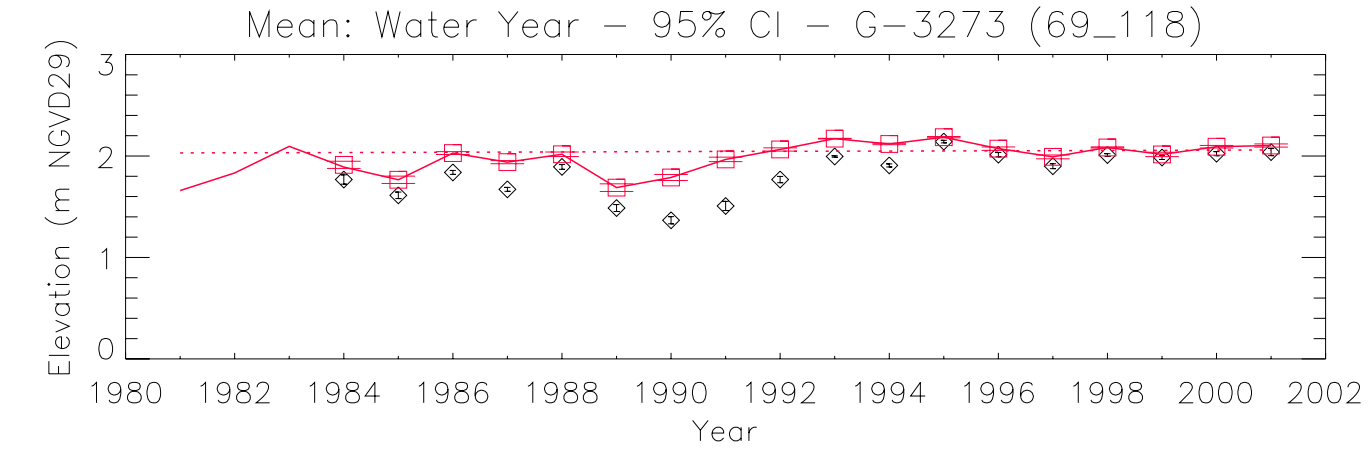

Mean: Season – 95% CI – NESRS5_B (61_118)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

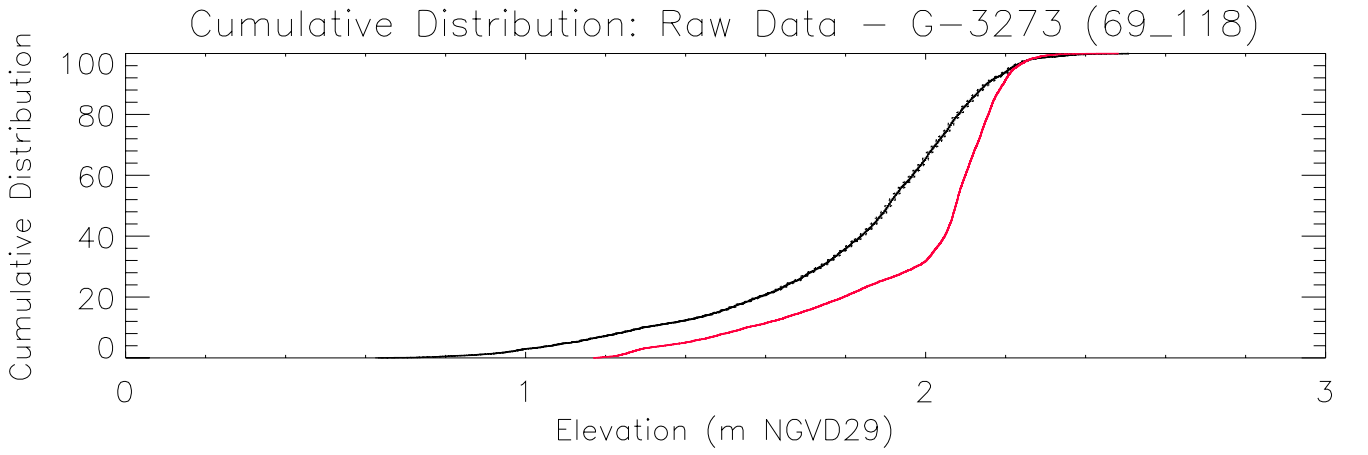

Mean: Water Year – 95% CI – NESRS5_B (61_118)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

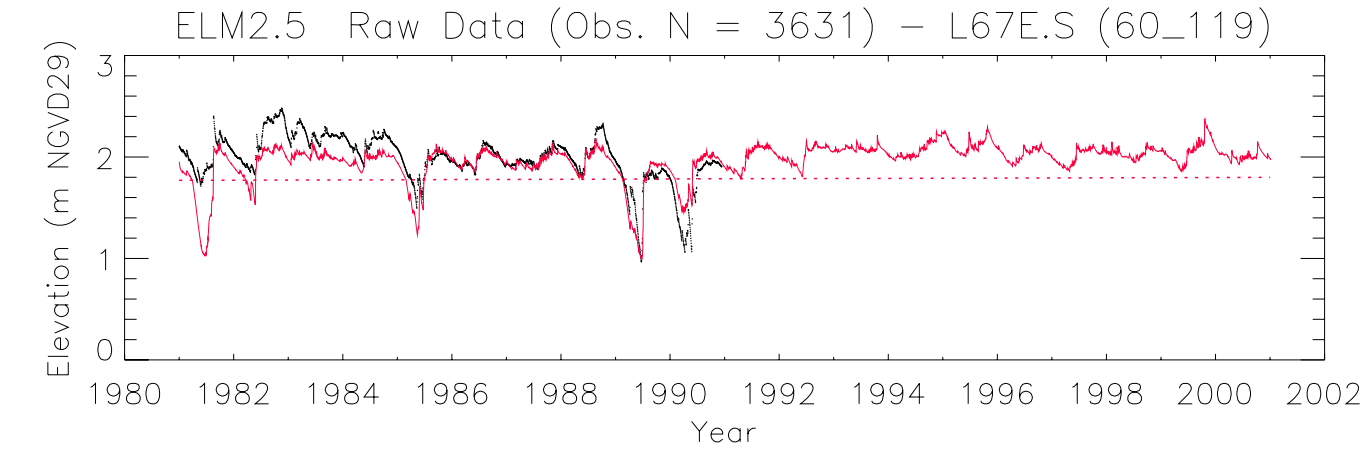

Cumulative Distribution: Raw Data – NESRS5_B (61_118)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)

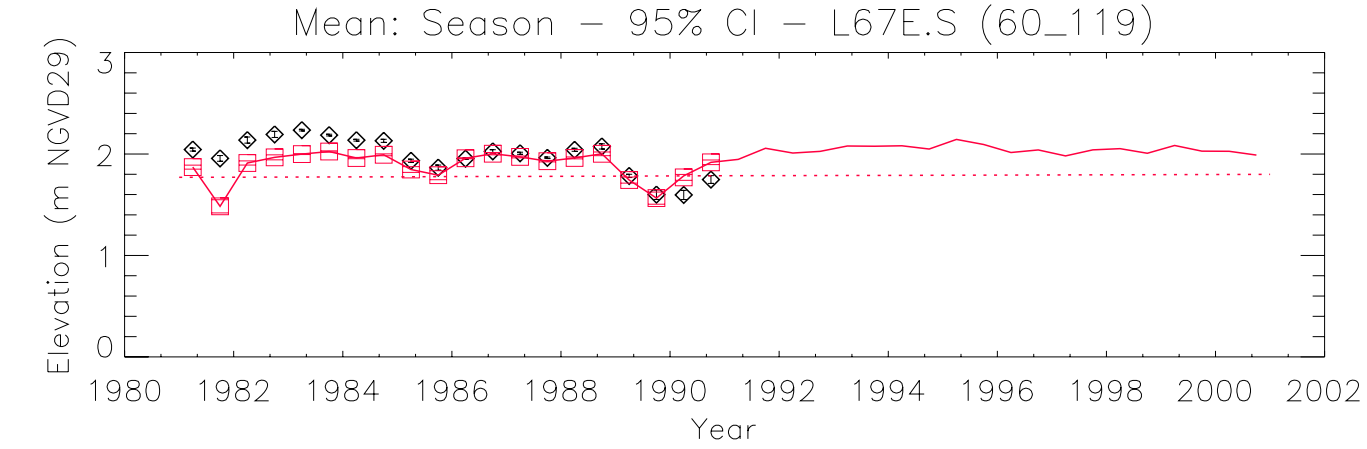

ELM2.5 Raw Data (Obs. N = 6137) – G–3273 (69_118)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

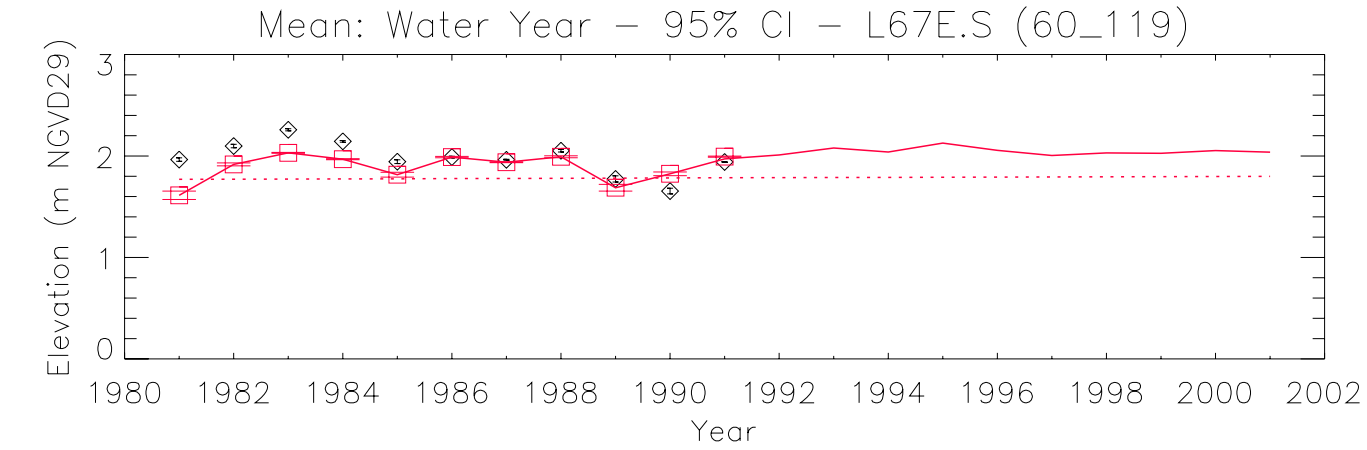

Mean: Season – 95% CI – G–3273 (69_118)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

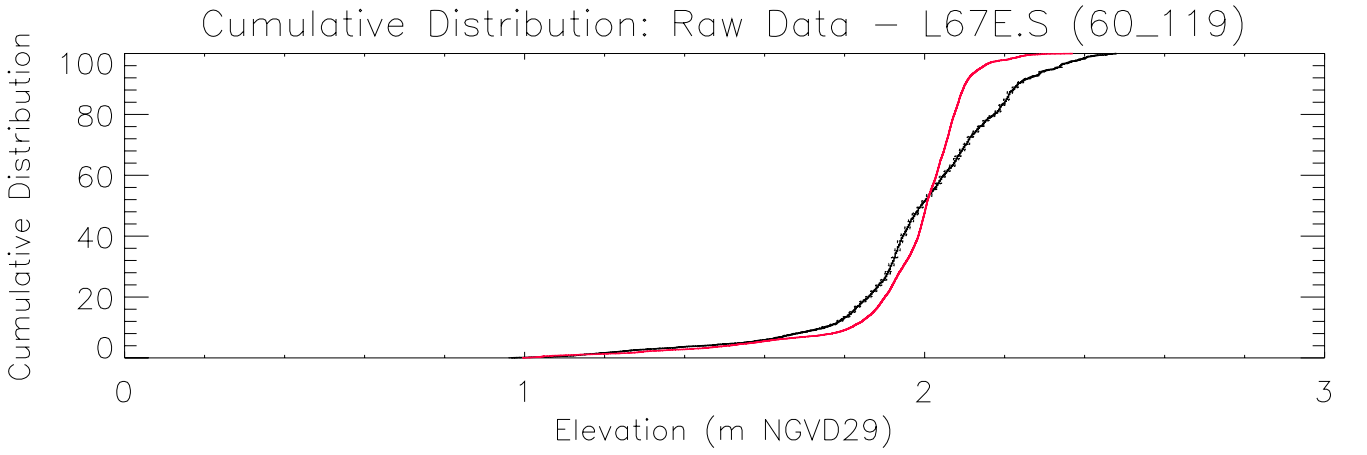

Mean: Water Year – 95% CI – G–3273 (69_118)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – G–3273 (69_118)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)


ELM2.5 Raw Data (Obs. N = 3631) – L67E.S (60_119)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Season – 95% CI – L67E.S (60_119)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – L67E.S (60_119)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – L67E.S (60_119)
Cumulative Distribution
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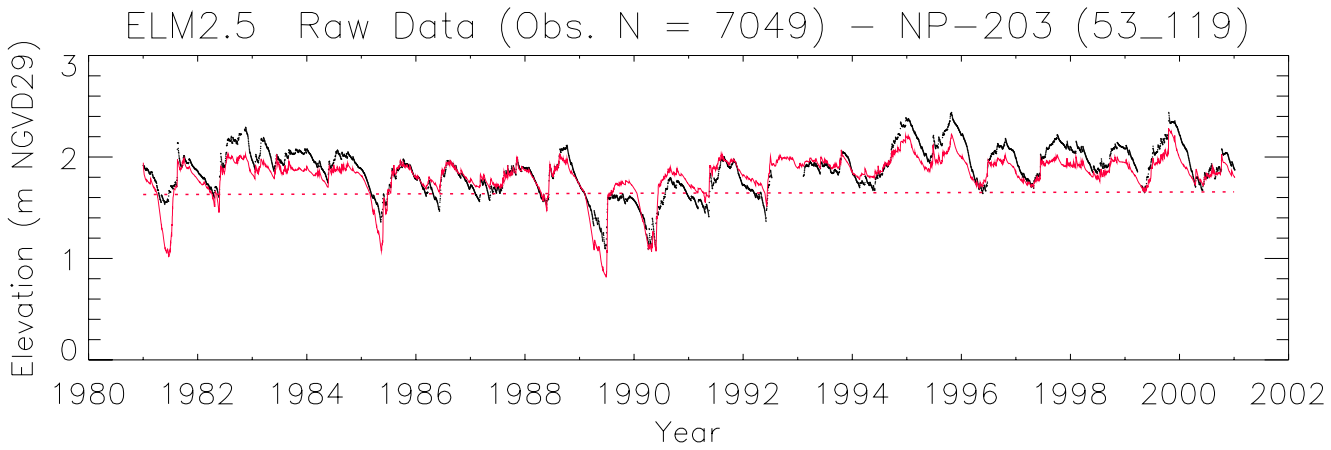
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)


ELM2.5 Raw Data (Obs. N = 7049) – NP–203 (53_119)
Elevation (m NGVD29)
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1
2
3
1980
1982
1984
1986
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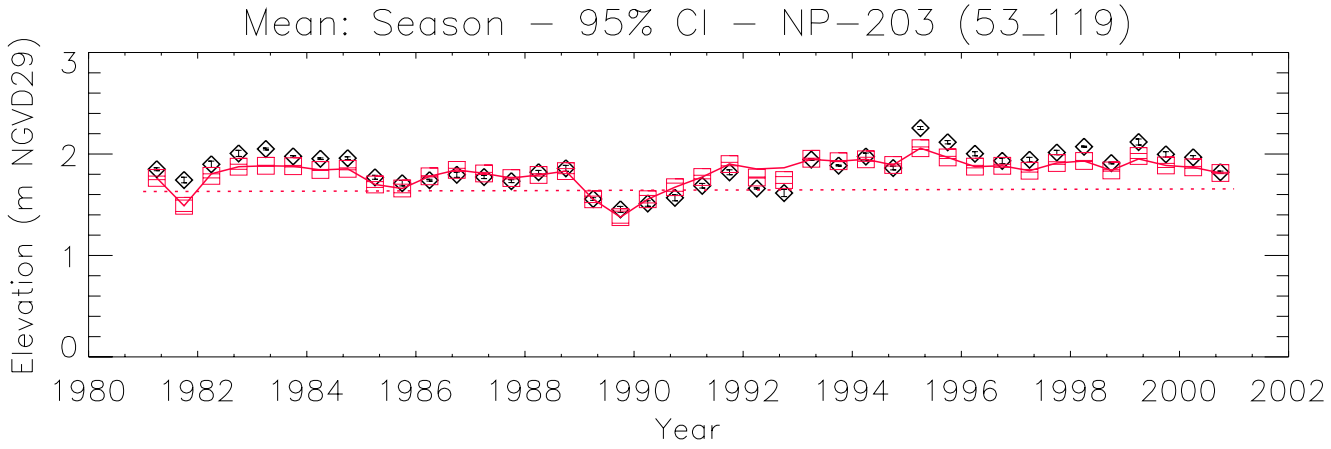
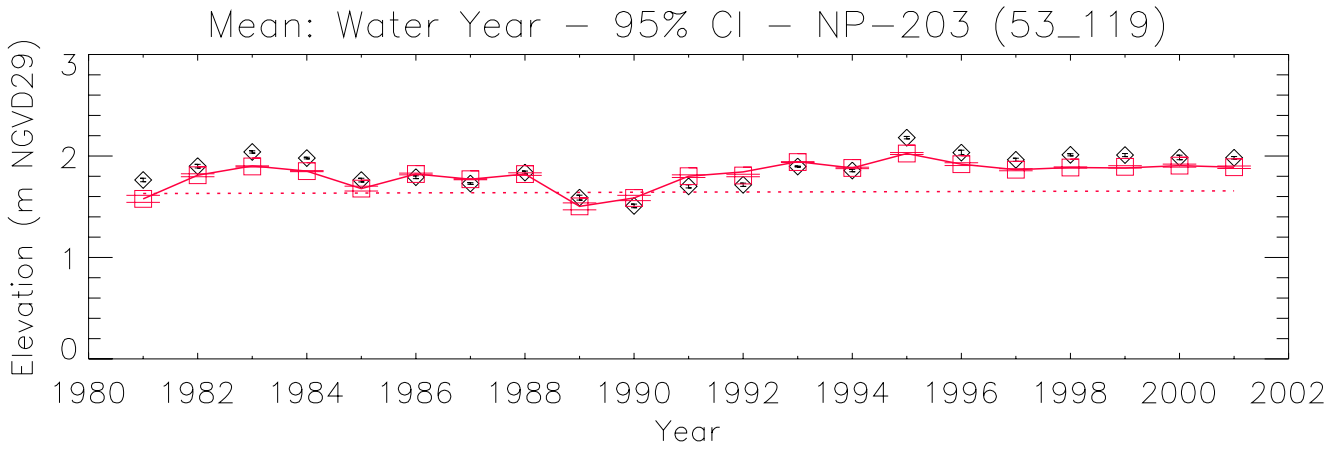
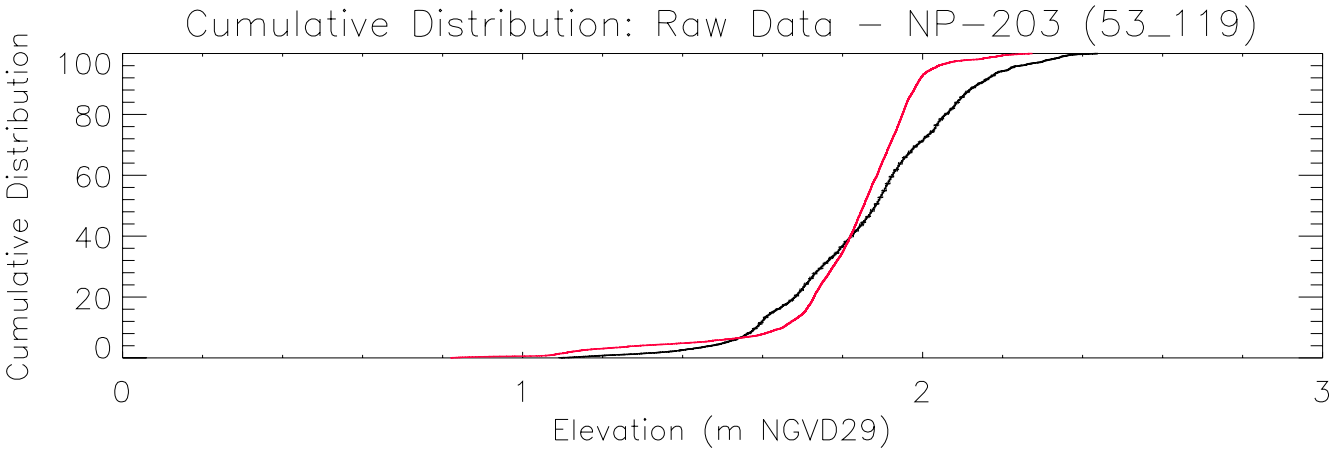
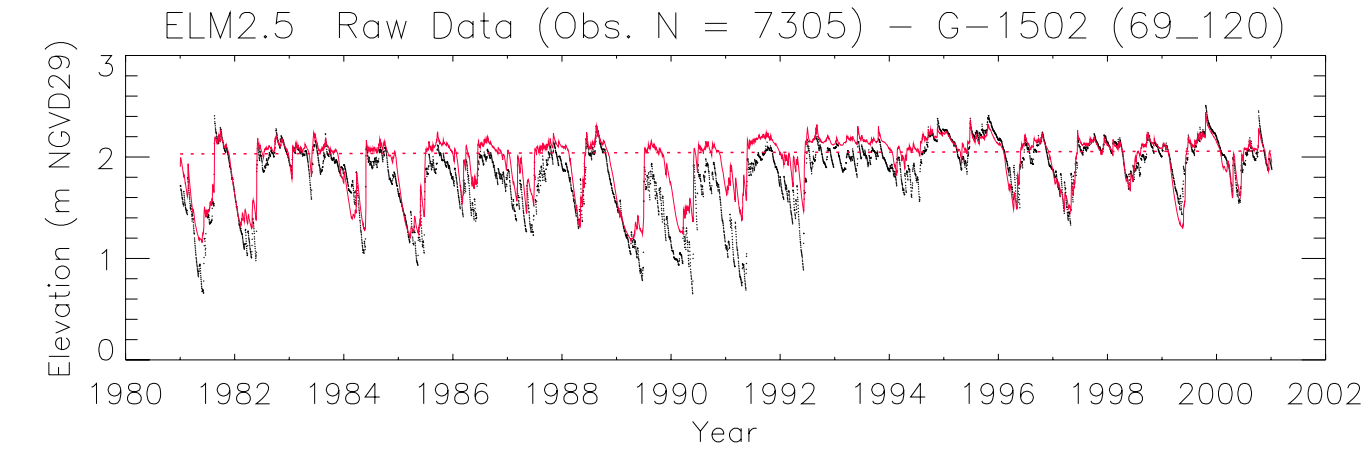
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Season – 95% CI – NP–203 (53_119)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – NP–203 (53_119)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – NP–203 (53_119)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)


ELM2.5 Raw Data (Obs. N = 7305) – G–1502 (69_120)
Elevation (m NGVD29)
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1
2
3
1980
1982
1984
1986
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1990
1992
1994
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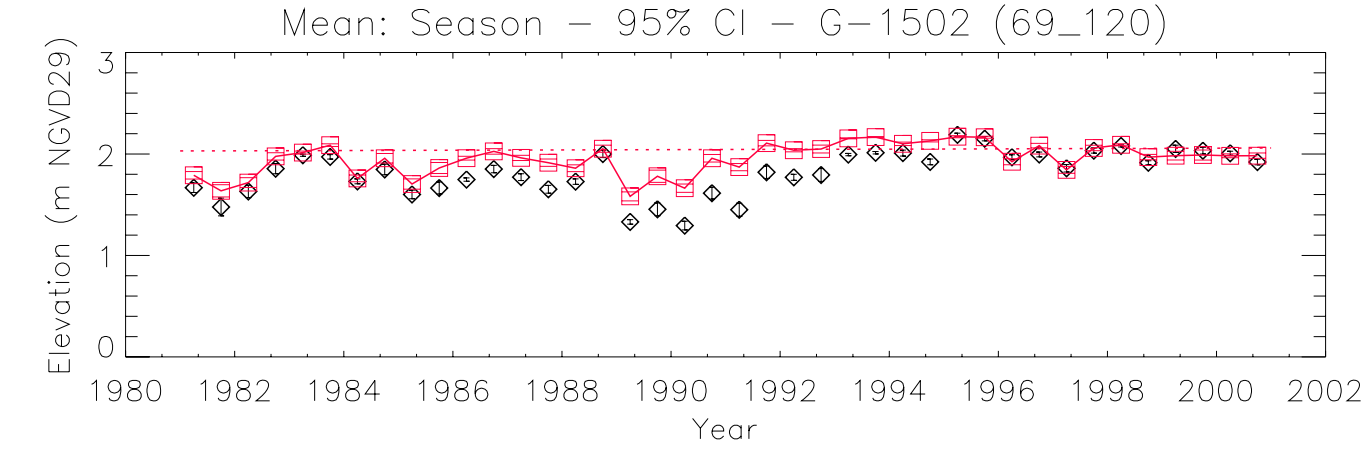
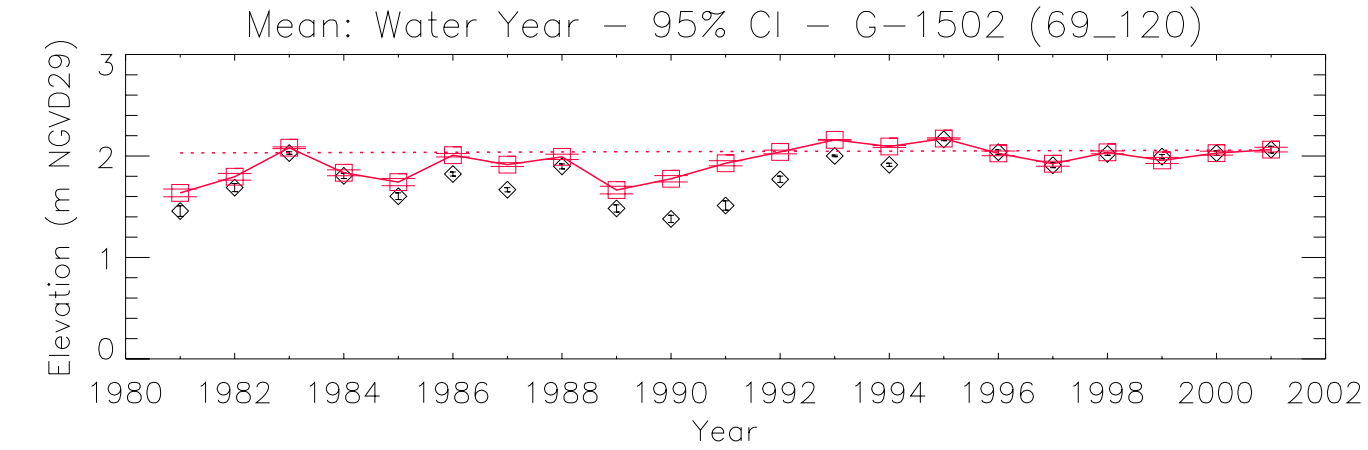
1998
2000
2002
Year


Mean: Season – 95% CI – G–1502 (69_120)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – G–1502 (69_120)
Elevation (m NGVD29)
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1
2
3
1980
1982
1984
1986
1988
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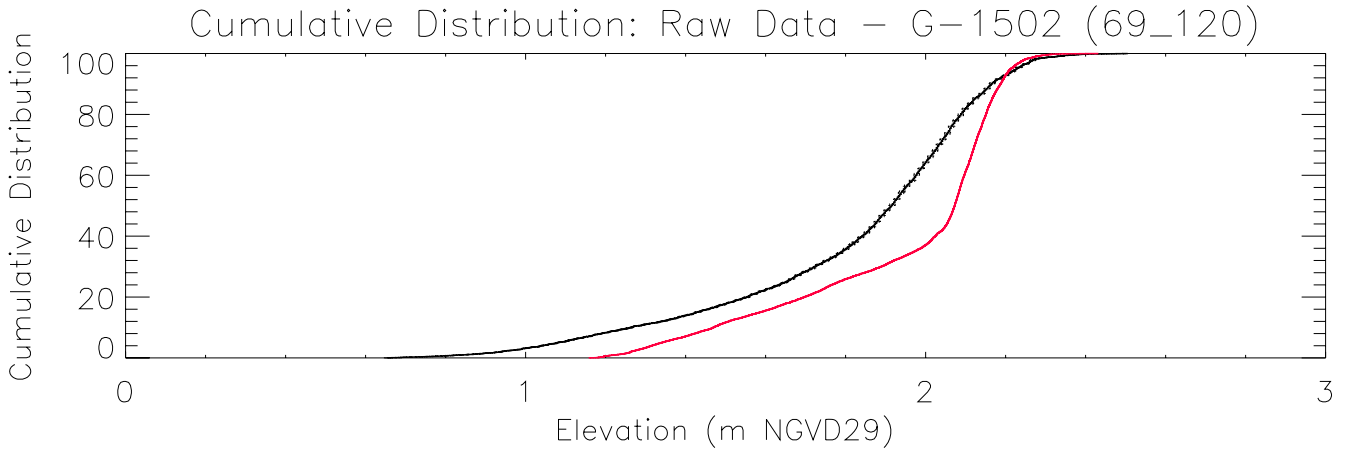
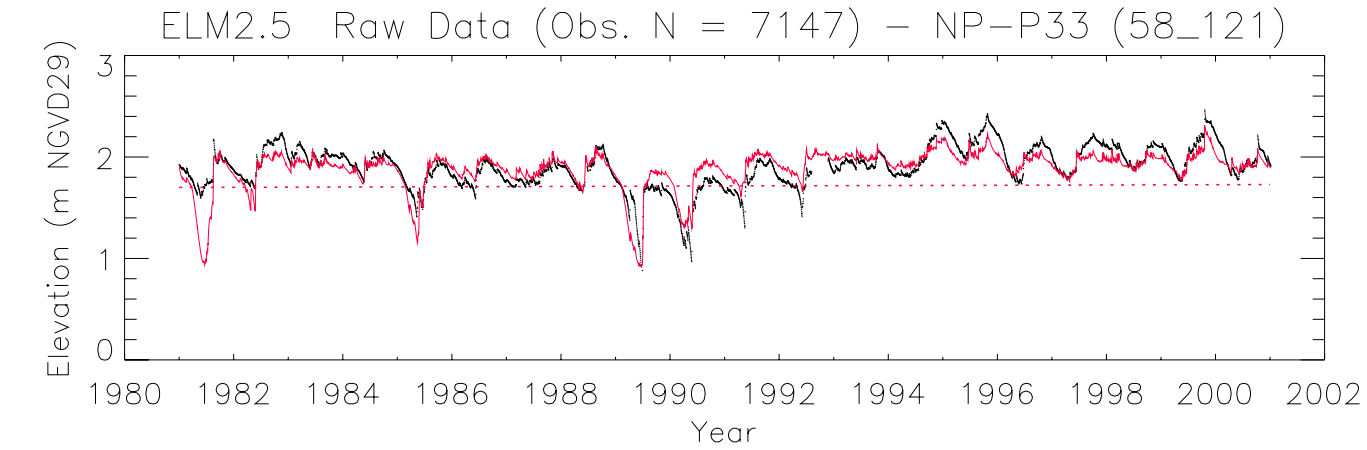
1998
2000
2002
Year


Cumulative Distribution: Raw Data – G–1502 (69_120)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)


ELM2.5 Raw Data (Obs. N = 7147) – NP–P33 (58_121)
Elevation (m NGVD29)
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2
3
1980
1982
1984
1986
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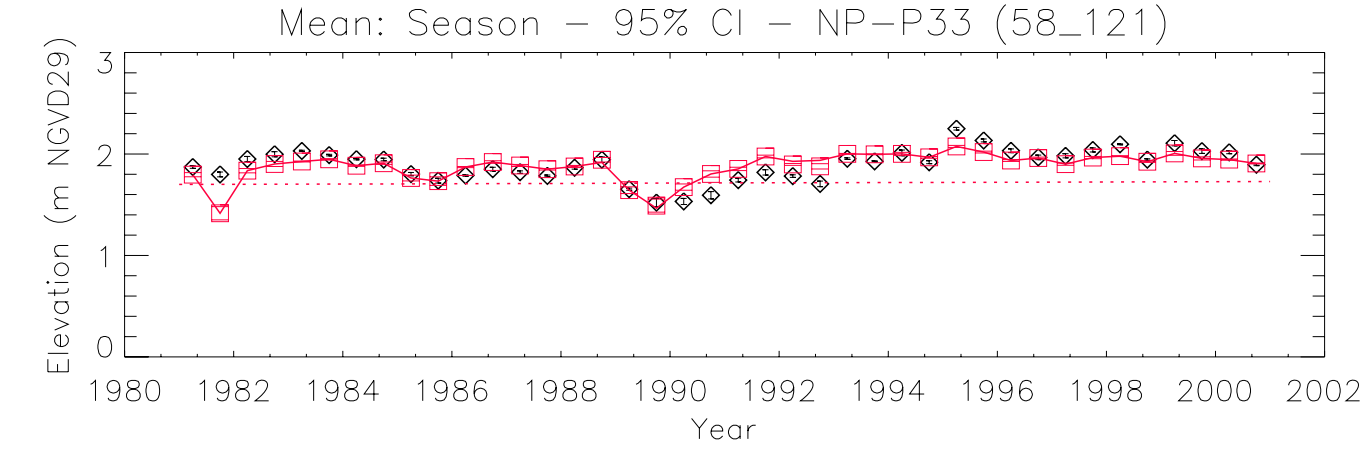
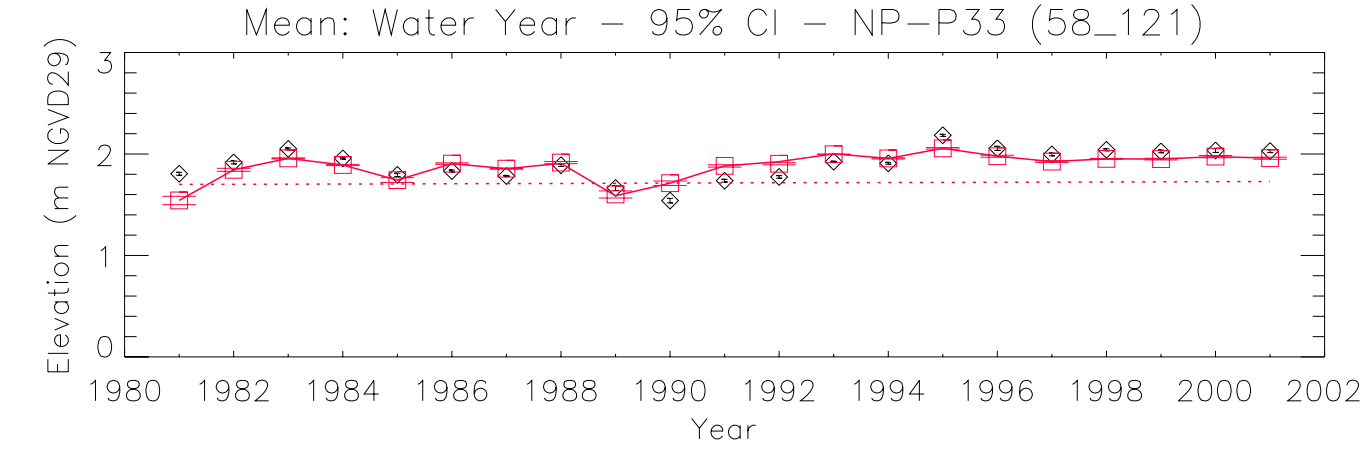
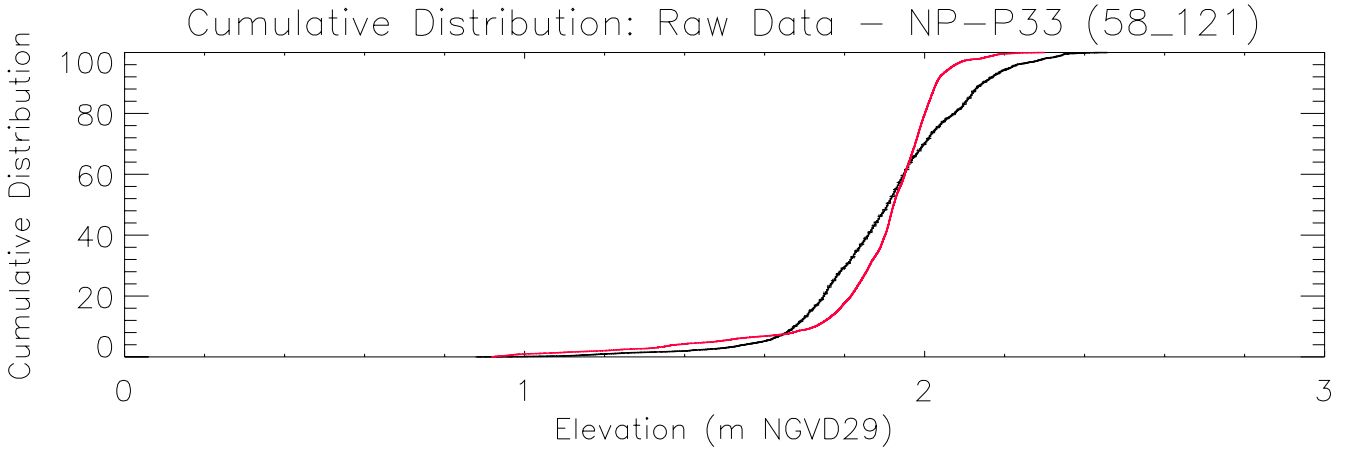
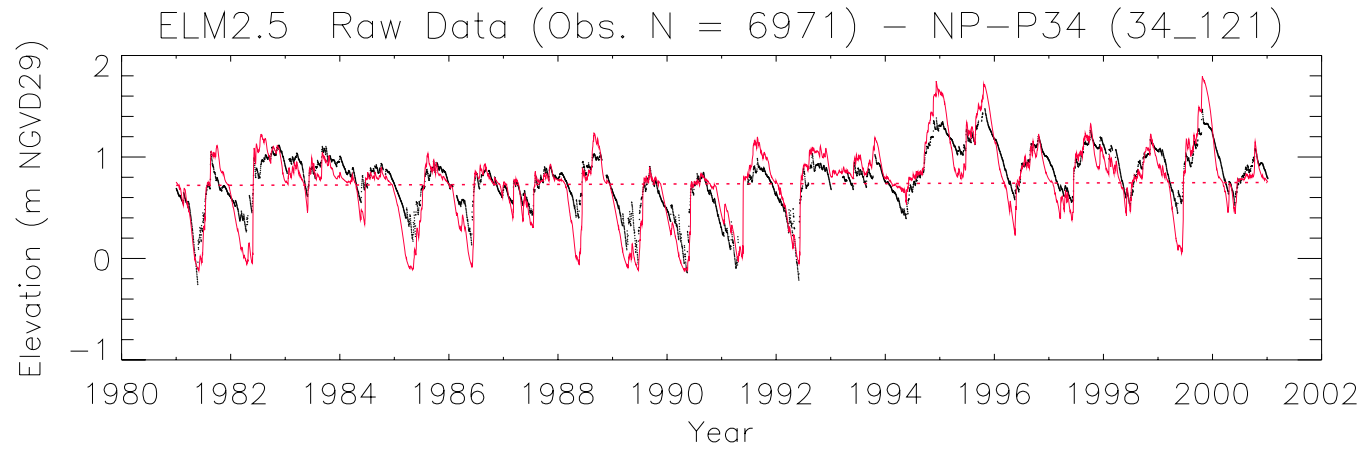
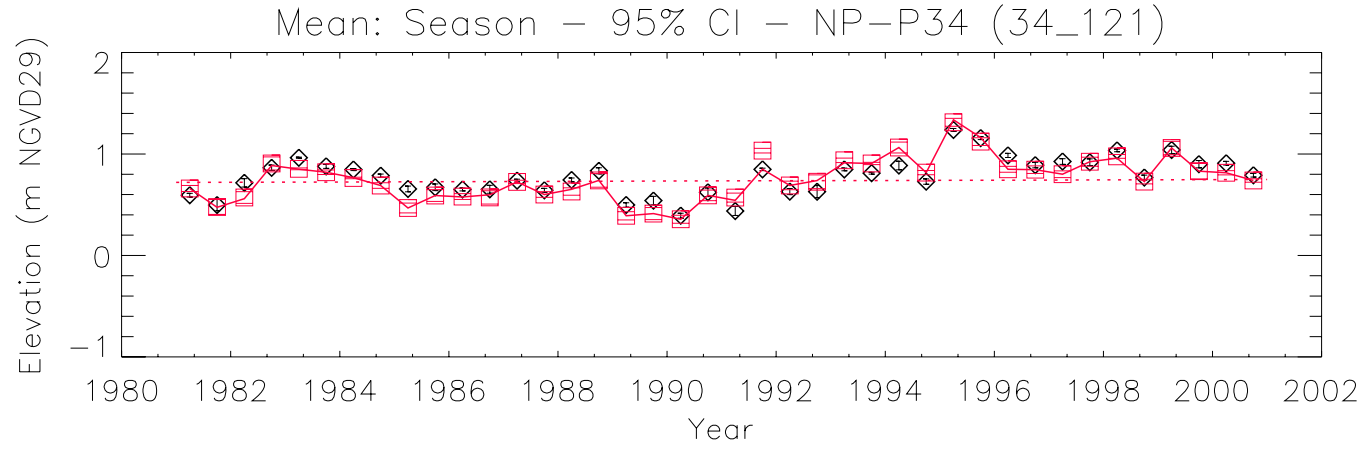
1990
1992
1994
1996
1998
2000
2002
Year

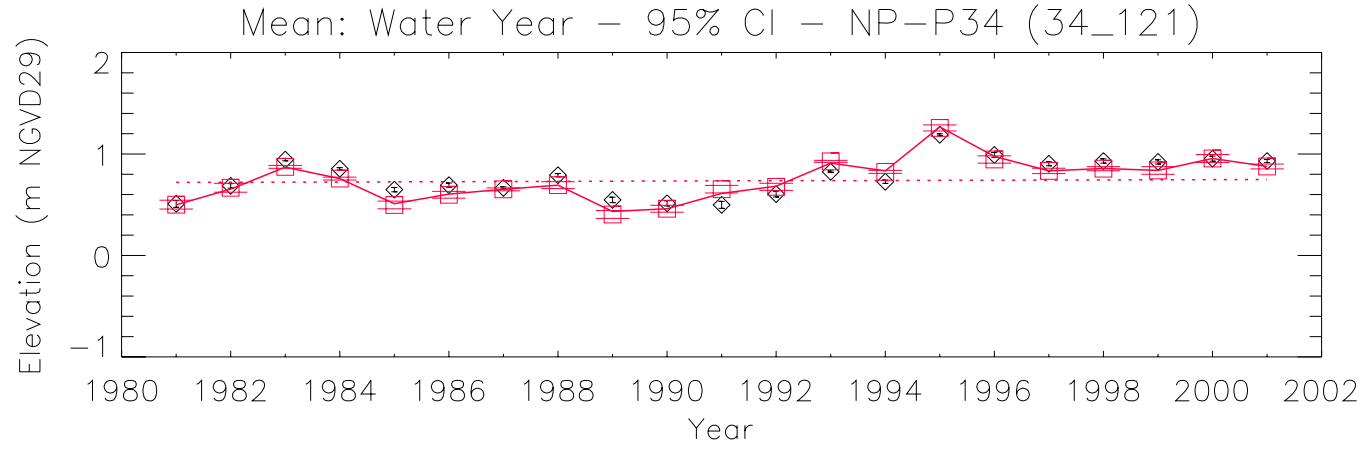

Mean: Season – 95% CI – NP–P33 (58_121)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

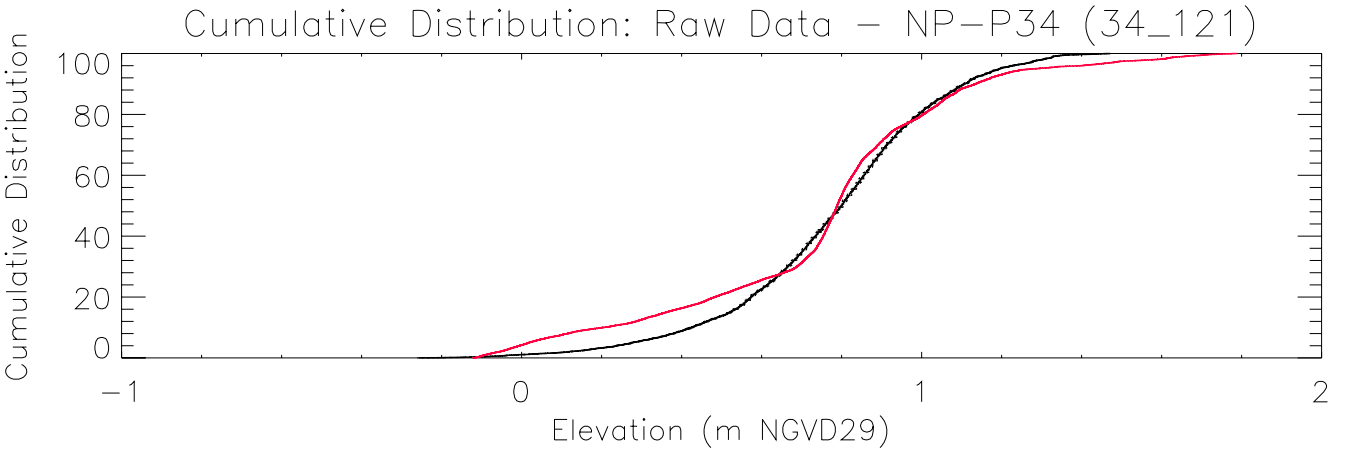

Mean: Water Year – 95% CI – NP–P33 (58_121)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

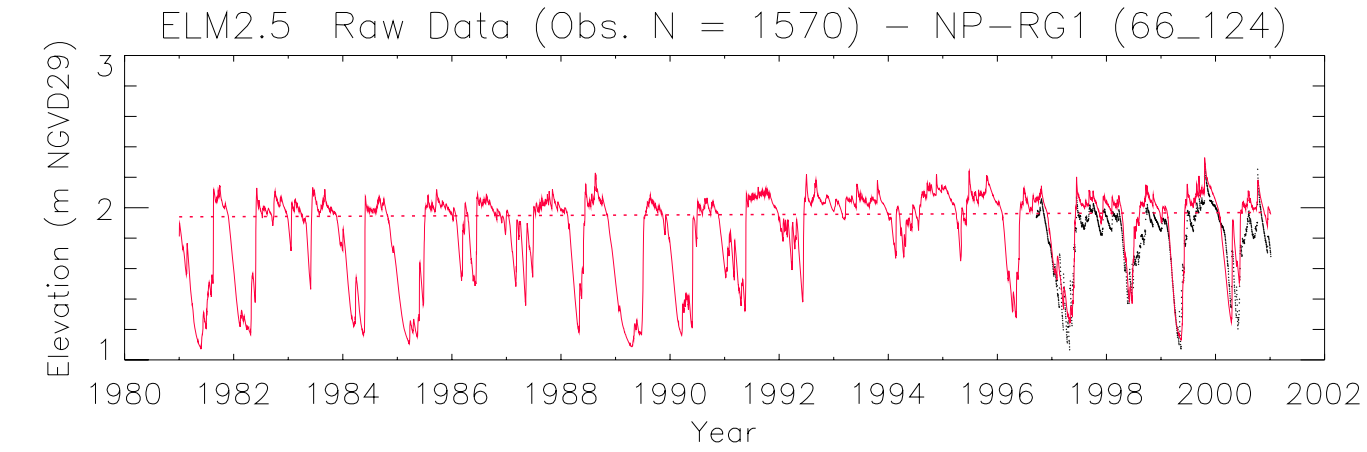

Cumulative Distribution: Raw Data – NP–P33 (58_121)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)

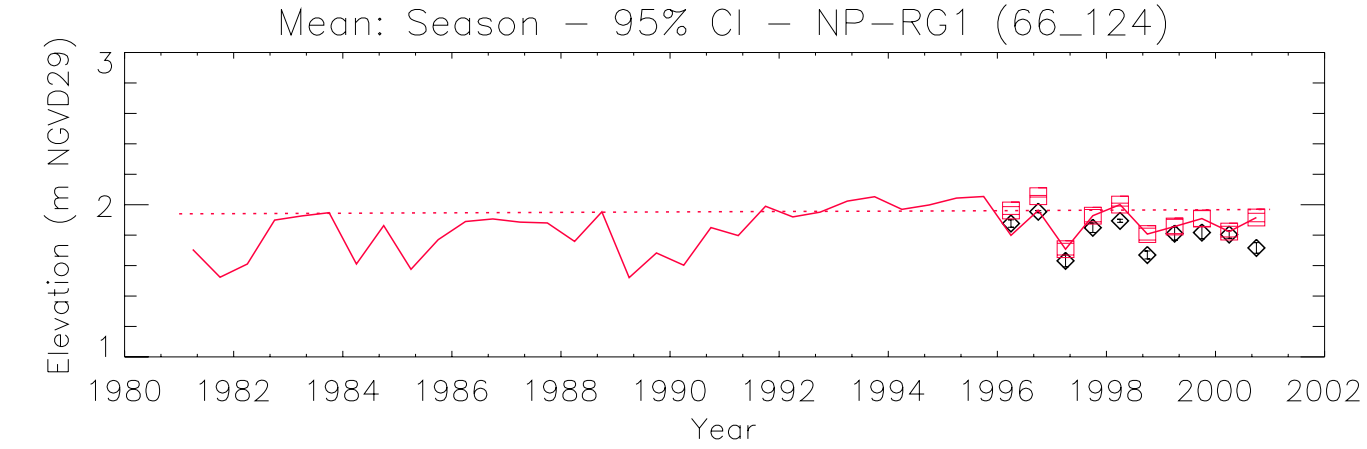

ELM2.5 Raw Data (Obs. N = 6971) – NP–P34 (34_121)
Elevation (m NGVD29)
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

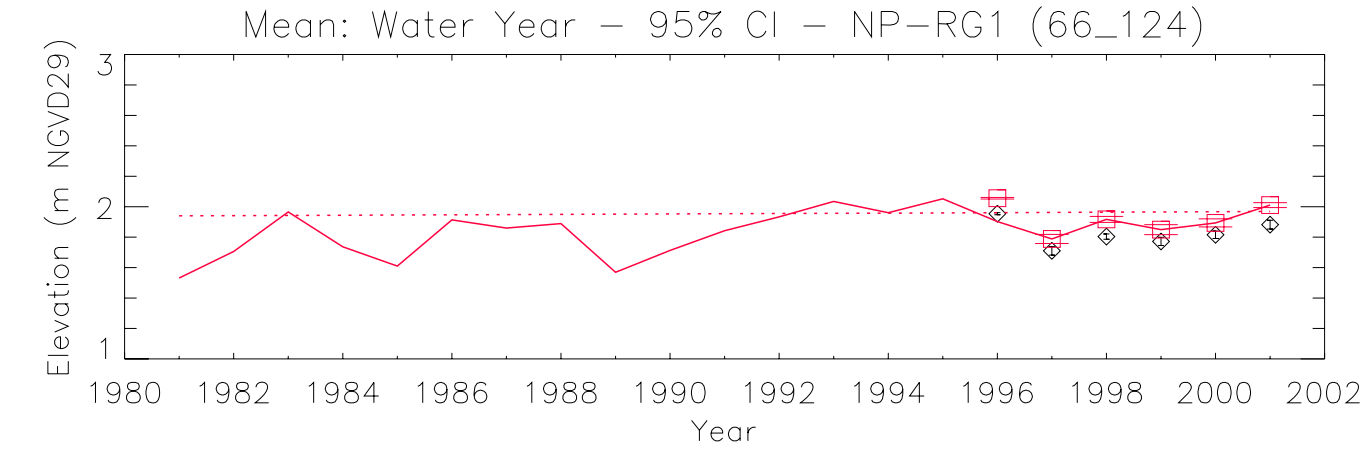

Mean: Season – 95% CI – NP–P34 (34_121)
Elevation (m NGVD29)
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

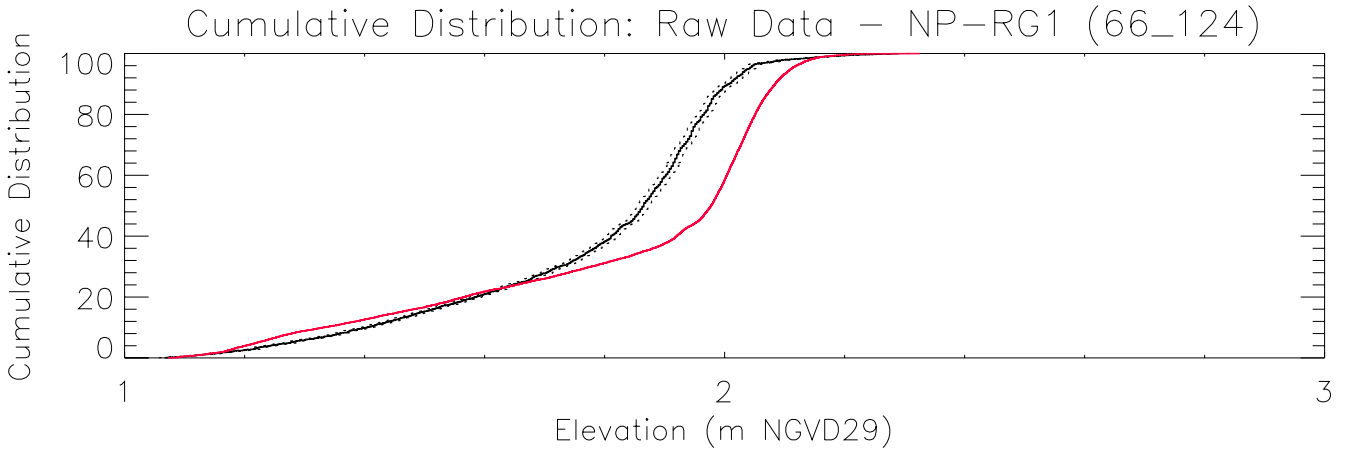

Mean: Water Year – 95% CI – NP–P34 (34_121)
Elevation (m NGVD29)
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

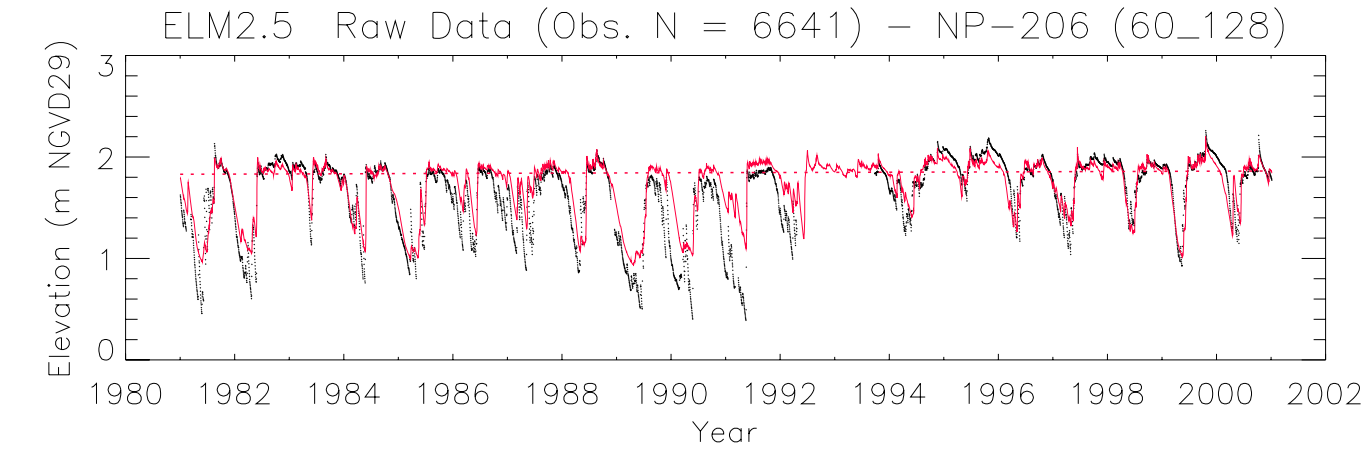

Cumulative Distribution: Raw Data – NP–P34 (34_121)
Cumulative Distribution
100
80
60
40
20
0
–1
0
1
2
Elevation (m NGVD29)

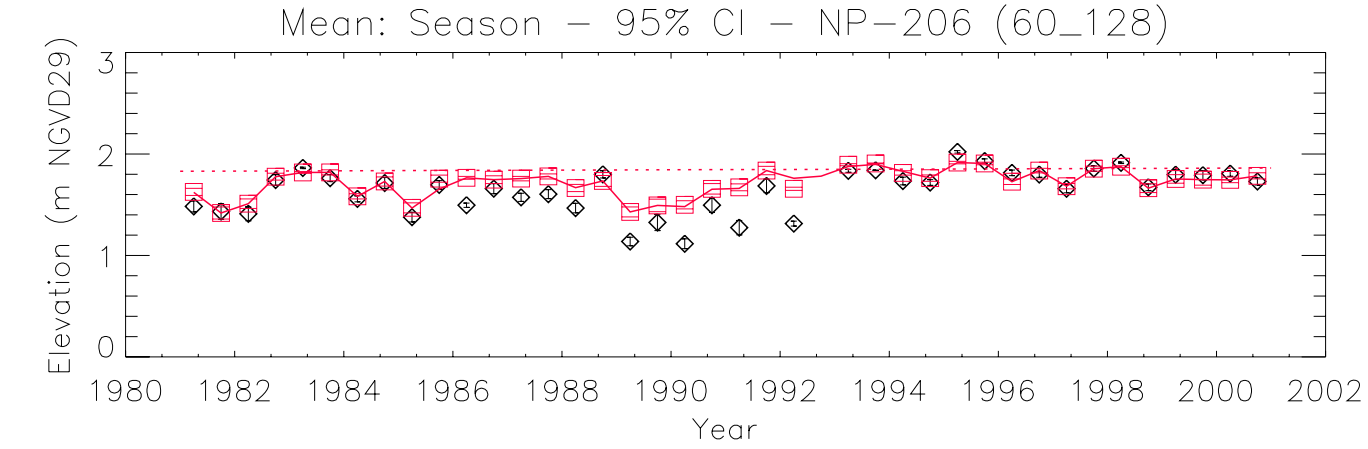

ELM2.5 Raw Data (Obs. N = 1570) – NP–RG1 (66_124)
Elevation (m NGVD29)
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

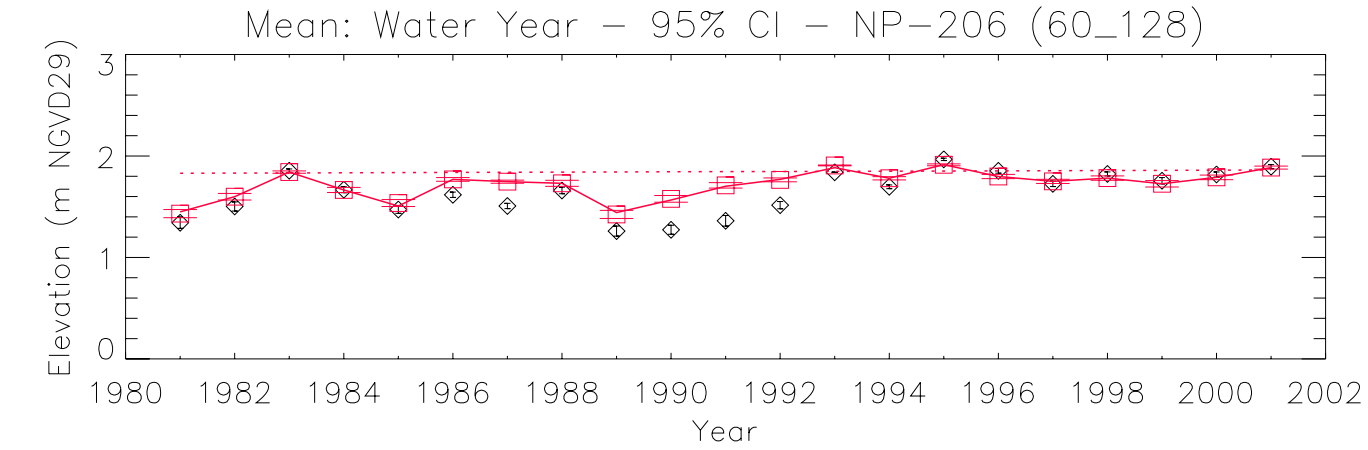

Mean: Season – 95% CI – NP–RG1 (66_124)
Elevation (m NGVD29)
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

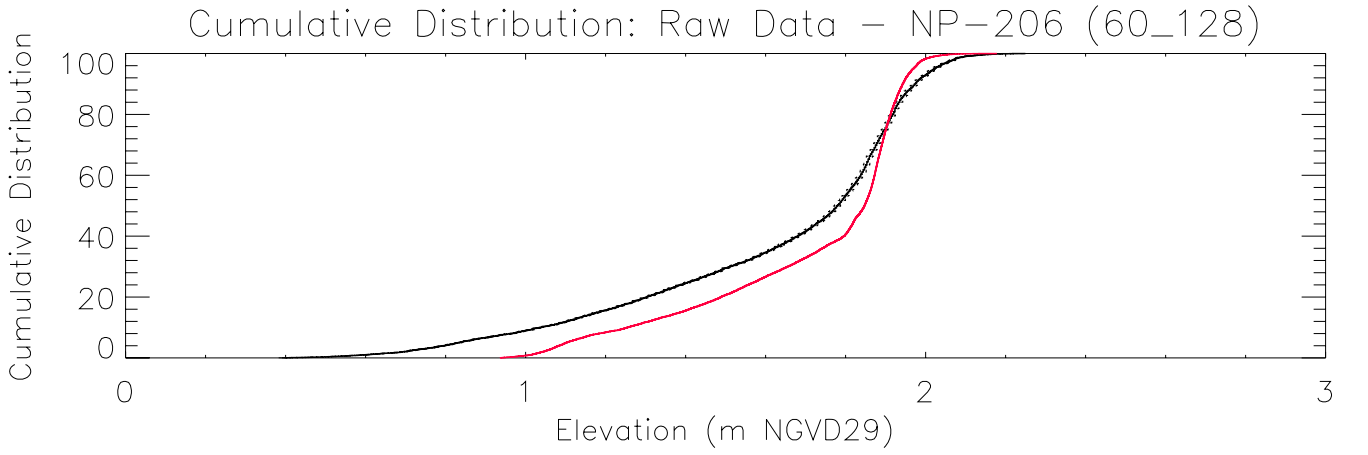

Mean: Water Year – 95% CI – NP–RG1 (66_124)
Elevation (m NGVD29)
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

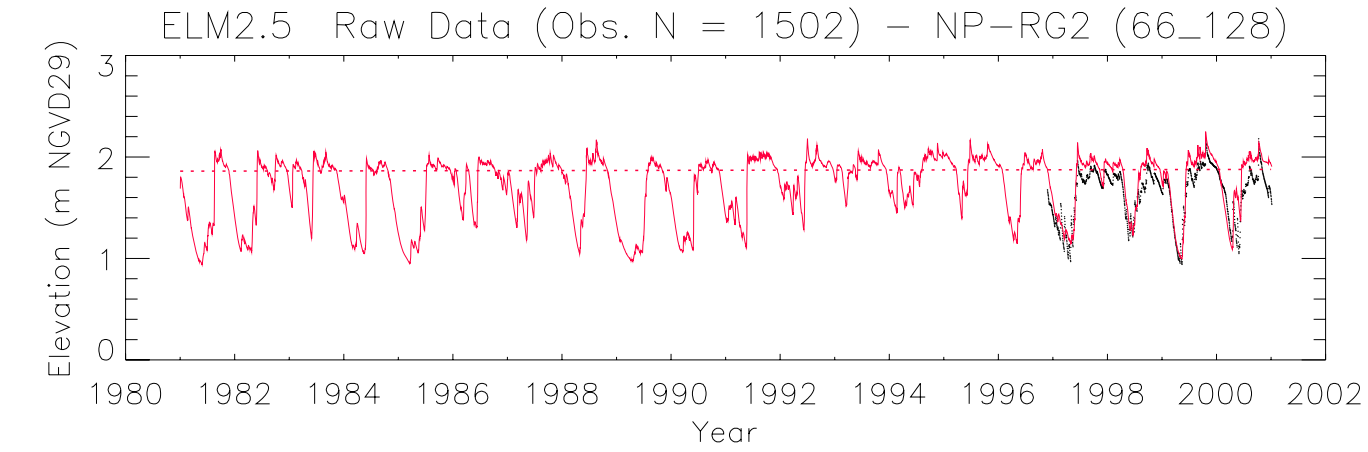

Cumulative Distribution: Raw Data – NP–RG1 (66_124)
Cumulative Distribution
0
20
40
60
80
100
1
2
3
Elevation (m NGVD29)

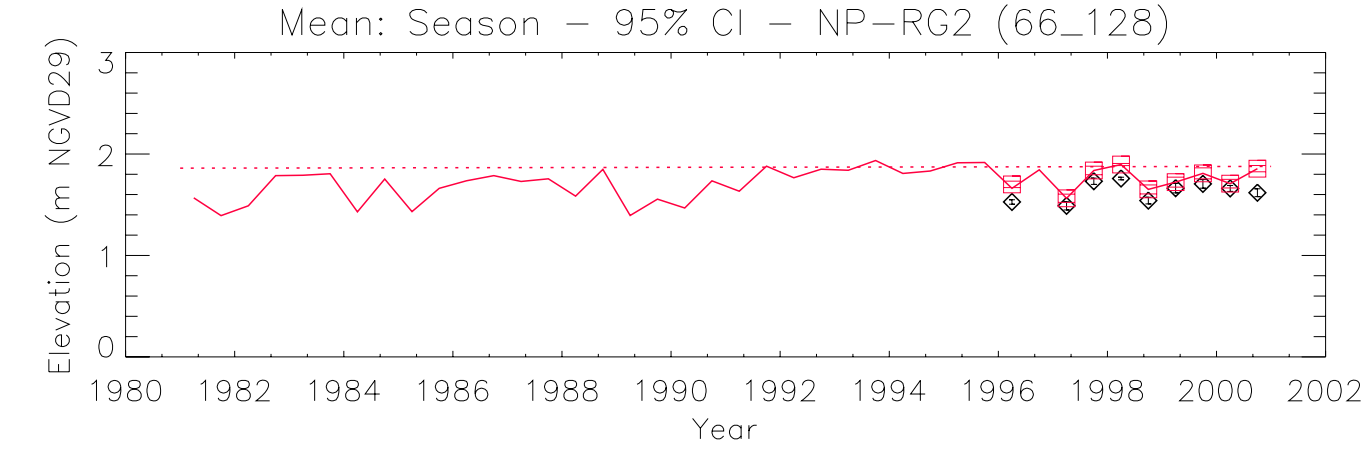

ELM2.5 Raw Data (Obs. N = 6641) – NP–206 (60_128)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

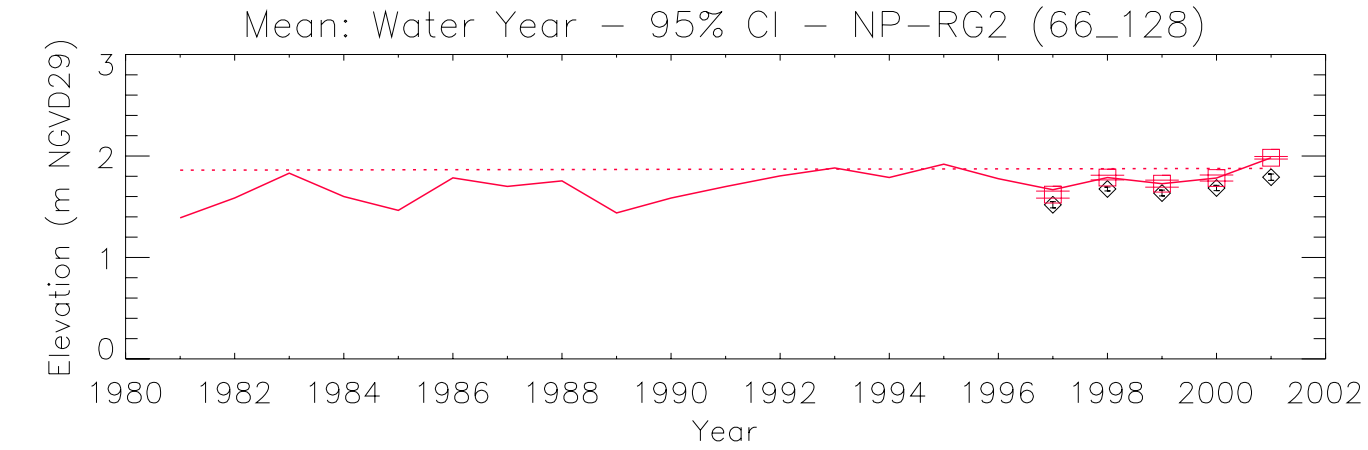

Mean: Season – 95% CI – NP–206 (60_128)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

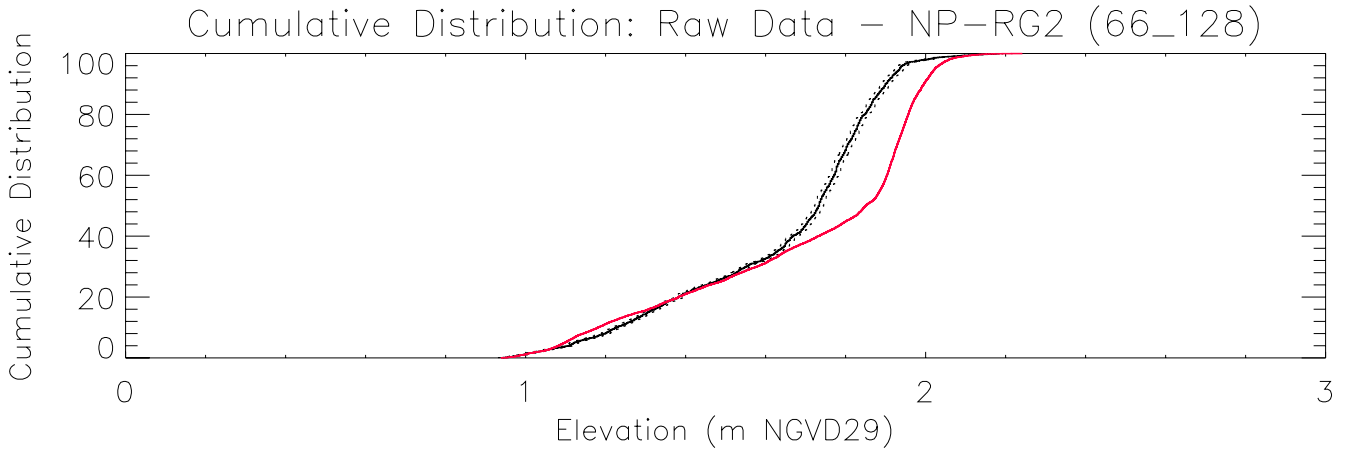

Mean: Water Year – 95% CI – NP–206 (60_128)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

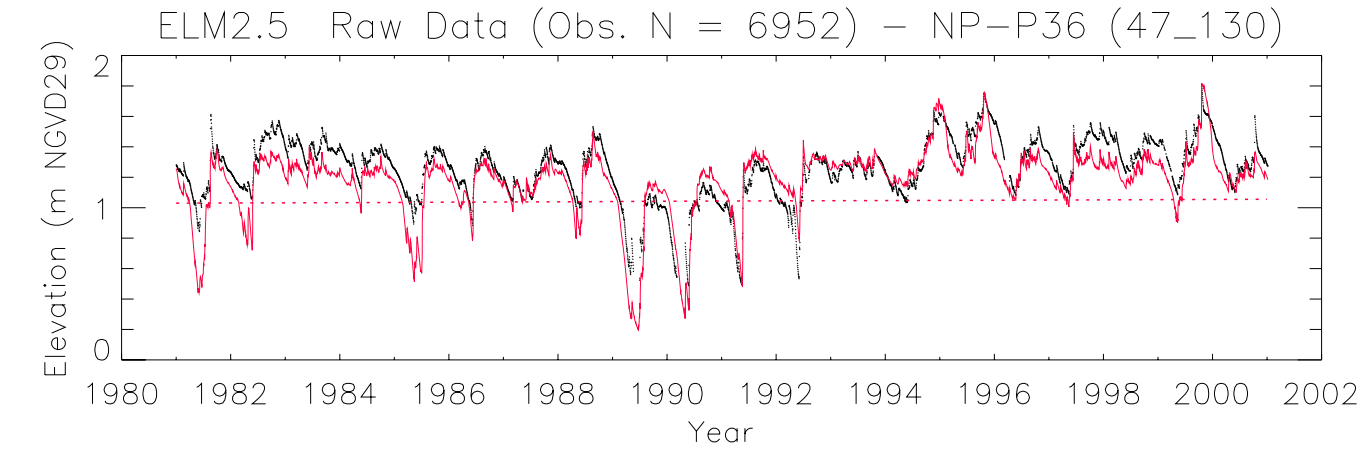

Cumulative Distribution: Raw Data – NP–206 (60_128)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)

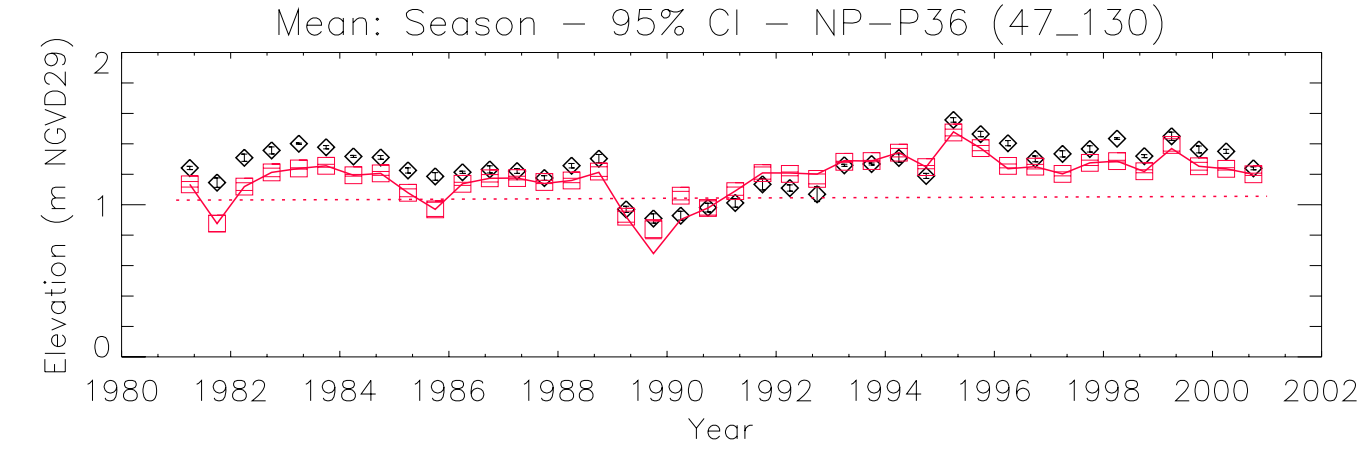

ELM2.5 Raw Data (Obs. N = 1502) – NP–RG2 (66_128)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

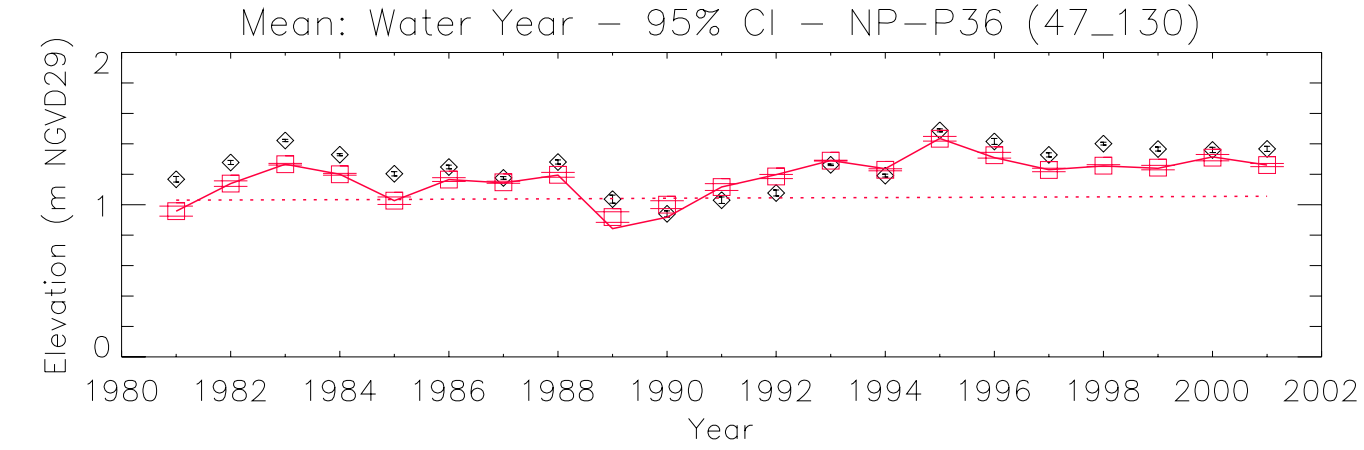

Mean: Season – 95% CI – NP–RG2 (66_128)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

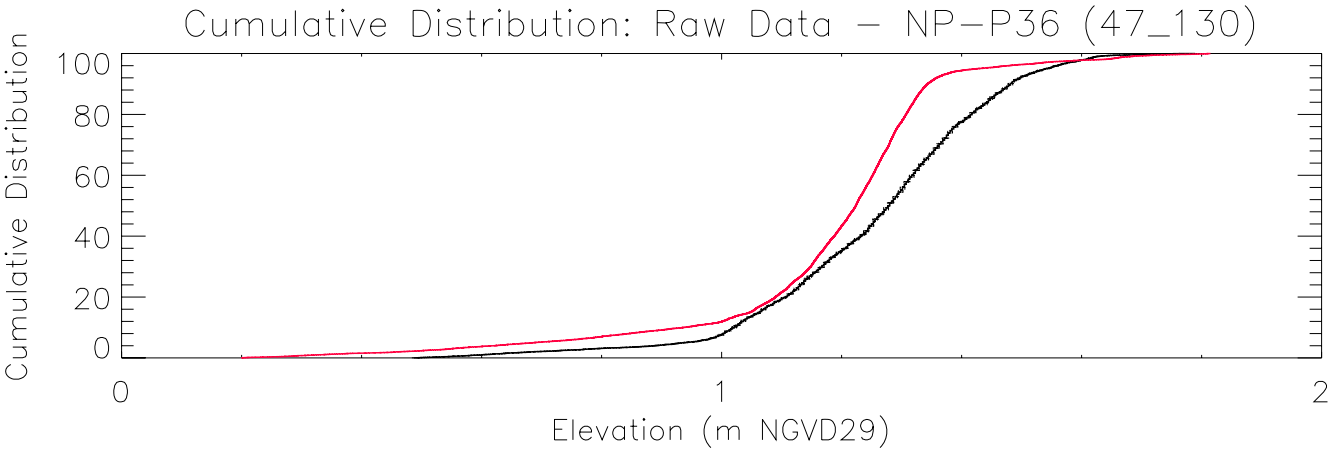

Mean: Water Year – 95% CI – NP–RG2 (66_128)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

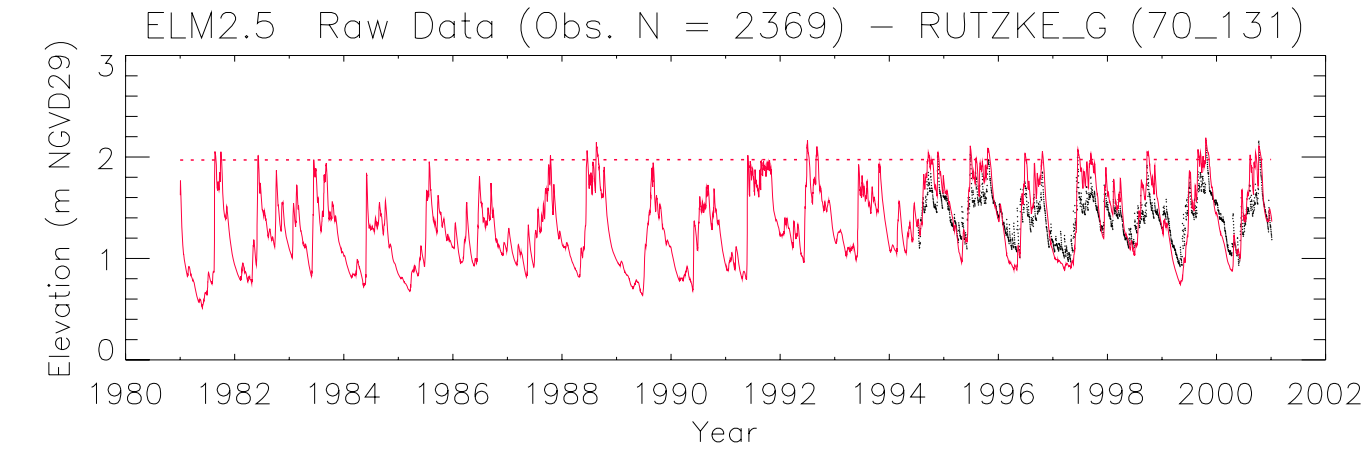

Cumulative Distribution: Raw Data – NP–RG2 (66_128)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)

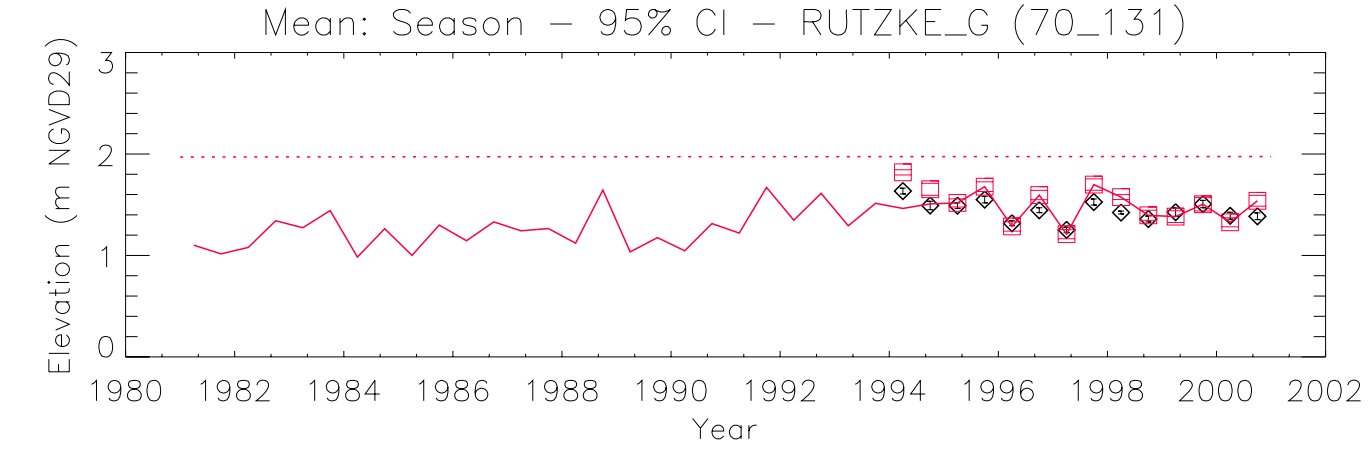

ELM2.5 Raw Data (Obs. N = 6952) – NP–P36 (47_130)
Elevation (m NGVD29)
0
1
2
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

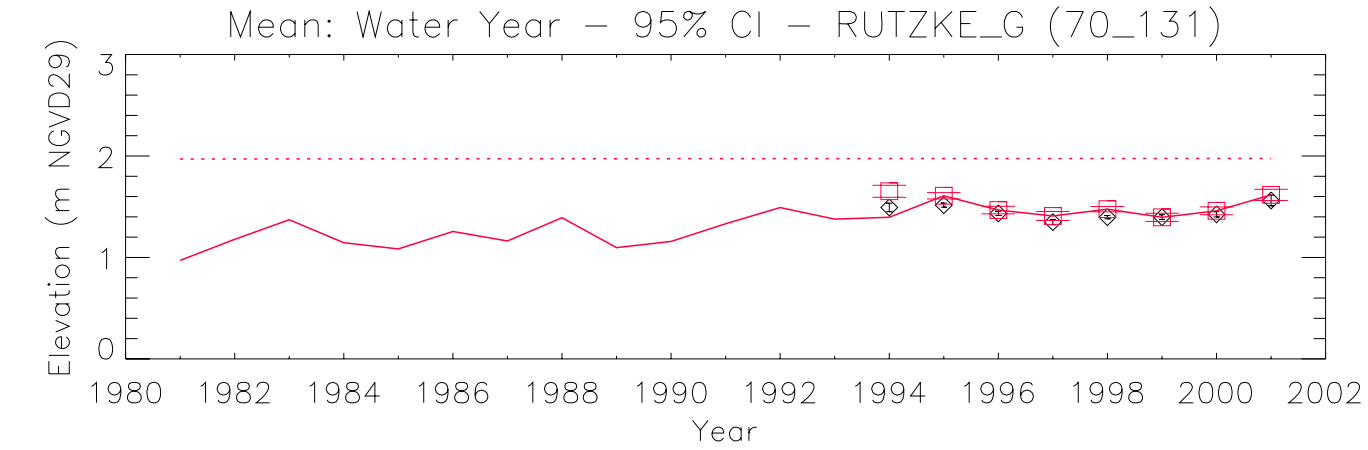

Mean: Season – 95% CI – NP–P36 (47_130)
Elevation (m NGVD29)
0
1
2
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

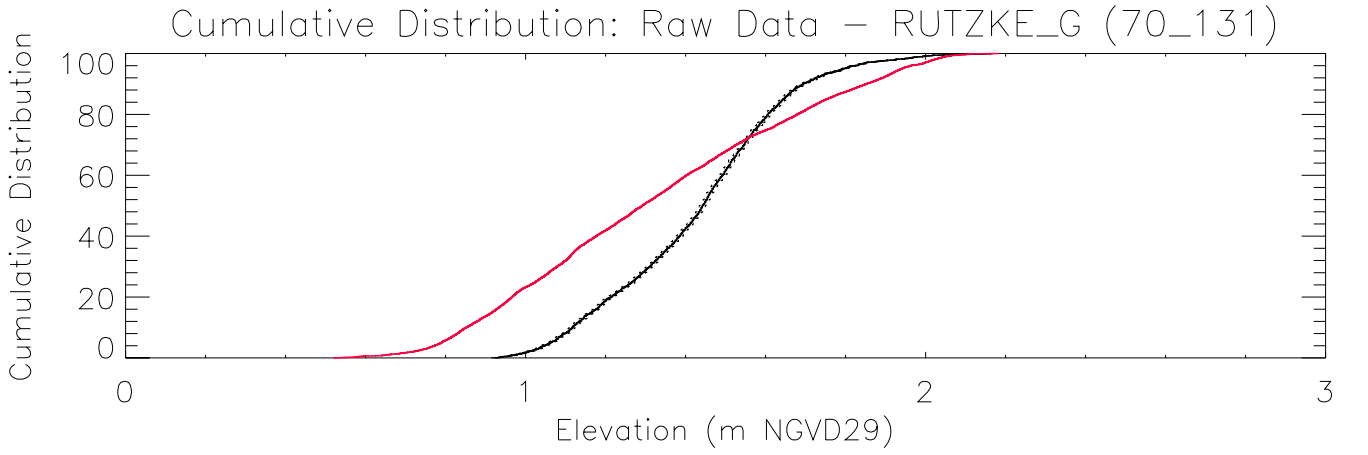

Mean: Water Year – 95% CI – NP–P36 (47_130)
Elevation (m NGVD29)
0
1
2
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

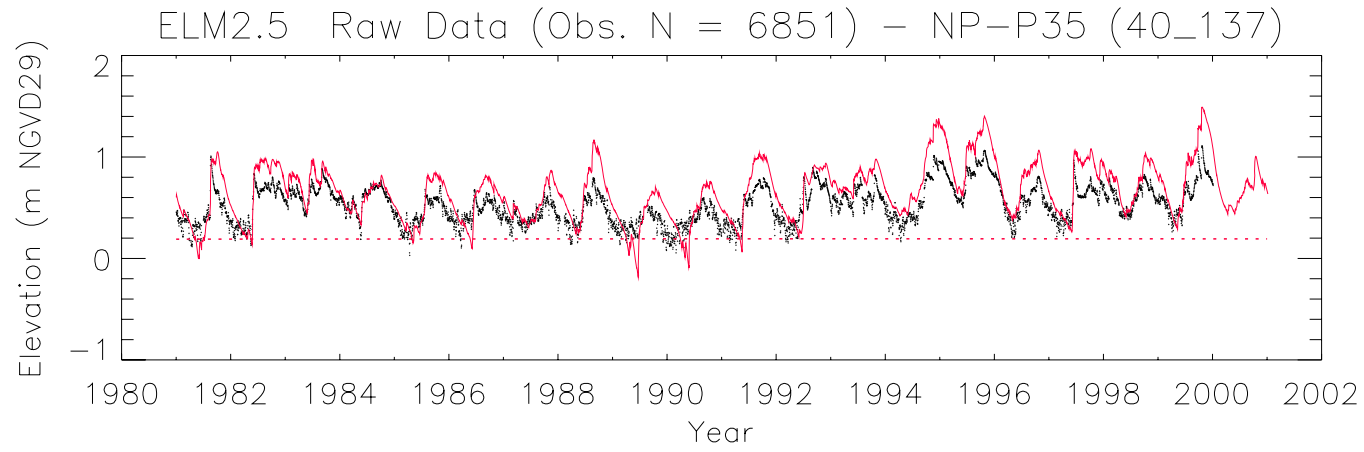

Cumulative Distribution: Raw Data – NP–P36 (47_130)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
Elevation (m NGVD29)

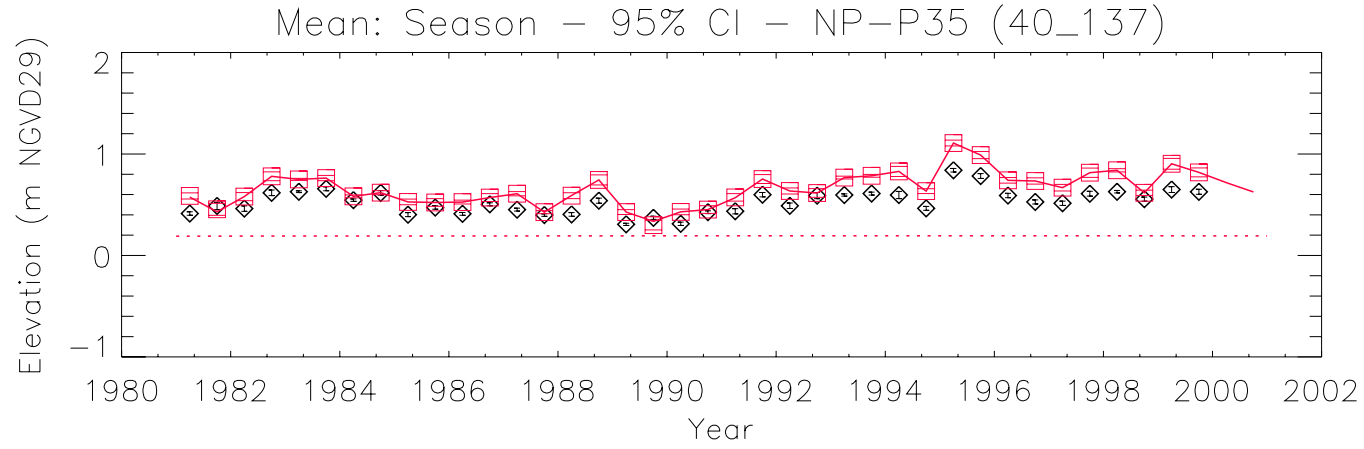

ELM2.5 Raw Data (Obs. N = 2369) – RUTZKE_G (70_131)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

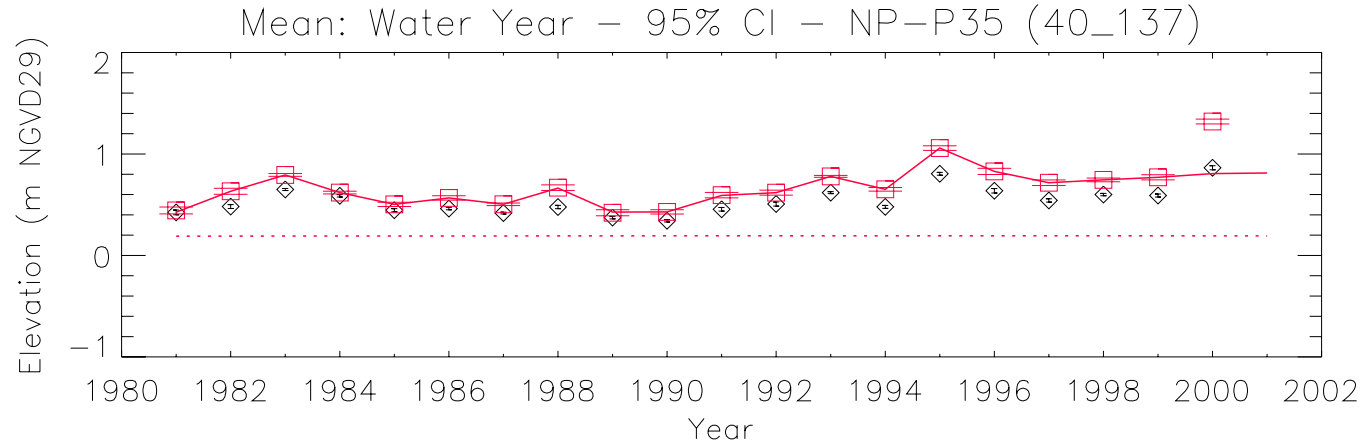

Mean: Season – 95% CI – RUTZKE_G (70_131)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

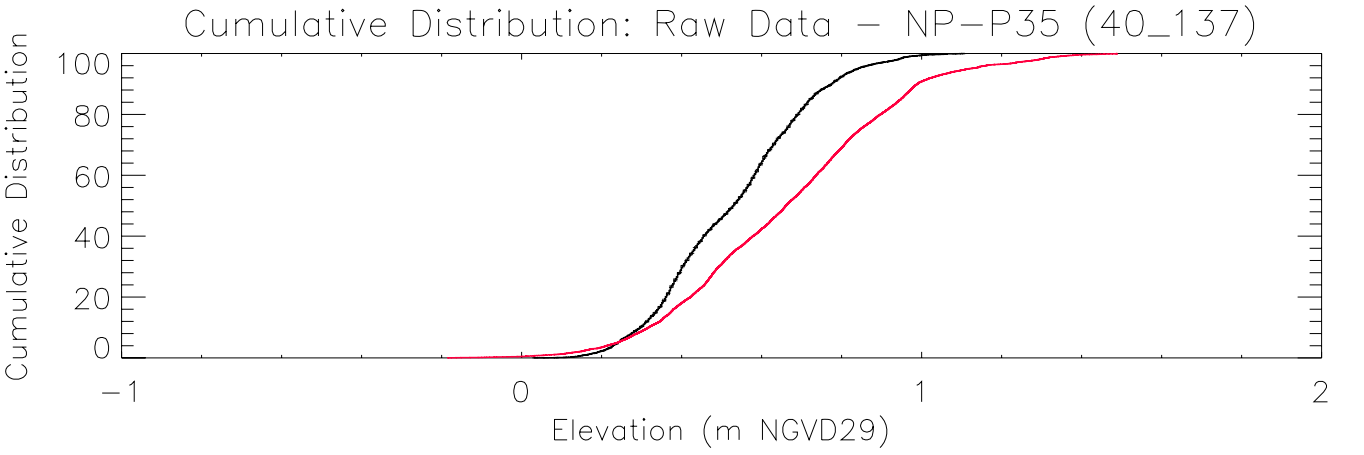

Mean: Water Year – 95% CI – RUTZKE_G (70_131)
Elevation (m NGVD29)
0
1
2
3
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

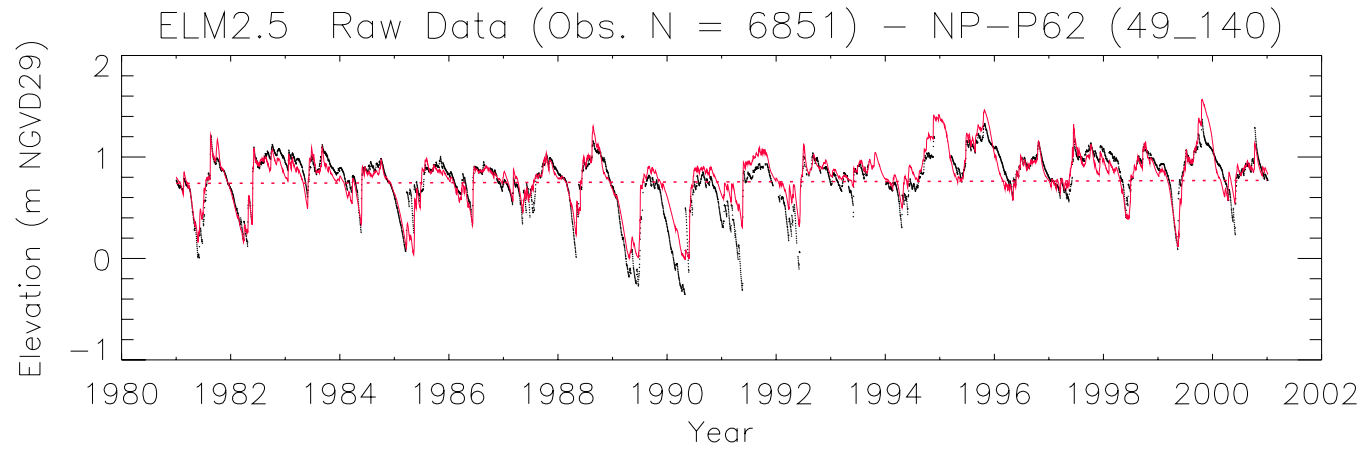

Cumulative Distribution: Raw Data – RUTZKE_G (70_131)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
3
Elevation (m NGVD29)

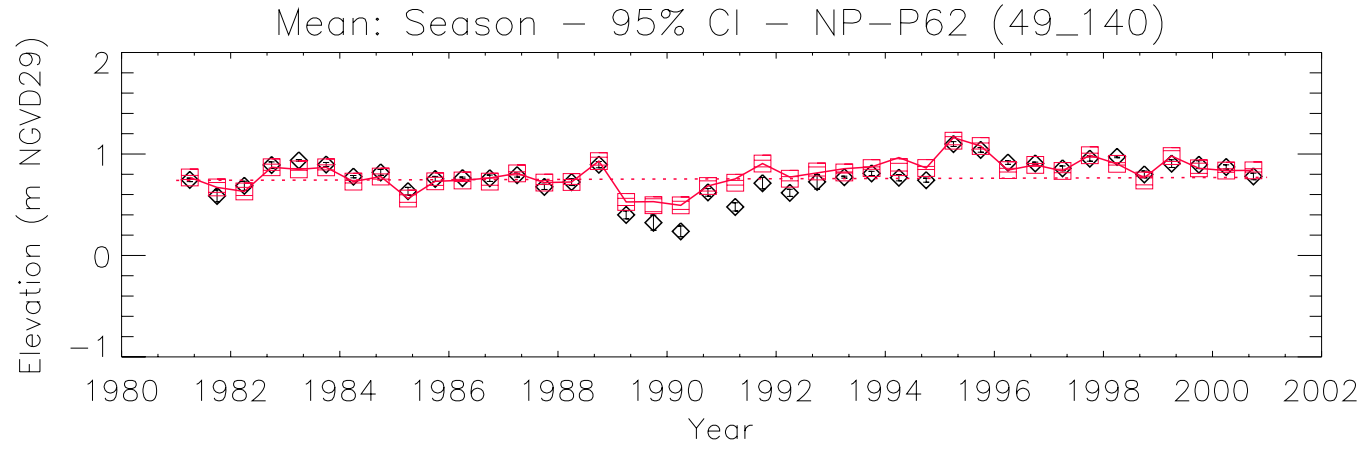

ELM2.5 Raw Data (Obs. N = 6851) – NP–P35 (40_137)
Elevation (m NGVD29)
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

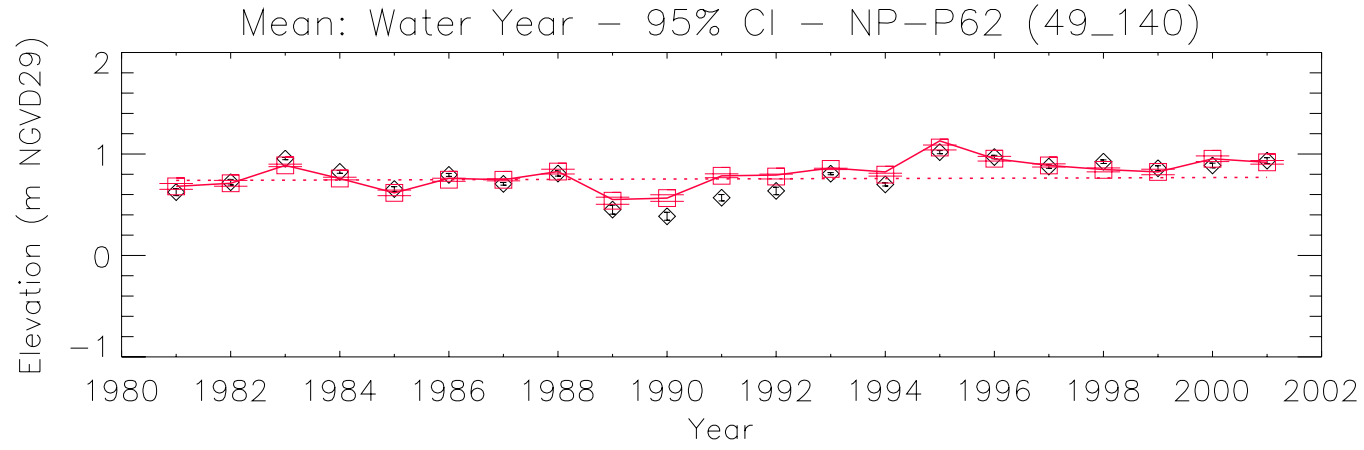

Mean: Season – 95% CI – NP–P35 (40_137)
Elevation (m NGVD29)
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

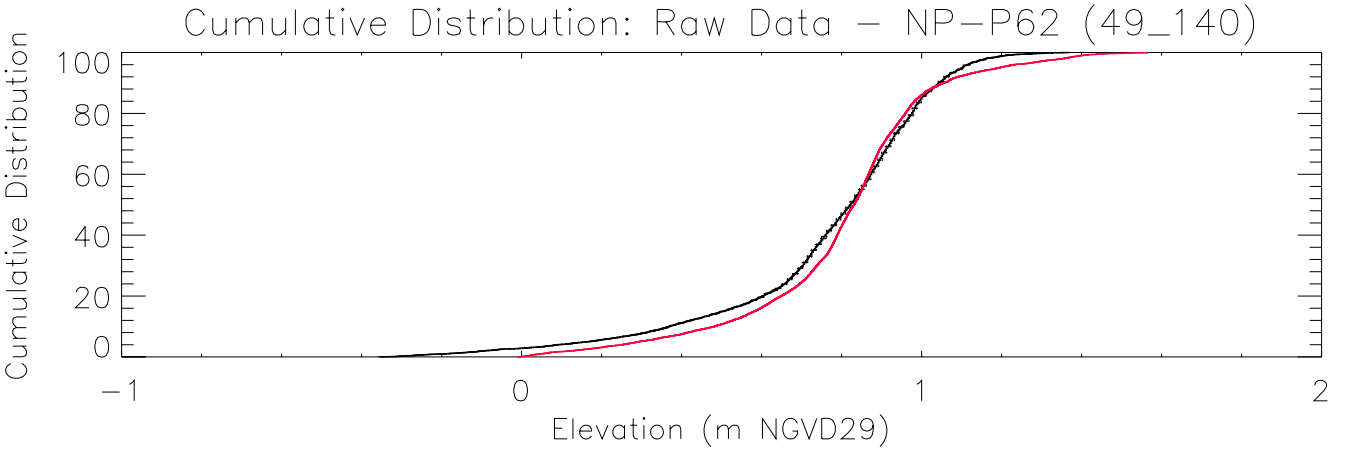

Mean: Water Year – 95% CI – NP–P35 (40_137)
Elevation (m NGVD29)
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

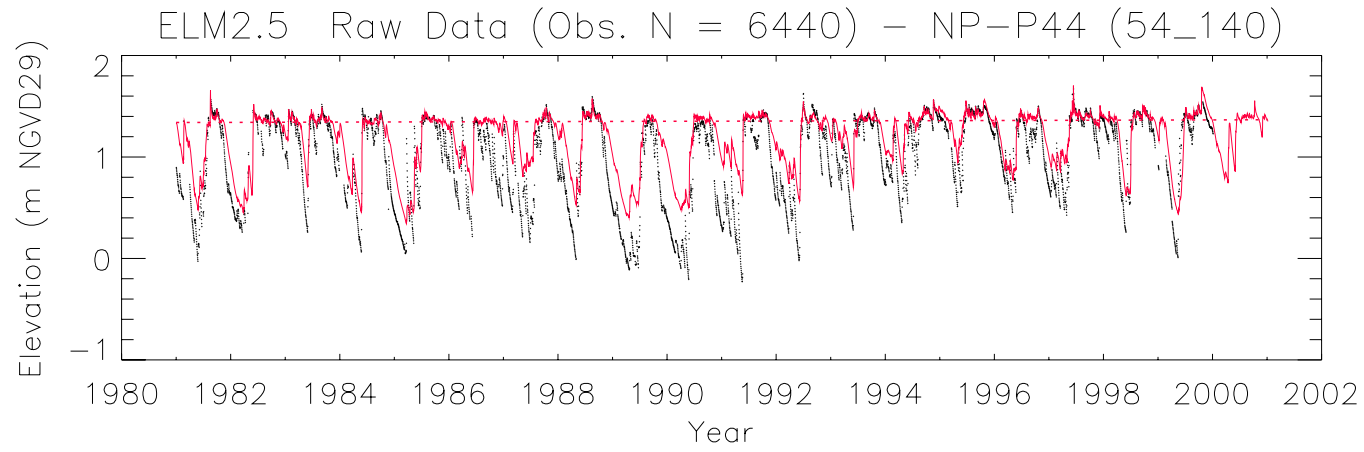

Cumulative Distribution: Raw Data – NP–P35 (40_137)
Cumulative Distribution
100
80
60
40
20
0
–1
0
1
2
Elevation (m NGVD29)

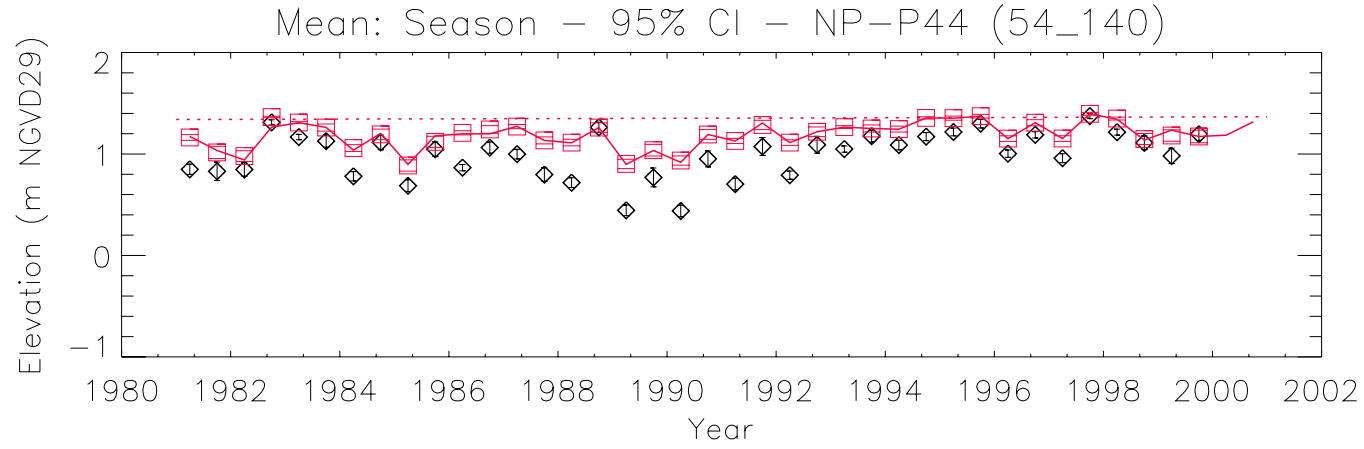

ELM2.5 Raw Data (Obs. N = 6851) – NP–P62 (49_140)
Elevation (m NGVD29)
2
1
0
–1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

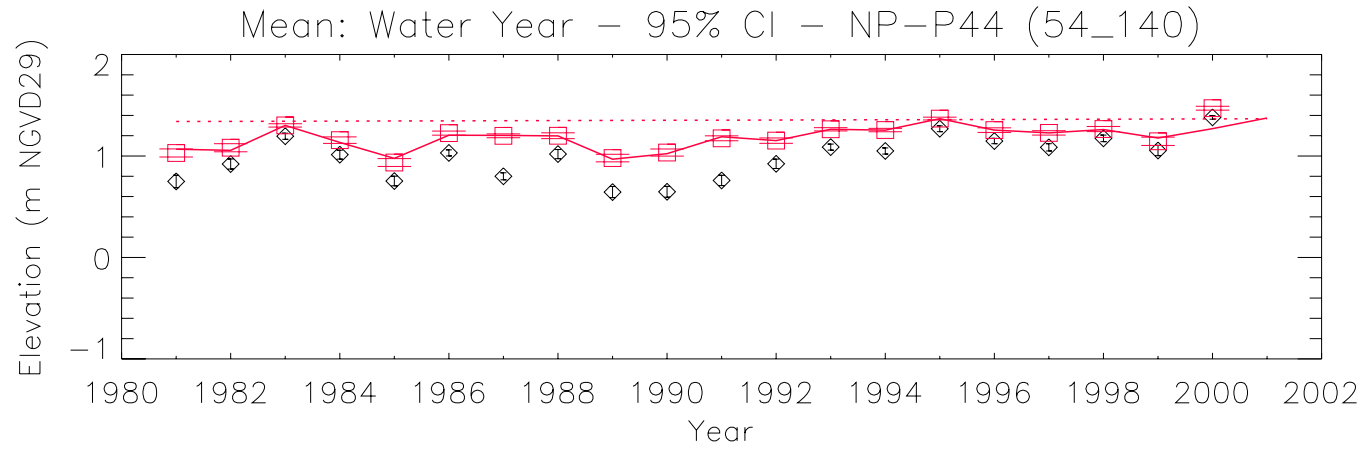

Mean: Season – 95% CI – NP–P62 (49_140)
Elevation (m NGVD29)
2
1
0
–1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

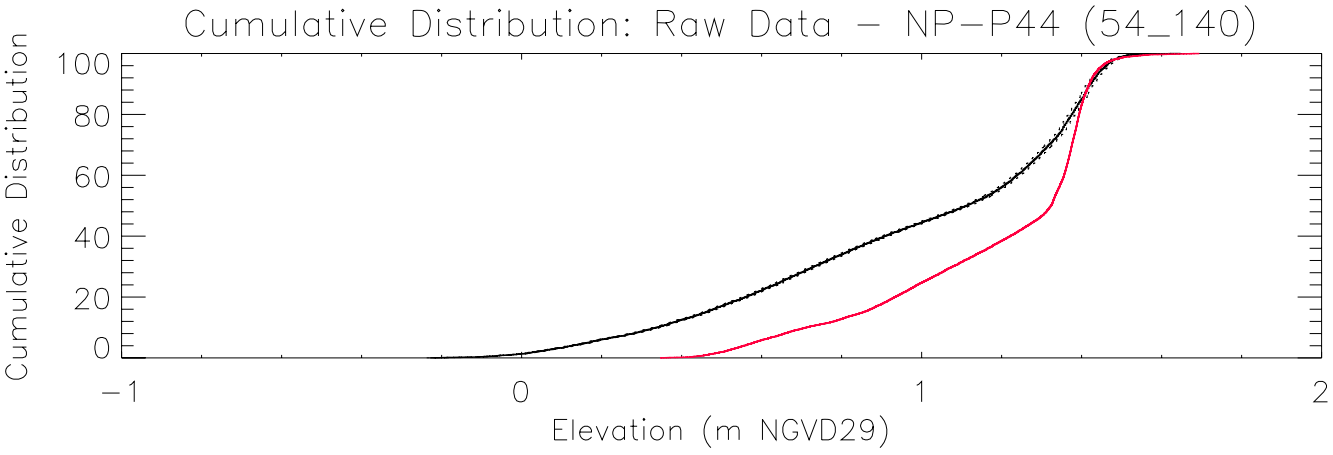

Mean: Water Year – 95% CI – NP–P62 (49_140)
Elevation (m NGVD29)
2
1
0
–1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

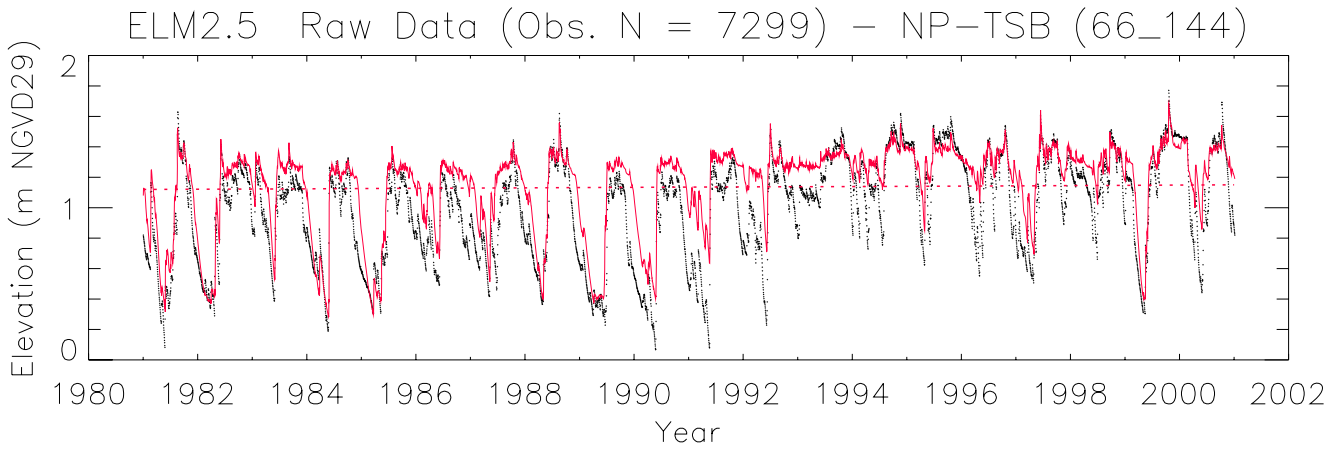

Cumulative Distribution: Raw Data – NP–P62 (49_140)
Cumulative Distribution
100
80
60
40
20
0
–1
0
1
2
Elevation (m NGVD29)

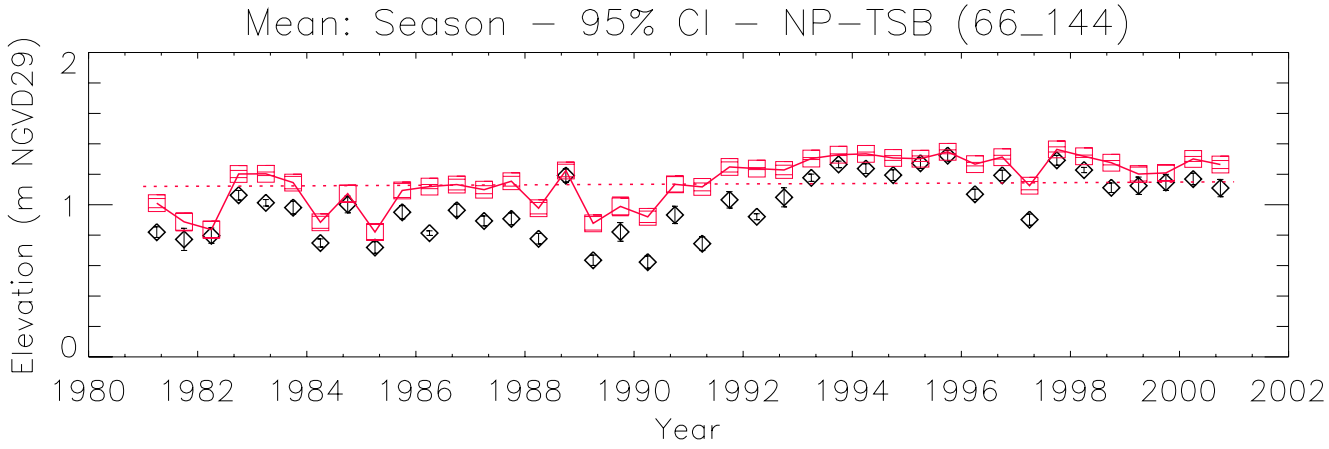

ELM2.5 Raw Data (Obs. N = 6440) – NP–P44 (54_140)
Elevation (m NGVD29)
2
1
0
–1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

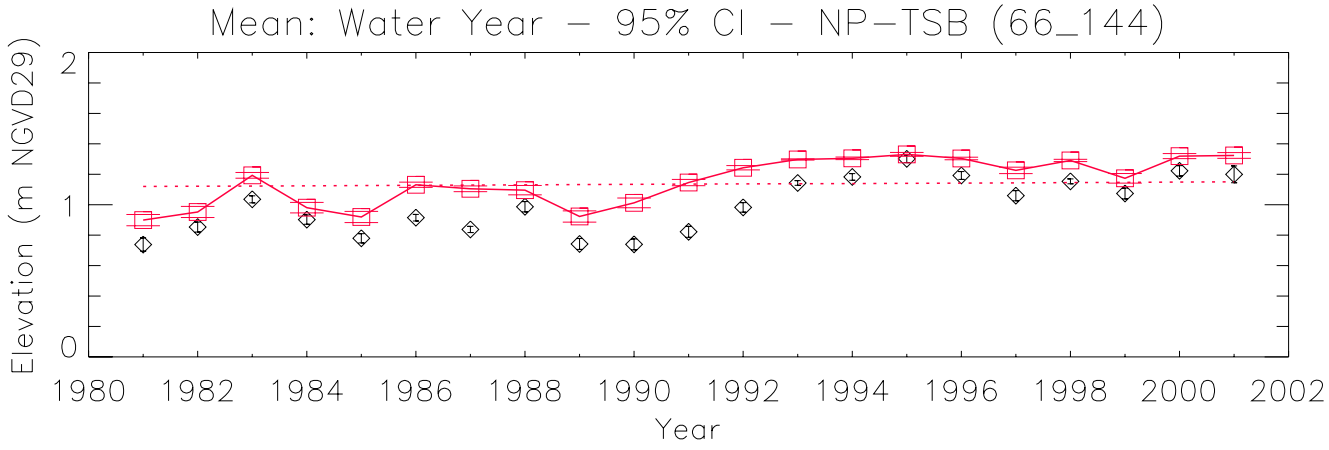

Mean: Season – 95% CI – NP–P44 (54_140)
Elevation (m NGVD29)
2
1
0
–1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

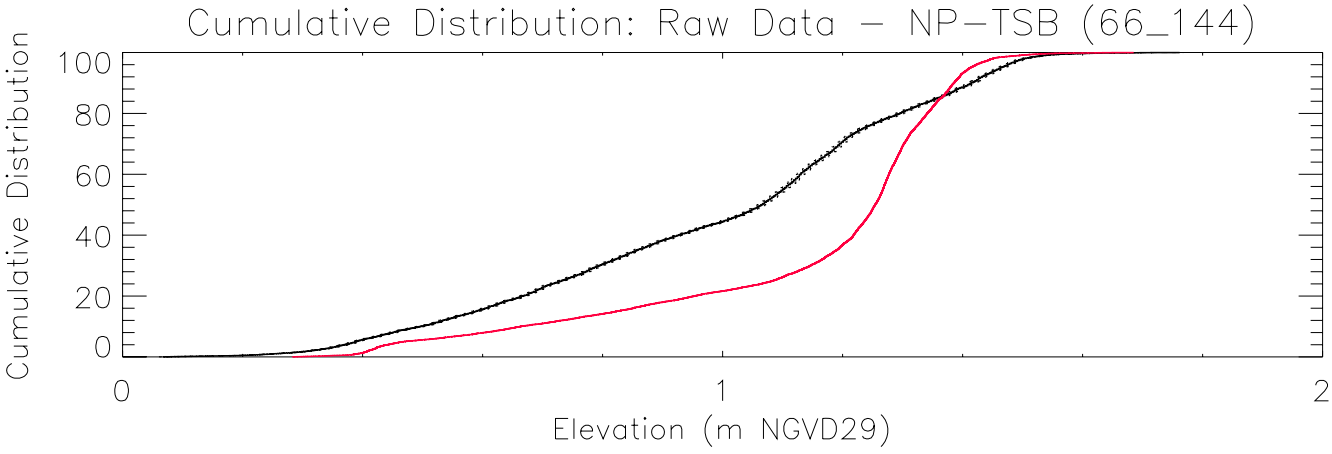

Mean: Water Year – 95% CI – NP–P44 (54_140)
Elevation (m NGVD29)
2
1
0
–1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

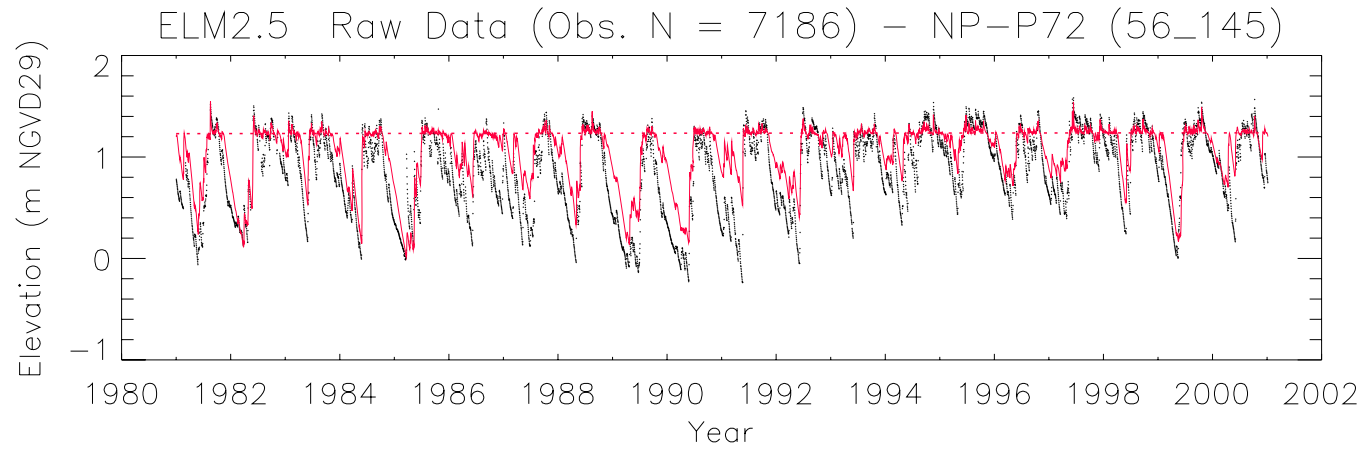

Cumulative Distribution: Raw Data – NP–P44 (54_140)
Cumulative Distribution
100
80
60
40
20
0
–1
0
1
2
Elevation (m NGVD29)

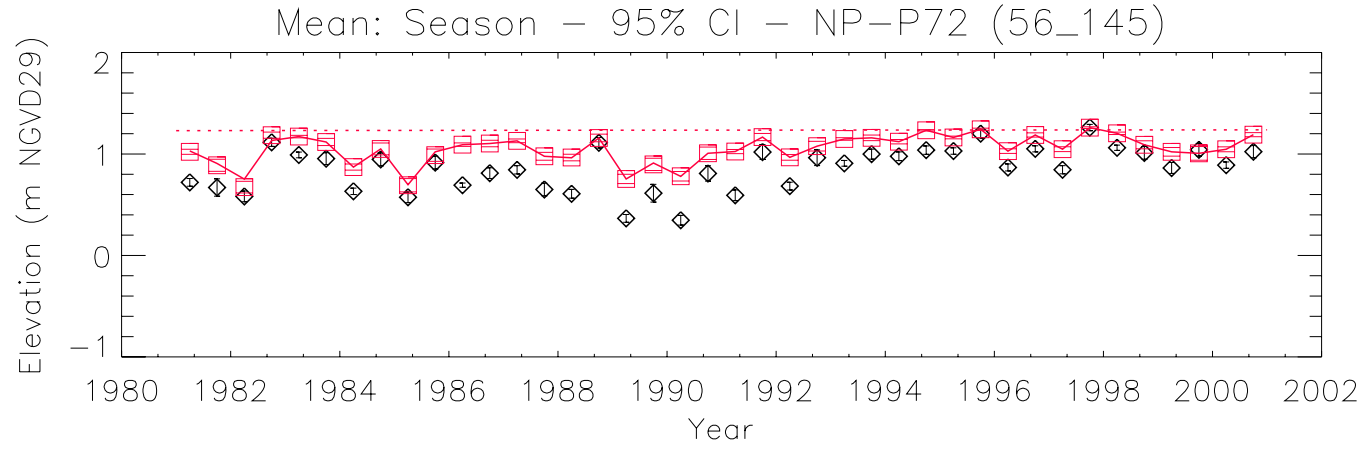

ELM2.5 Raw Data (Obs. N = 7299) – NP–TSB (66_144)
Elevation (m NGVD29)
0
1
2
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

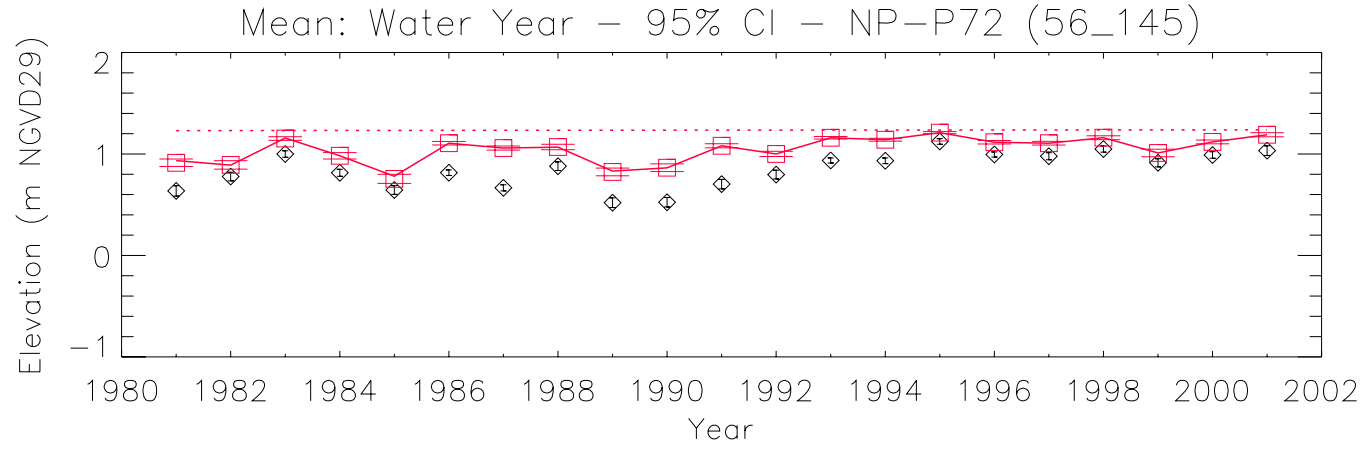

Mean: Season – 95% CI – NP–TSB (66_144)
Elevation (m NGVD29)
0
1
2
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

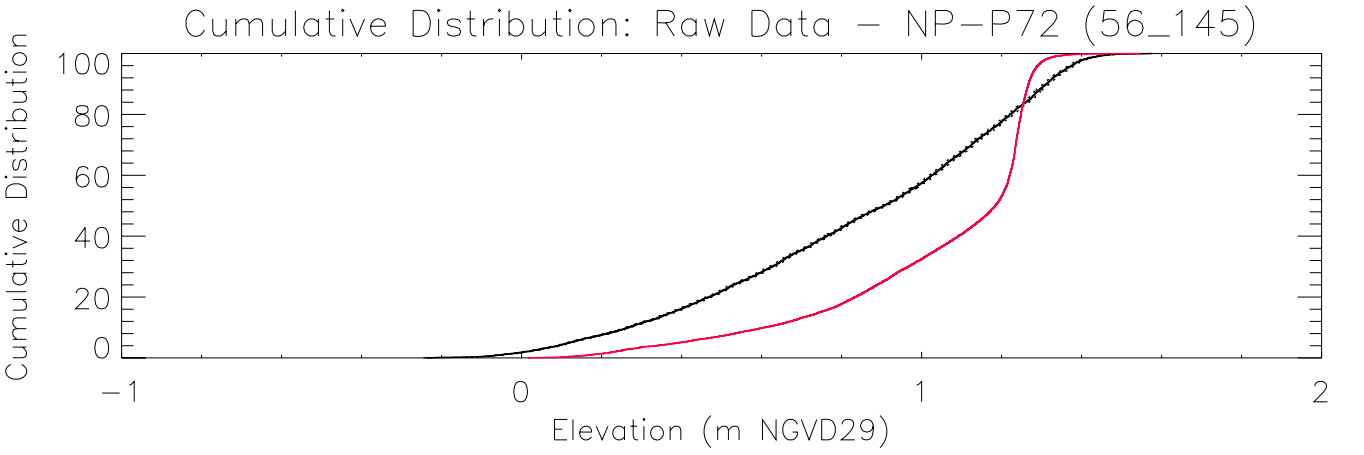

Mean: Water Year – 95% CI – NP–TSB (66_144)
Elevation (m NGVD29)
0
1
2
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

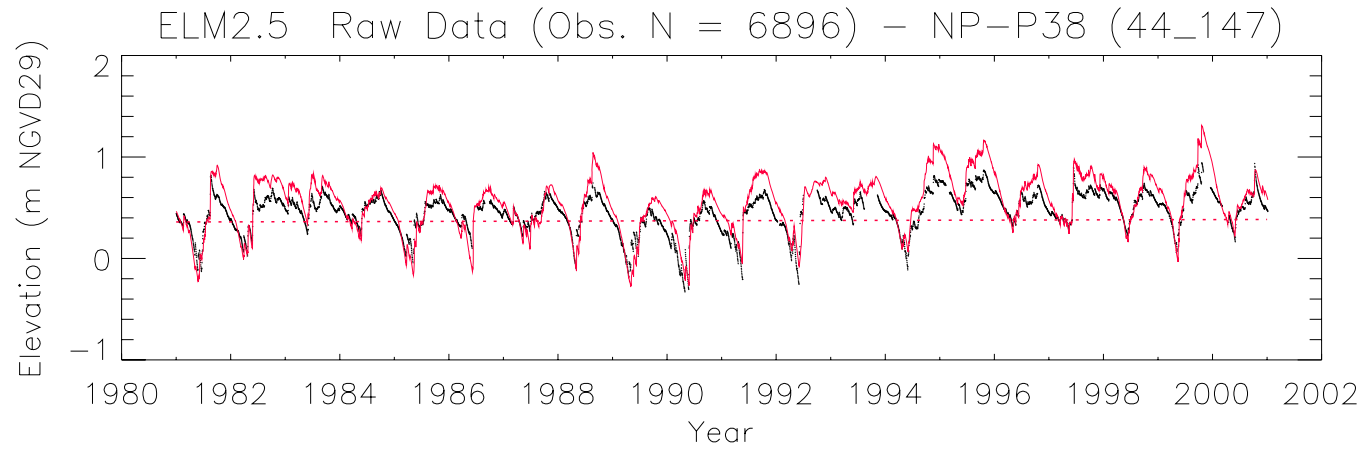

Cumulative Distribution: Raw Data – NP–TSB (66_144)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
Elevation (m NGVD29)

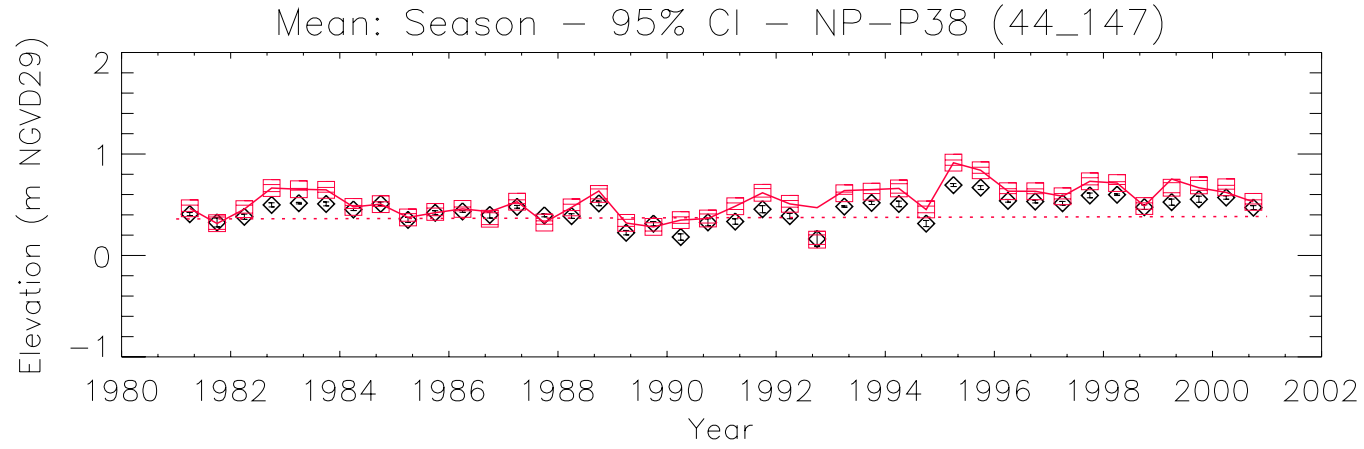

ELM2.5 Raw Data (Obs. N = 7186) – NP–P72 (56_145)
Elevation (m NGVD29)
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

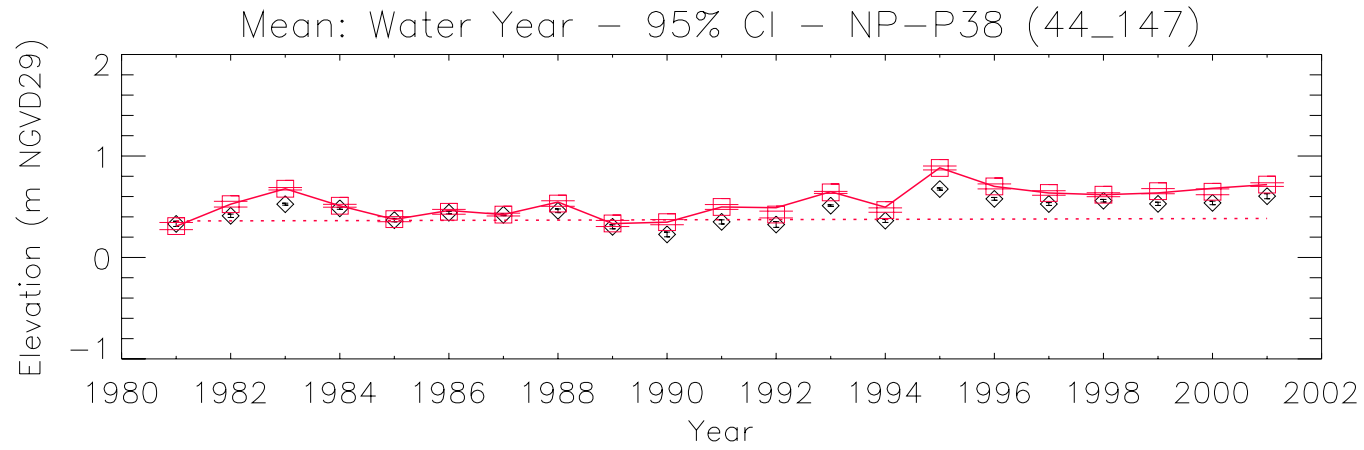

Mean: Season – 95% CI – NP–P72 (56_145)
Elevation (m NGVD29)
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

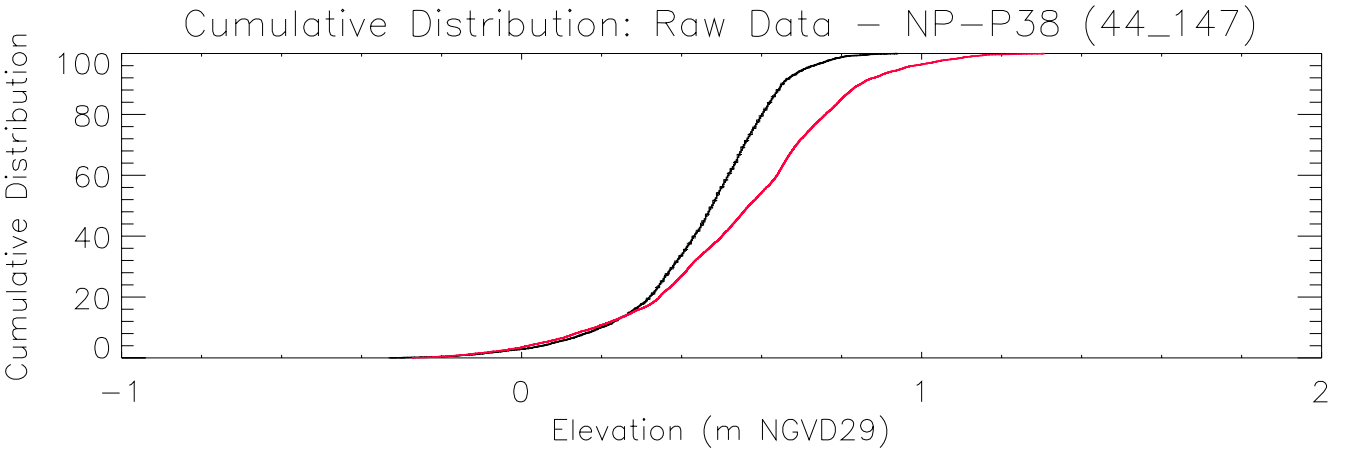

Mean: Water Year – 95% CI – NP–P72 (56_145)
Elevation (m NGVD29)
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

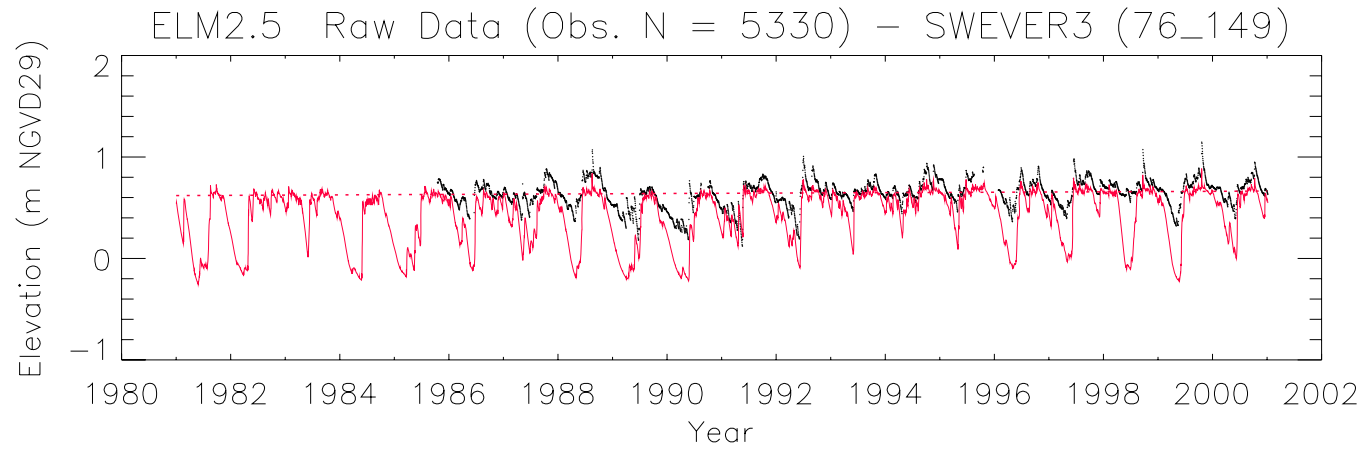

Cumulative Distribution: Raw Data – NP–P72 (56_145)
Cumulative Distribution
100
80
60
40
20
0
–1
0
1
2
Elevation (m NGVD29)

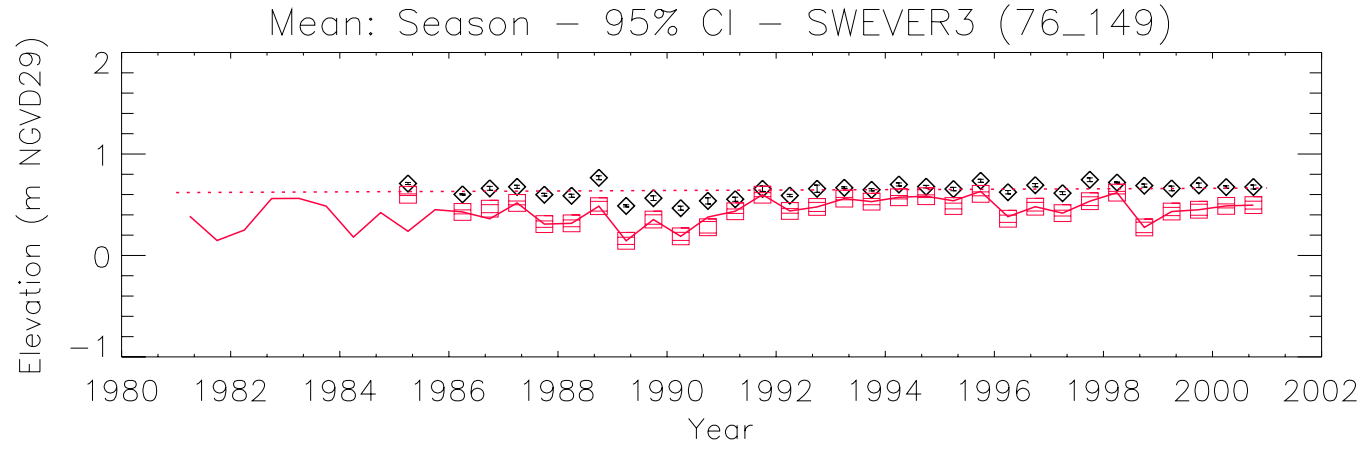

ELM2.5 Raw Data (Obs. N = 6896) – NP–P38 (44_147)
Elevation (m NGVD29)
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

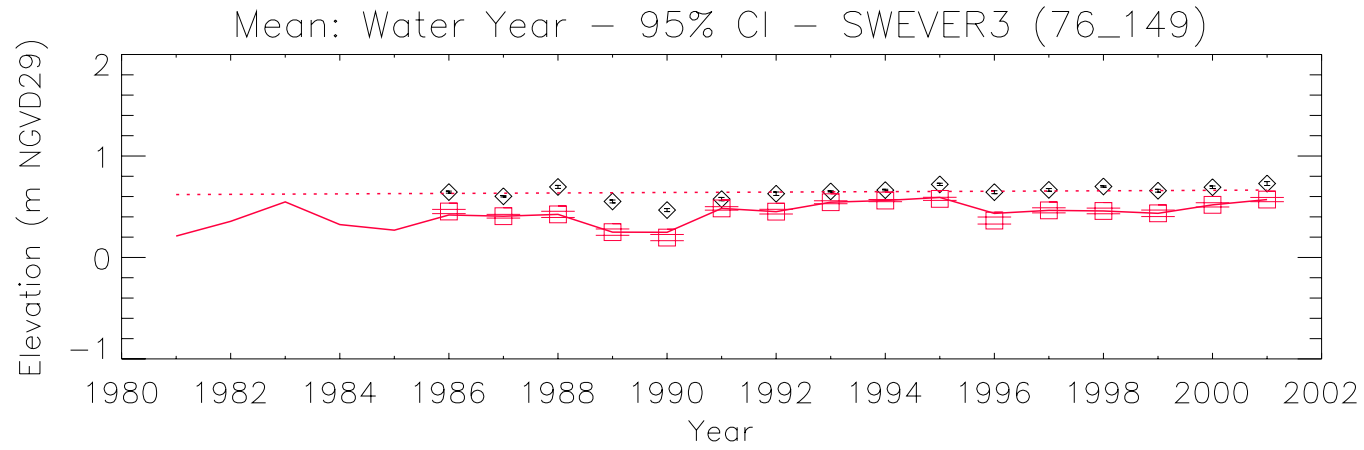

Mean: Season – 95% CI – NP–P38 (44_147)
Elevation (m NGVD29)
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

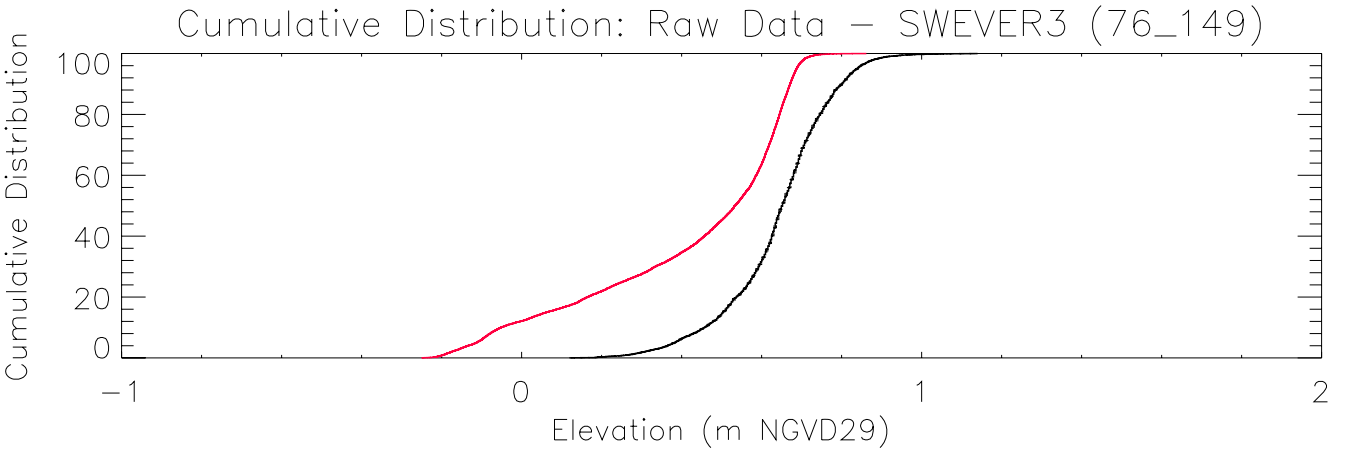

Mean: Water Year – 95% CI – NP–P38 (44_147)
Elevation (m NGVD29)
2
1
0
–1
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

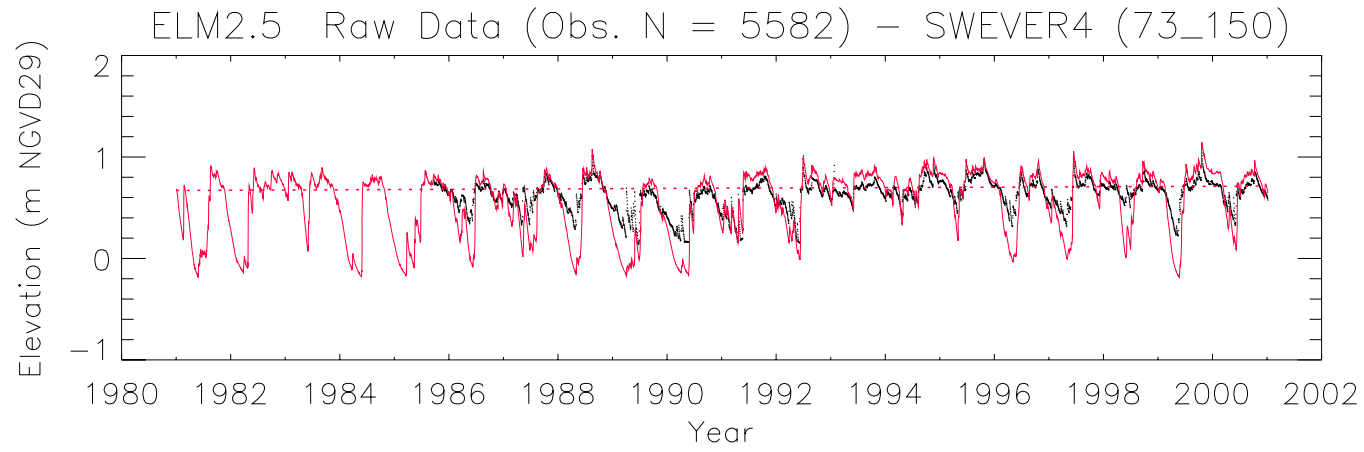

Cumulative Distribution: Raw Data – NP–P38 (44_147)
Cumulative Distribution
100
80
60
40
20
0
–1
0
1
2
Elevation (m NGVD29)

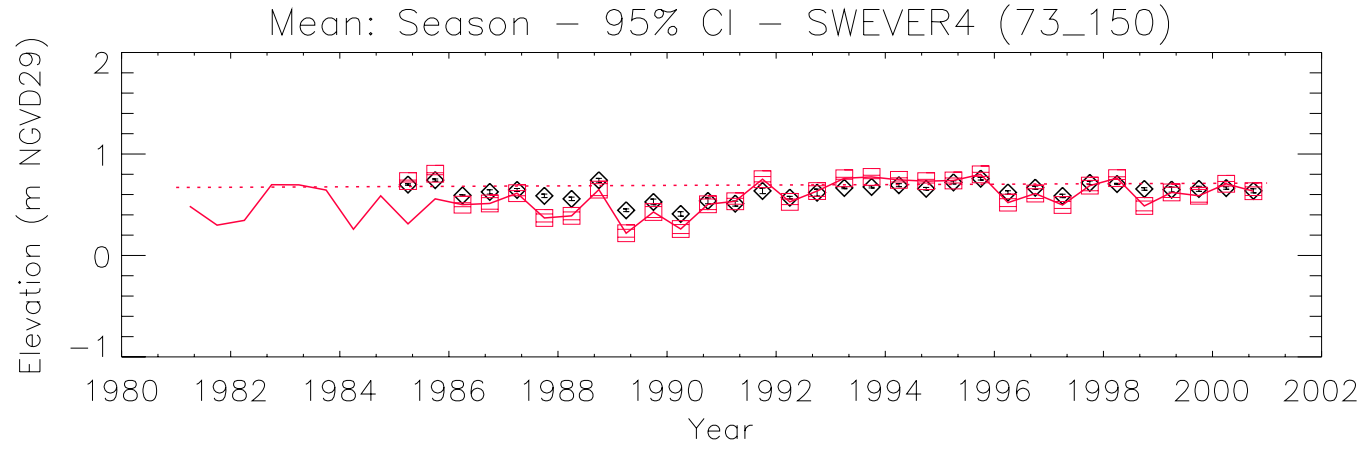

ELM2.5 Raw Data (Obs. N = 5330) – SWEVER3 (76_149)
Elevation (m NGVD29)
2
1
0
−1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

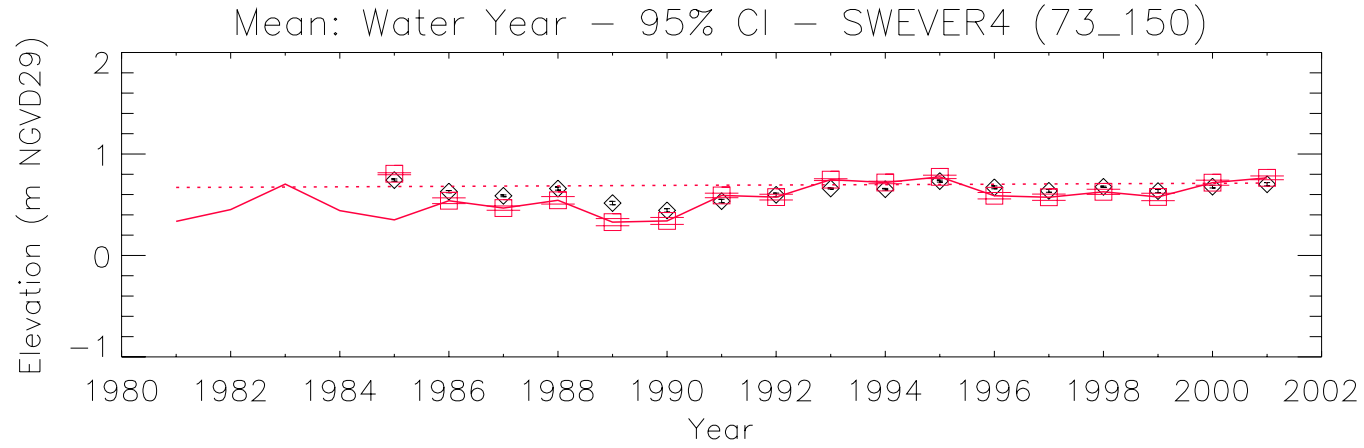

Mean: Season – 95% CI – SWEVER3 (76_149)
Elevation (m NGVD29)
2
1
0
−1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

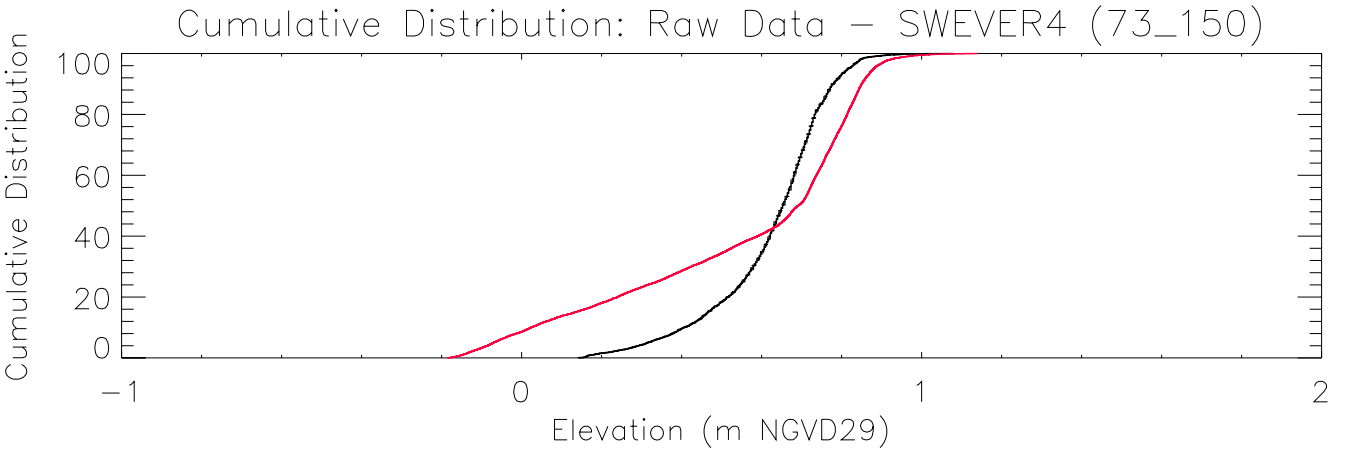

Mean: Water Year – 95% CI – SWEVER3 (76_149)
Elevation (m NGVD29)
2
1
0
−1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

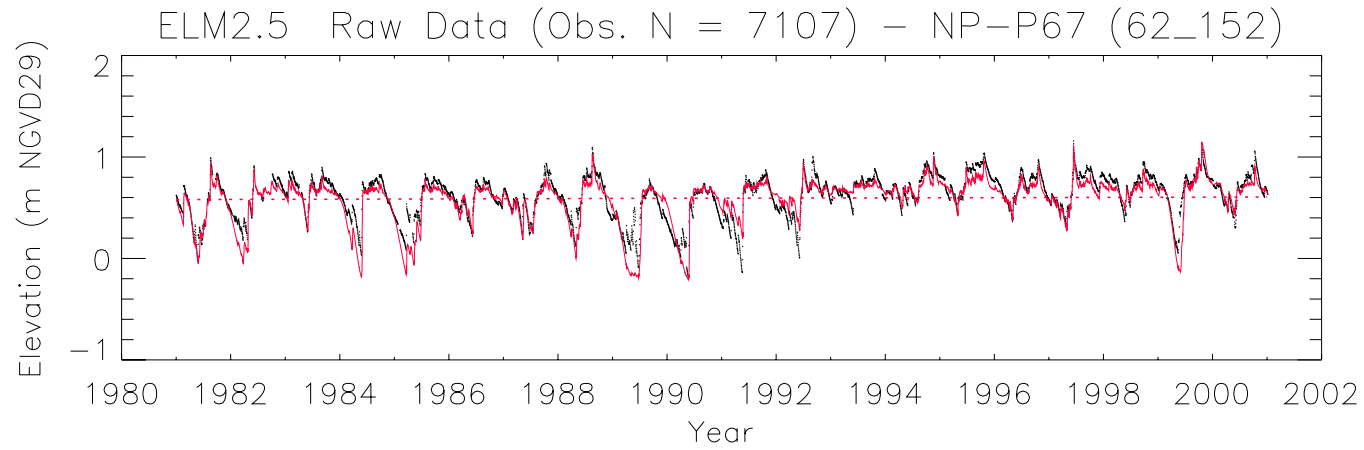

Cumulative Distribution: Raw Data – SWEVER3 (76_149)
Cumulative Distribution
100
80
60
40
20
0
−1
0
1
2
Elevation (m NGVD29)

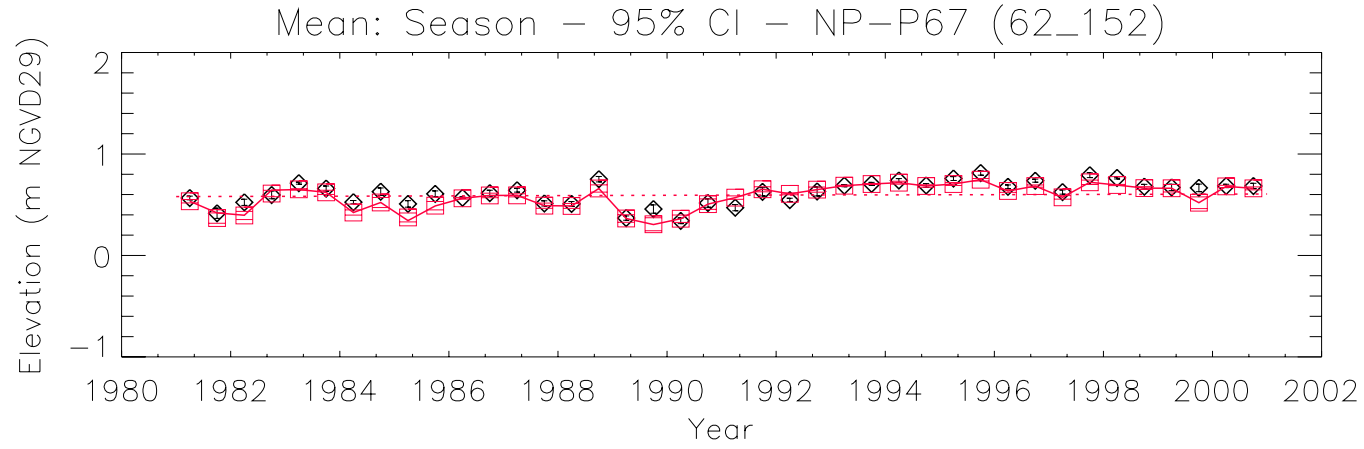

ELM2.5 Raw Data (Obs. N = 5582) – SWEVER4 (73_150)
Elevation (m NGVD29)
2
1
0
−1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

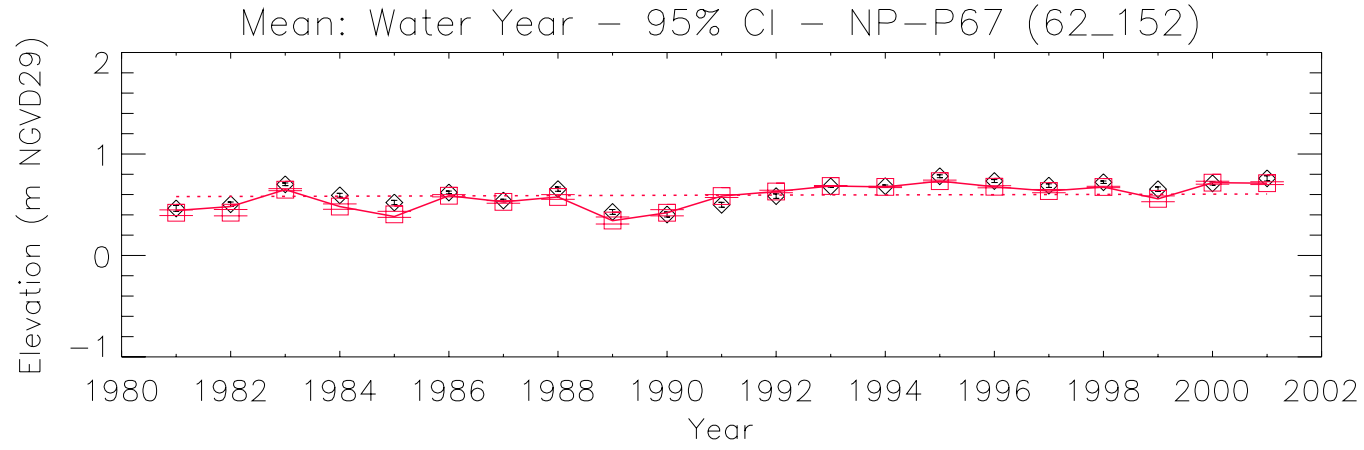

Mean: Season – 95% CI – SWEVER4 (73_150)
Elevation (m NGVD29)
2
1
0
−1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

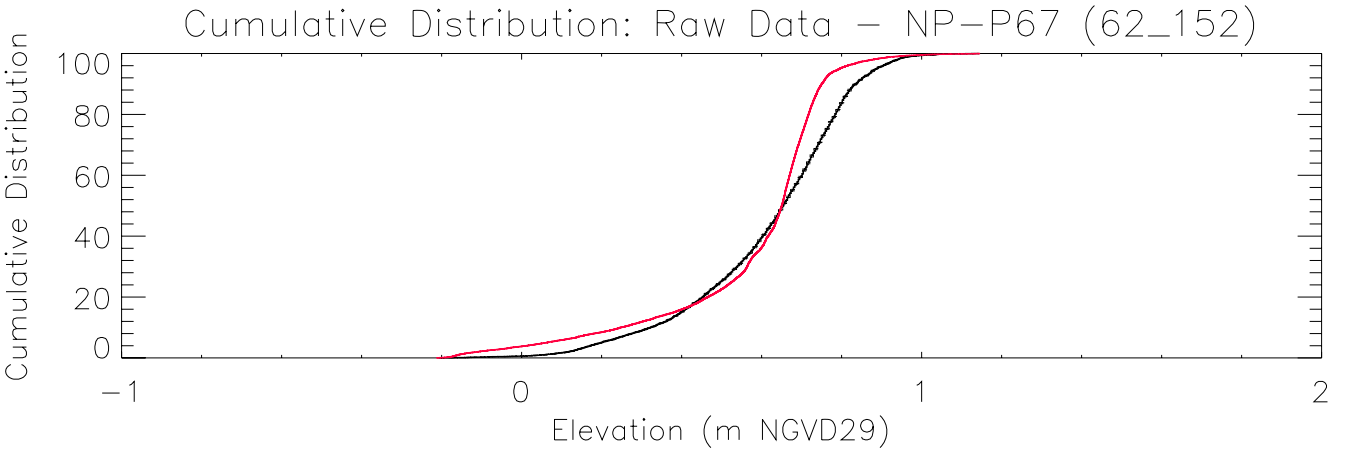

Mean: Water Year – 95% CI – SWEVER4 (73_150)
Elevation (m NGVD29)
2
1
0
−1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

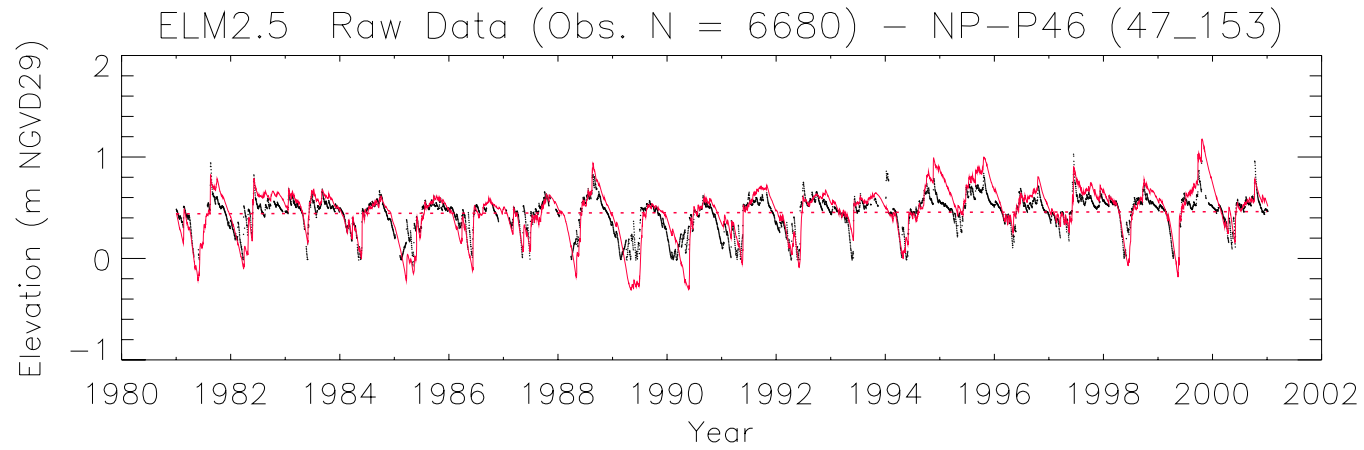

Cumulative Distribution: Raw Data – SWEVER4 (73_150)
Cumulative Distribution
100
80
60
40
20
0
−1
0
1
2
Elevation (m NGVD29)

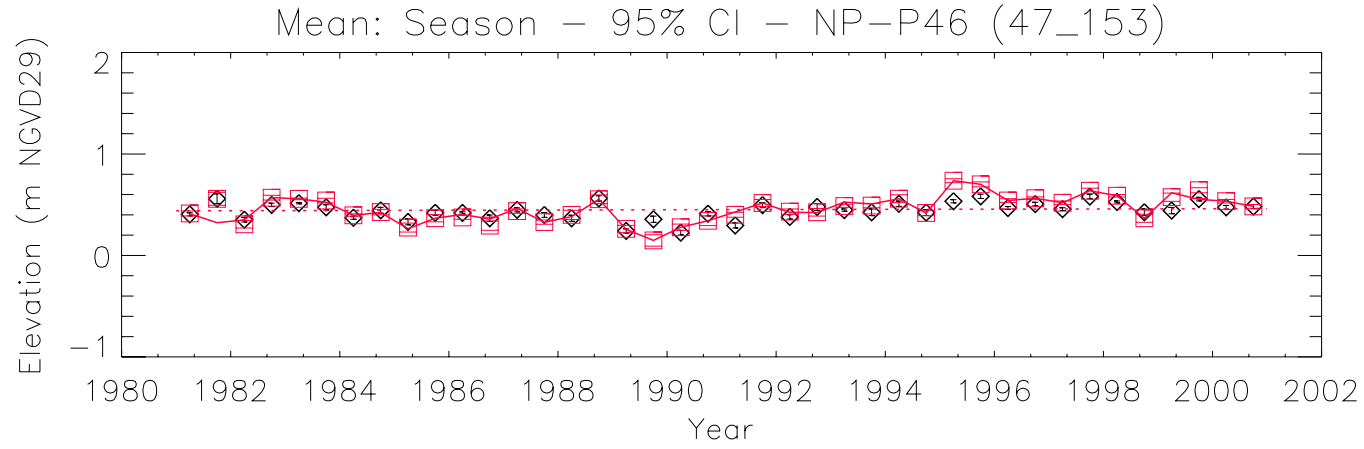

ELM2.5 Raw Data (Obs. N = 7107) – NP–P67 (62_152)
Elevation (m NGVD29)
2
1
0
–1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

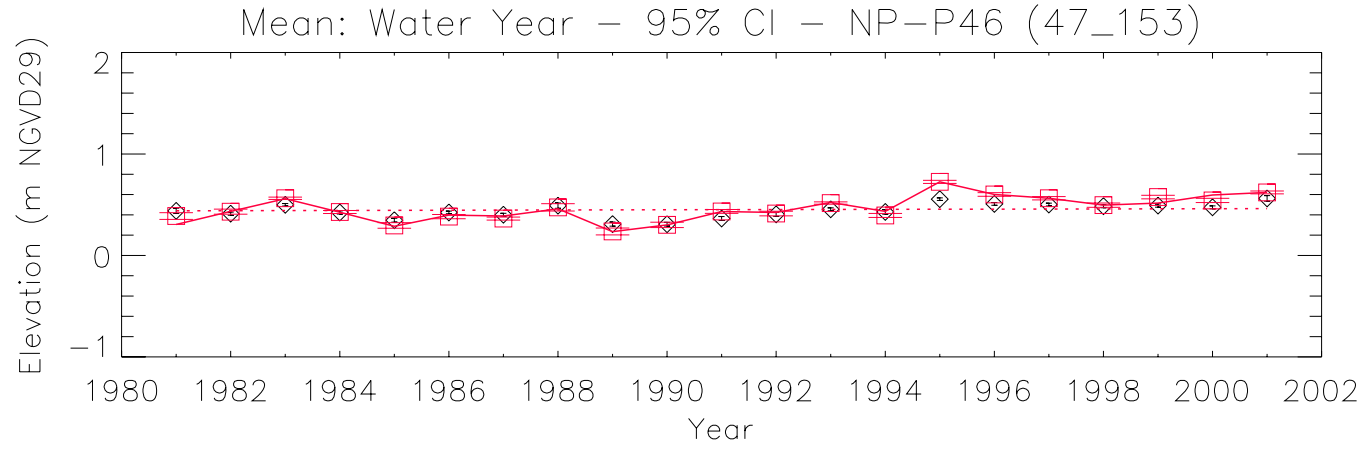

Mean: Season – 95% CI – NP–P67 (62_152)
Elevation (m NGVD29)
2
1
0
–1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

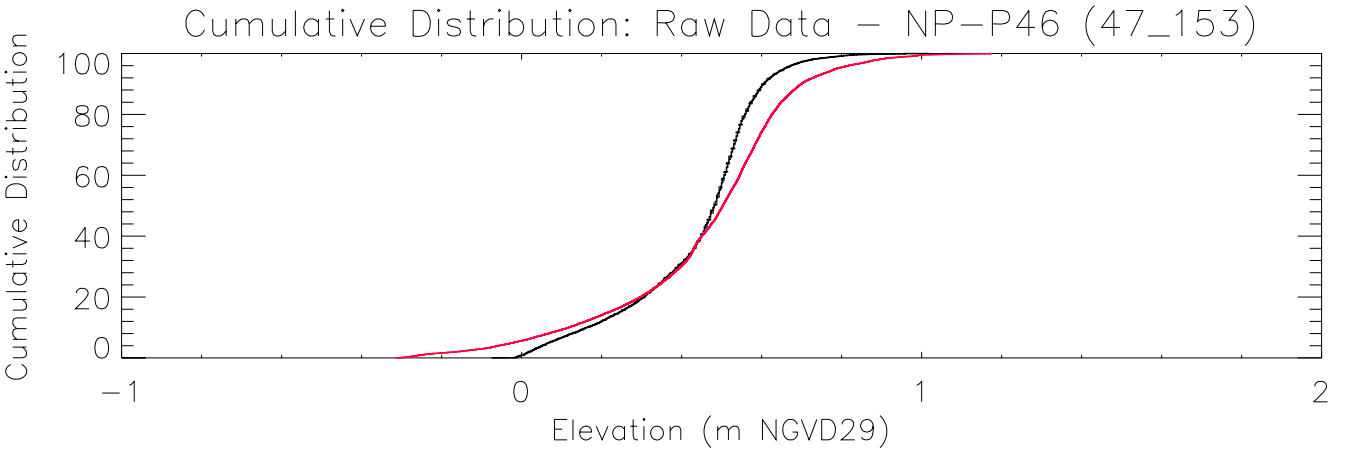

Mean: Water Year – 95% CI – NP–P67 (62_152)
Elevation (m NGVD29)
2
1
0
–1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

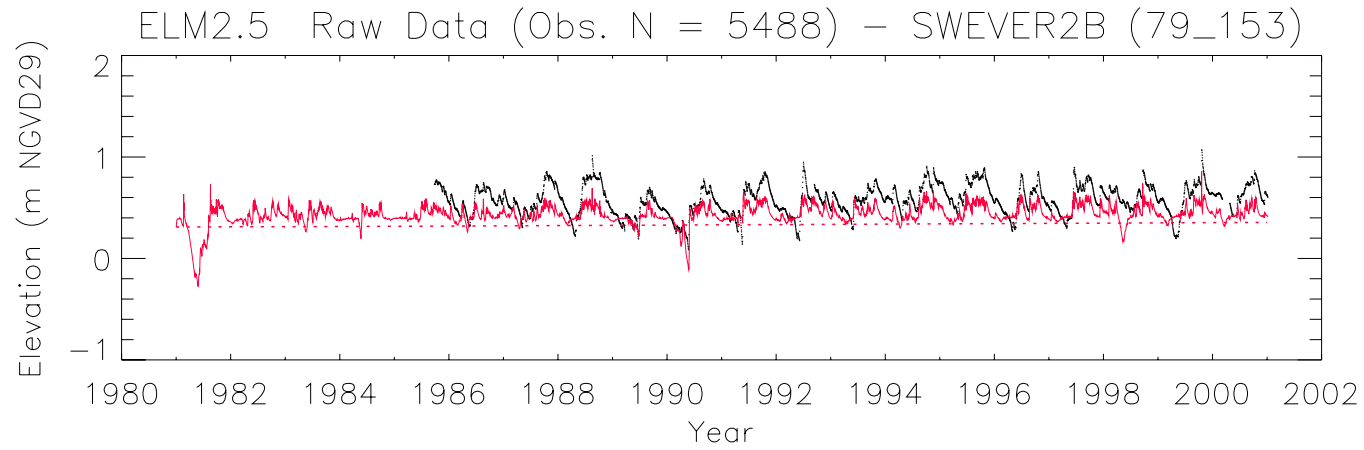

Cumulative Distribution: Raw Data – NP–P67 (62_152)
Cumulative Distribution
100
80
60
40
20
0
–1
0
1
2
Elevation (m NGVD29)

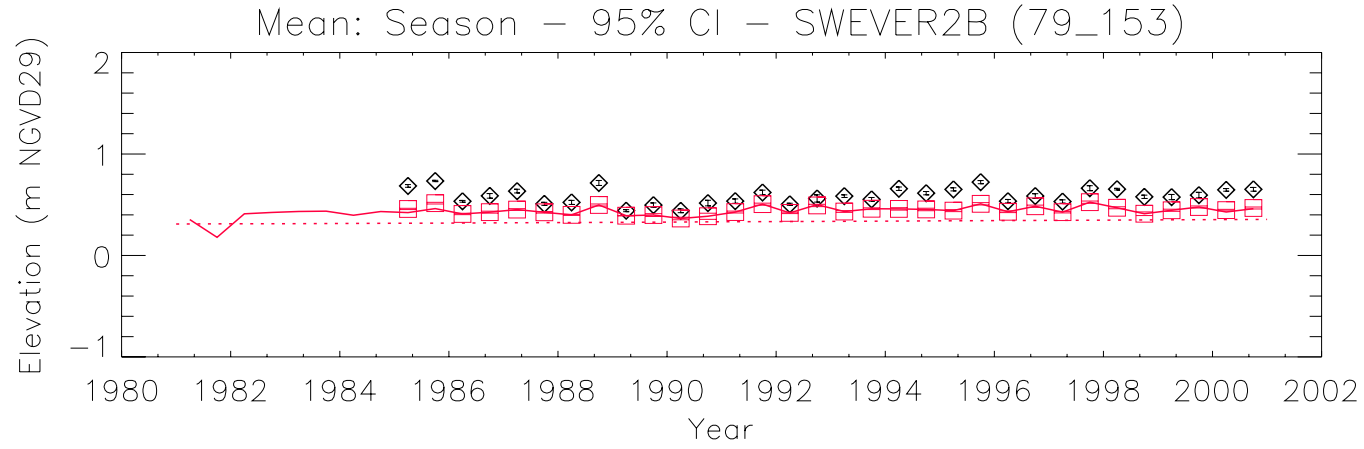

ELM2.5 Raw Data (Obs. N = 6680) – NP–P46 (47_153)
Elevation (m NGVD29)
2
1
0
–1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

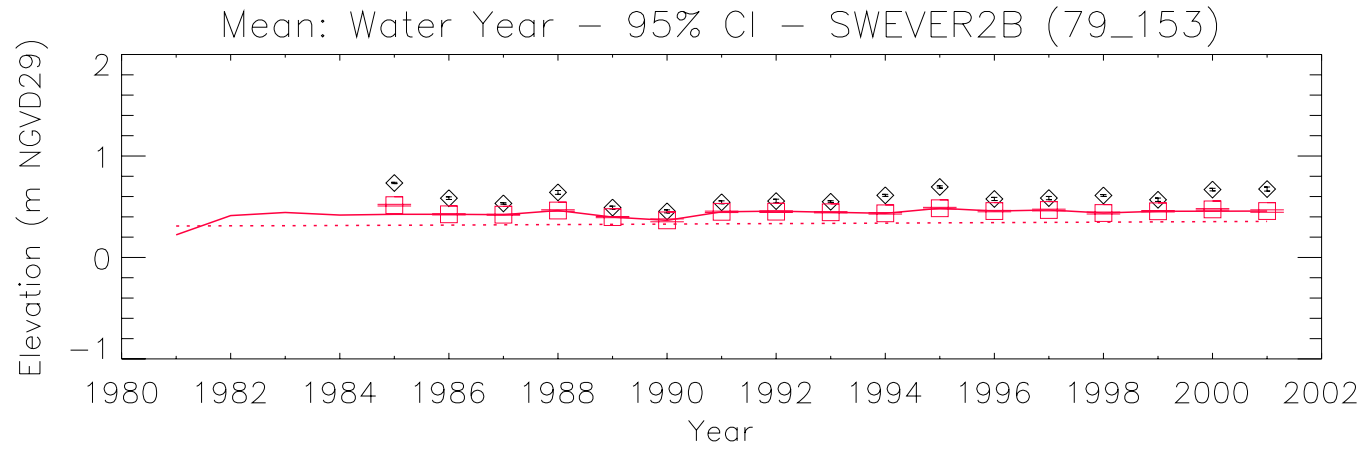

Mean: Season – 95% CI – NP–P46 (47_153)
Elevation (m NGVD29)
2
1
0
–1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

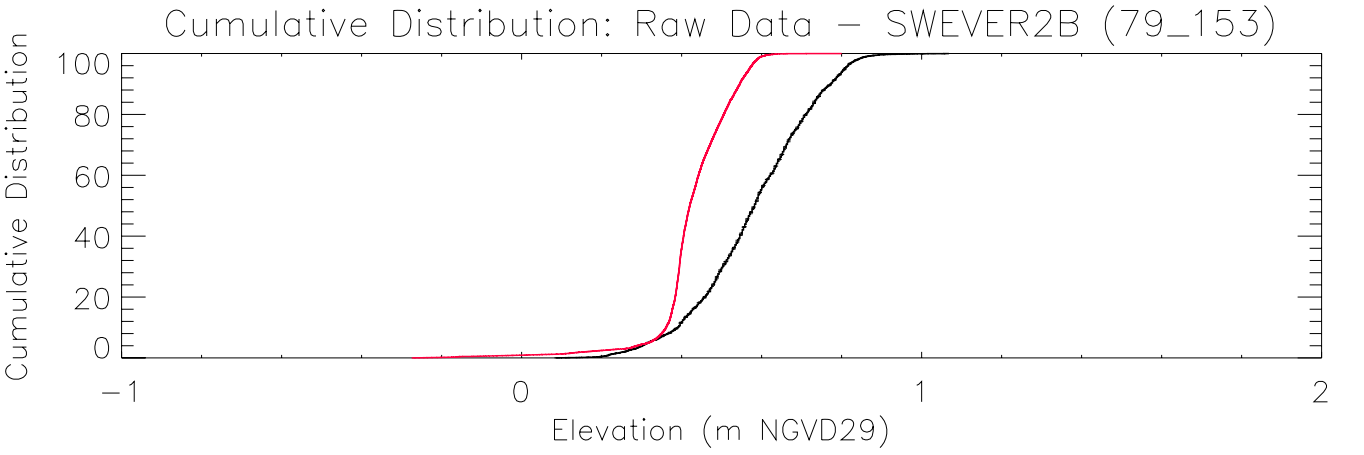

Mean: Water Year – 95% CI – NP–P46 (47_153)
Elevation (m NGVD29)
2
1
0
–1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

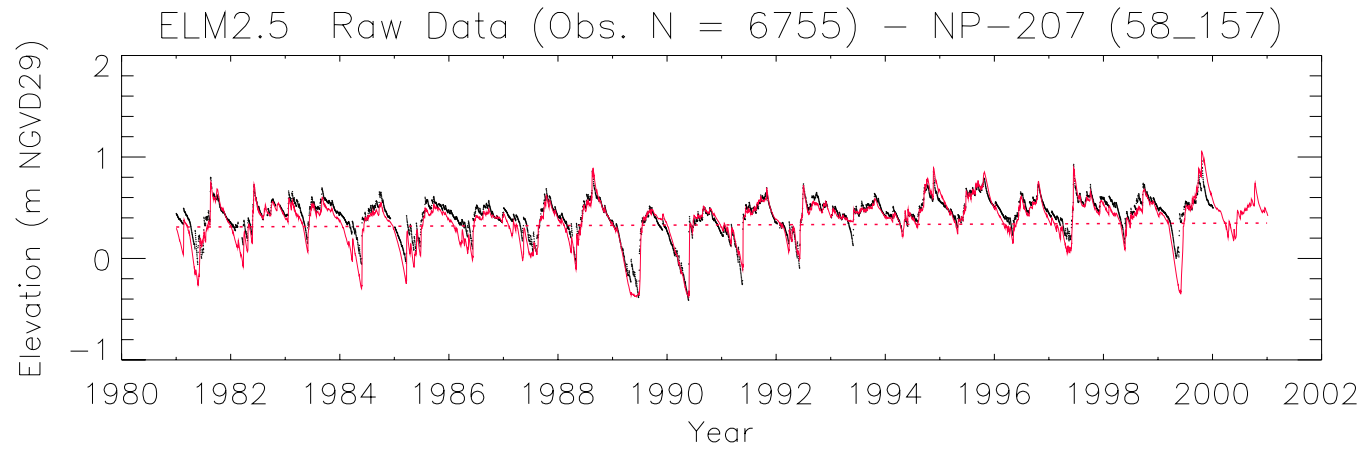

Cumulative Distribution: Raw Data – NP–P46 (47_153)
Cumulative Distribution
100
80
60
40
20
0
–1
0
1
2
Elevation (m NGVD29)

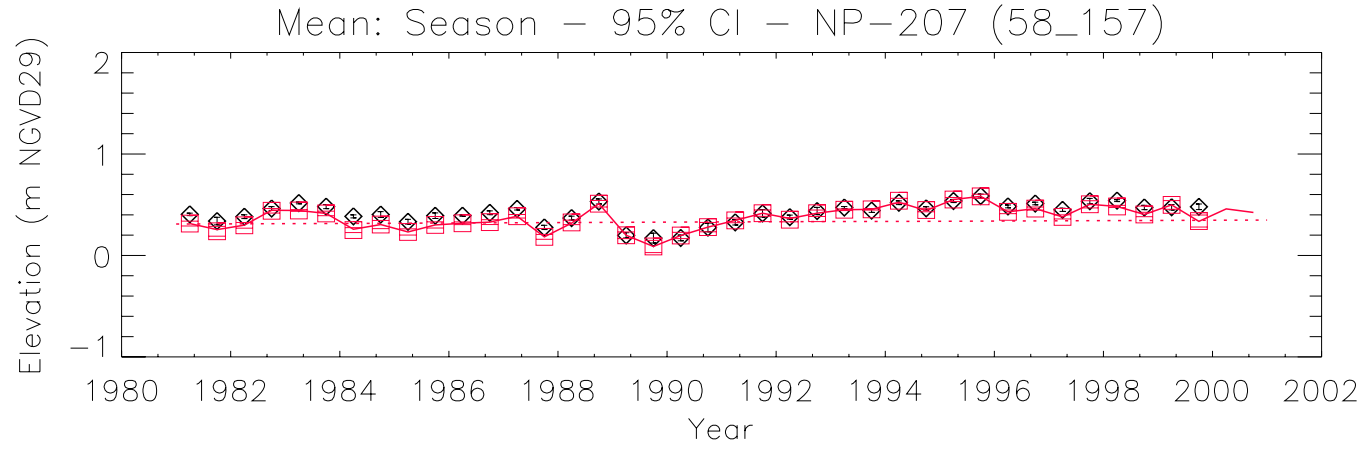

ELM2.5 Raw Data (Obs. N = 5488) – SWEVER2B (79_153)
Elevation (m NGVD29)
2
1
0
−1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

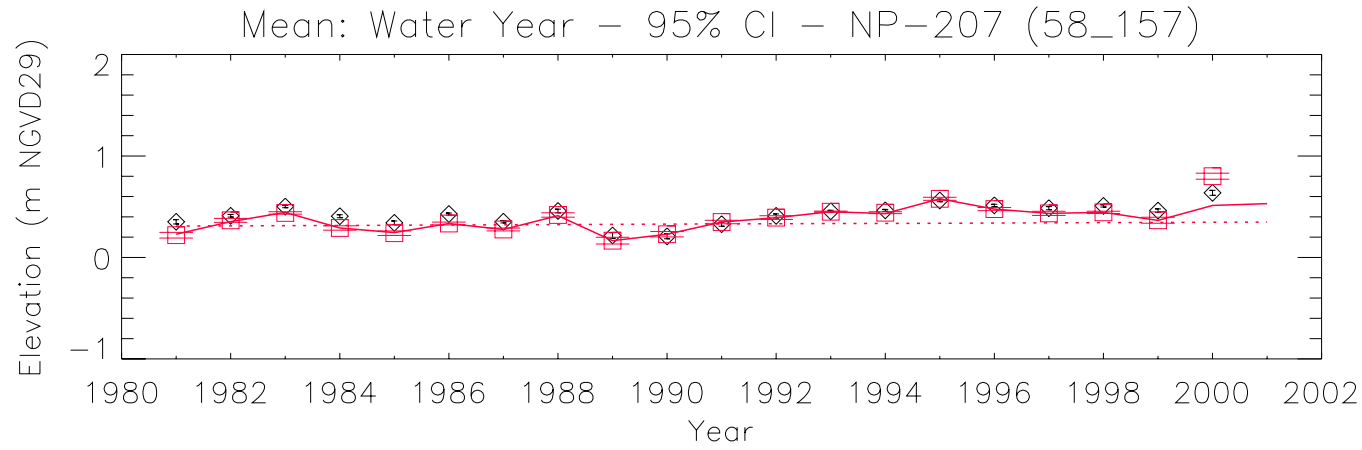

Mean: Season – 95% CI – SWEVER2B (79_153)
Elevation (m NGVD29)
2
1
0
−1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

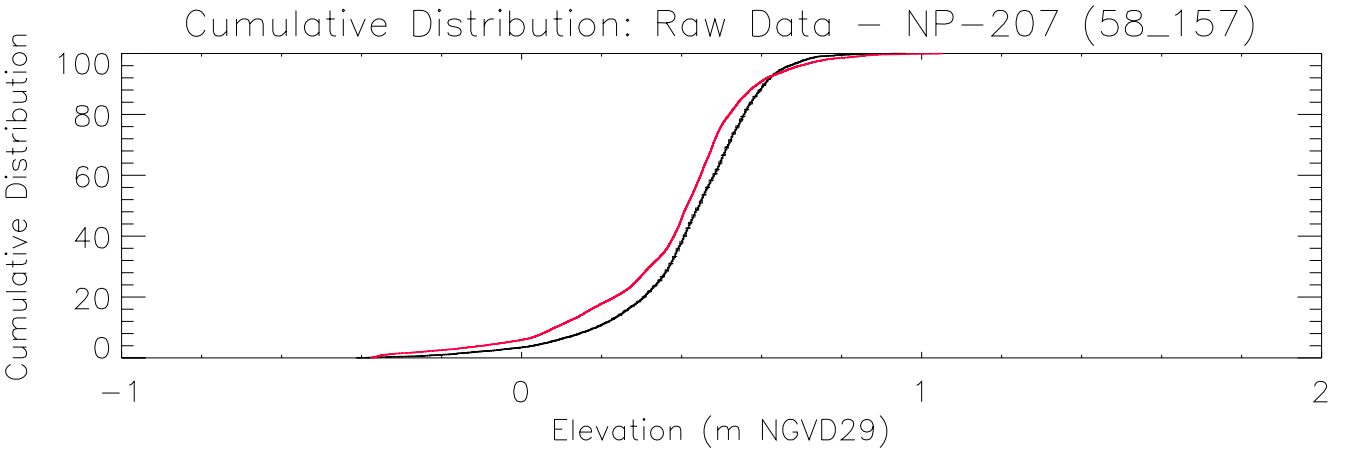

Mean: Water Year – 95% CI – SWEVER2B (79_153)
Elevation (m NGVD29)
2
1
0
−1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

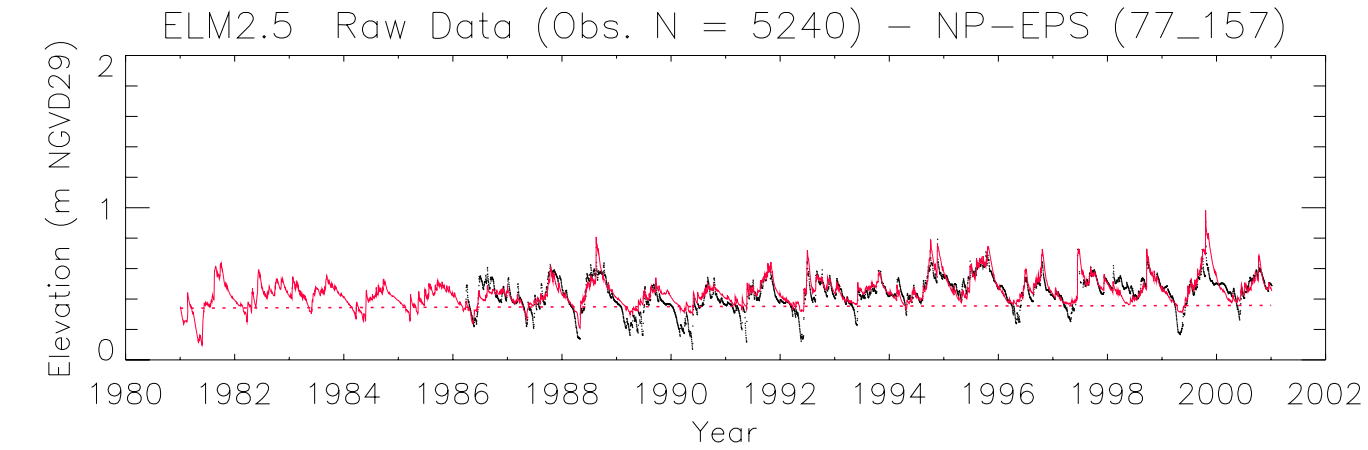

Cumulative Distribution: Raw Data – SWEVER2B (79_153)
Cumulative Distribution
100
80
60
40
20
0
−1
0
1
2
Elevation (m NGVD29)

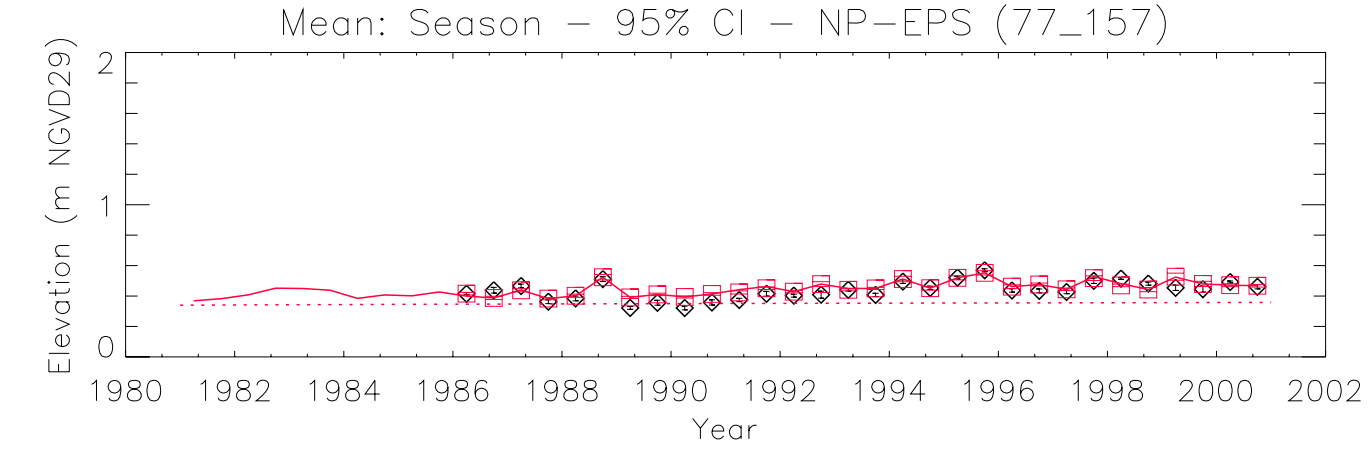

ELM2.5 Raw Data (Obs. N = 6755) – NP–207 (58_157)
Elevation (m NGVD29)
2
1
0
–1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

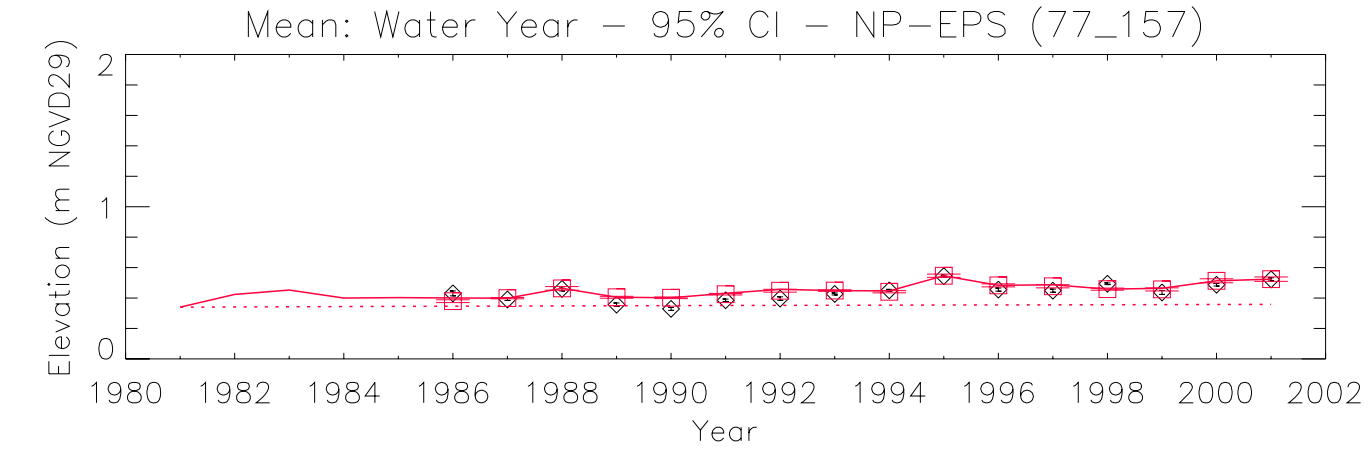

Mean: Season – 95% CI – NP–207 (58_157)
Elevation (m NGVD29)
2
1
0
–1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

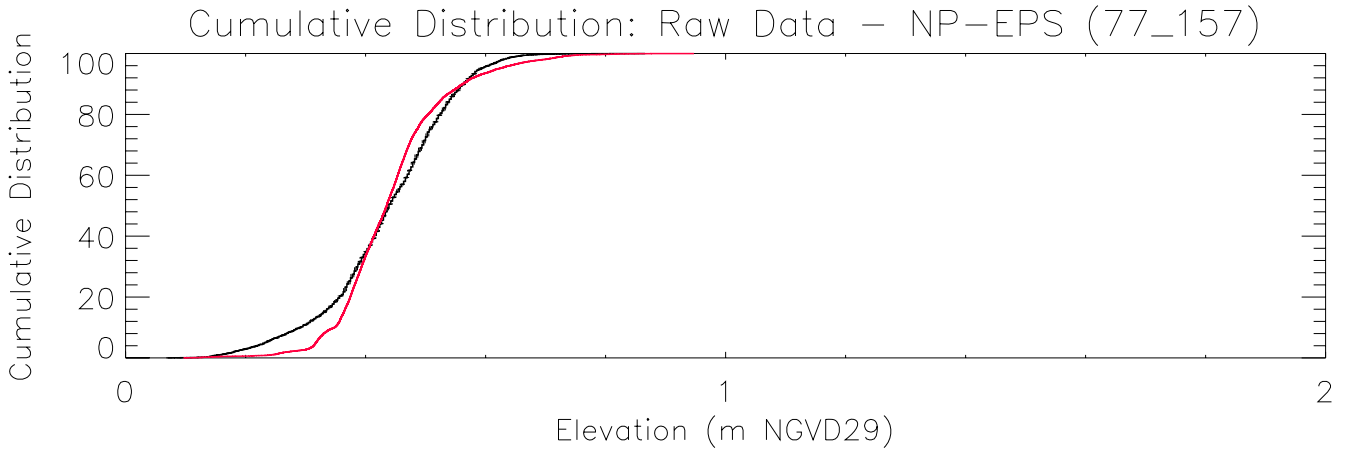

Mean: Water Year – 95% CI – NP–207 (58_157)
Elevation (m NGVD29)
2
1
0
–1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

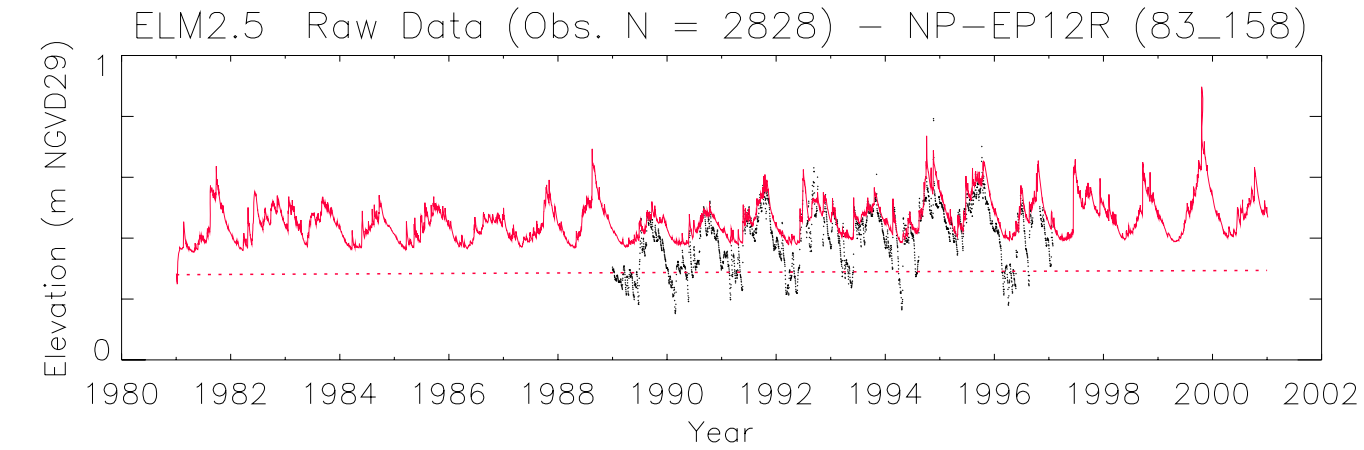

Cumulative Distribution: Raw Data – NP–207 (58_157)
Cumulative Distribution
100
80
60
40
20
0
–1
0
1
2
Elevation (m NGVD29)

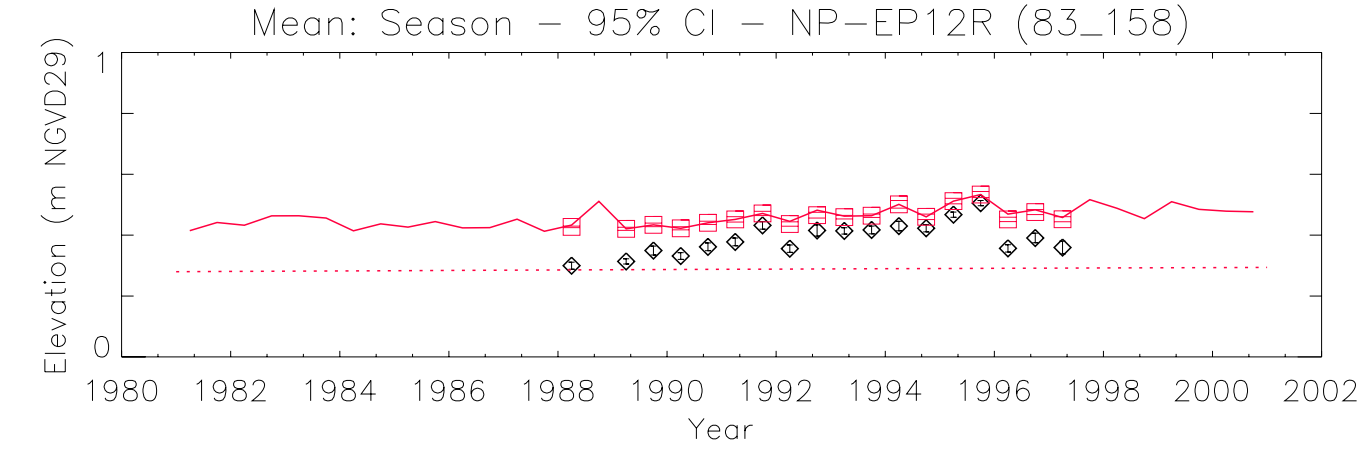

ELM2.5 Raw Data (Obs. N = 5240) – NP–EPS (77_157)
Elevation (m NGVD29)
0
1
2
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

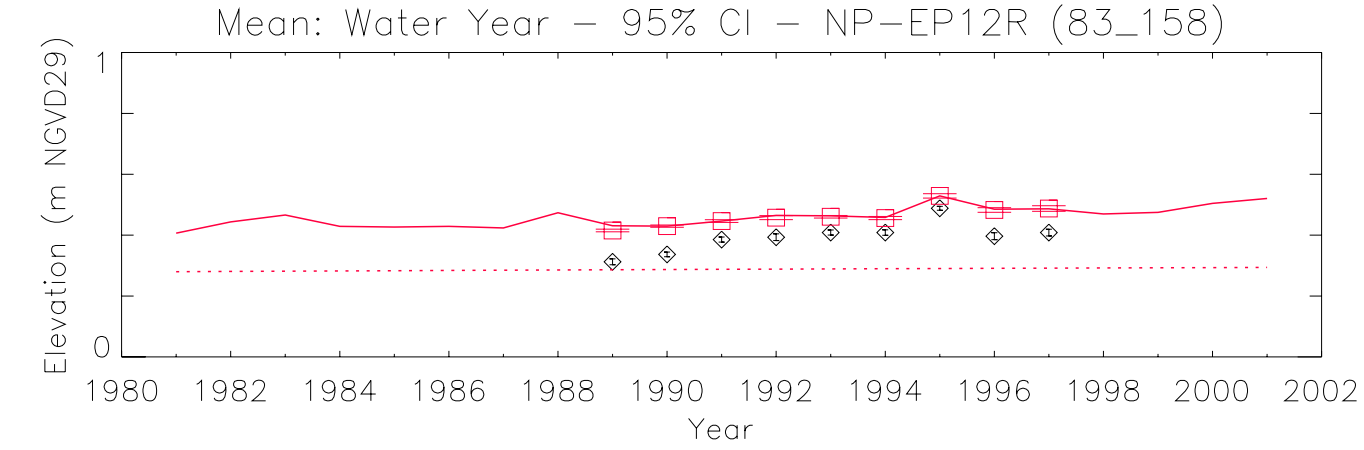

Mean: Season – 95% CI – NP–EPS (77_157)
Elevation (m NGVD29)
0
1
2
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

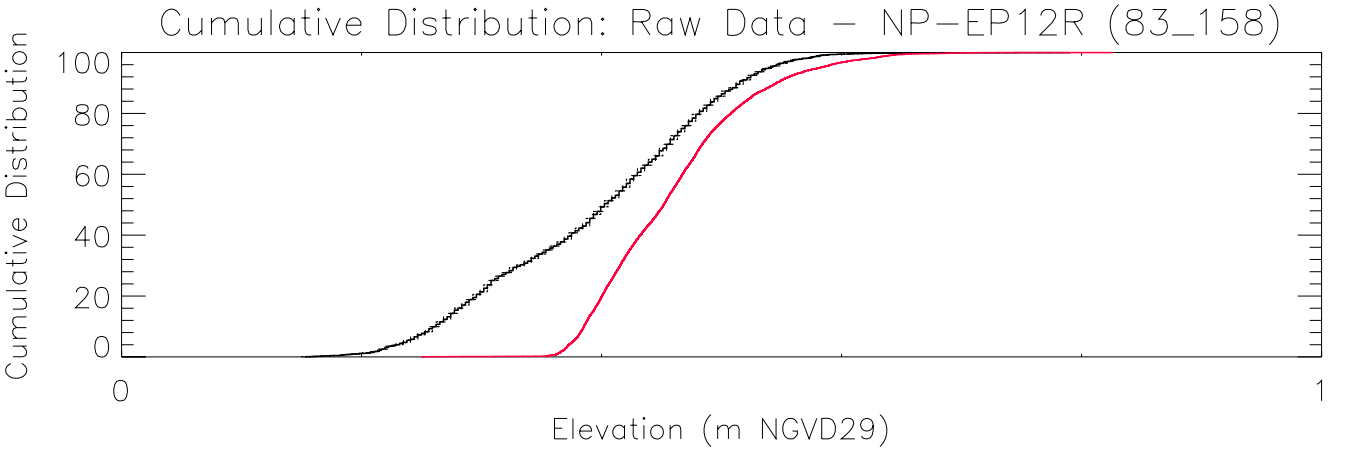

Mean: Water Year – 95% CI – NP–EPS (77_157)
Elevation (m NGVD29)
0
1
2
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

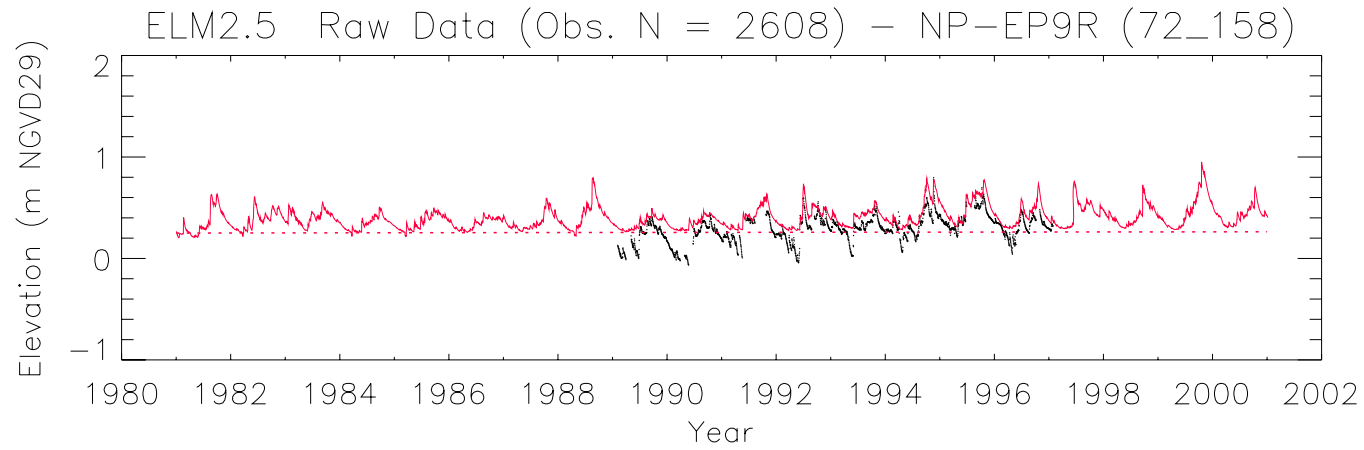

Cumulative Distribution: Raw Data – NP–EPS (77_157)
Cumulative Distribution
0
20
40
60
80
100
0
1
2
Elevation (m NGVD29)

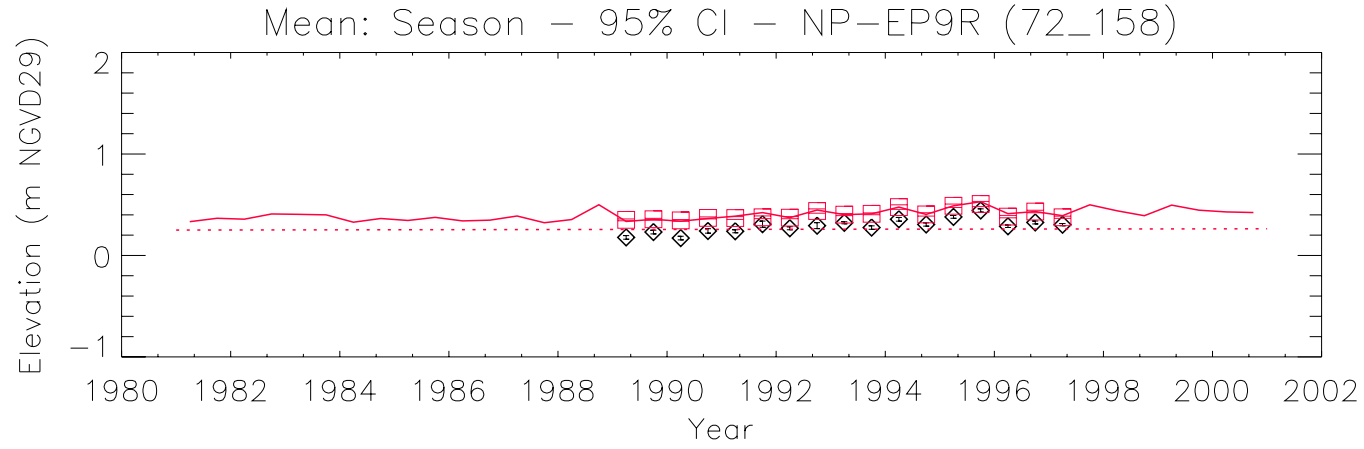

ELM2.5 Raw Data (Obs. N = 2828) – NP–EP12R (83_158)
Elevation (m NGVD29)
1
0
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

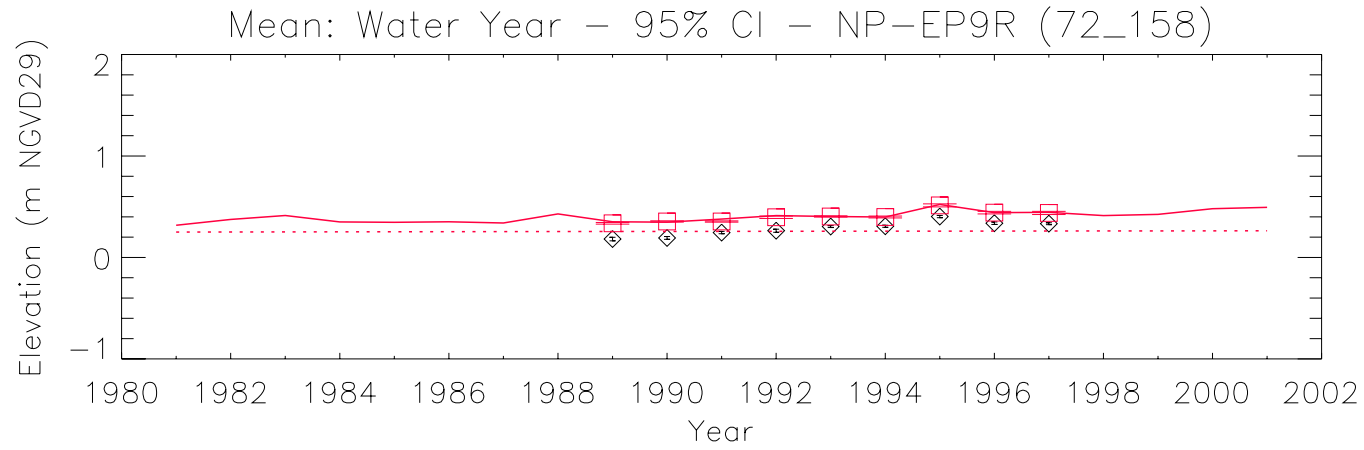

Mean: Season – 95% CI – NP–EP12R (83_158)
Elevation (m NGVD29)
1
0
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

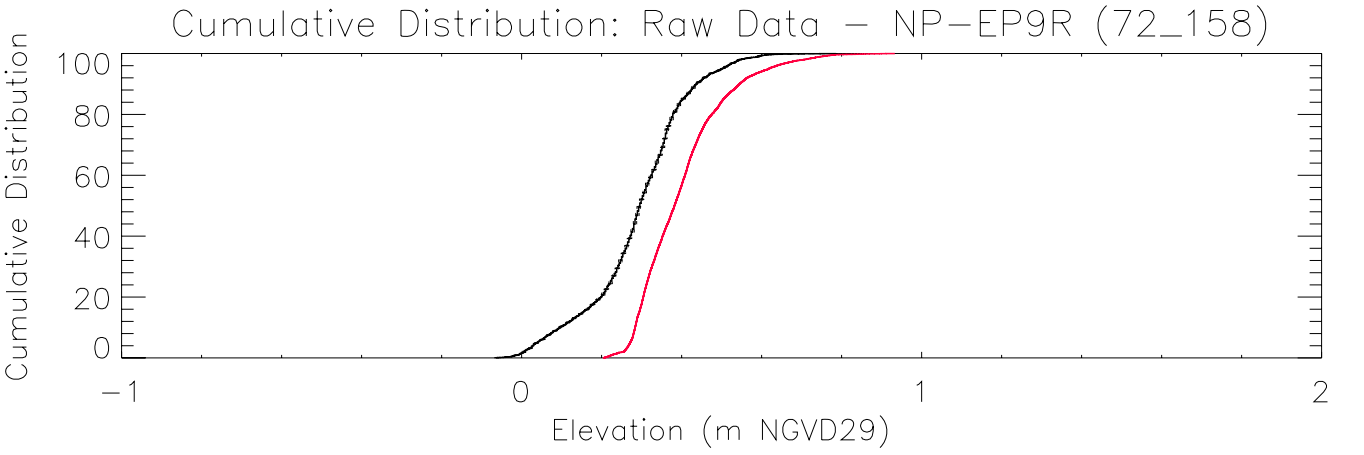

Mean: Water Year – 95% CI – NP–EP12R (83_158)
Elevation (m NGVD29)
1
0
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year


Cumulative Distribution: Raw Data – NP–EP12R (83_158)
Cumulative Distribution
100
80
60
40
20
0
0
1
Elevation (m NGVD29)


ELM2.5 Raw Data (Obs. N = 2608) – NP–EP9R (72_158)
Elevation (m NGVD29)
2
1
0
−1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year


Mean: Season – 95% CI – NP–EP9R (72_158)
Elevation (m NGVD29)
2
1
0
−1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year


Mean: Water Year – 95% CI – NP–EP9R (72_158)
Elevation (m NGVD29)
2
1
0
−1
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year


Cumulative Distribution: Raw Data – NP–EP9R (72_158)
Cumulative Distribution
100
80
60
40
20
0
−1
0
1
2
Elevation (m NGVD29)

6.13 Appendix E: Time series & CFDs: CL

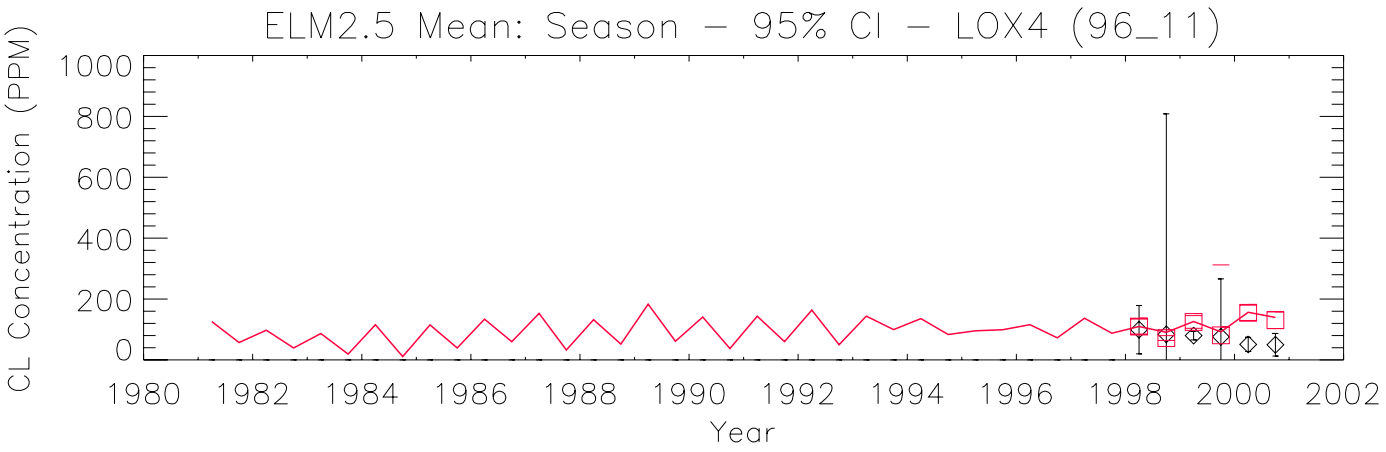
Figures E.1 – E.78. Time series plots of water column chloride (CL) concentration and their associated Cumulative Frequency Distributions (CFD) for the period of record 1981-2000 at each monitoring location. The sequence of the figures is based on geographic location of marsh sites, starting in northwest, moving towards the southeast; following the set of plots of all marsh sites, the canal monitoring sites are similarly sequenced. A map of all sites is provided in the Model Performance Chapter.

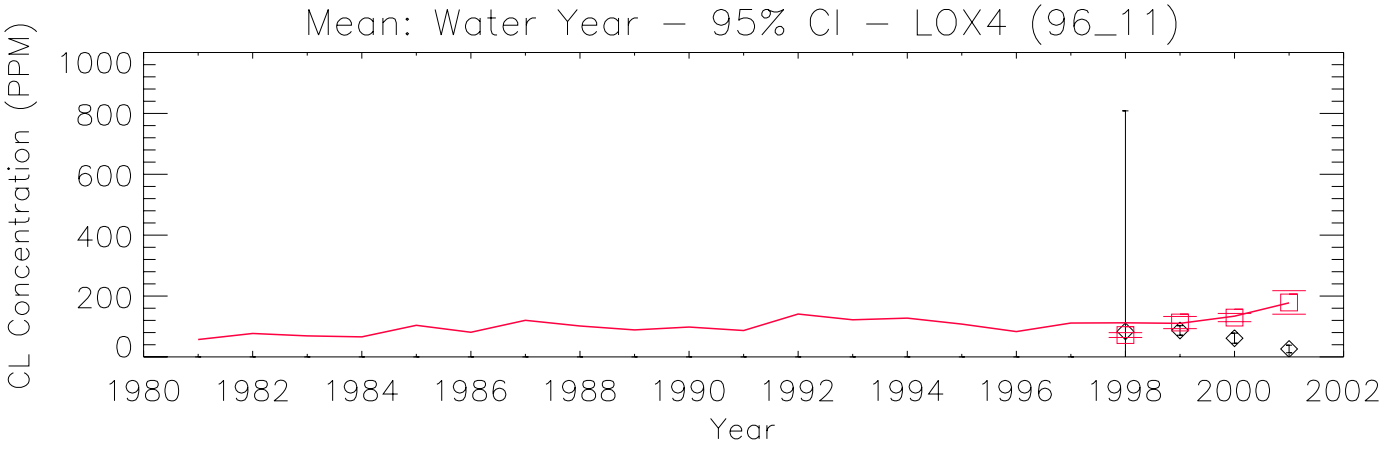
The model grid cell column and row locations (col_row) or canal reach identifier (single integer) are shown in parentheses of each plot's title.

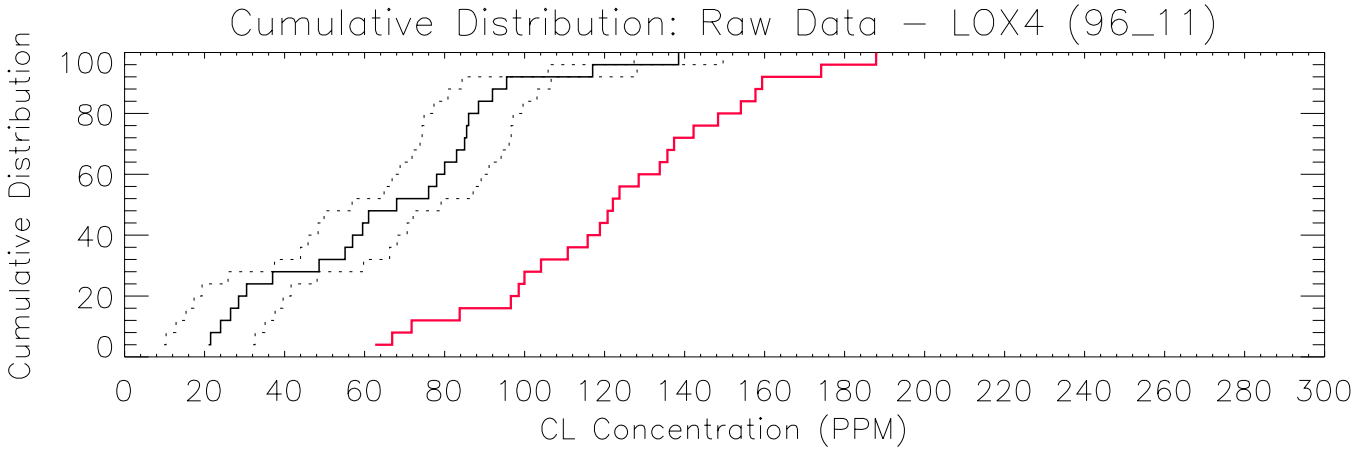
a) All data were aggregated into arithmetic mean values by wet and dry seasons within water years; the continuous lines pass through mean of all daily data points for each season; the mean of paired simulated & observed values are shown in red boxes and black diamonds, respectively; the 95% Confidence Interval (CI) of the paired means are shown by the "__" symbols in the red for the model and black for the observed data.

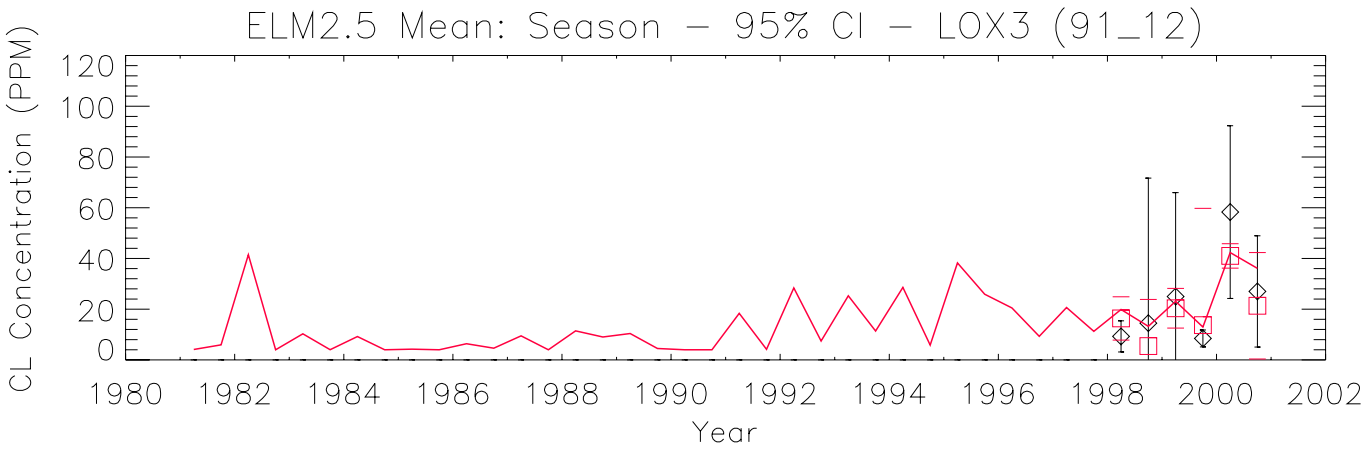
b) All data aggregated into arithmetic mean values by water year, with the same treatment as in plot a).

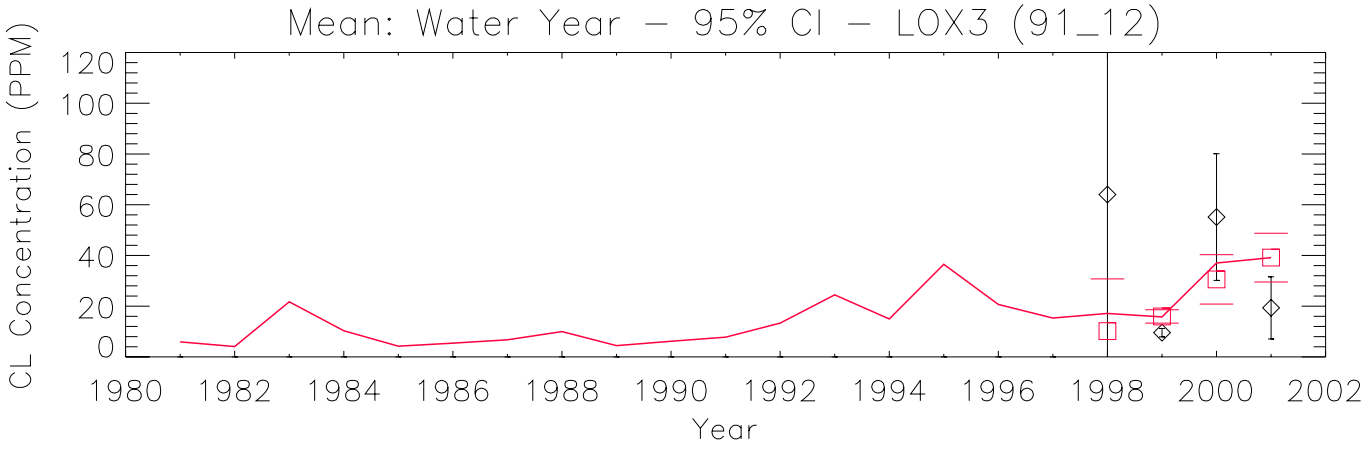
c) The cumulative frequency distributions of the simulated and observed (raw, un-aggregated) data; the 95% confidence interval for observed data is shown in the dashed black lines. Note that only paired simulated and observed data points are used.

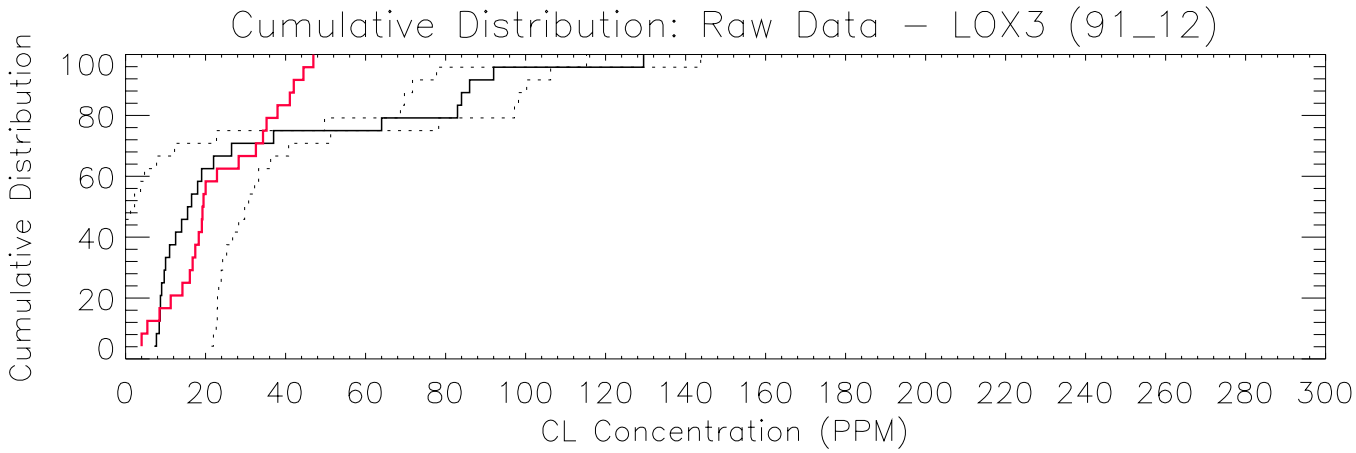

ELM2.5 Mean: Season – 95% CI – LOX4 (96_11)
CL Concentration (PPM)
1000
800
600
400
200
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

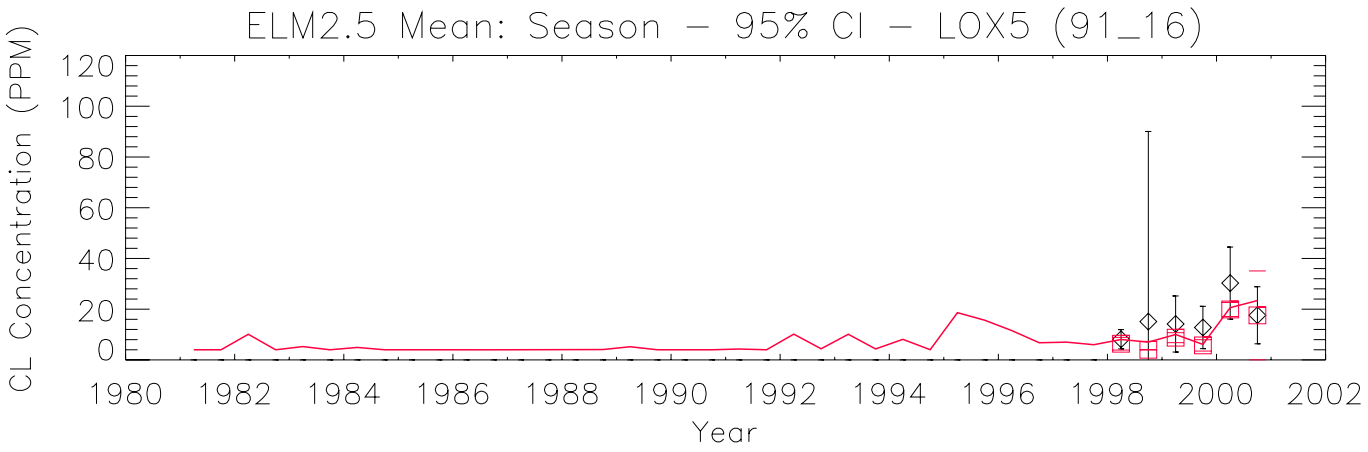

Mean: Water Year – 95% CI – LOX4 (96_11)
CL Concentration (PPM)
1000
800
600
400
200
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

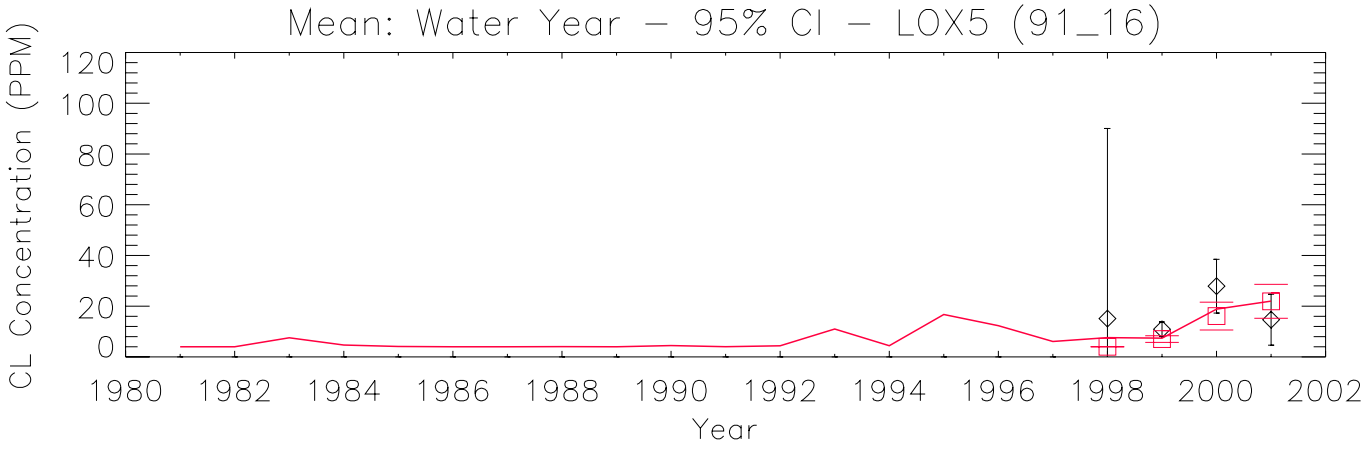

Cumulative Distribution: Raw Data – LOX4 (96_11)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)

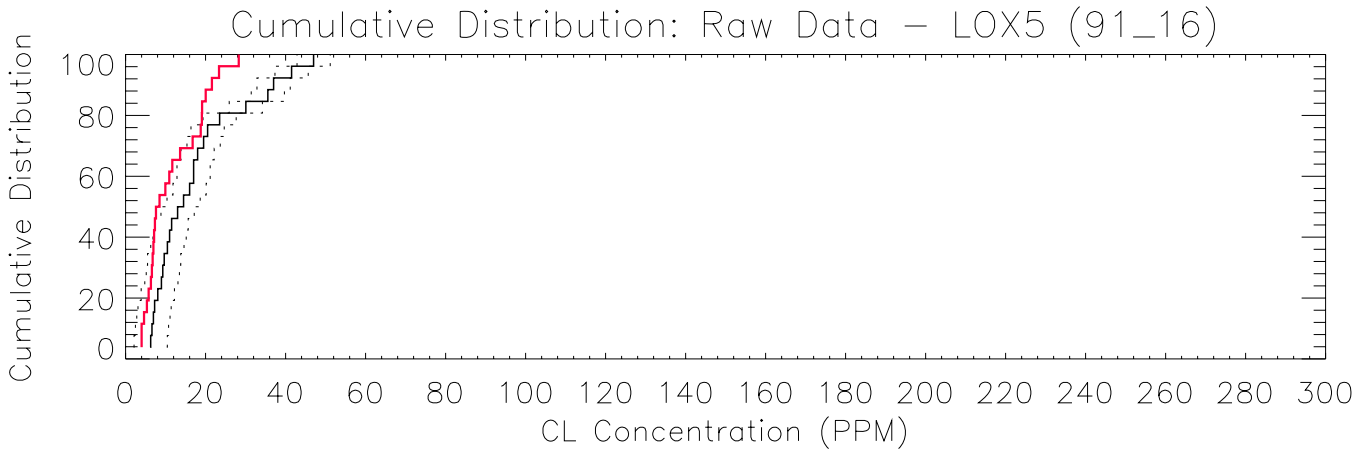

ELM2.5 Mean: Season – 95% CI – LOX3 (91_12)
CL Concentration (PPM)
0
20
40
60
80
100
120
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

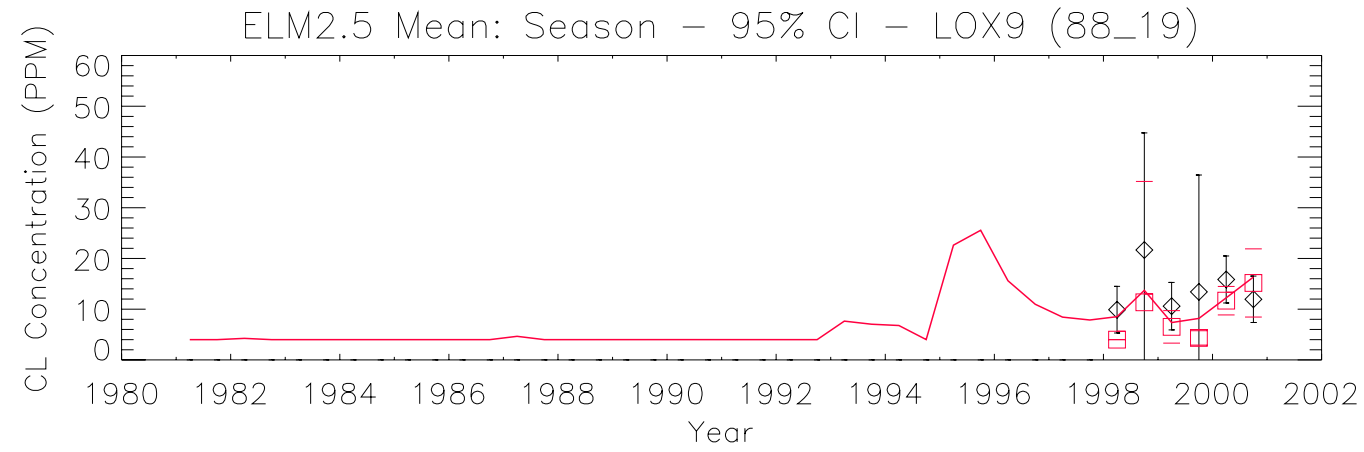

Mean: Water Year – 95% CI – LOX3 (91_12)
CL Concentration (PPM)
0
20
40
60
80
100
120
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

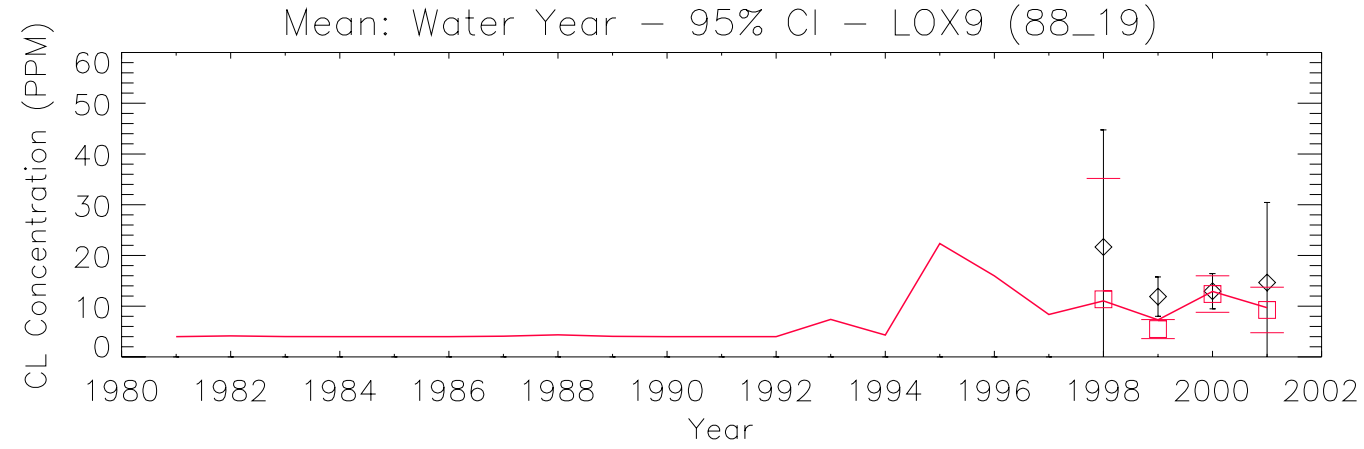

Cumulative Distribution: Raw Data – LOX3 (91_12)
Cumulative Distribution
0
20
40
60
80
100
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)

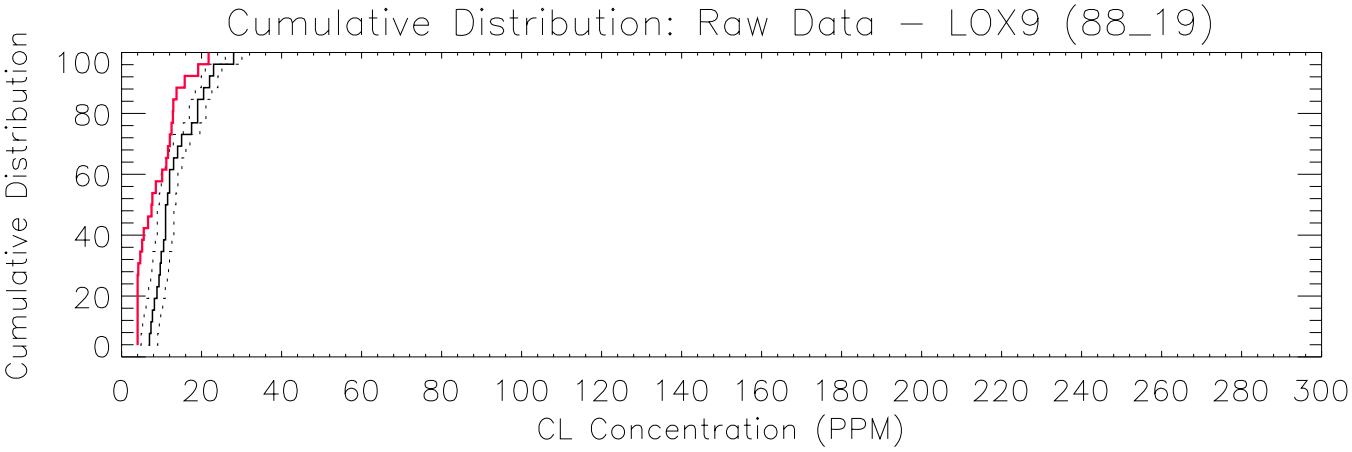

ELM2.5 Mean: Season – 95% CI – LOX5 (91_16)
CL Concentration (PPM)
120
100
80
60
40
20
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

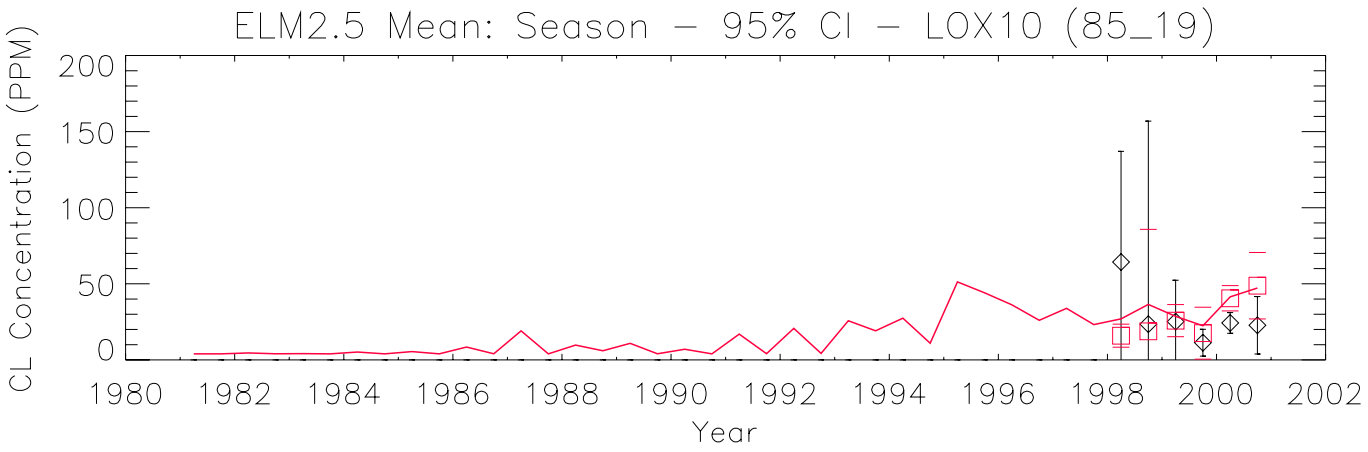

Mean: Water Year – 95% CI – LOX5 (91_16)
CL Concentration (PPM)
120
100
80
60
40
20
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

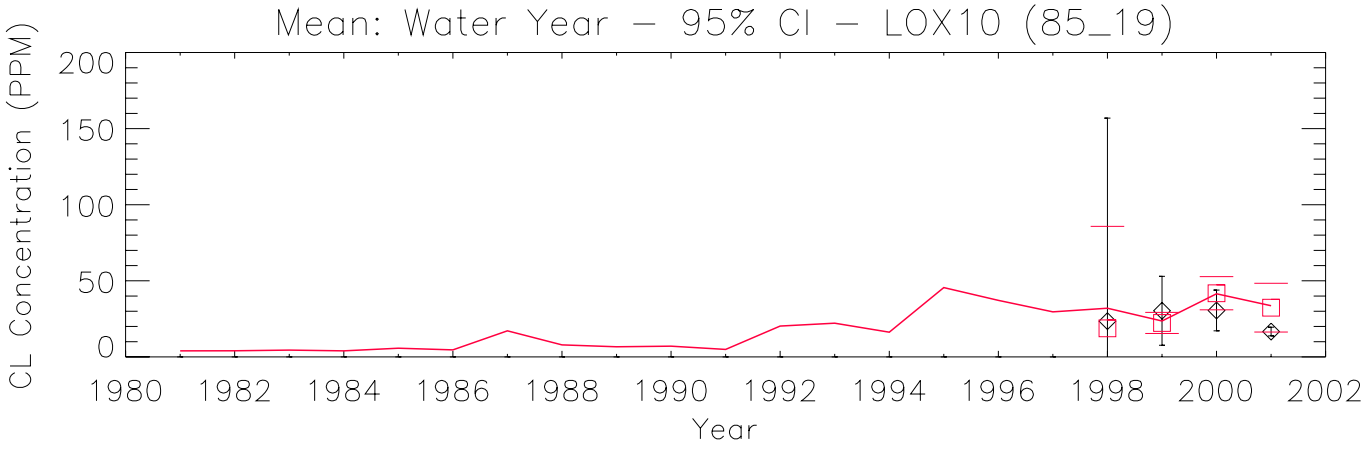

Cumulative Distribution: Raw Data – LOX5 (91_16)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)

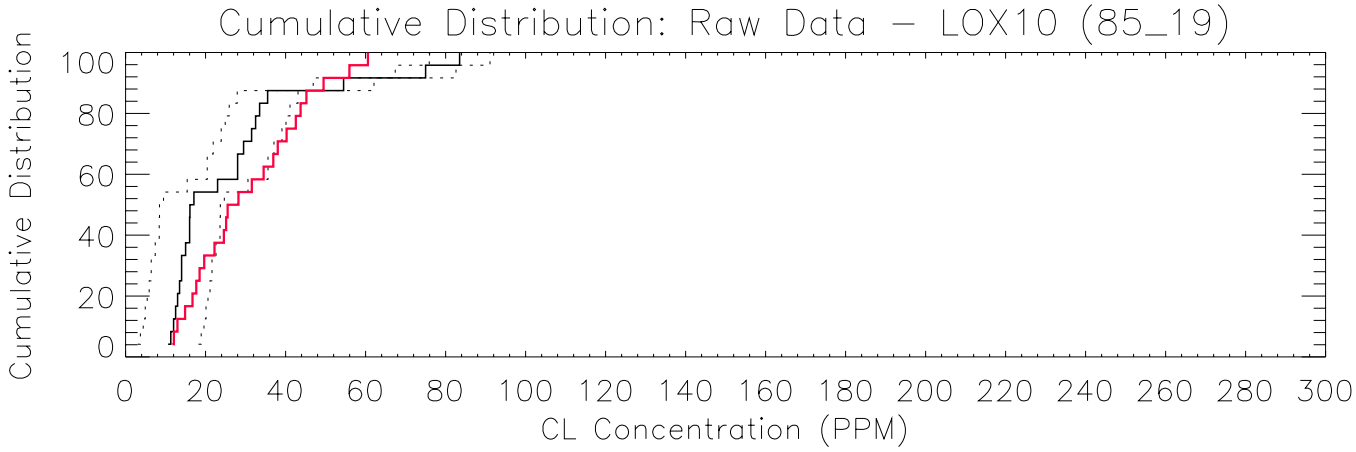

ELM2.5 Mean: Season – 95% CI – LOX9 (88_19)
CL Concentration (PPM)
0
10
20
30
40
50
60
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

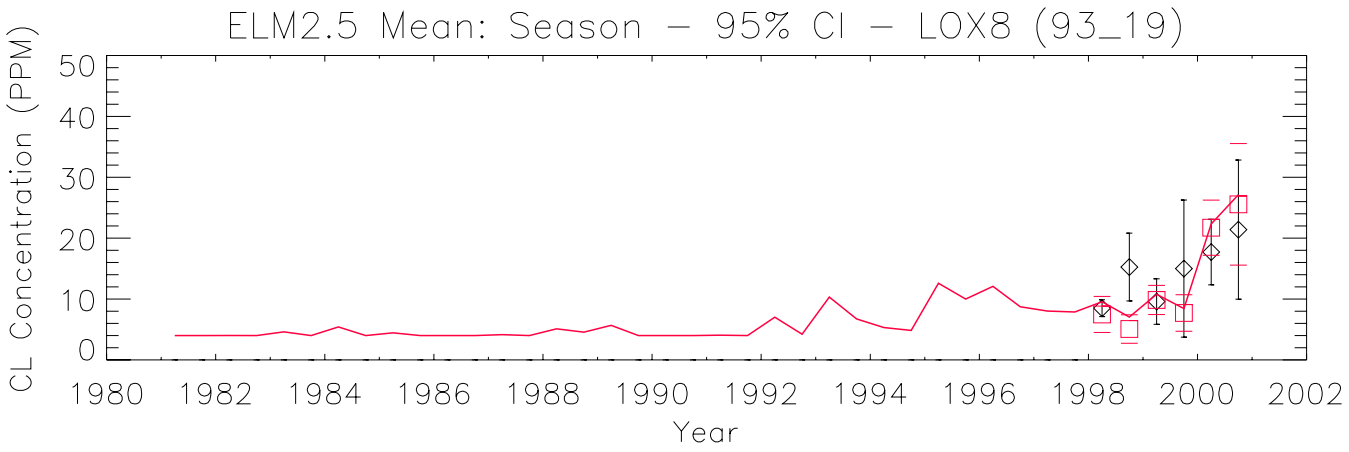

Mean: Water Year – 95% CI – LOX9 (88_19)
CL Concentration (PPM)
0
10
20
30
40
50
60
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

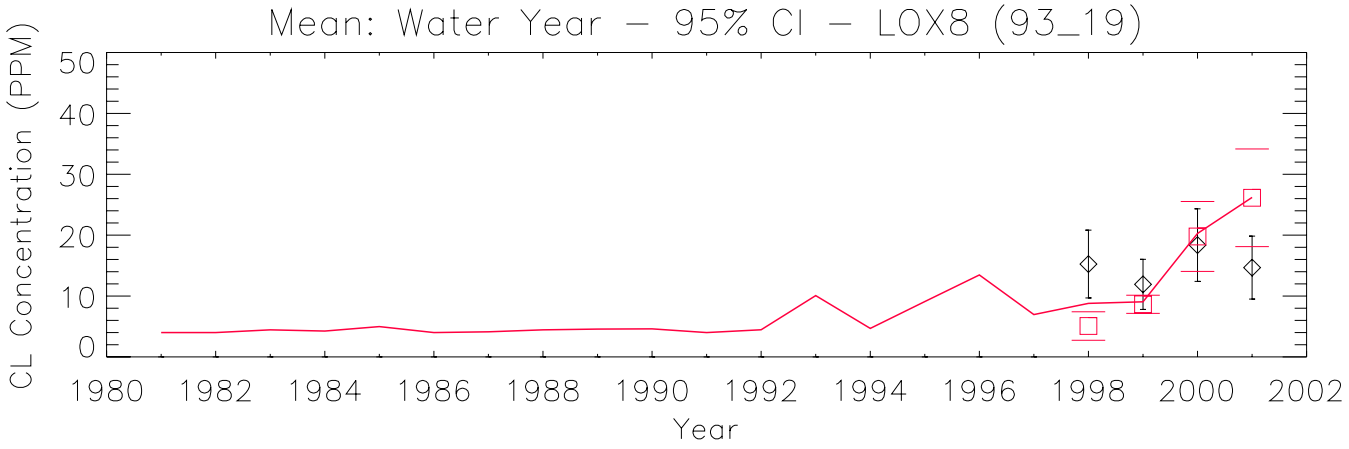

Cumulative Distribution: Raw Data – LOX9 (88_19)
Cumulative Distribution
0
20
40
60
80
100
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)

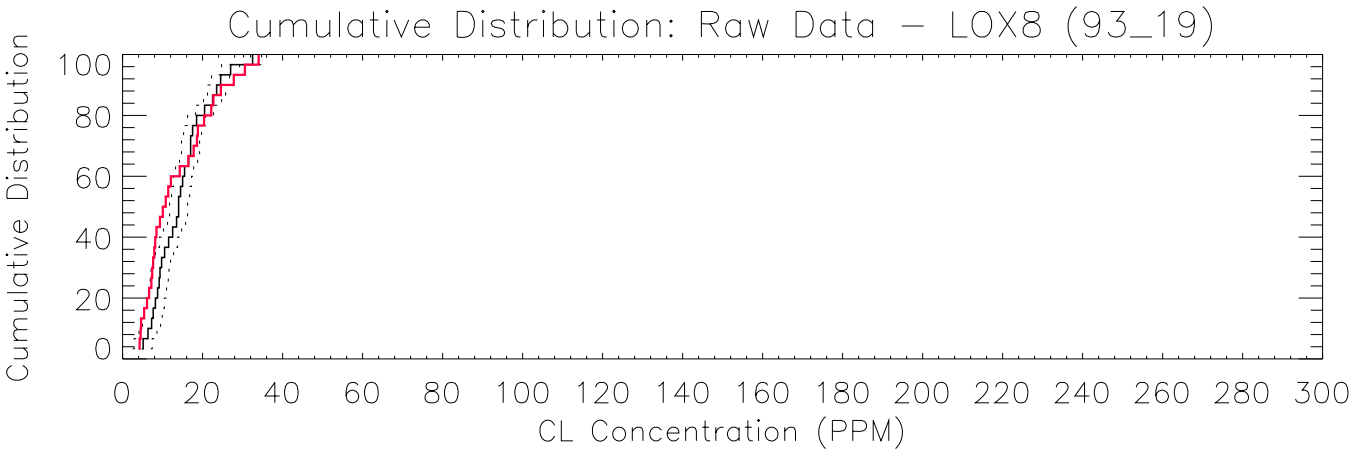

ELM2.5 Mean: Season – 95% CI – LOX10 (85_19)
CL Concentration (PPM)
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

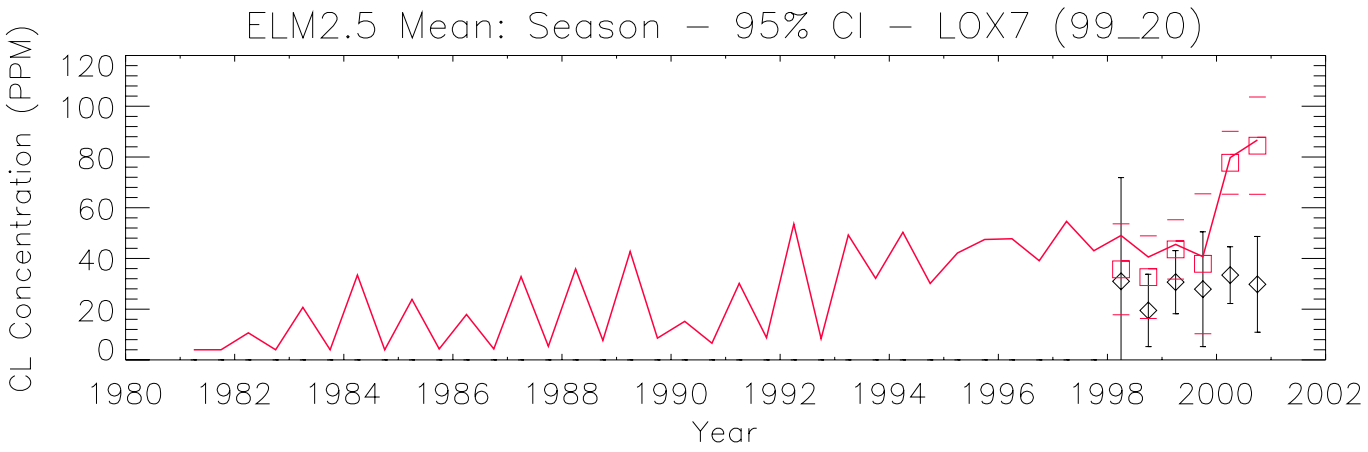

Mean: Water Year – 95% CI – LOX10 (85_19)
CL Concentration (PPM)
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

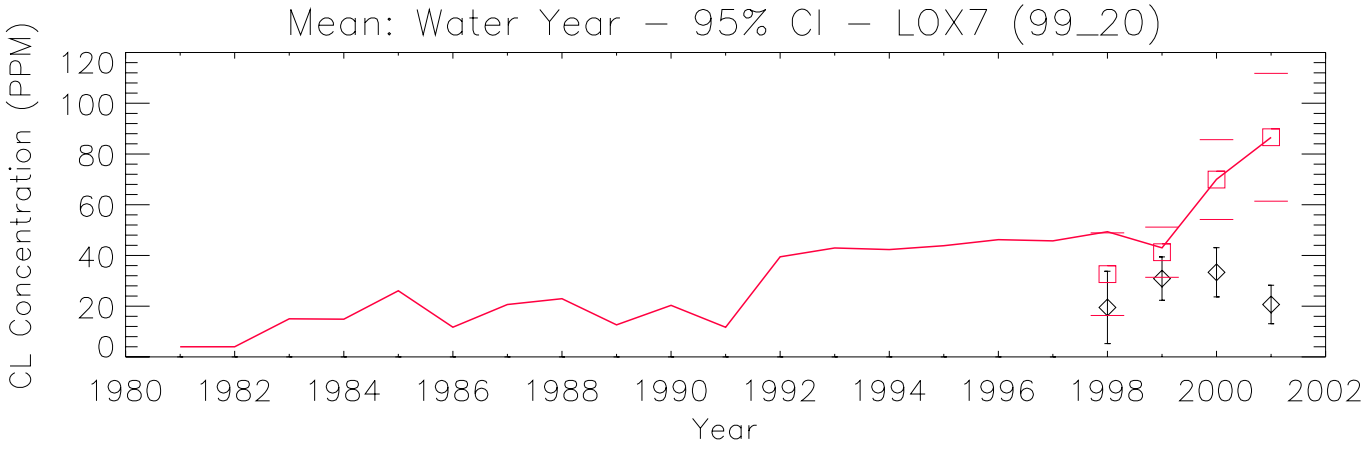

Cumulative Distribution: Raw Data – LOX10 (85_19)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)

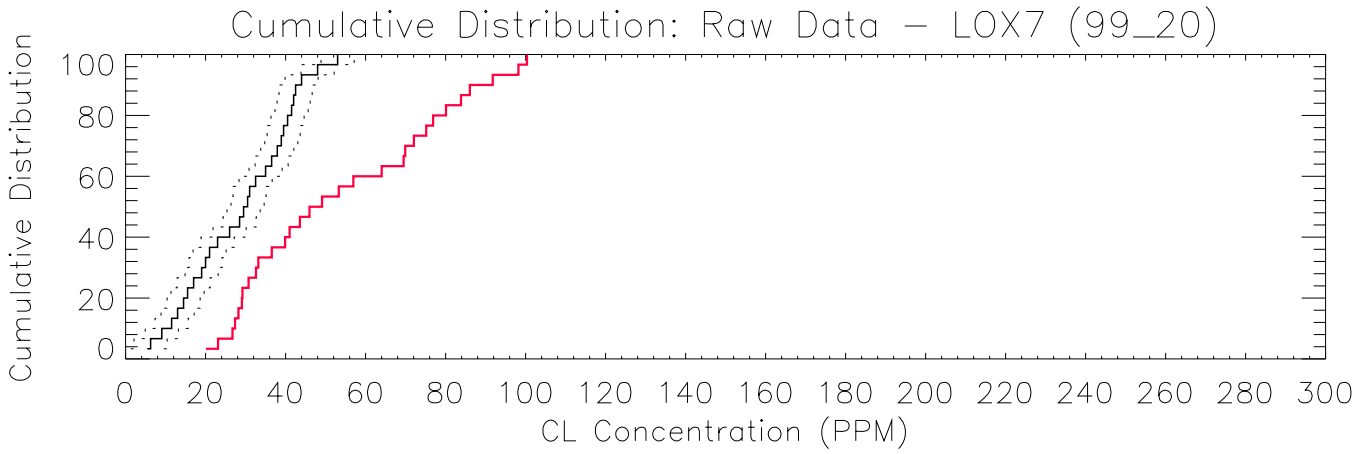

ELM2.5 Mean: Season – 95% CI – LOX8 (93_19)
CL Concentration (PPM)
0
10
20
30
40
50
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

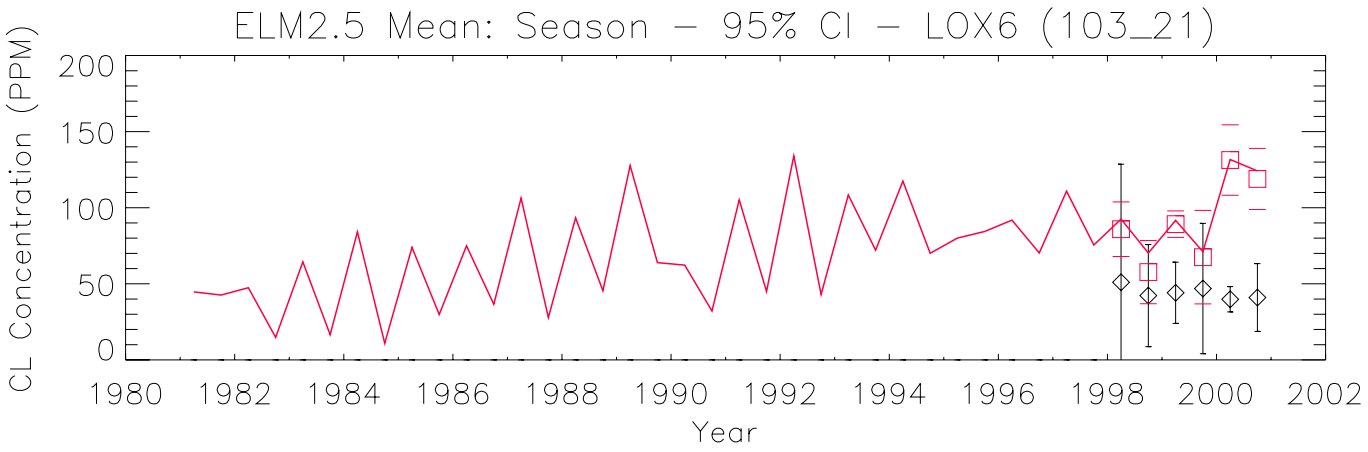

Mean: Water Year – 95% CI – LOX8 (93_19)
CL Concentration (PPM)
0
10
20
30
40
50
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

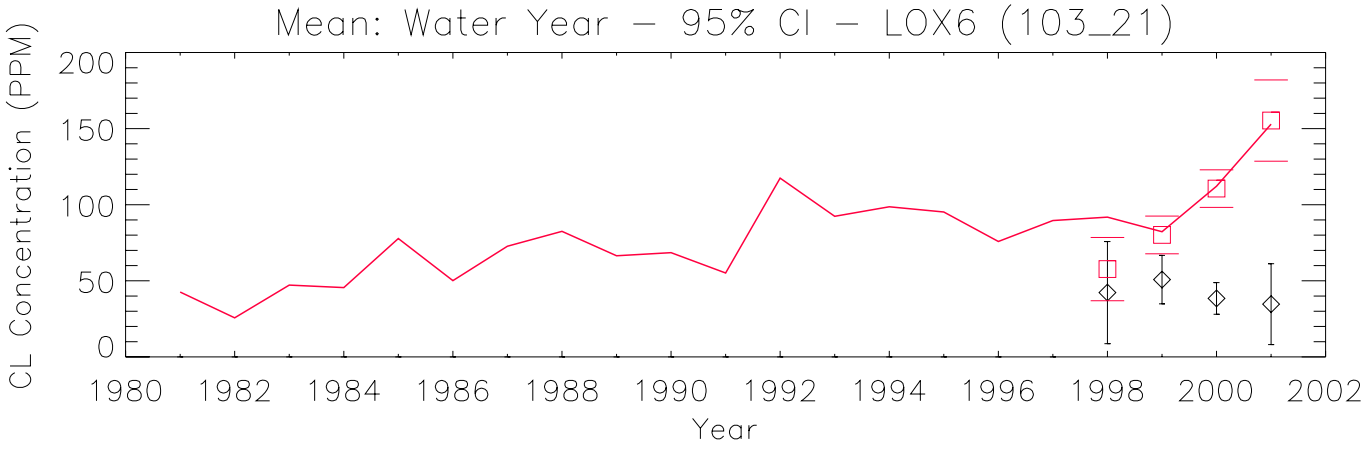

Cumulative Distribution: Raw Data – LOX8 (93_19)
Cumulative Distribution
0
20
40
60
80
100
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)

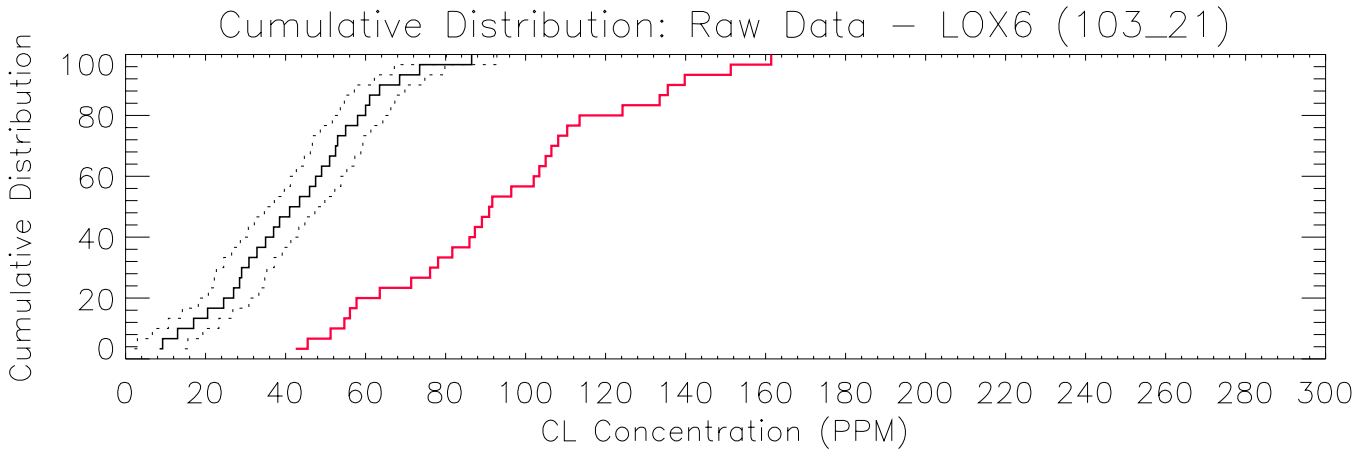

ELM2.5 Mean: Season – 95% CI – LOX7 (99_20)
CL Concentration (PPM)
120
100
80
60
40
20
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

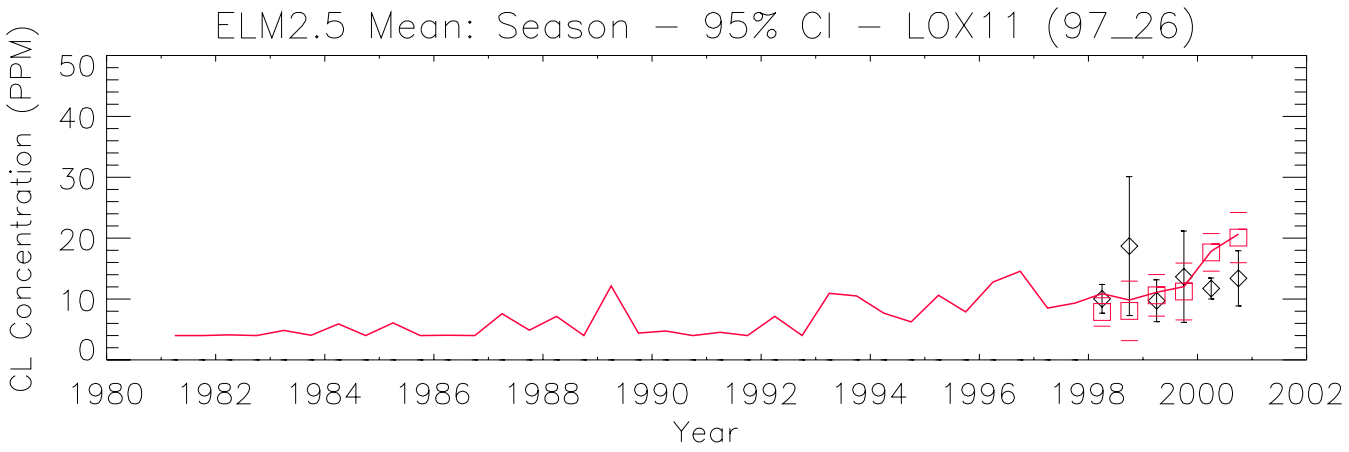

Mean: Water Year – 95% CI – LOX7 (99_20)
CL Concentration (PPM)
120
100
80
60
40
20
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

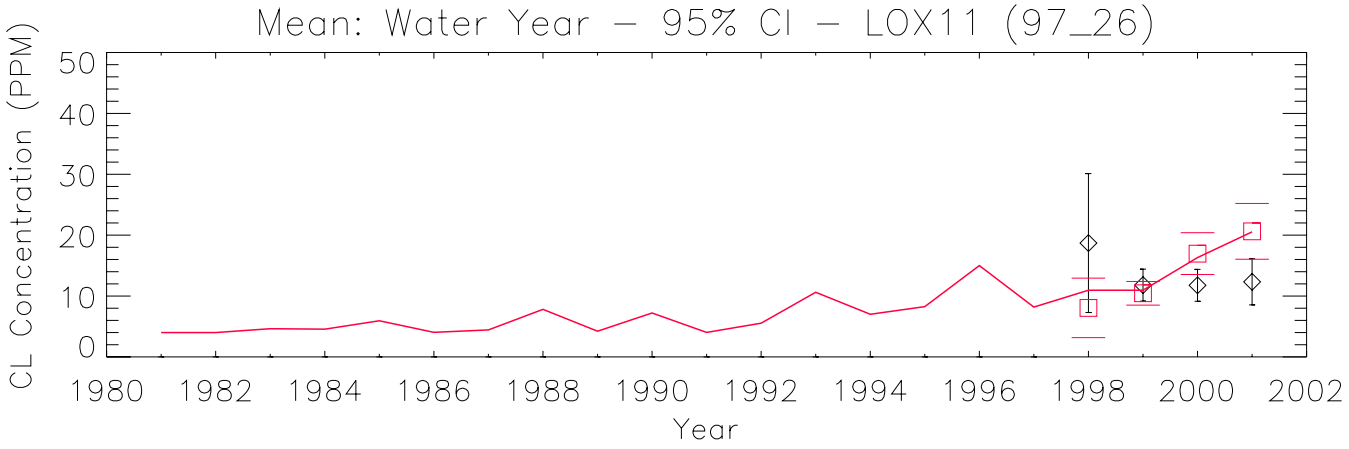

Cumulative Distribution: Raw Data – LOX7 (99_20)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)

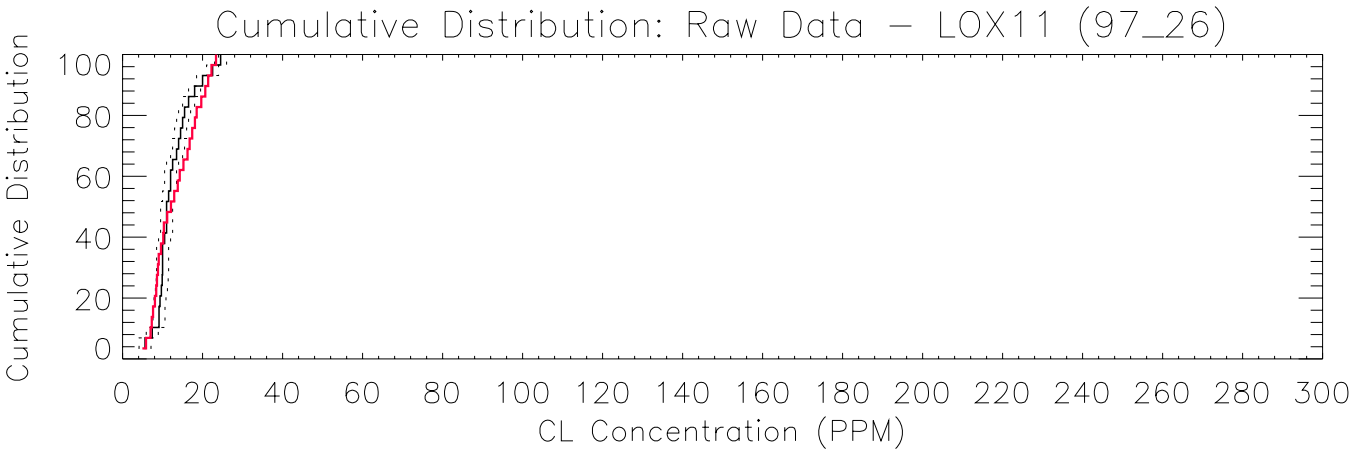

ELM2.5 Mean: Season – 95% CI – LOX6 (103_21)
CL Concentration (PPM)
0
50
100
150
200
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

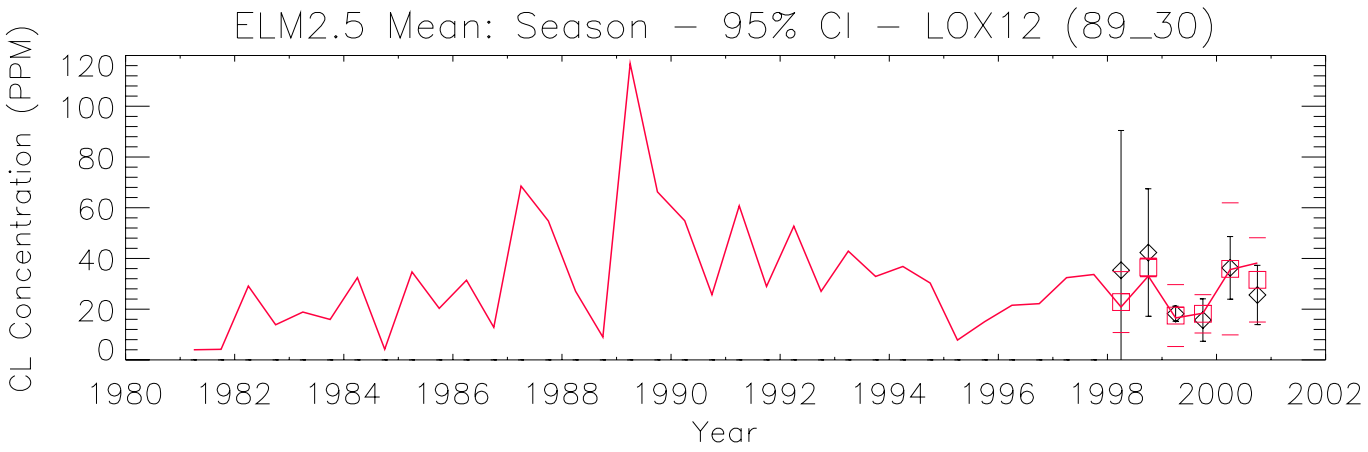

Mean: Water Year – 95% CI – LOX6 (103_21)
CL Concentration (PPM)
0
50
100
150
200
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – LOX6 (103_21)
Cumulative Distribution
0
20
40
60
80
100
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – LOX11 (97_26)
CL Concentration (PPM)
0
10
20
30
40
50
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – LOX11 (97_26)
CL Concentration (PPM)
0
10
20
30
40
50
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – LOX11 (97_26)
Cumulative Distribution
0
20
40
60
80
100
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – LOX12 (89_30)
CL Concentration (PPM)
0
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40
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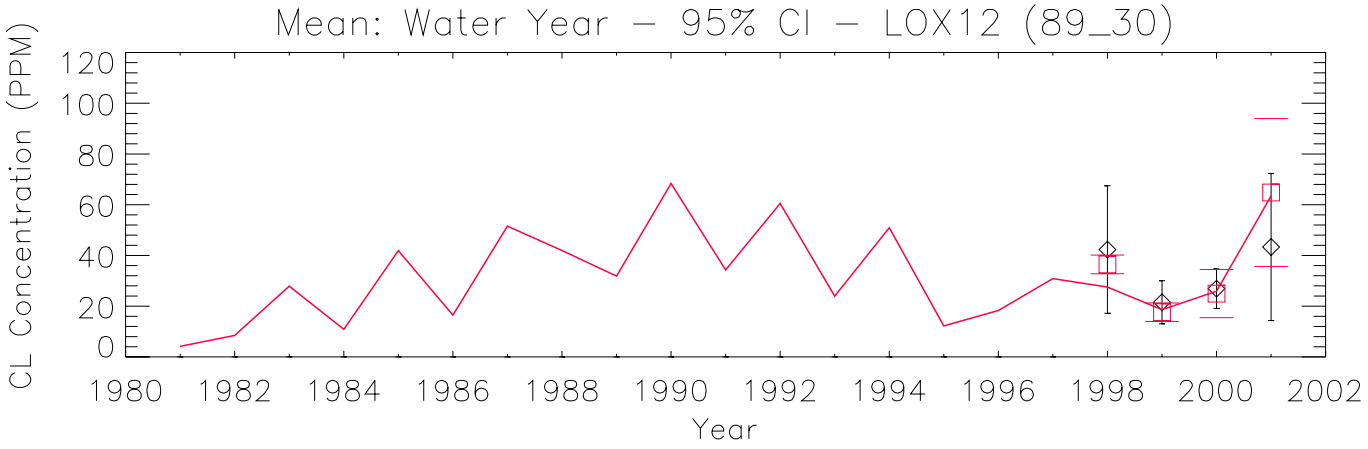
80
100
120
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – LOX12 (89_30)
CL Concentration (PPM)
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100
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1980
1982
1984
1986
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1990
1992
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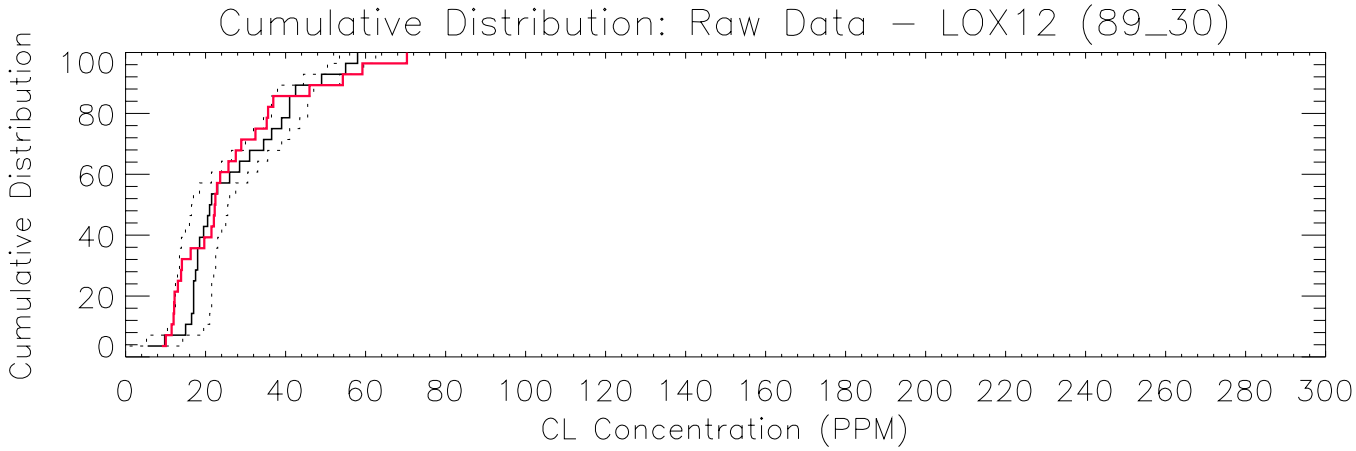
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – LOX12 (89_30)
Cumulative Distribution
0
20
40
60
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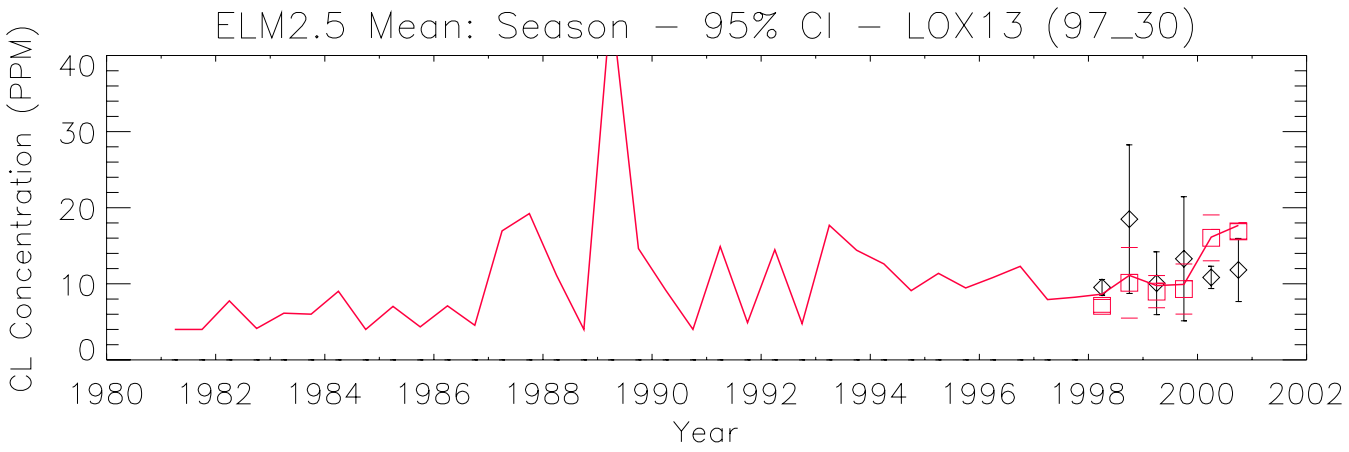
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – LOX13 (97_30)
CL Concentration (PPM)
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40
1980
1982
1984
1986
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1990
1992
1994
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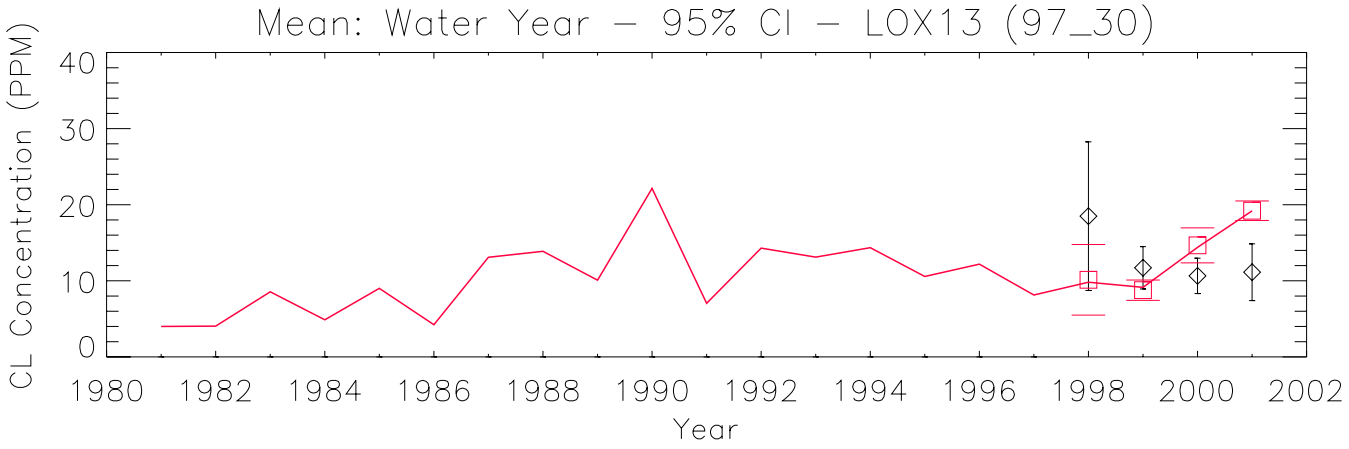
1998
2000
2002
Year


Mean: Water Year – 95% CI – LOX13 (97_30)
CL Concentration (PPM)
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1980
1982
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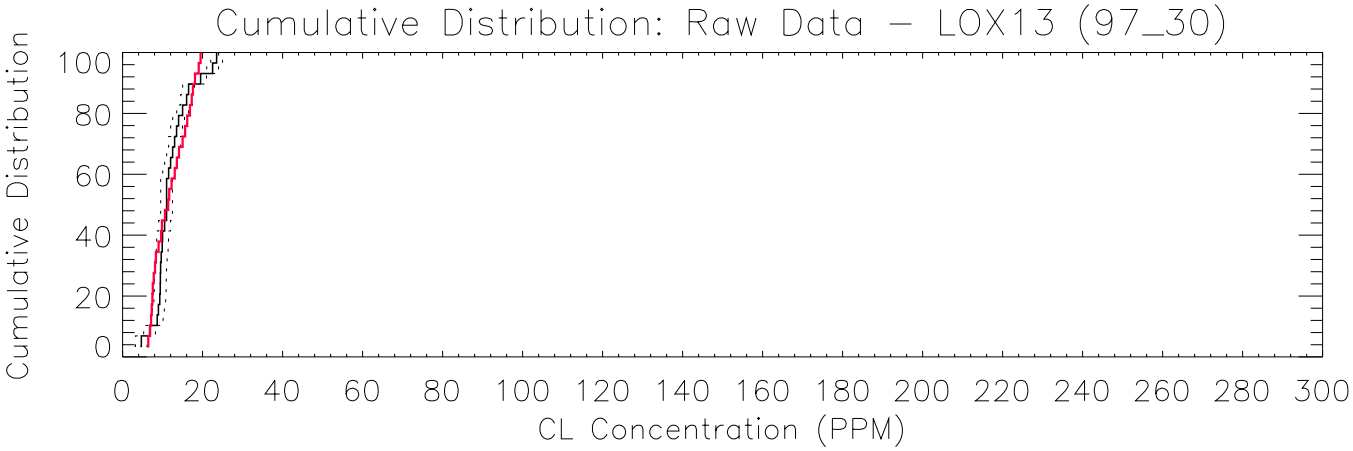
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – LOX13 (97_30)
Cumulative Distribution
0
20
40
60
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120
140
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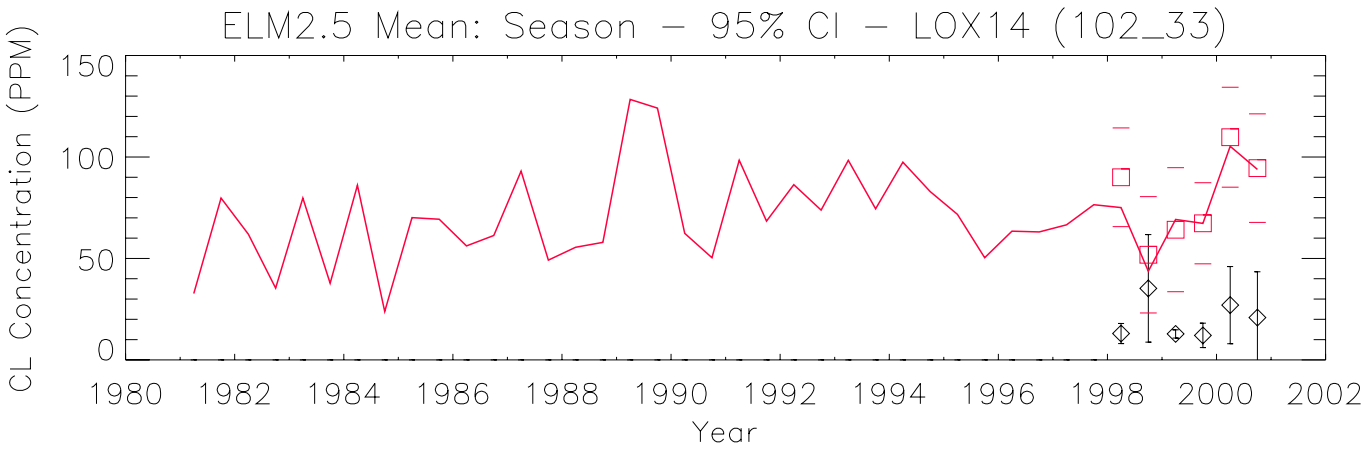
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – LOX14 (102_33)
CL Concentration (PPM)
150
100
50
0
1980
1982
1984
1986
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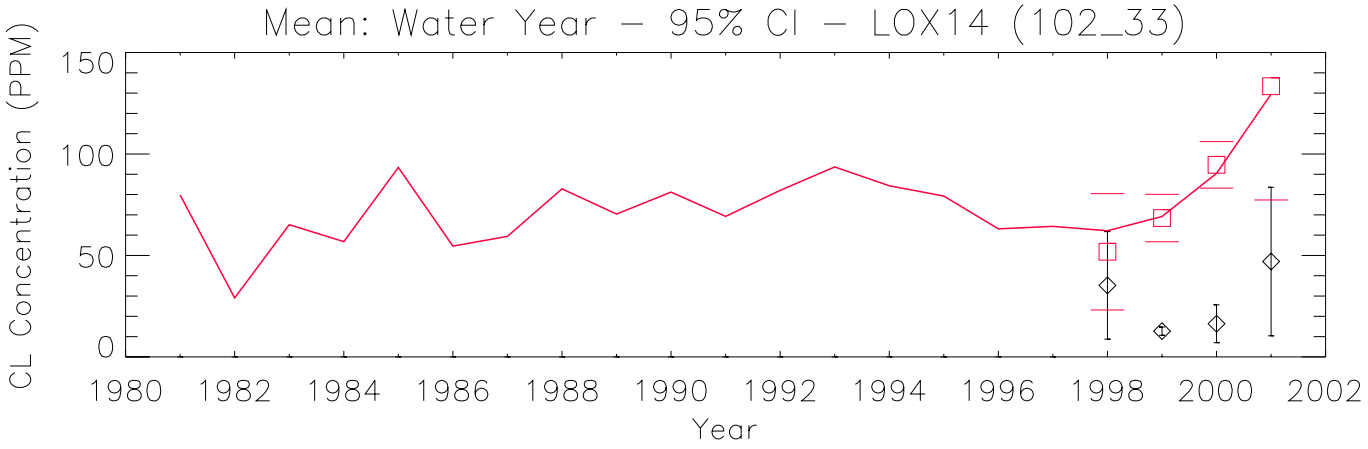
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – LOX14 (102_33)
CL Concentration (PPM)
150
100
50
0
1980
1982
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1986
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1990
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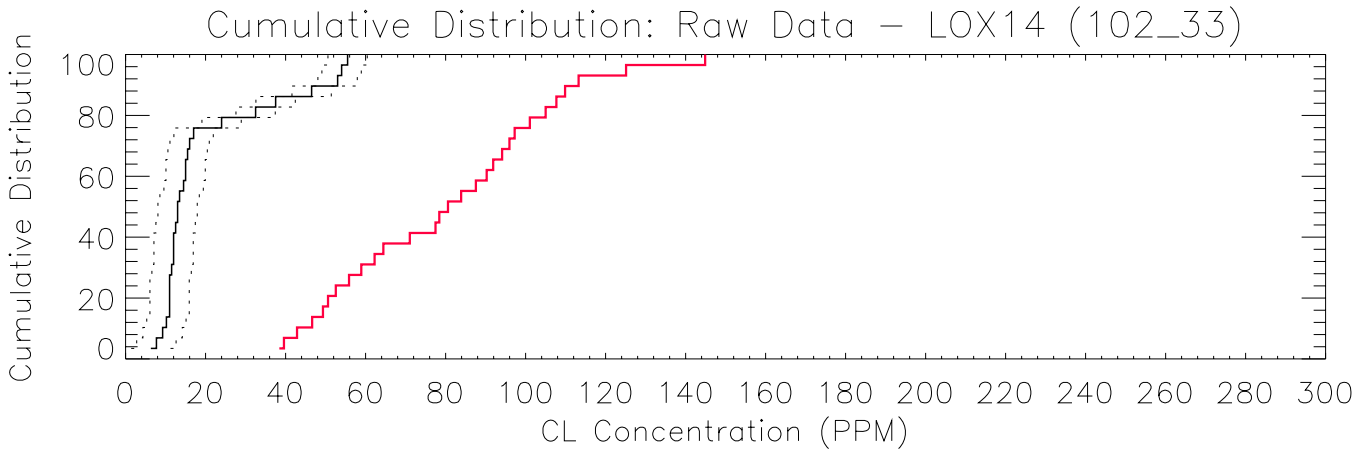
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – LOX14 (102_33)
Cumulative Distribution
100
80
60
40
20
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0
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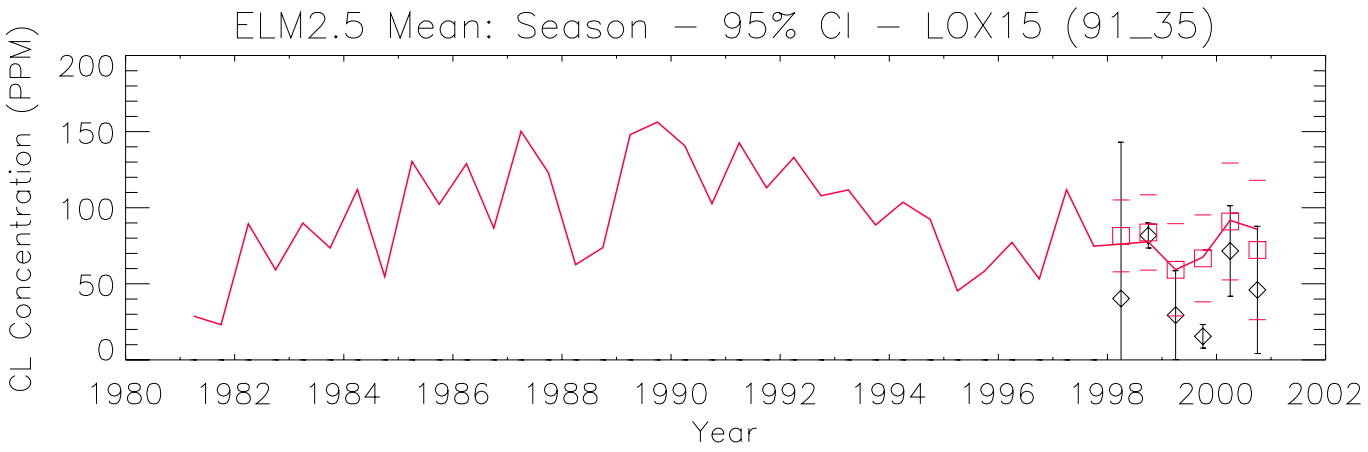
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – LOX15 (91_35)
CL Concentration (PPM)
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50
0
1980
1982
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1990
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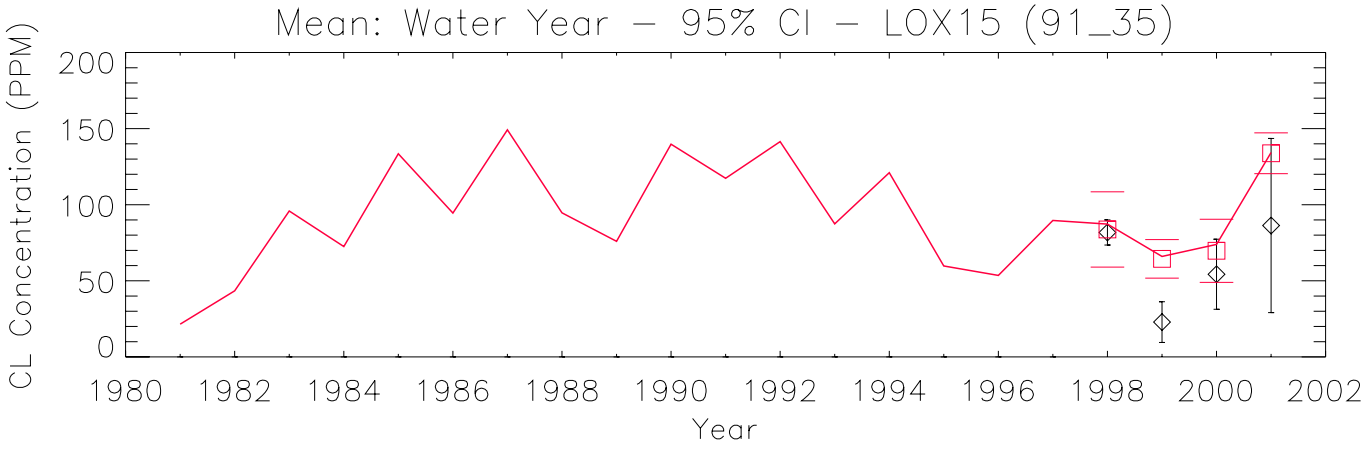
1998
2000
2002
Year


Mean: Water Year – 95% CI – LOX15 (91_35)
CL Concentration (PPM)
200
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100
50
0
1980
1982
1984
1986
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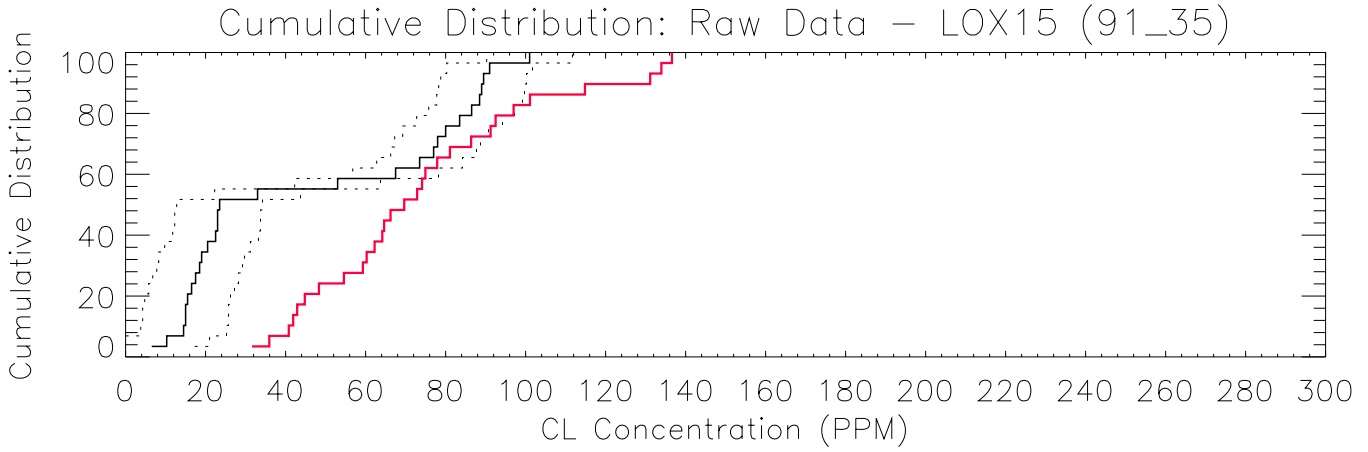
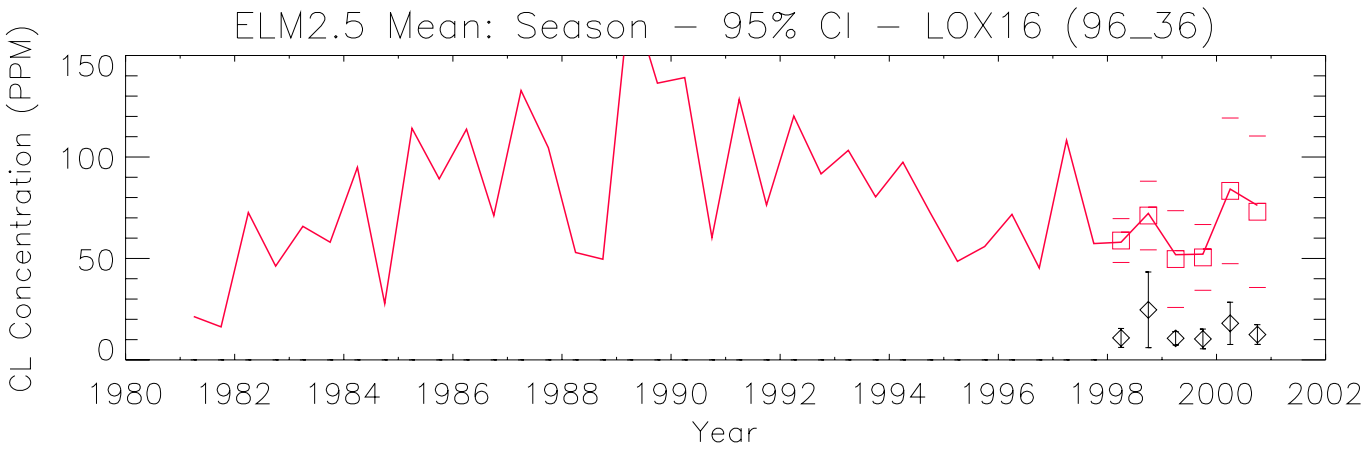
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – LOX15 (91_35)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – LOX16 (96_36)
CL Concentration (PPM)
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100
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0
1980
1982
1984
1986
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1990
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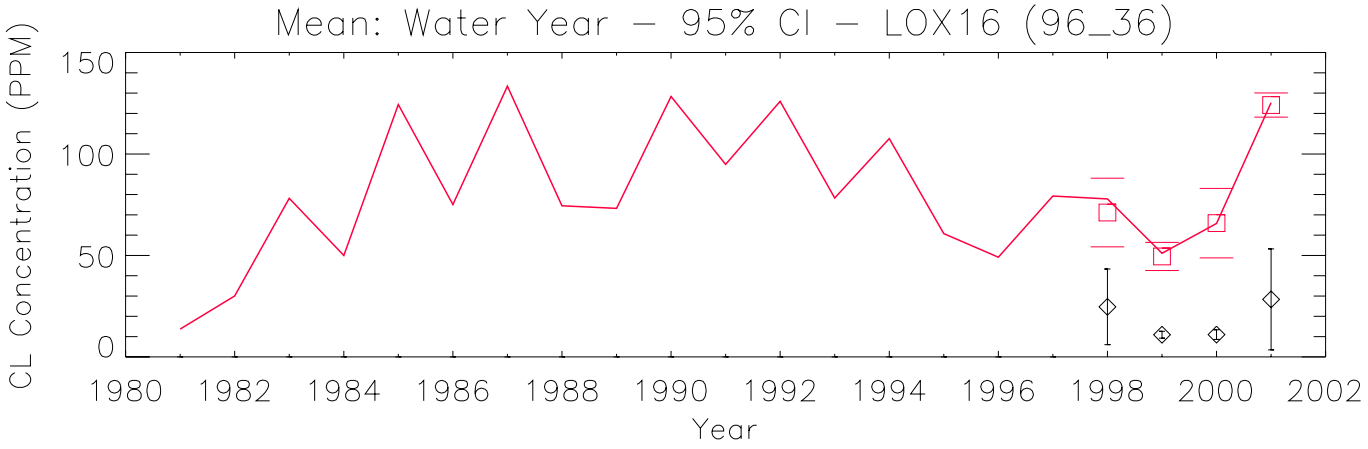
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – LOX16 (96_36)
CL Concentration (PPM)
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100
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0
1980
1982
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1986
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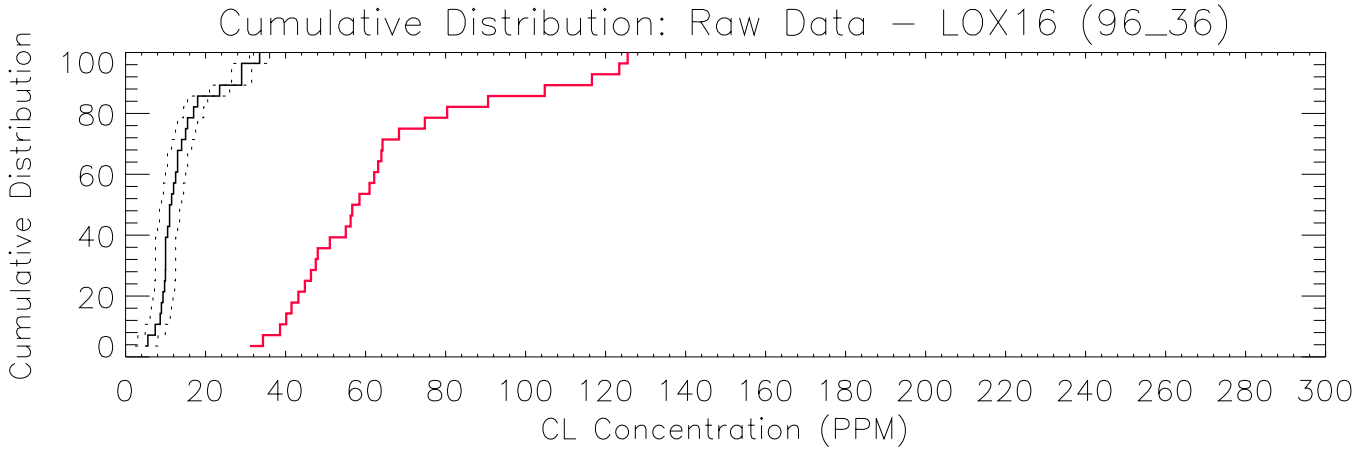
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – LOX16 (96_36)
Cumulative Distribution
100
80
60
40
20
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0
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40
60
80
100
120
140
160
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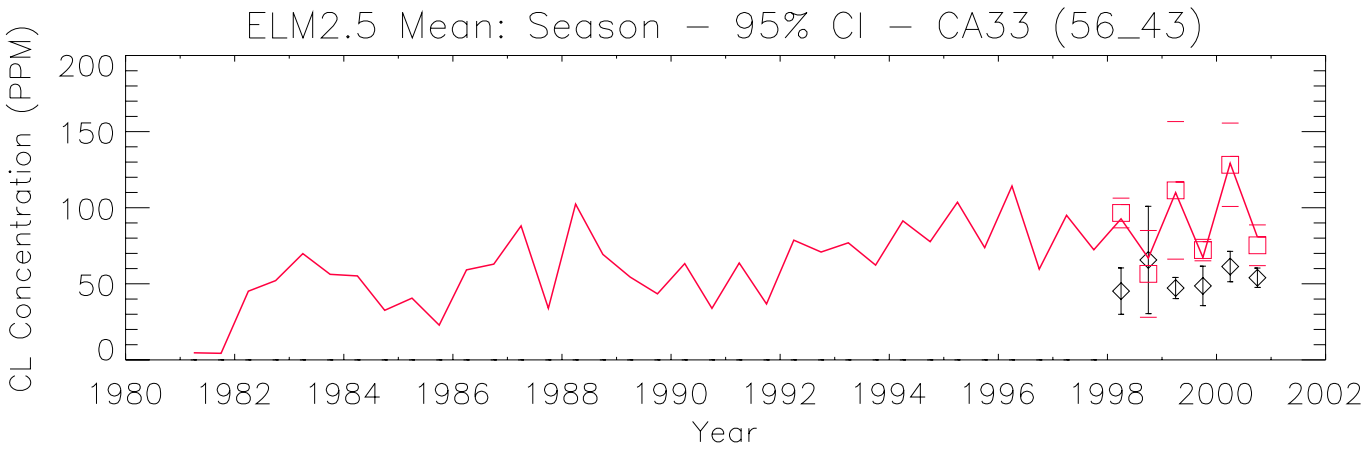
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – CA33 (56_43)
CL Concentration (PPM)
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100
50
0
1980
1982
1984
1986
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1990
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1994
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1998
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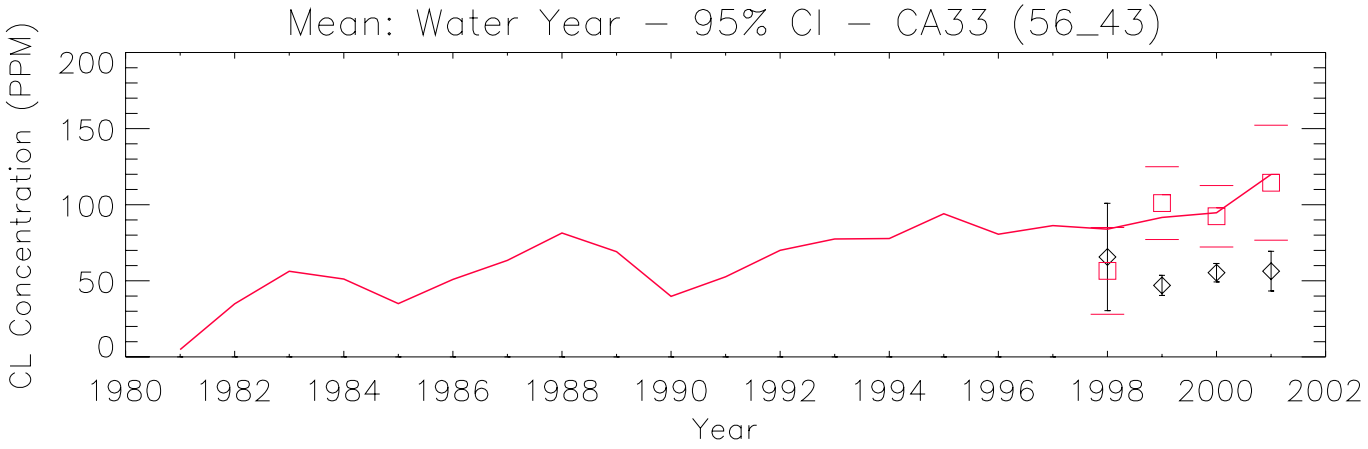
2002
Year


Mean: Water Year – 95% CI – CA33 (56_43)
CL Concentration (PPM)
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50
0
1980
1982
1984
1986
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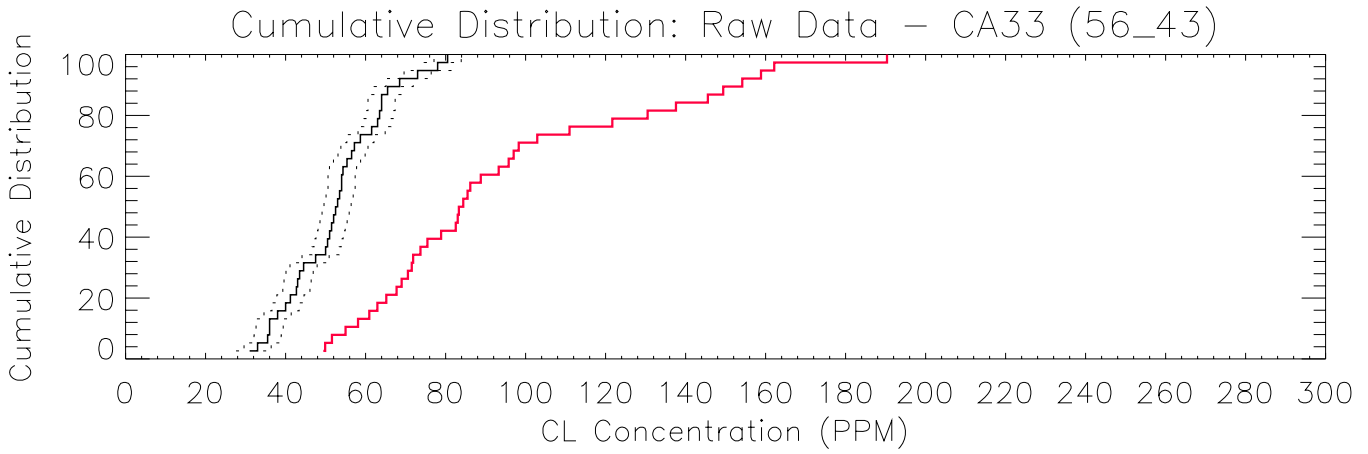
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – CA33 (56_43)
Cumulative Distribution
100
80
60
40
20
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20
40
60
80
100
120
140
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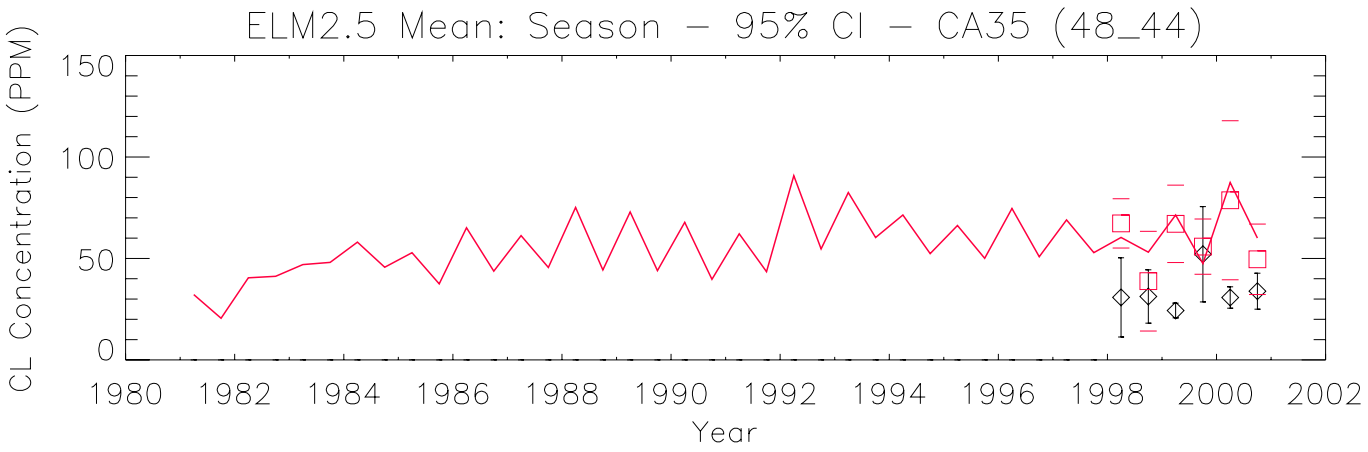
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – CA35 (48_44)
CL Concentration (PPM)
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100
50
0
1980
1982
1984
1986
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1990
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1994
1996
1998
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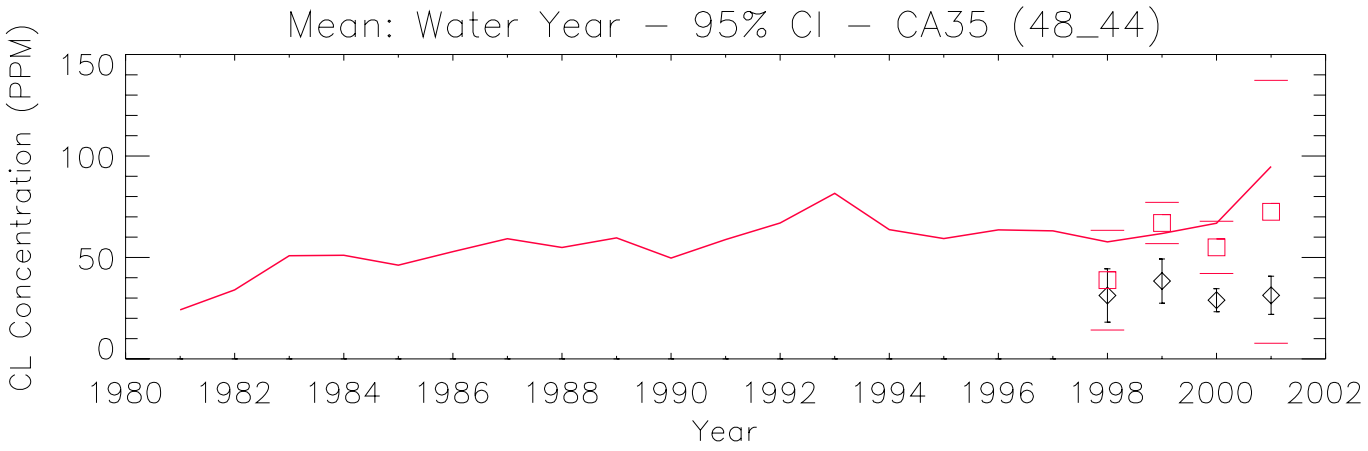
2002
Year


Mean: Water Year – 95% CI – CA35 (48_44)
CL Concentration (PPM)
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0
1980
1982
1984
1986
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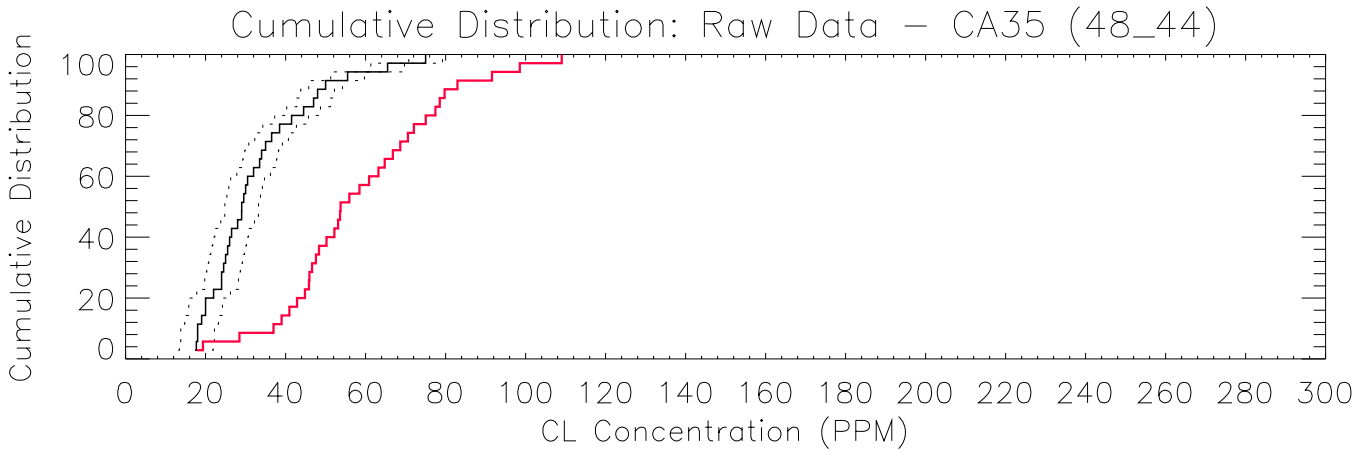
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – CA35 (48_44)
Cumulative Distribution
100
80
60
40
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60
80
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140
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220
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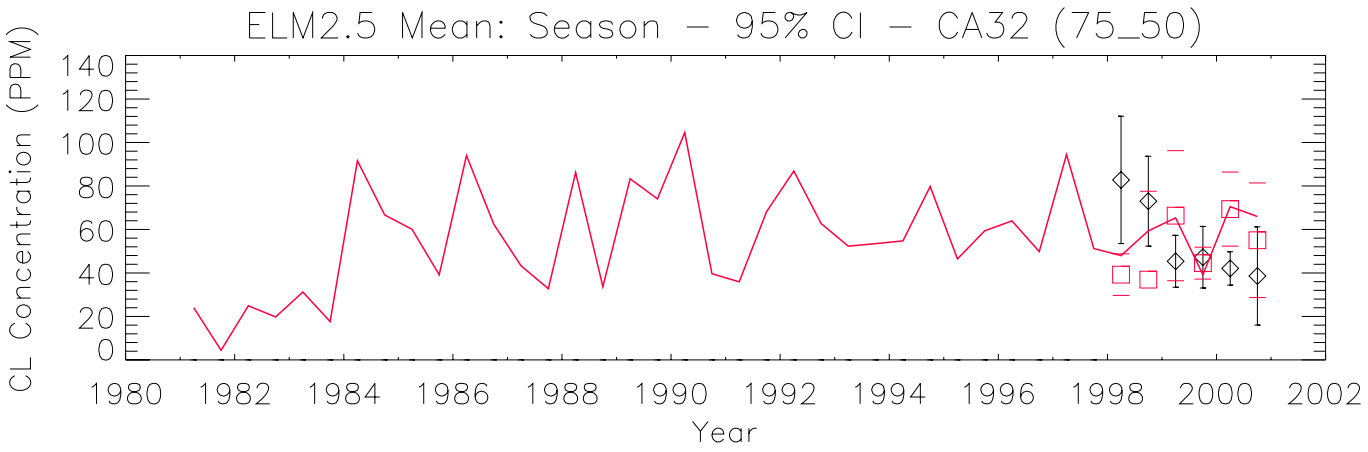
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – CA32 (75_50)
CL Concentration (PPM)
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120
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1982
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1998
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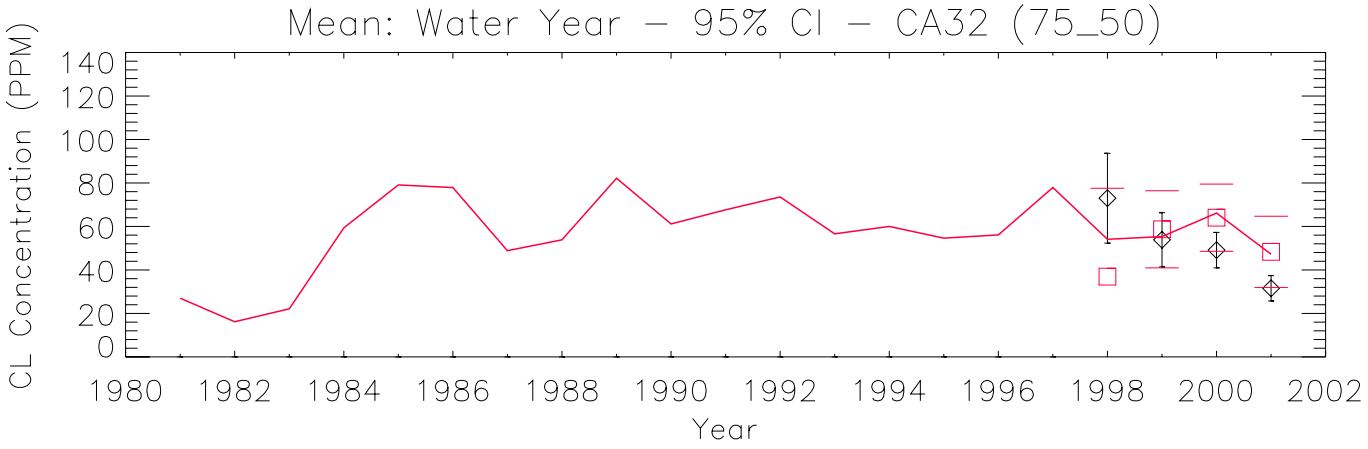
2002
Year


Mean: Water Year – 95% CI – CA32 (75_50)
CL Concentration (PPM)
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1998
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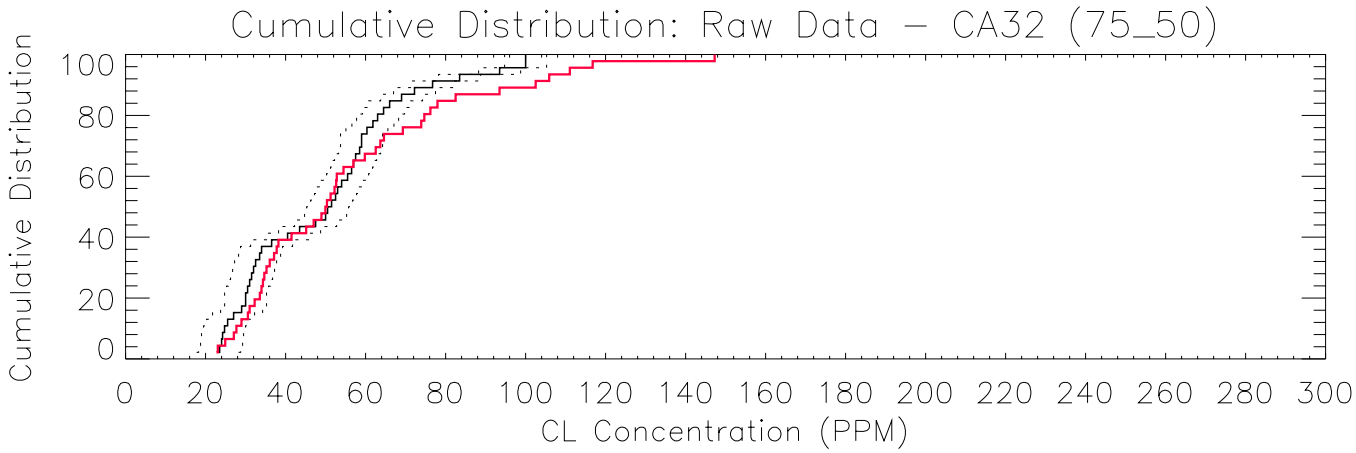
2002
Year


Cumulative Distribution: Raw Data – CA32 (75_50)
Cumulative Distribution
0
20
40
60
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220
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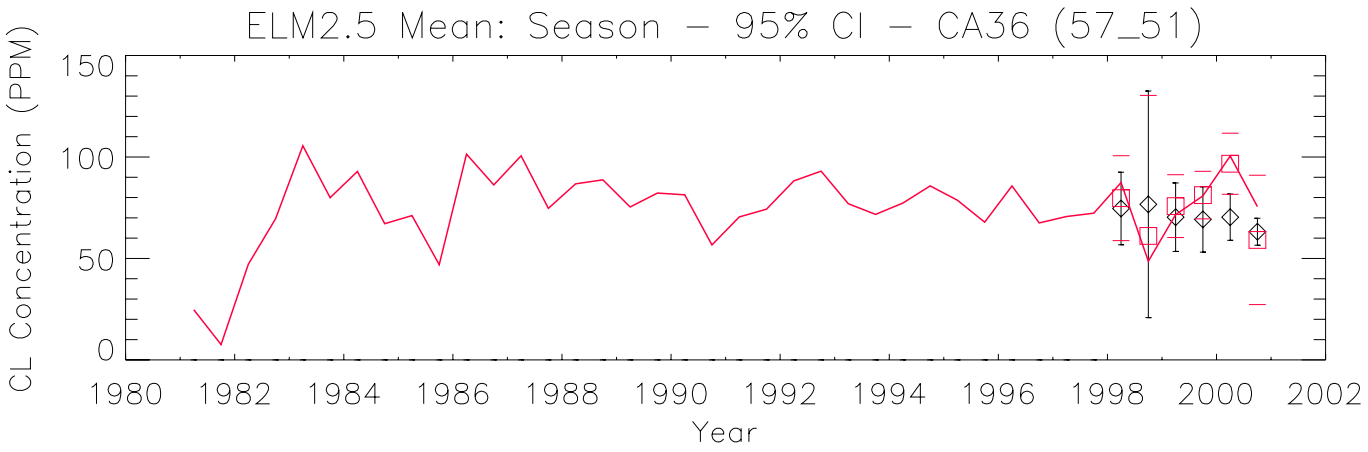
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – CA36 (57_51)
CL Concentration (PPM)
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1998
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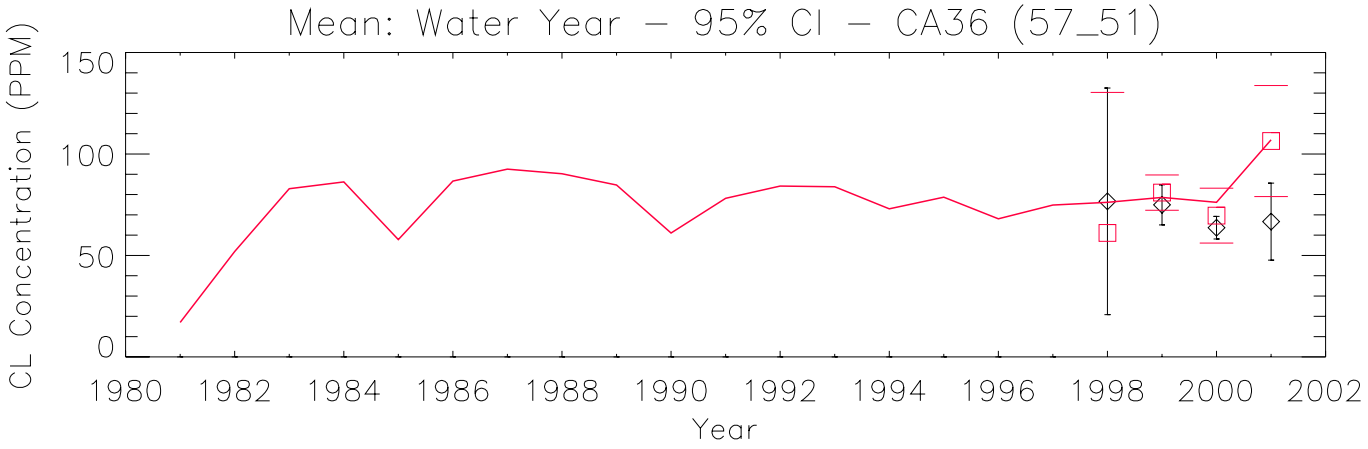
2002
Year


Mean: Water Year – 95% CI – CA36 (57_51)
CL Concentration (PPM)
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1980
1982
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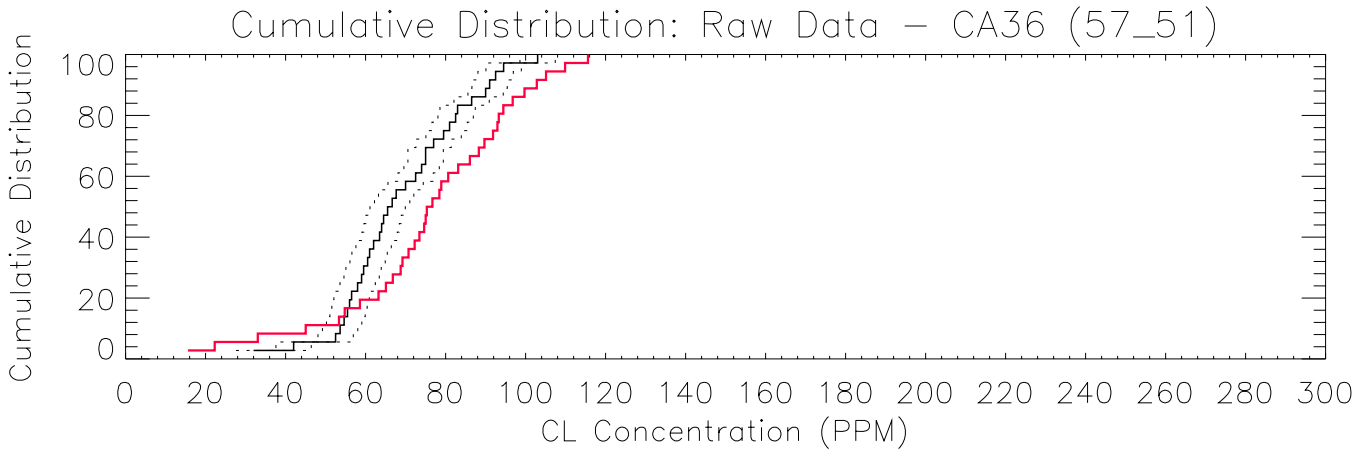
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – CA36 (57_51)
Cumulative Distribution
100
80
60
40
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0
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20
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60
80
100
120
140
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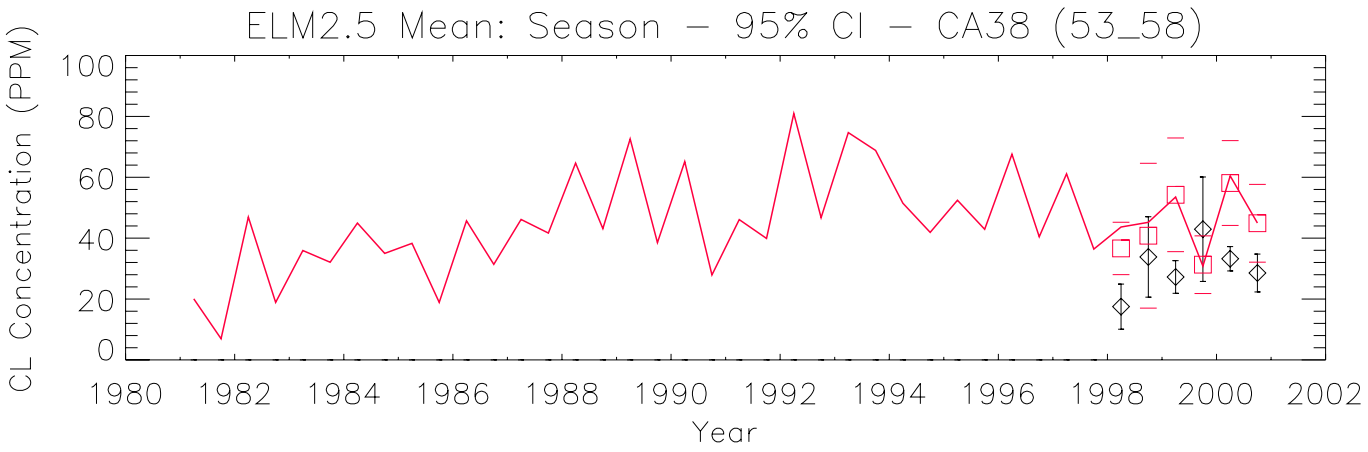
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – CA38 (53_58)
CL Concentration (PPM)
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1982
1984
1986
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1998
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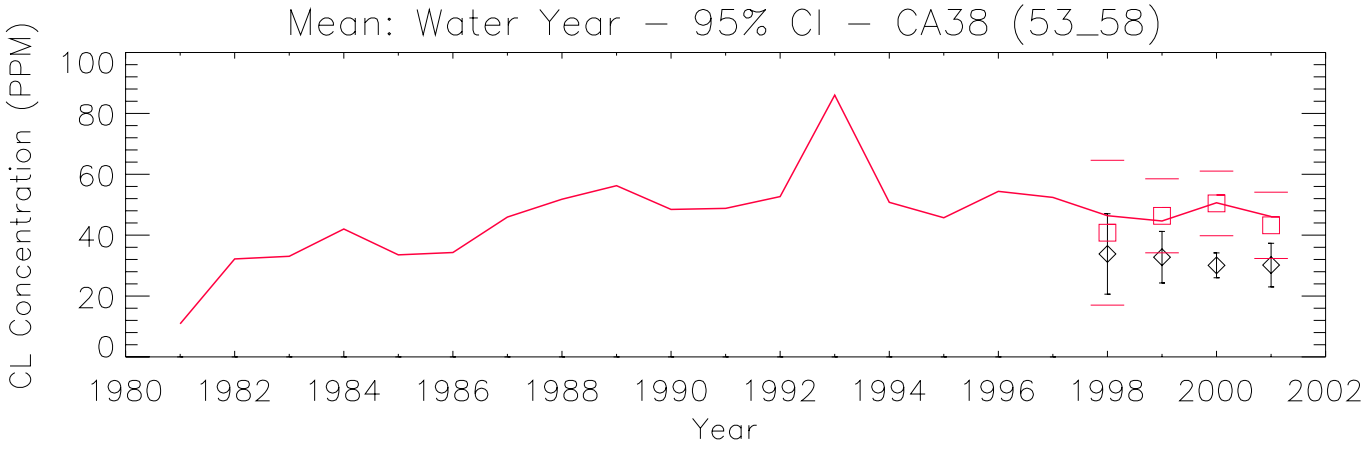
2002
Year


Mean: Water Year – 95% CI – CA38 (53_58)
CL Concentration (PPM)
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60
80
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1980
1982
1984
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1998
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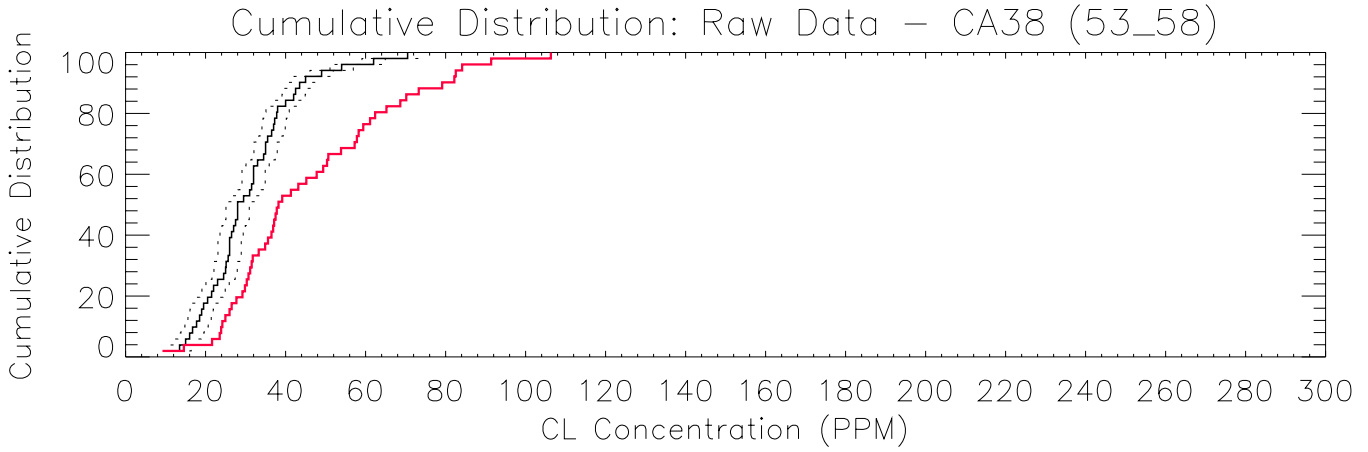
2002
Year


Cumulative Distribution: Raw Data – CA38 (53_58)
Cumulative Distribution
0
20
40
60
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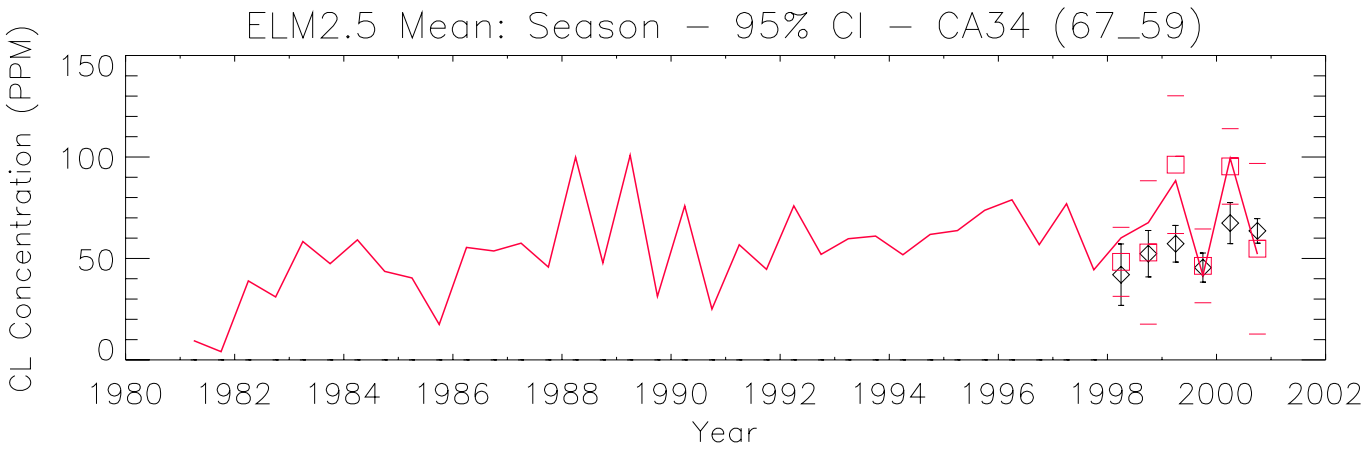
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – CA34 (67_59)
CL Concentration (PPM)
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100
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0
1980
1982
1984
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1990
1992
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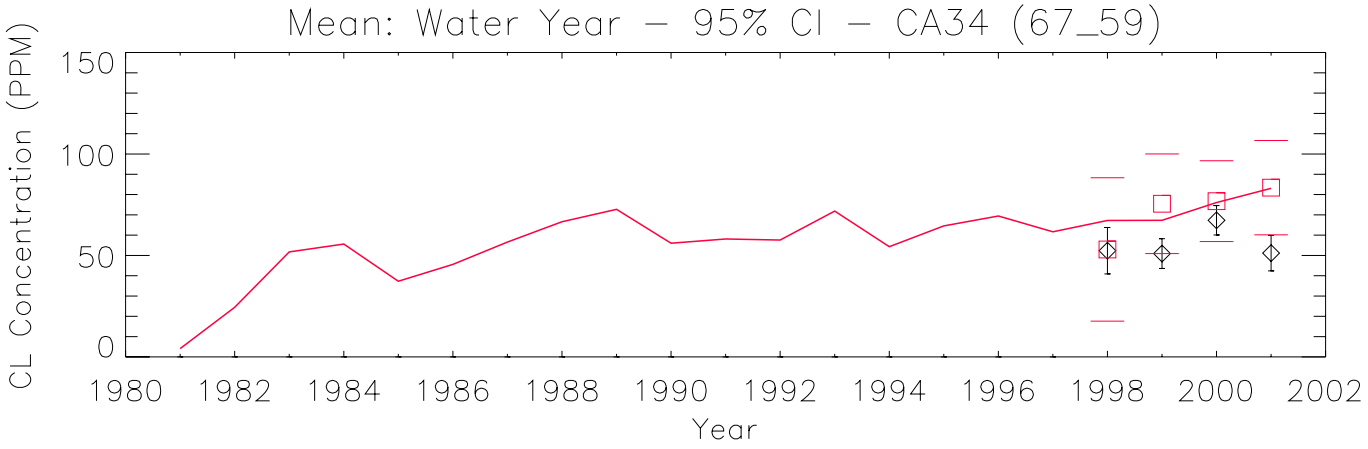
1998
2000
2002
Year


Mean: Water Year – 95% CI – CA34 (67_59)
CL Concentration (PPM)
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100
50
0
1980
1982
1984
1986
1988
1990
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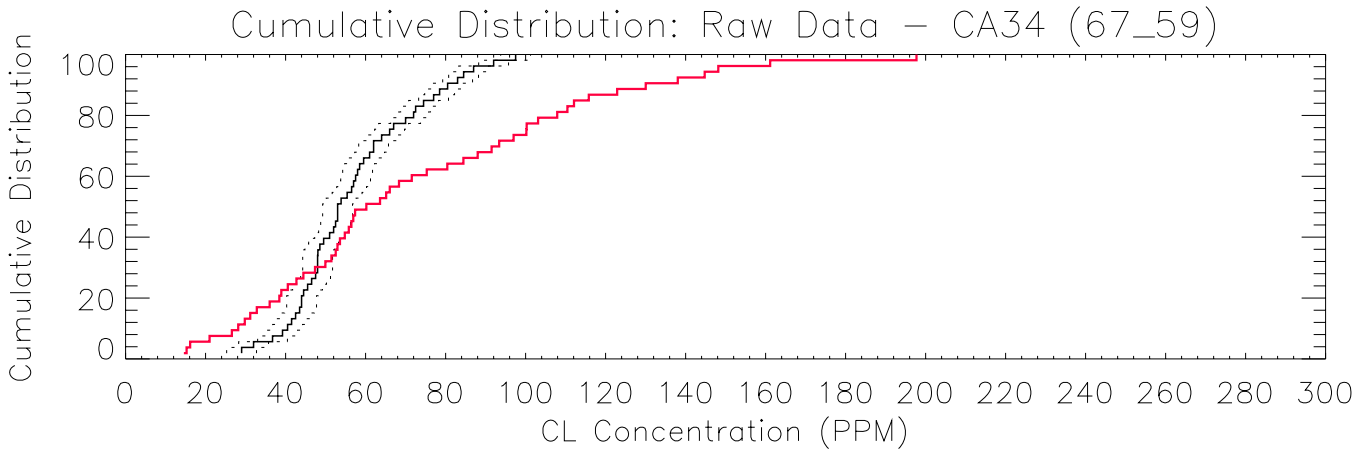
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – CA34 (67_59)
Cumulative Distribution
100
80
60
40
20
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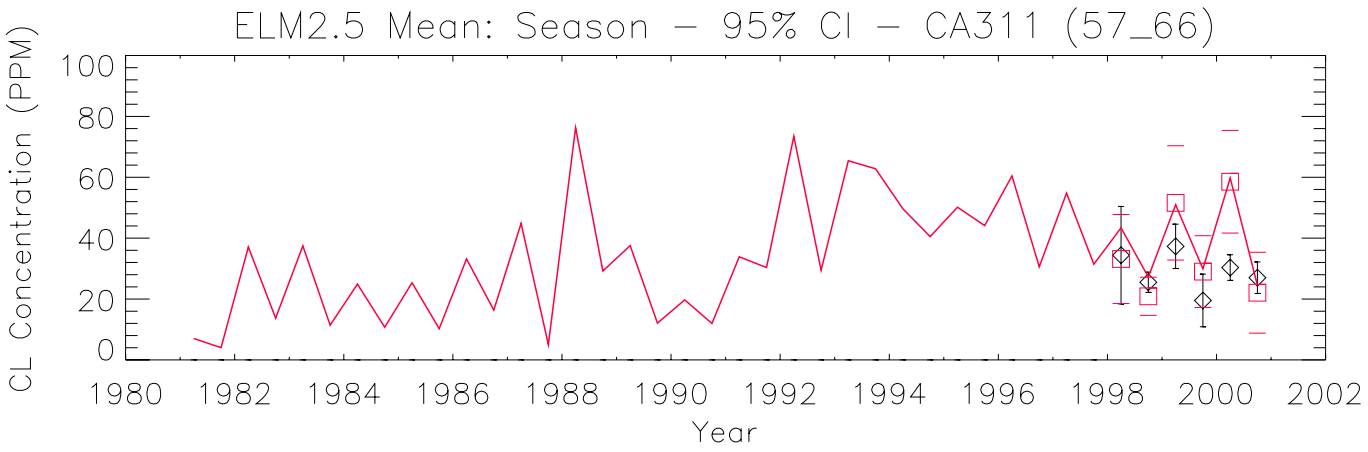
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – CA311 (57_66)
CL Concentration (PPM)
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60
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100
1980
1982
1984
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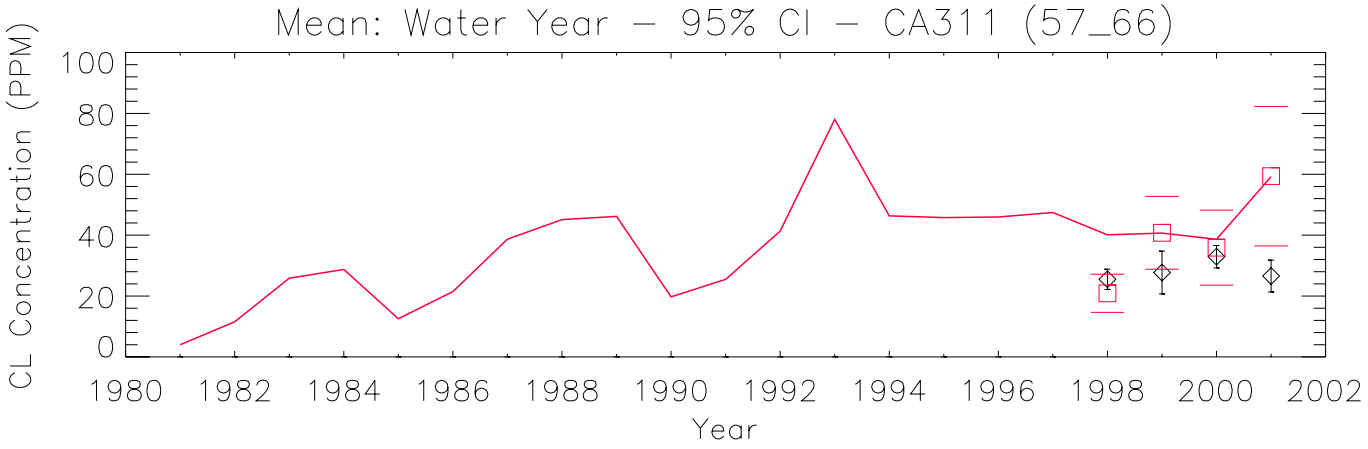
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – CA311 (57_66)
CL Concentration (PPM)
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60
80
100
1980
1982
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1986
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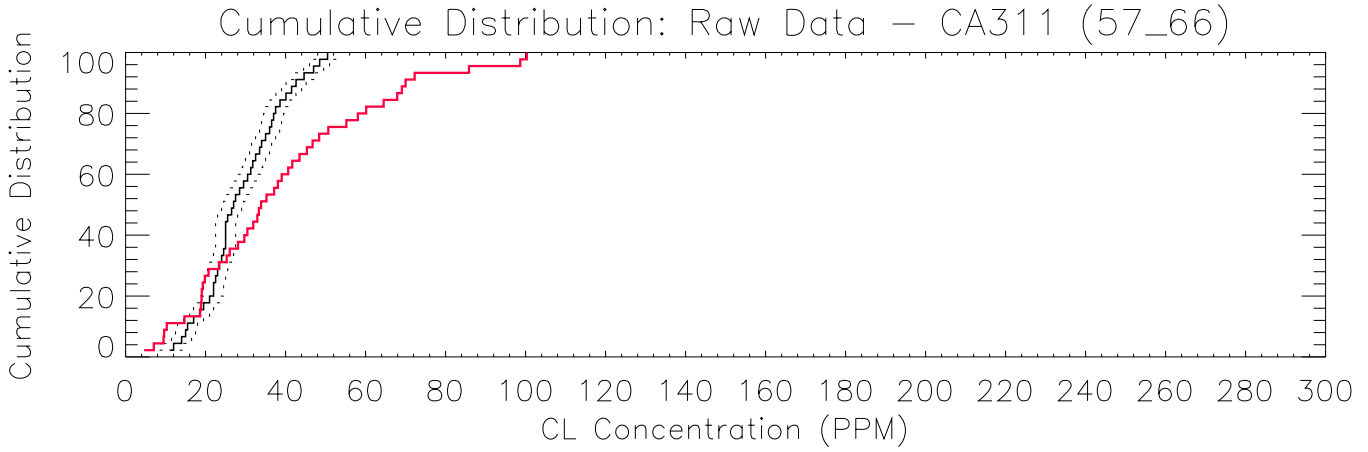
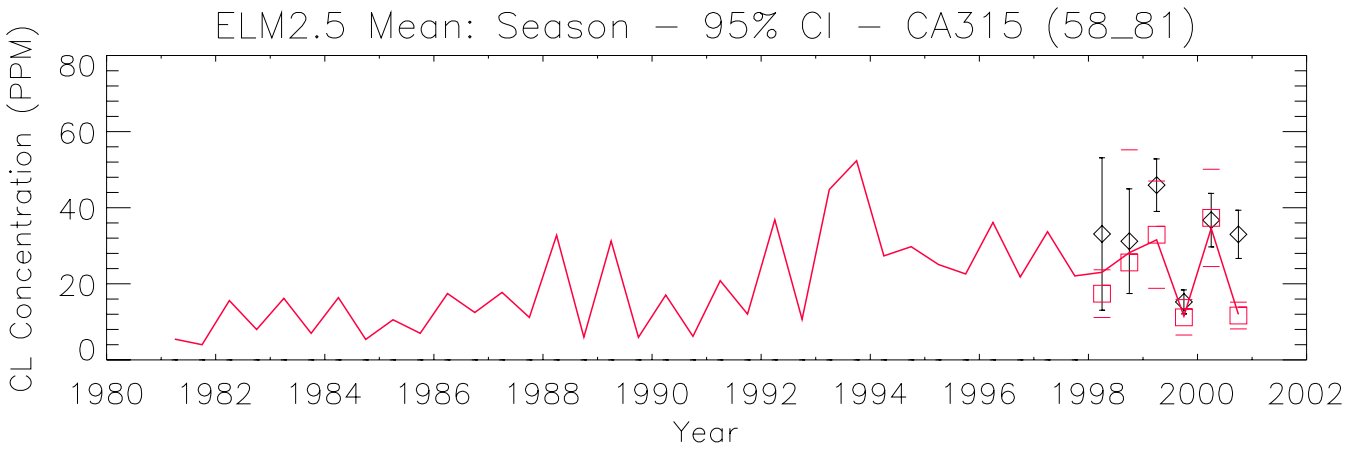
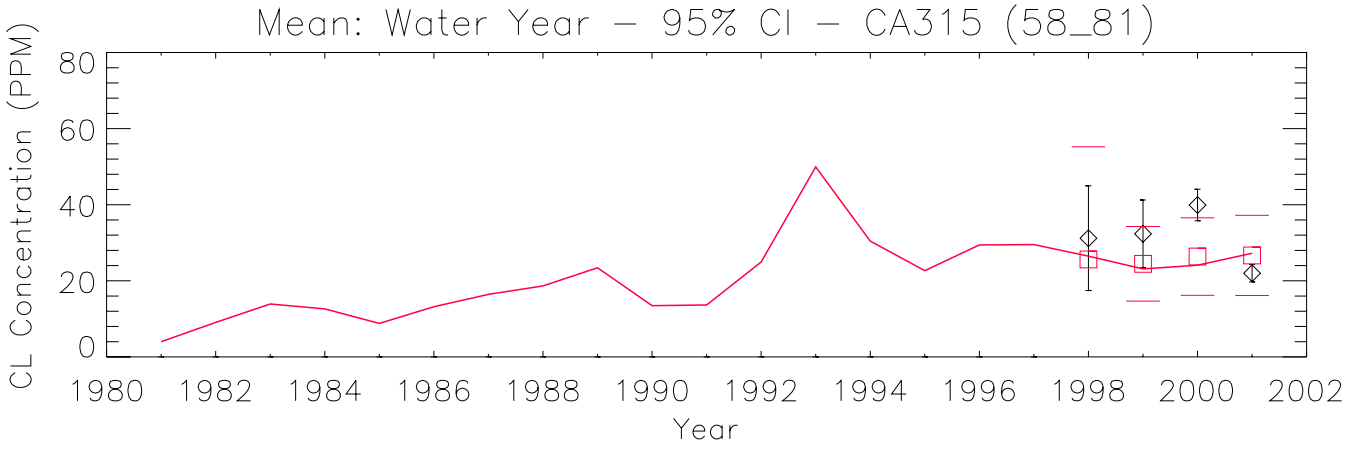
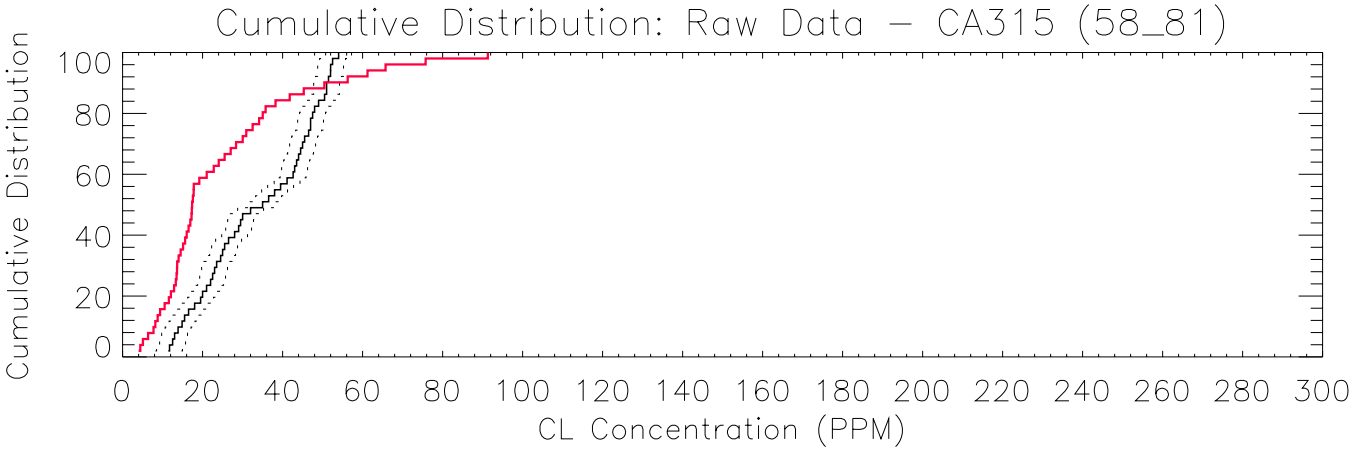
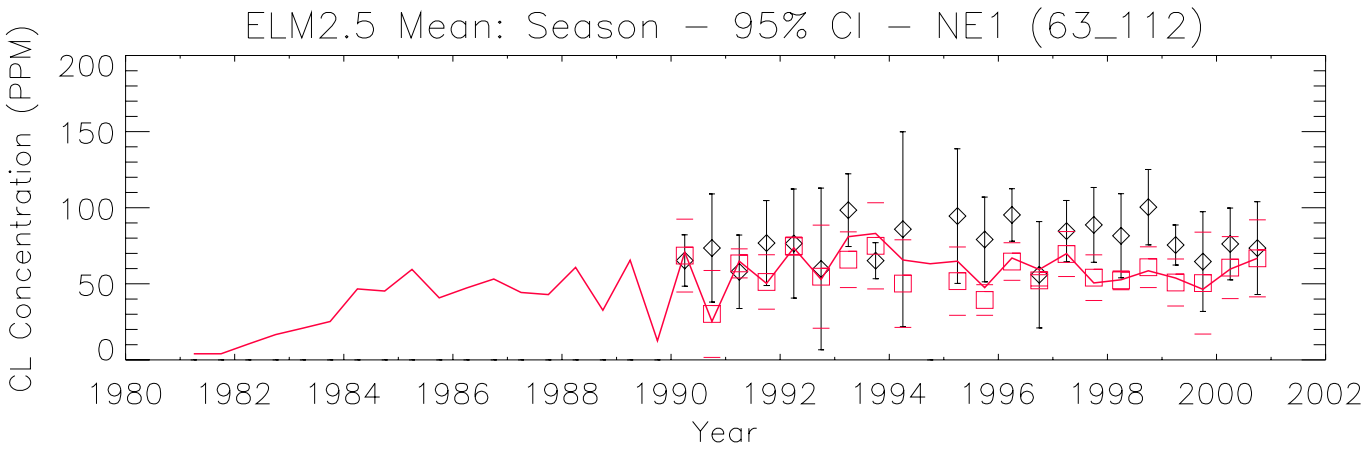
1990
1992
1994
1996
1998
2000
2002
Year

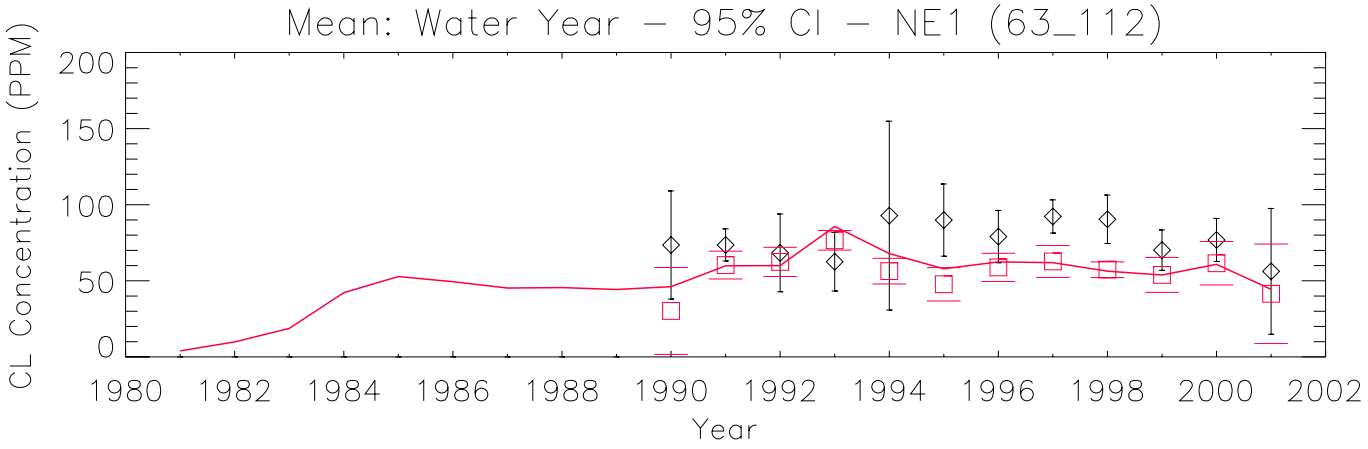

Cumulative Distribution: Raw Data – CA311 (57_66)
Cumulative Distribution
0
20
40
60
80
100
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – CA315 (58_81)
CL Concentration (PPM)
0
20
40
60
80
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – CA315 (58_81)
CL Concentration (PPM)
0
20
40
60
80
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – CA315 (58_81)
Cumulative Distribution
0
20
40
60
80
100
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – NE1 (63_112)
CL Concentration (PPM)
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – NE1 (63_112)
CL Concentration (PPM)
200
150
100
50
0
1980
1982
1984
1986
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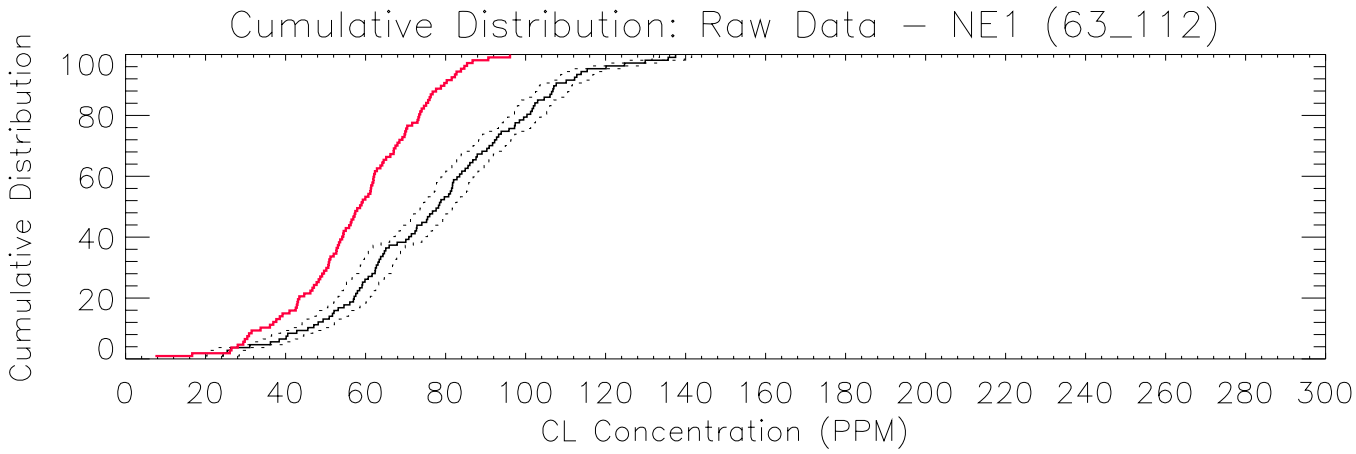
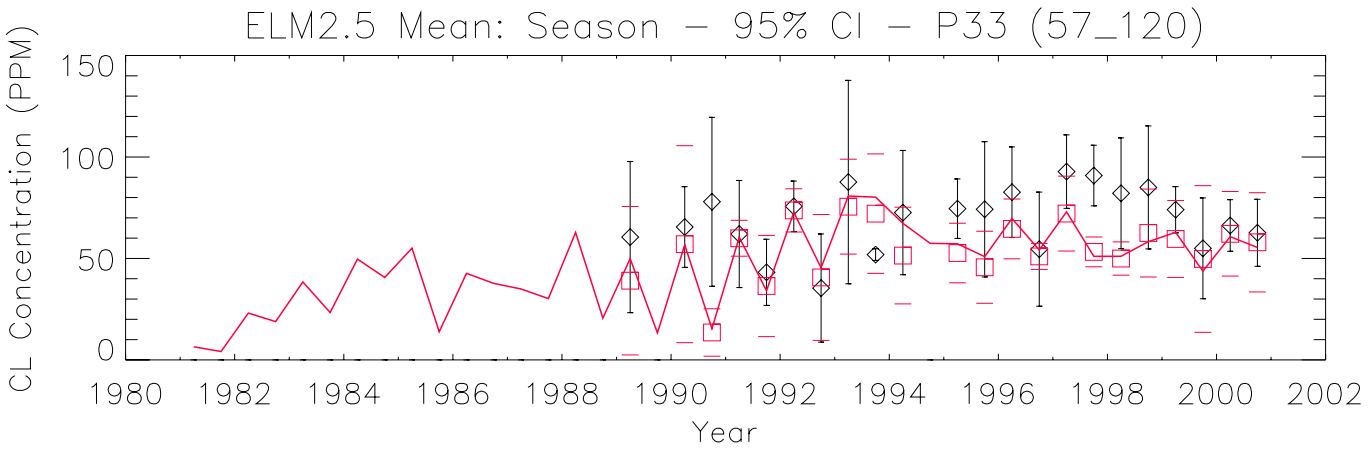
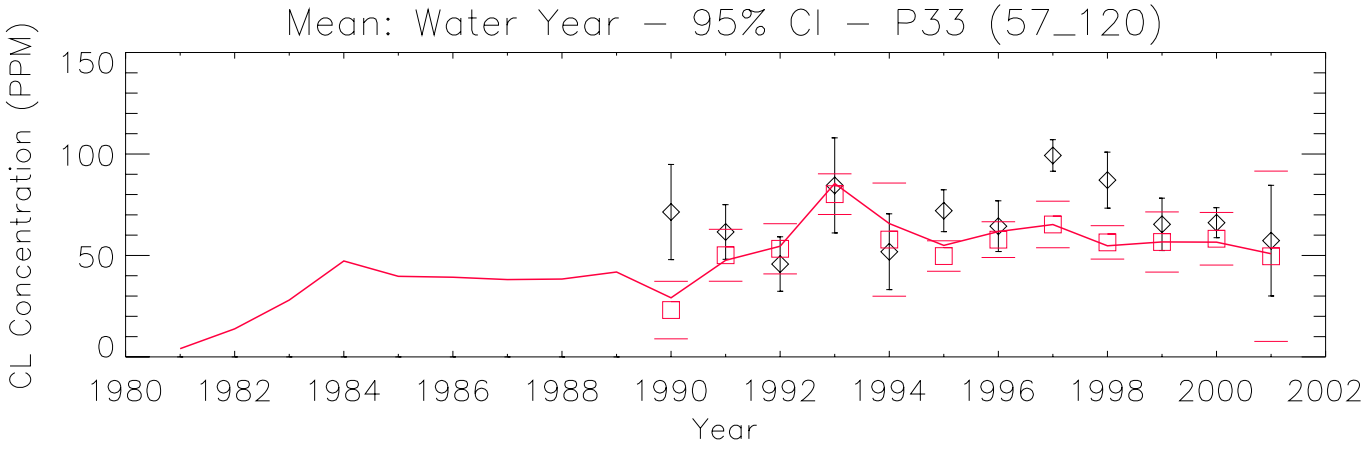
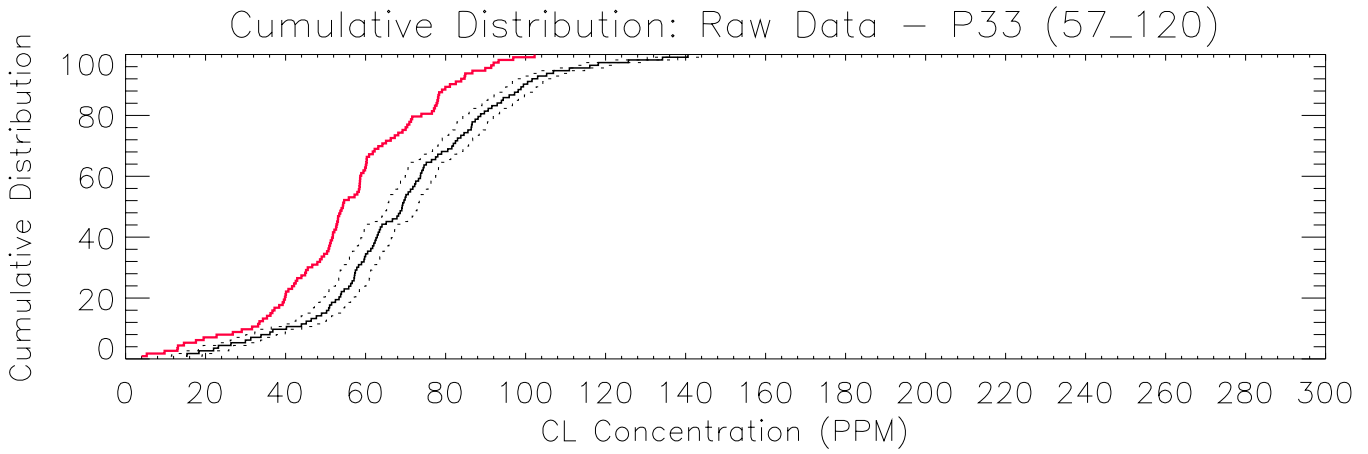
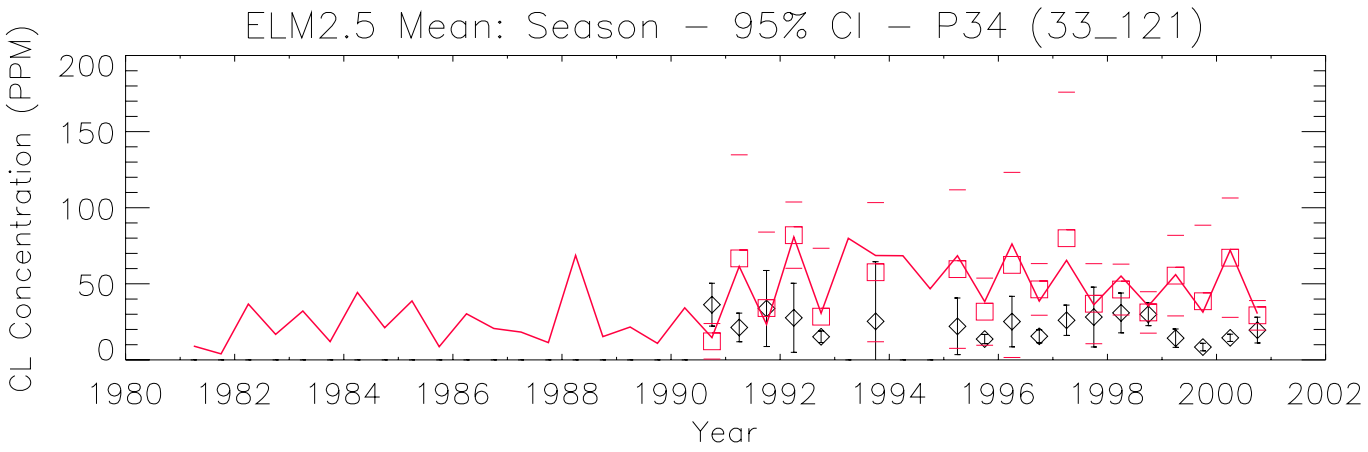
1990
1992
1994
1996
1998
2000
2002
Year

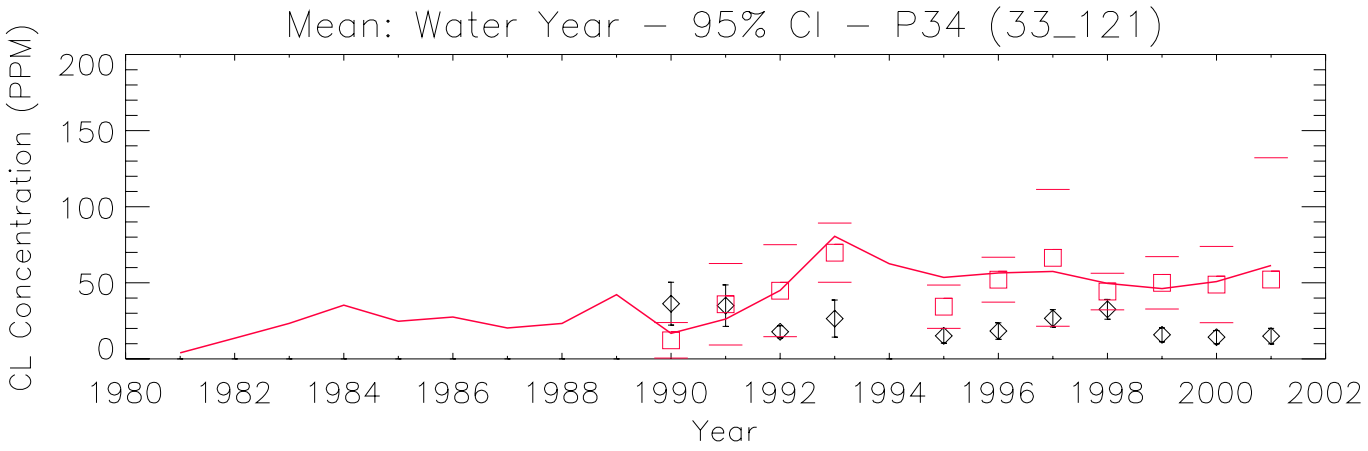

Cumulative Distribution: Raw Data – NE1 (63_112)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)

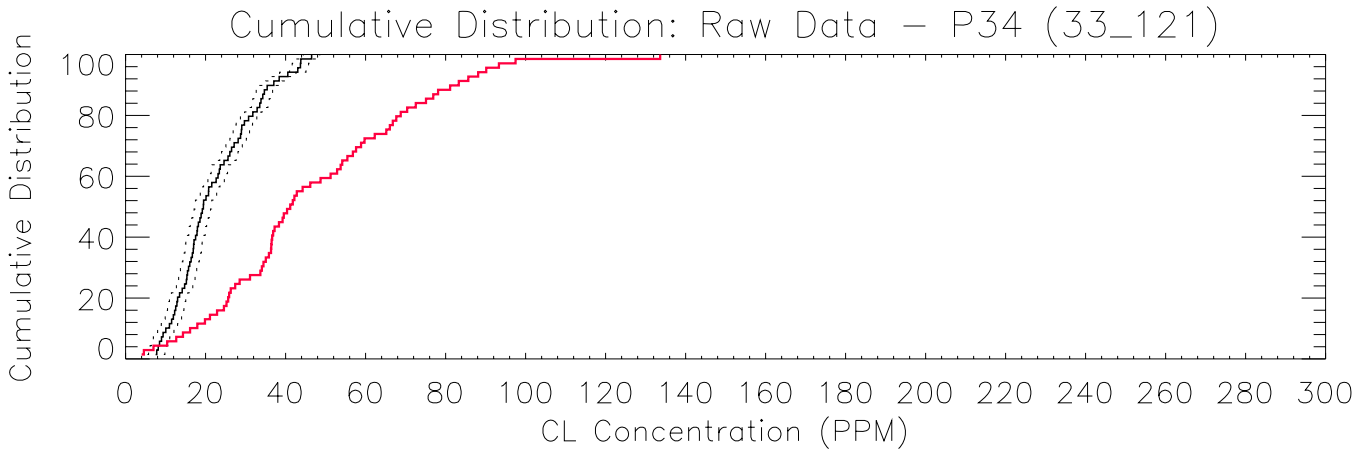

ELM2.5 Mean: Season – 95% CI – P33 (57_120)
CL Concentration (PPM)
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

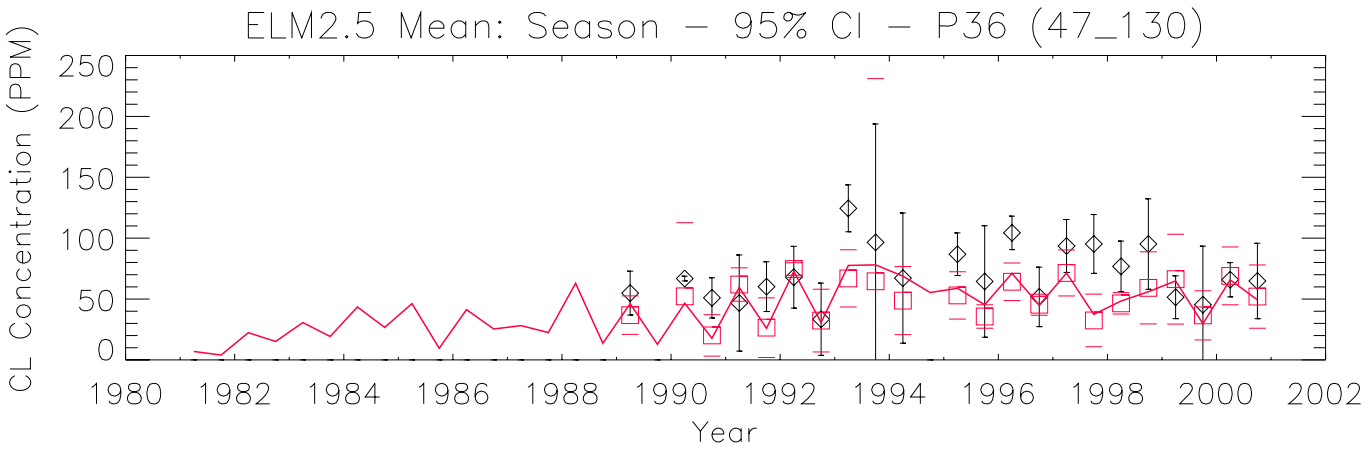

Mean: Water Year – 95% CI – P33 (57_120)
CL Concentration (PPM)
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

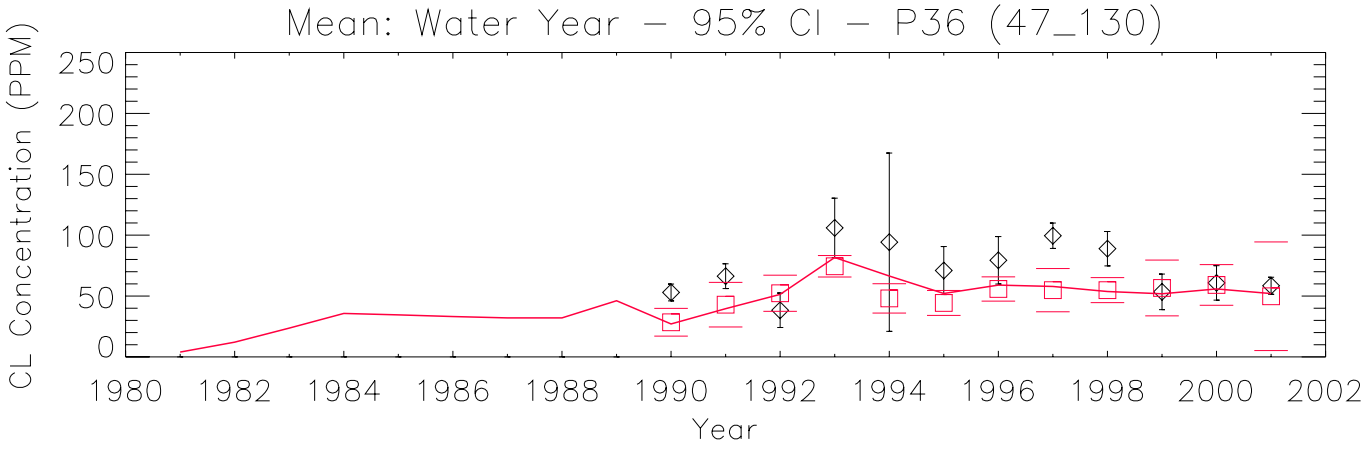

Cumulative Distribution: Raw Data – P33 (57_120)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)

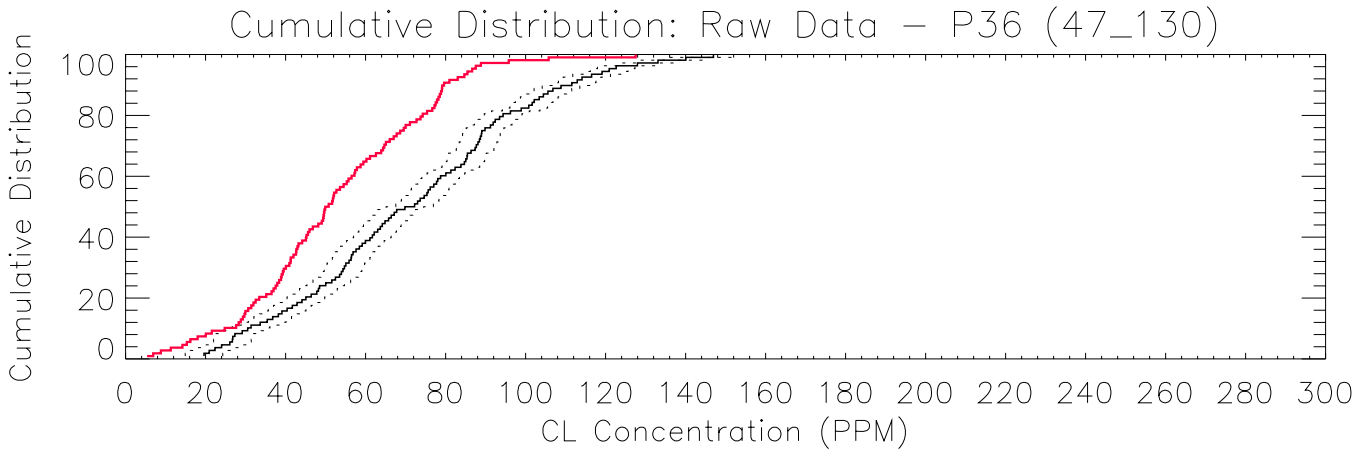

ELM2.5 Mean: Season – 95% CI – P34 (33_121)
CL Concentration (PPM)
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

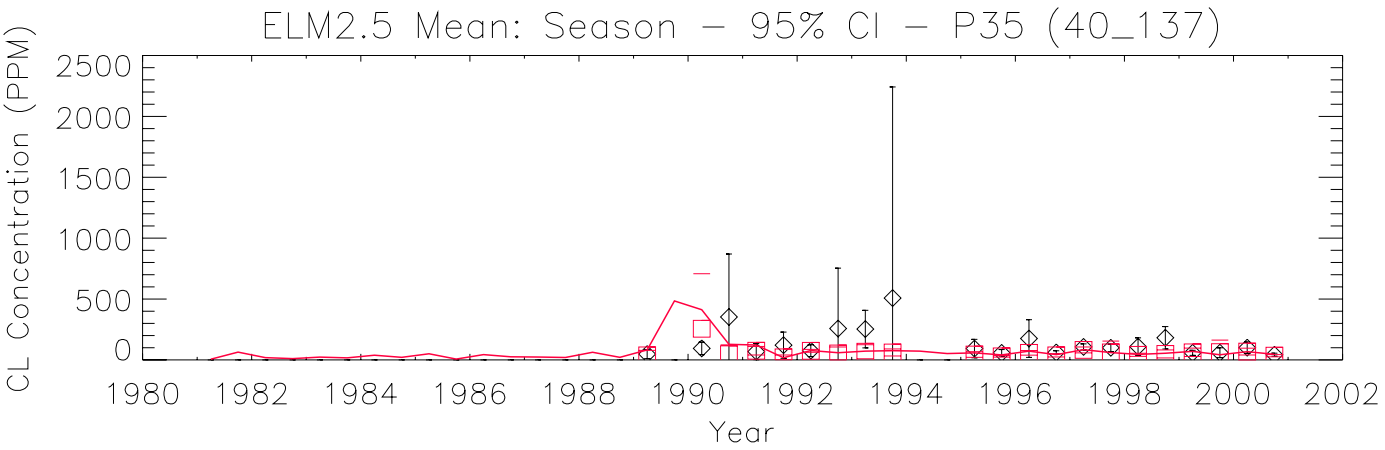

Mean: Water Year – 95% CI – P34 (33_121)
CL Concentration (PPM)
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

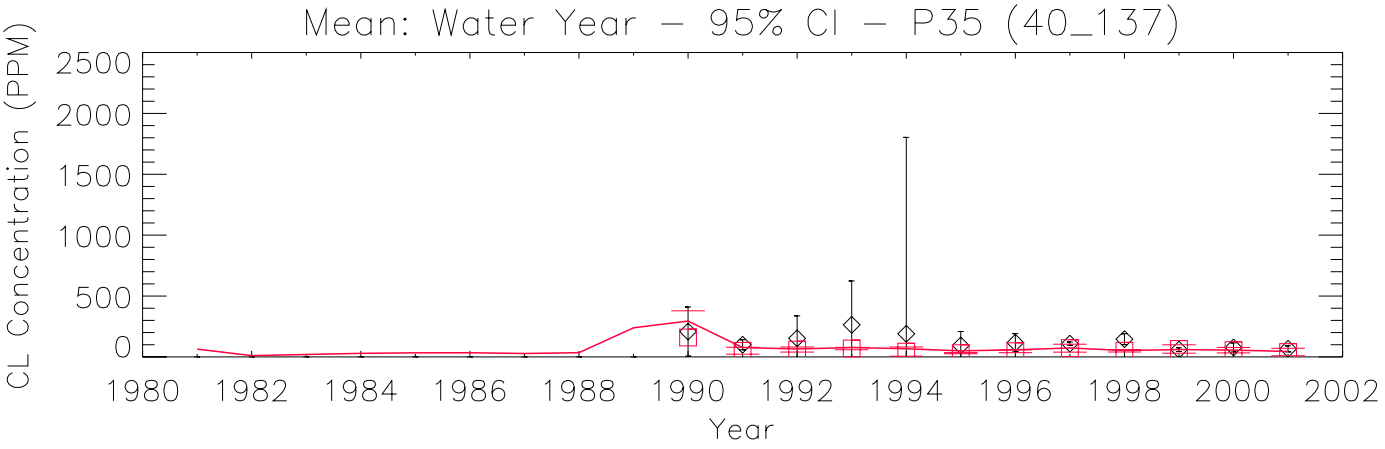

Cumulative Distribution: Raw Data – P34 (33_121)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)

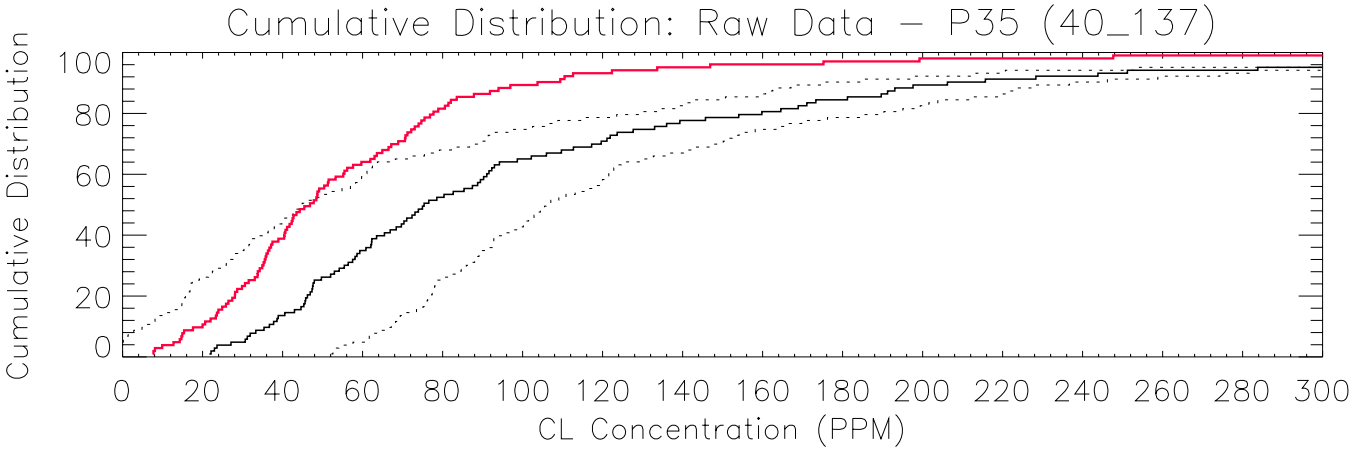

ELM2.5 Mean: Season – 95% CI – P36 (47_130)
CL Concentration (PPM)
250
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

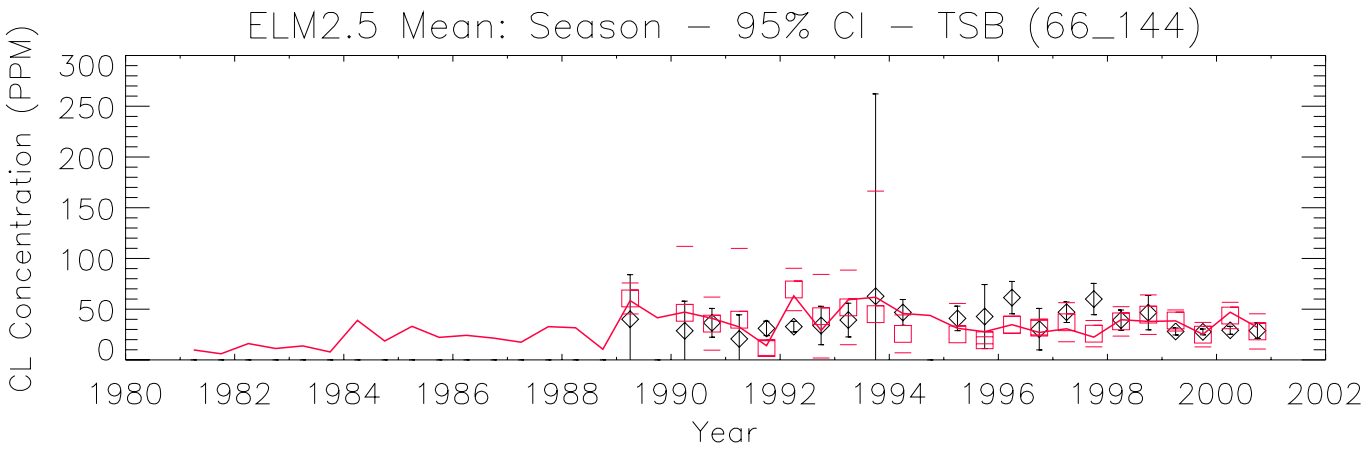

Mean: Water Year – 95% CI – P36 (47_130)
CL Concentration (PPM)
250
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

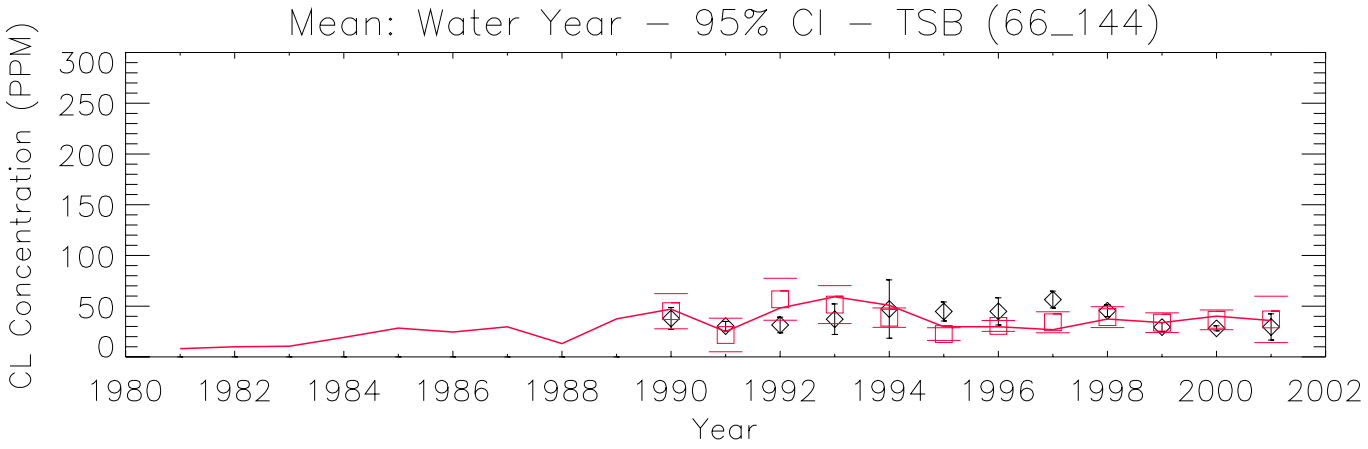

Cumulative Distribution: Raw Data – P36 (47_130)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – P35 (40_137)
CL Concentration (PPM)
2500
2000
1500
1000
500
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – P35 (40_137)
CL Concentration (PPM)
2500
2000
1500
1000
500
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – P35 (40_137)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – TSB (66_144)
CL Concentration (PPM)
300
250
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – TSB (66_144)
CL Concentration (PPM)
300
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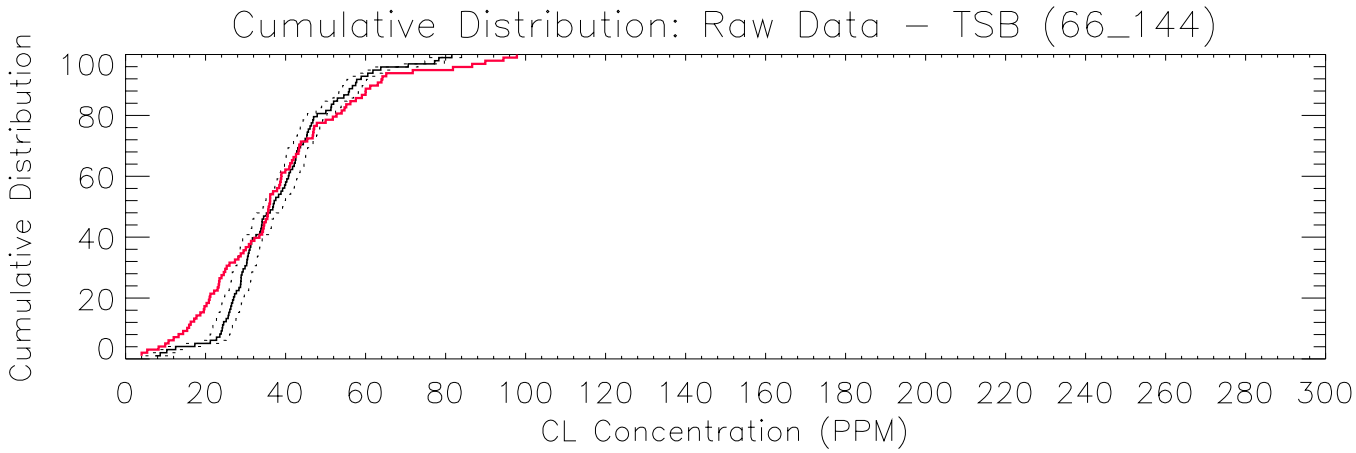
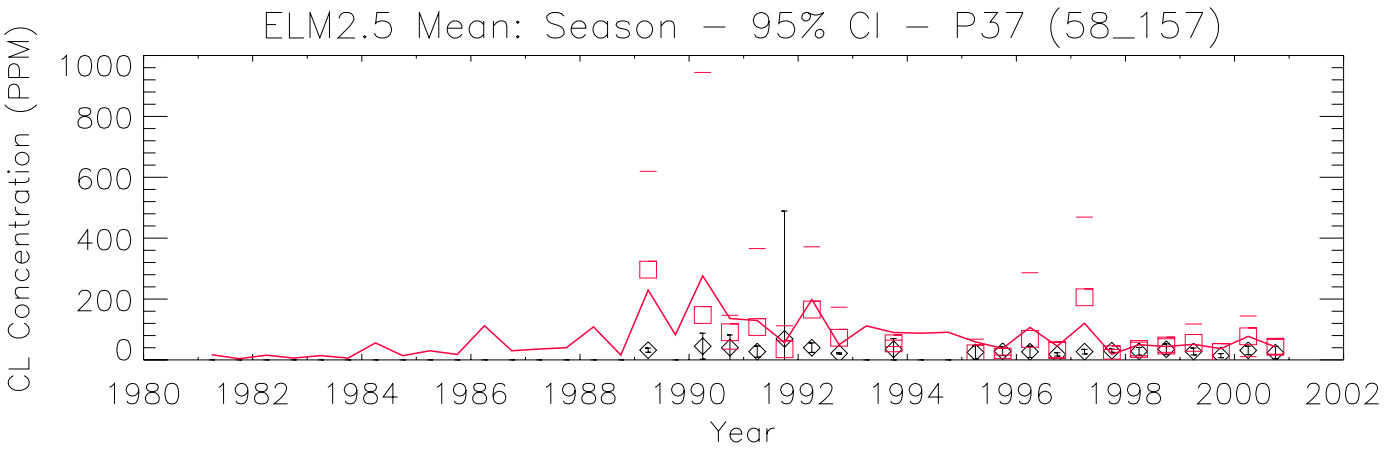
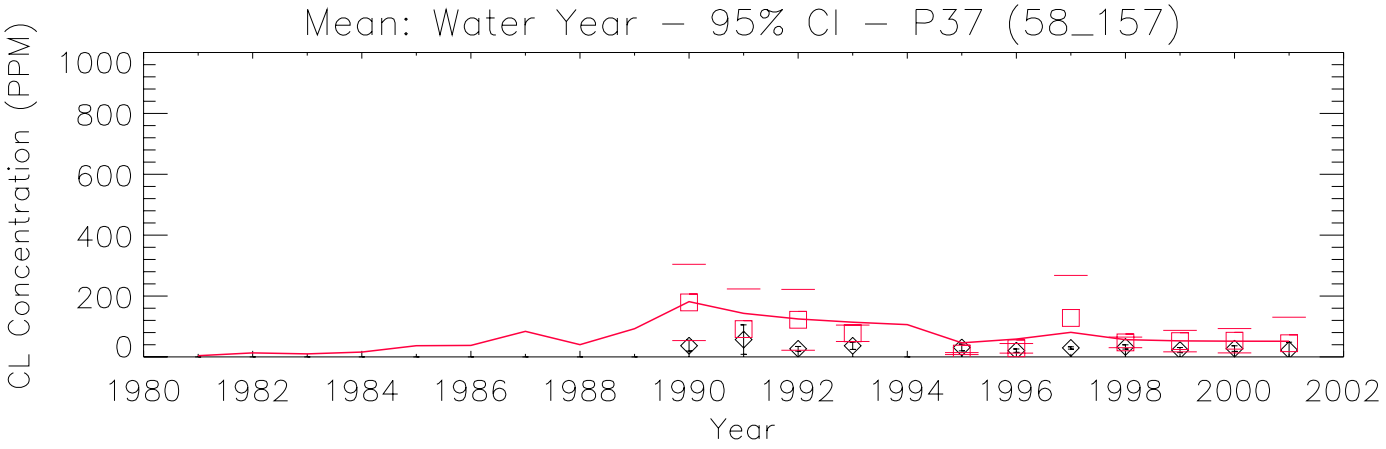
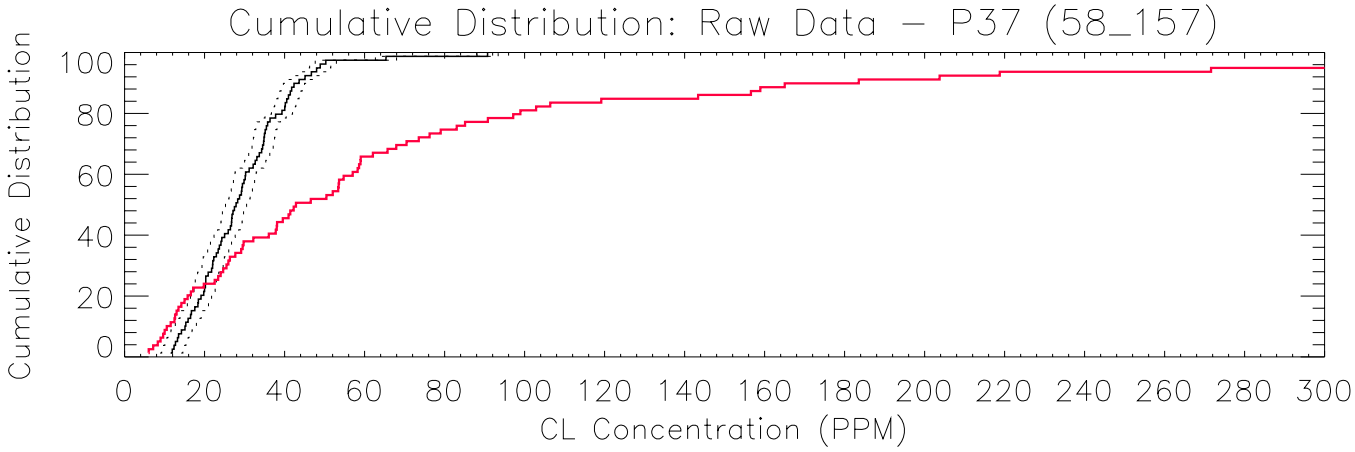
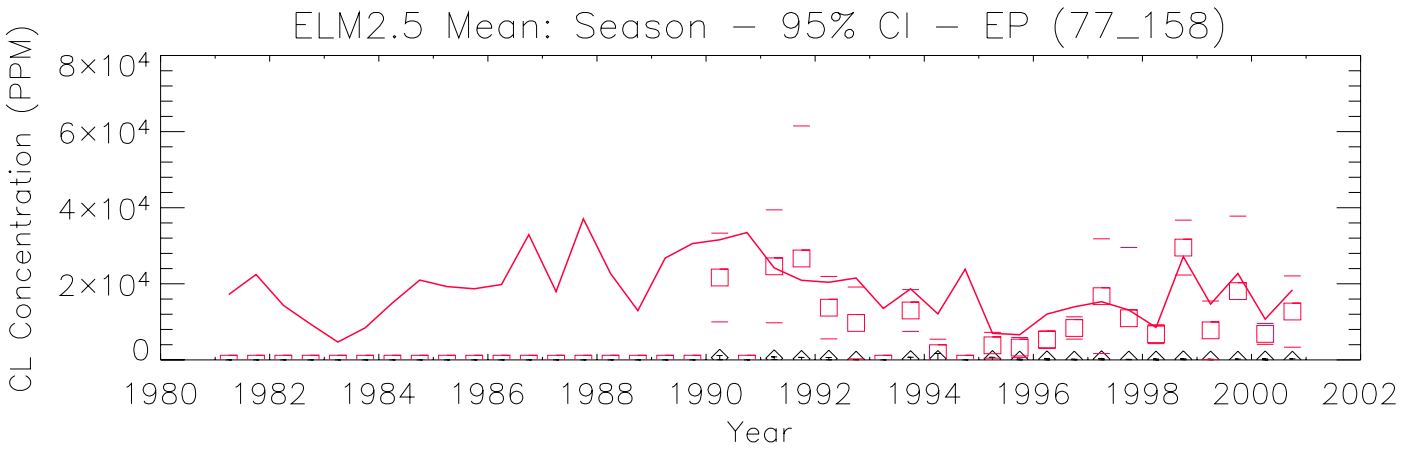
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

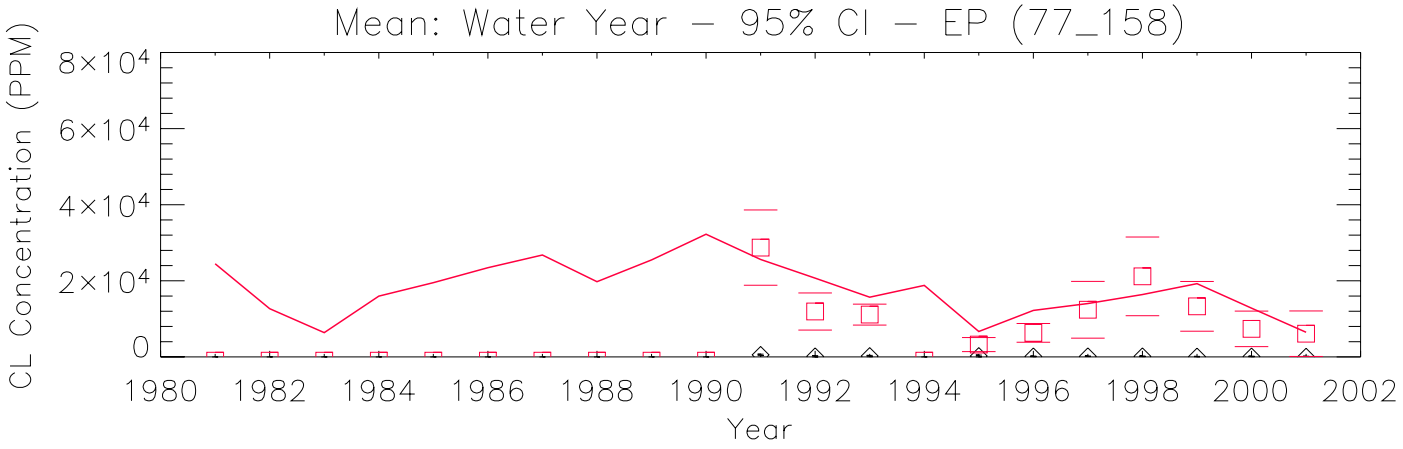

Cumulative Distribution: Raw Data – TSB (66_144)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)

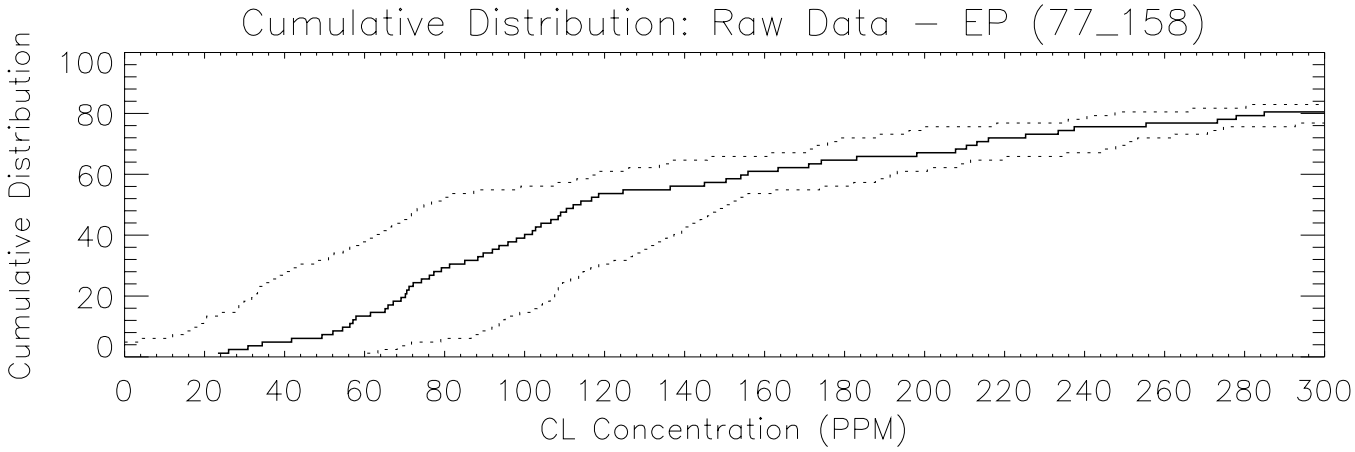

ELM2.5 Mean: Season – 95% CI – P37 (58_157)
CL Concentration (PPM)
1000
800
600
400
200
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

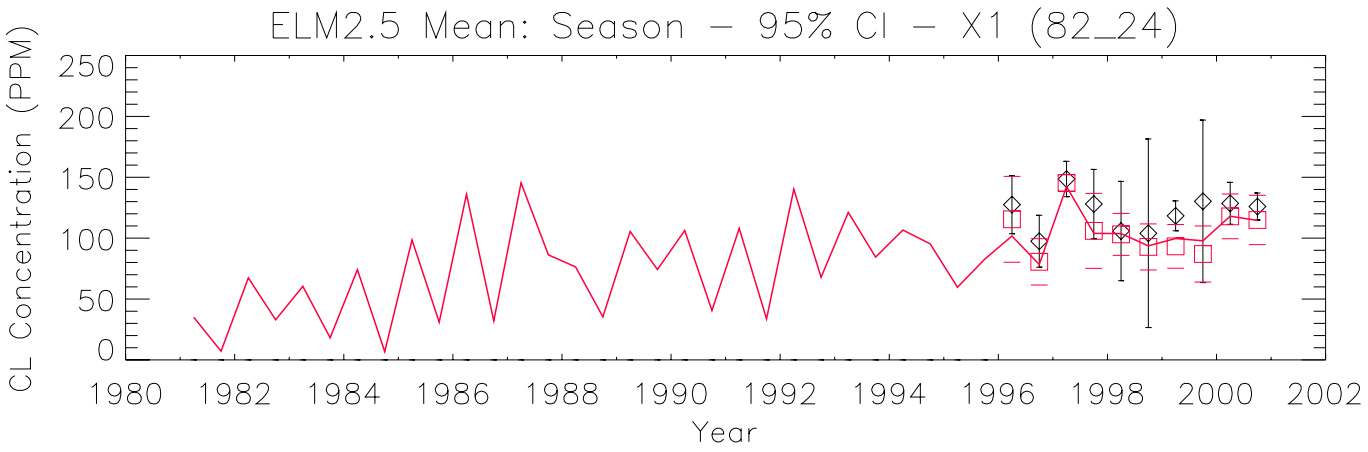

Mean: Water Year – 95% CI – P37 (58_157)
CL Concentration (PPM)
1000
800
600
400
200
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

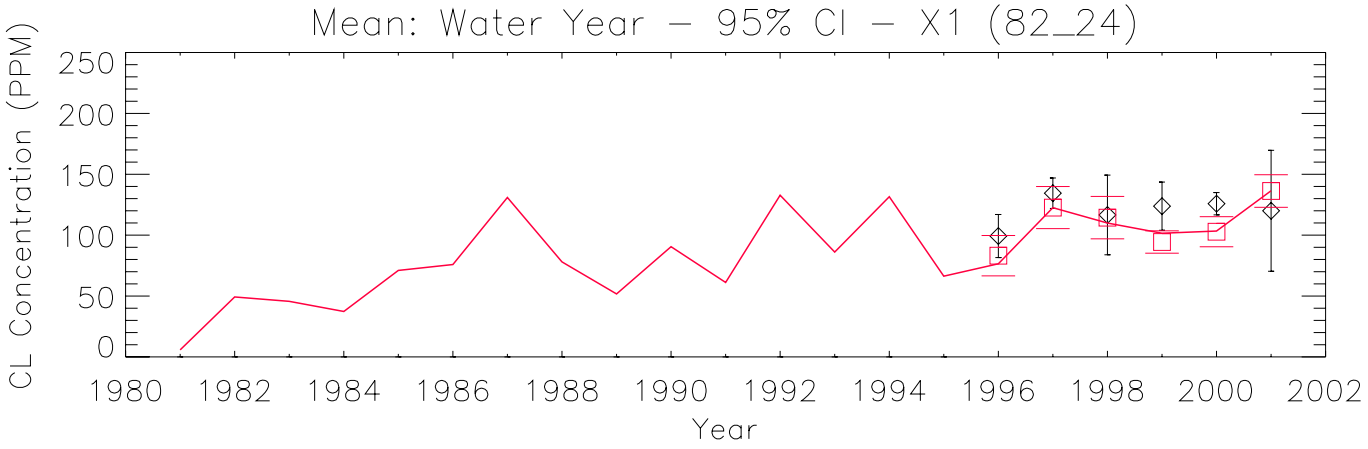

Cumulative Distribution: Raw Data – P37 (58_157)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)

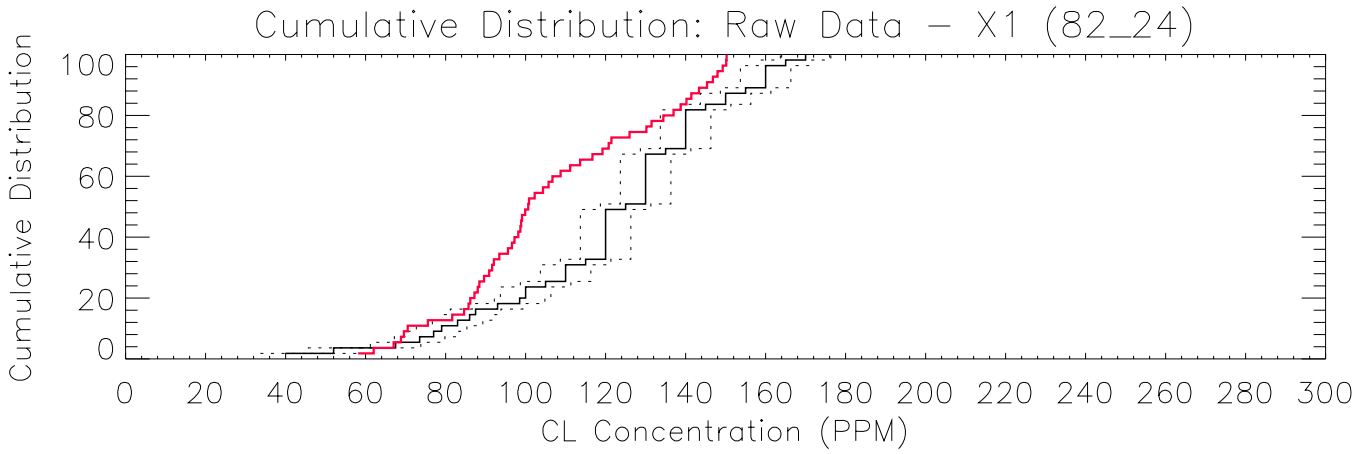

ELM2.5 Mean: Season – 95% CI – EP (77_158)
CL Concentration (PPM)
8×10⁴
6×10⁴
4×10⁴
2×10⁴
0
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

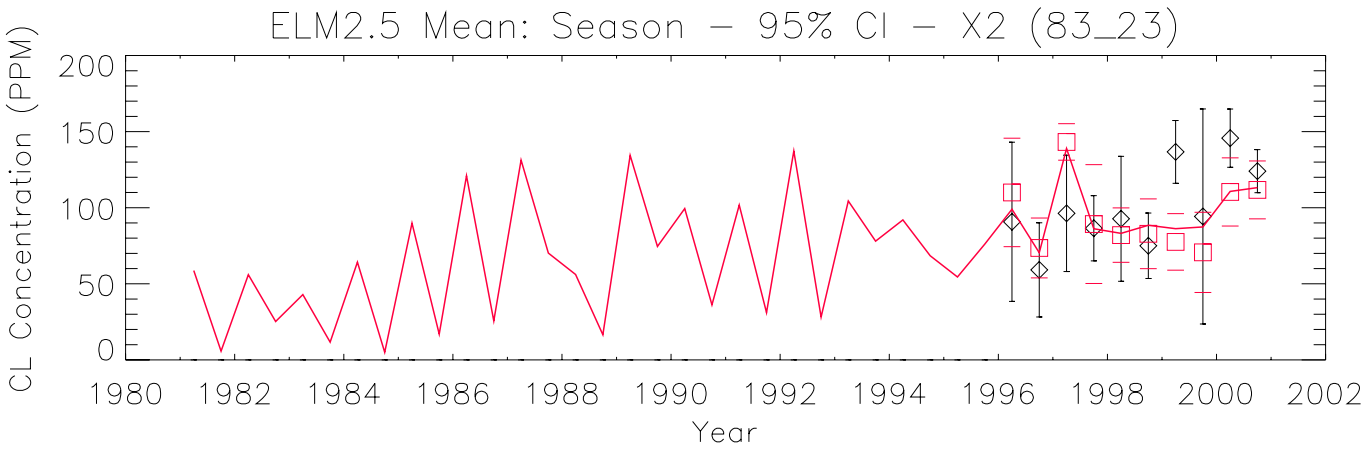

Mean: Water Year – 95% CI – EP (77_158)
CL Concentration (PPM)
8×10⁴
6×10⁴
4×10⁴
2×10⁴
0
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

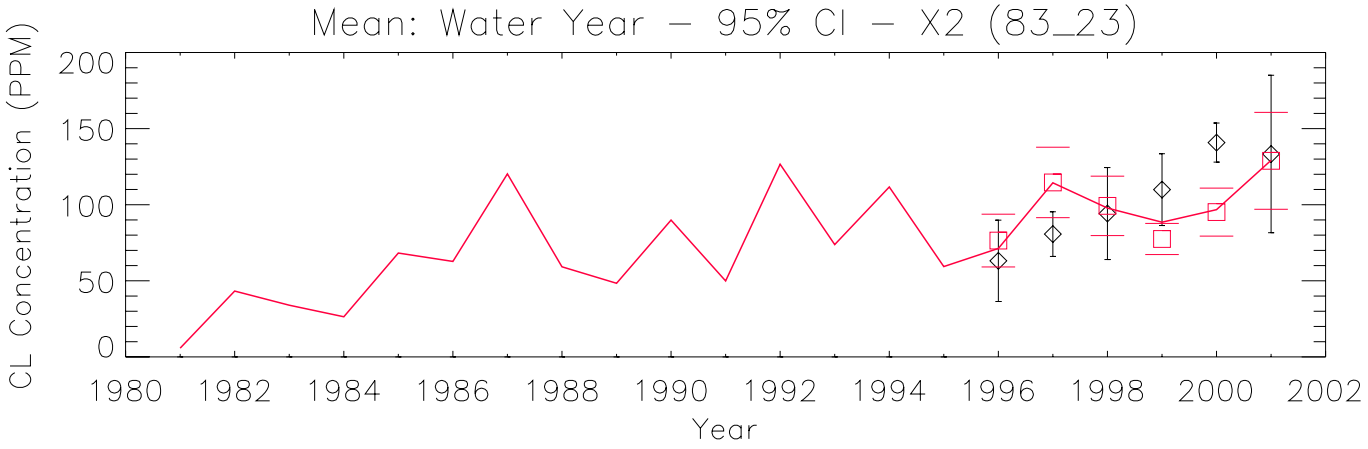

Cumulative Distribution: Raw Data – EP (77_158)
Cumulative Distribution
100
80
60
40
20
0
0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – X1 (82_24)
CL Concentration (PPM)
250
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – X1 (82_24)
CL Concentration (PPM)
250
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – X1 (82_24)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – X2 (83_23)
CL Concentration (PPM)
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – X2 (83_23)
CL Concentration (PPM)
200
150
100
50
0
1980
1982
1984
1986
1988
1990
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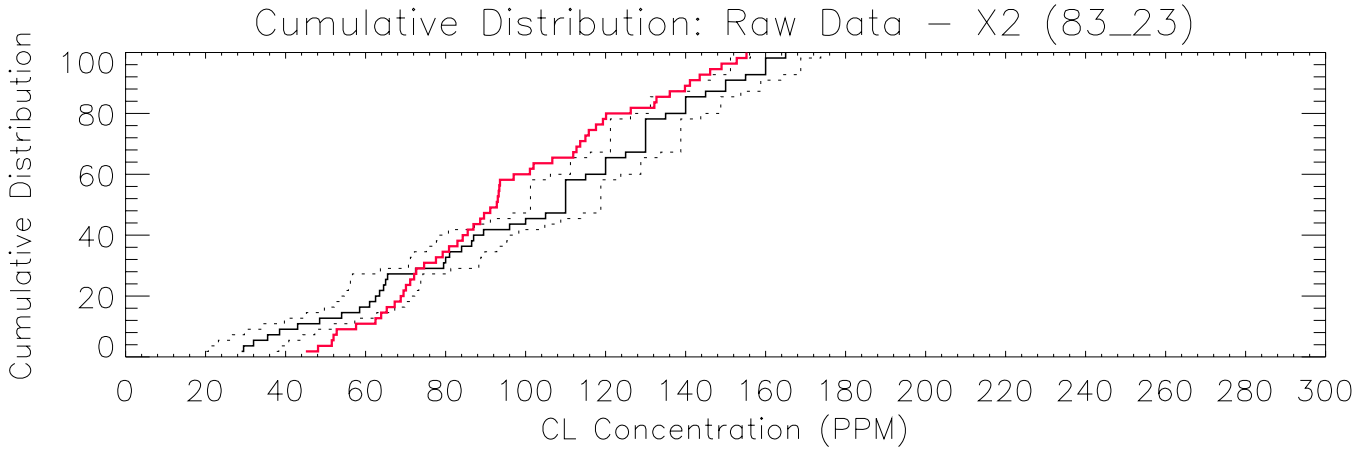
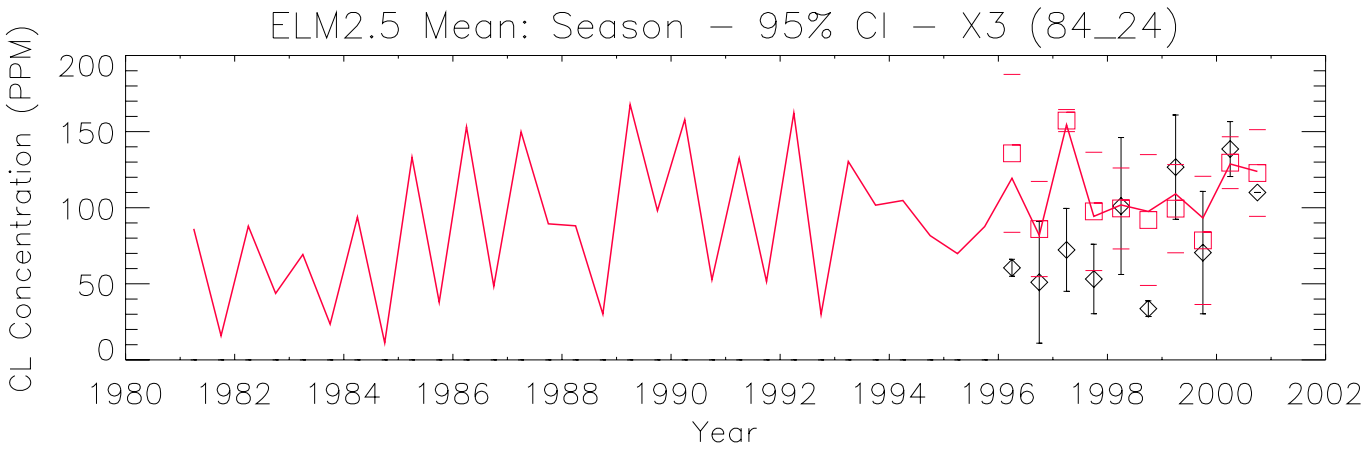
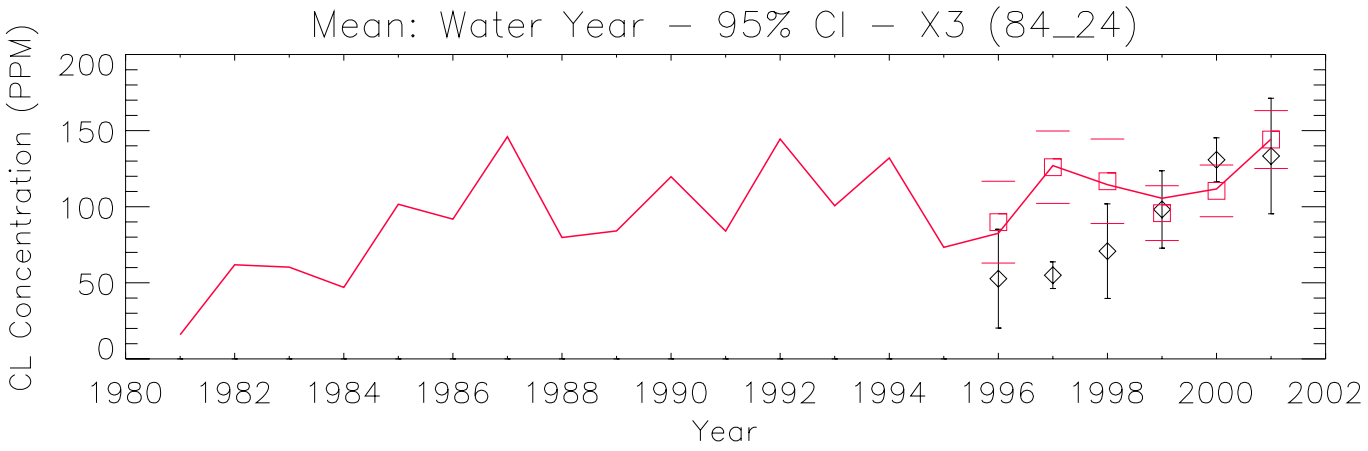
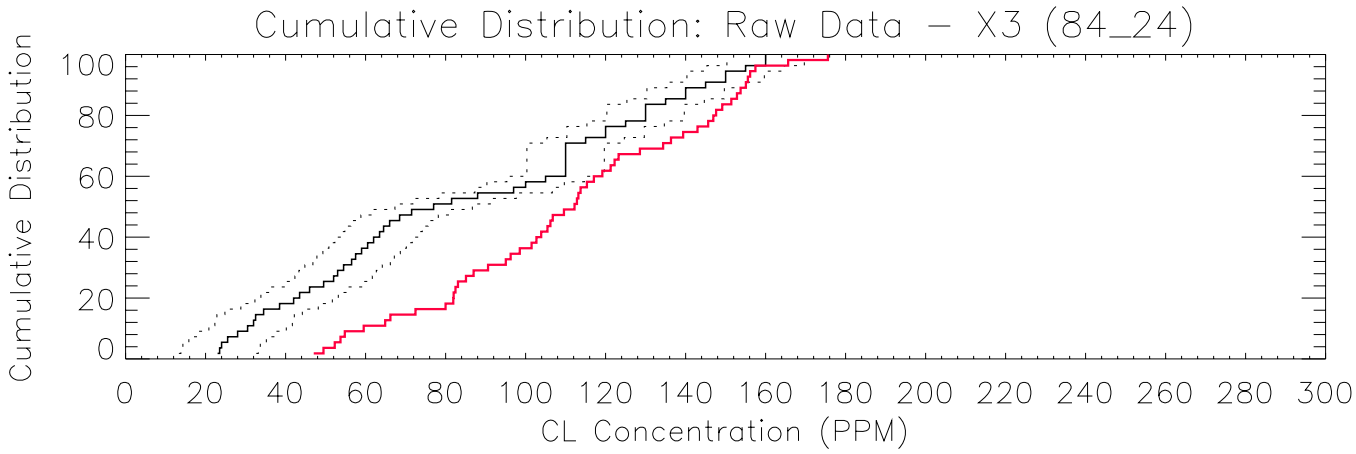
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – X2 (83_23)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – X3 (84_24)
CL Concentration (PPM)
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – X3 (84_24)
CL Concentration (PPM)
200
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – X3 (84_24)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
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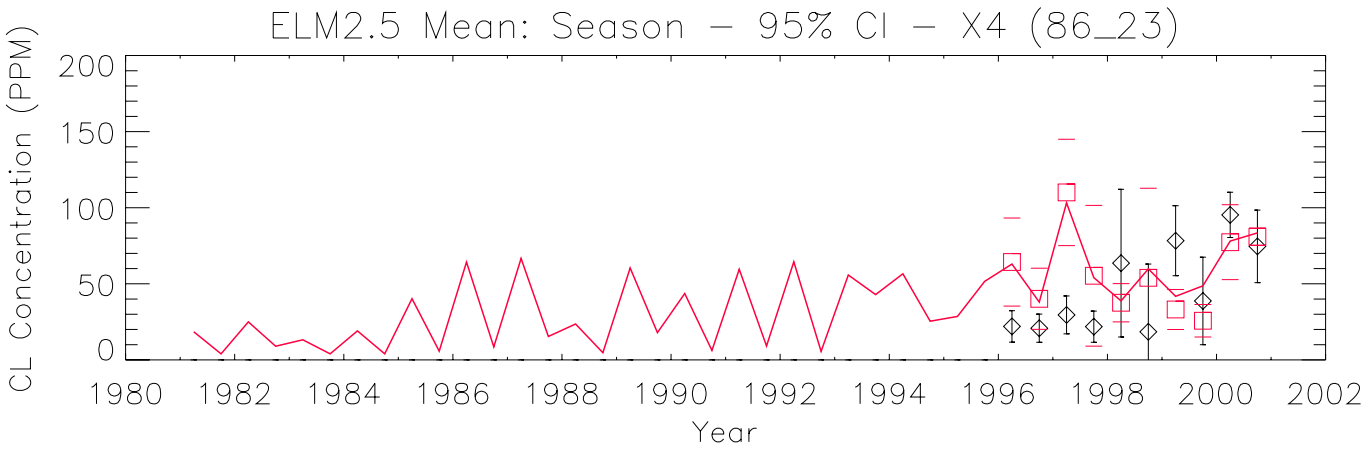
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – X4 (86_23)
CL Concentration (PPM)
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1982
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1992
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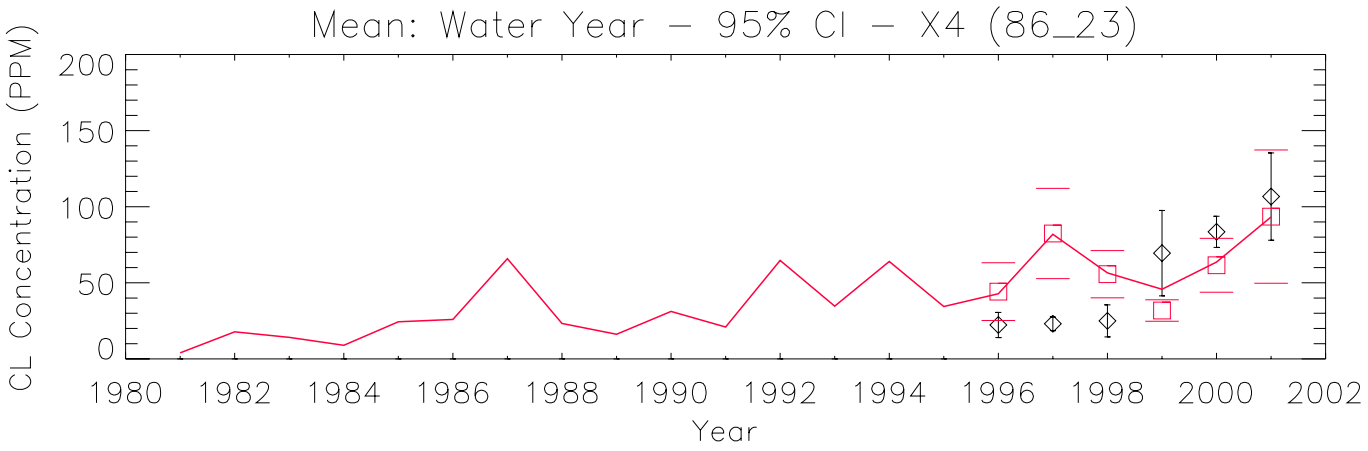
1998
2000
2002
Year


Mean: Water Year – 95% CI – X4 (86_23)
CL Concentration (PPM)
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1998
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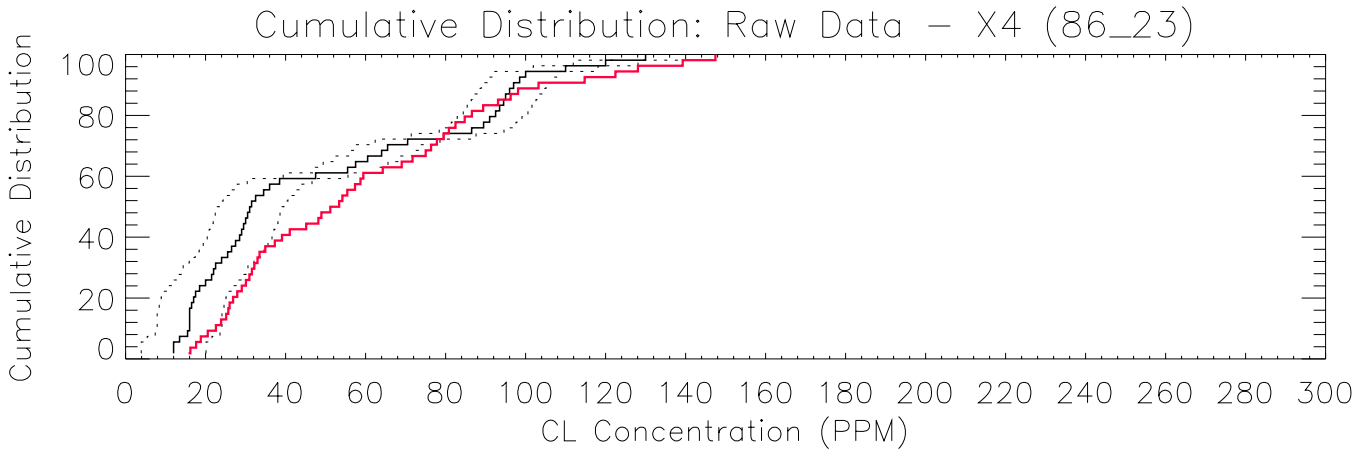
2002
Year


Cumulative Distribution: Raw Data – X4 (86_23)
Cumulative Distribution
100
80
60
40
20
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120
140
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220
240
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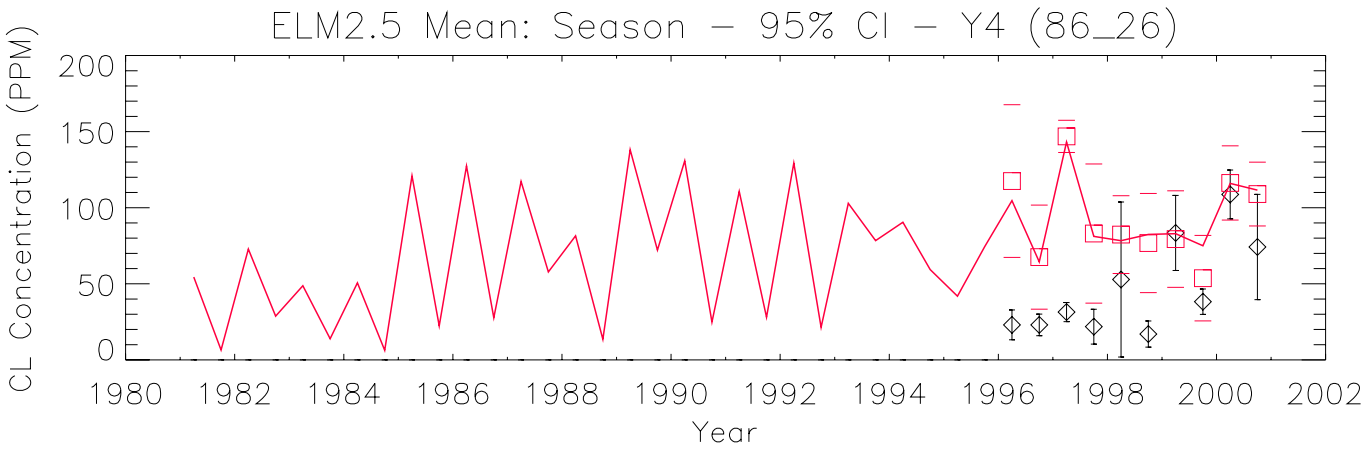
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – Y4 (86_26)
CL Concentration (PPM)
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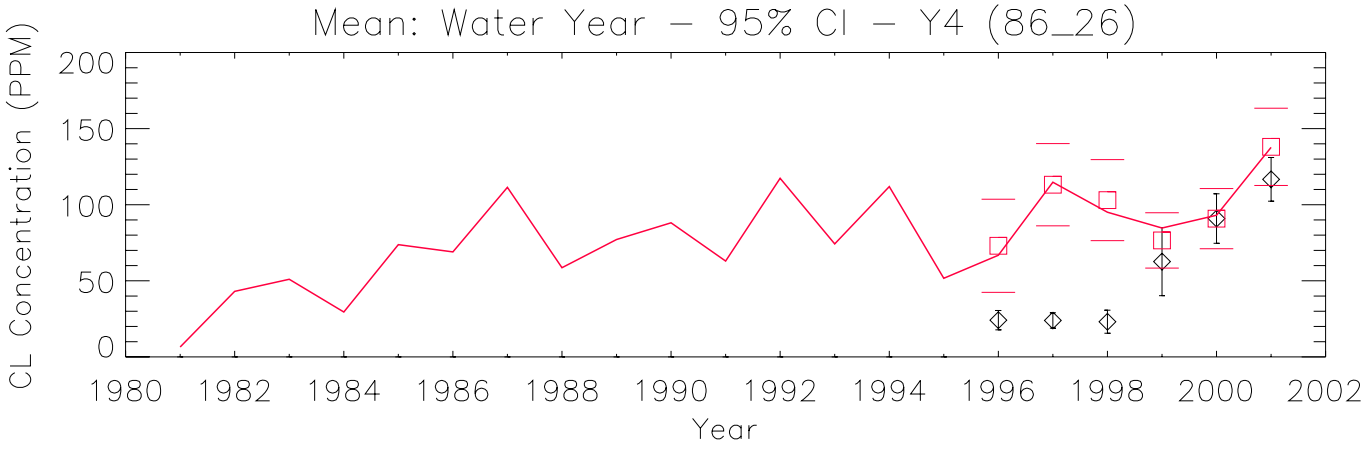
2002
Year


Mean: Water Year – 95% CI – Y4 (86_26)
CL Concentration (PPM)
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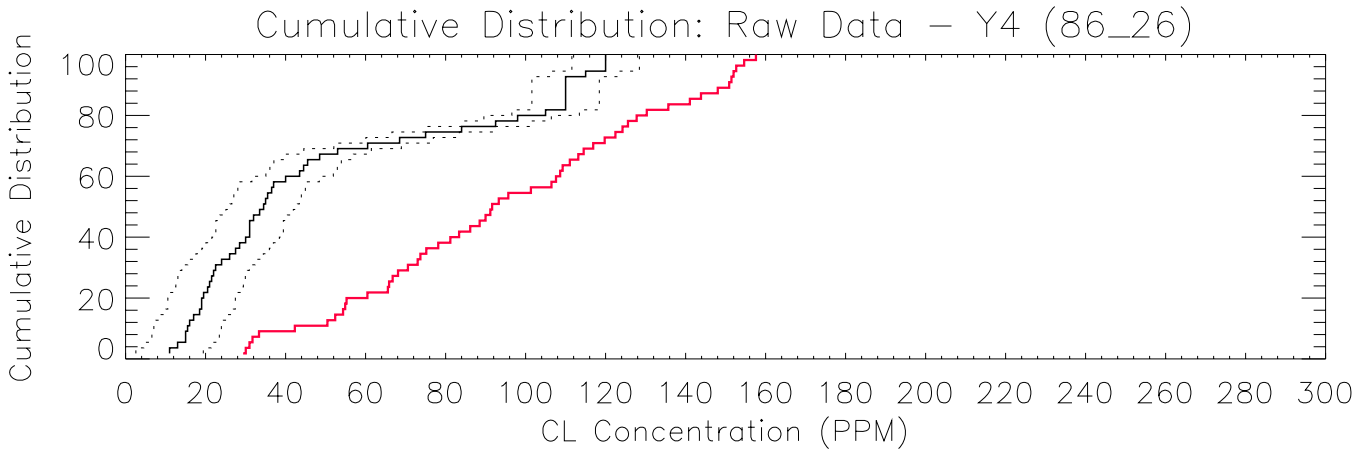
1998
2000
2002
Year


Cumulative Distribution: Raw Data – Y4 (86_26)
Cumulative Distribution
100
80
60
40
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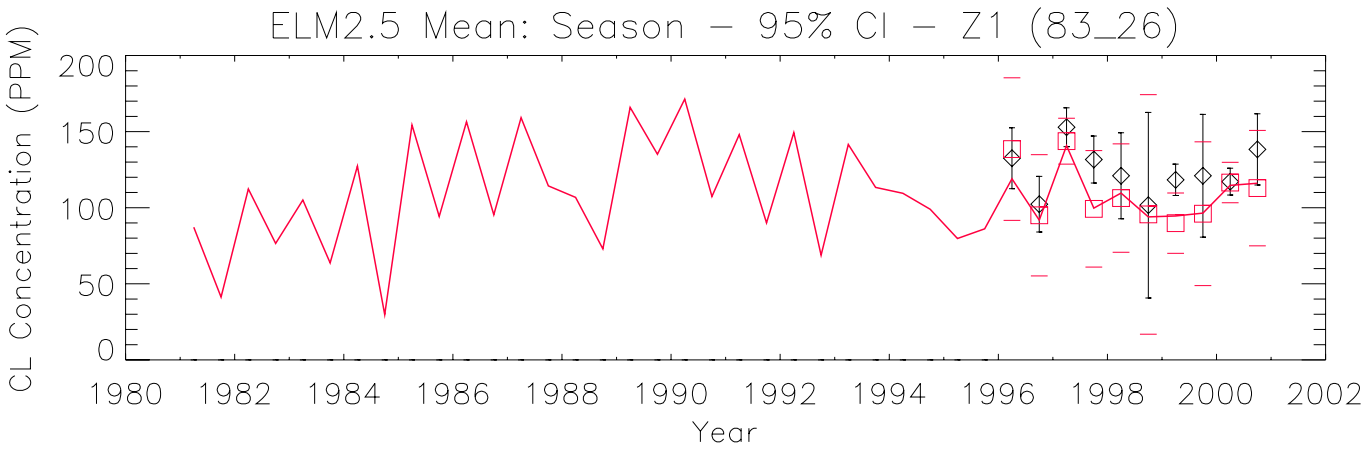
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – Z1 (83_26)
CL Concentration (PPM)
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100
150
200
1980
1982
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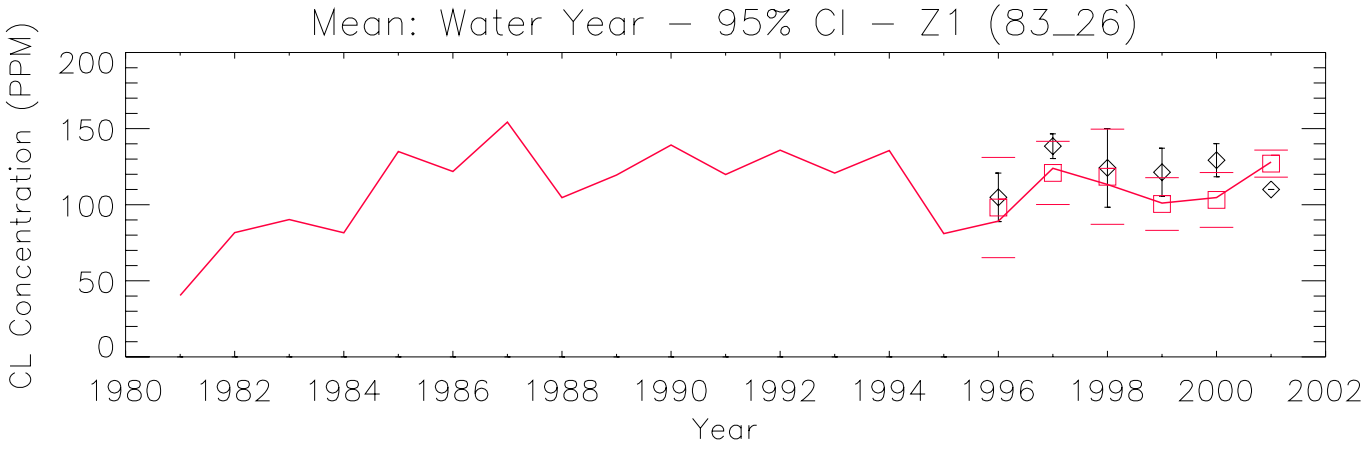
1998
2000
2002
Year


Mean: Water Year – 95% CI – Z1 (83_26)
CL Concentration (PPM)
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1980
1982
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1992
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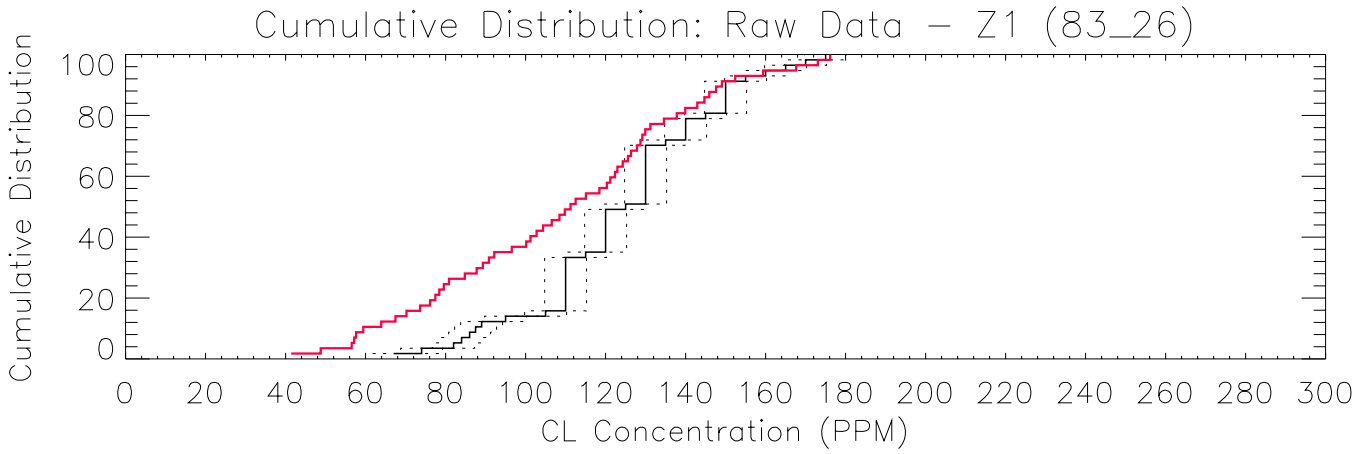
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – Z1 (83_26)
Cumulative Distribution
0
20
40
60
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60
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140
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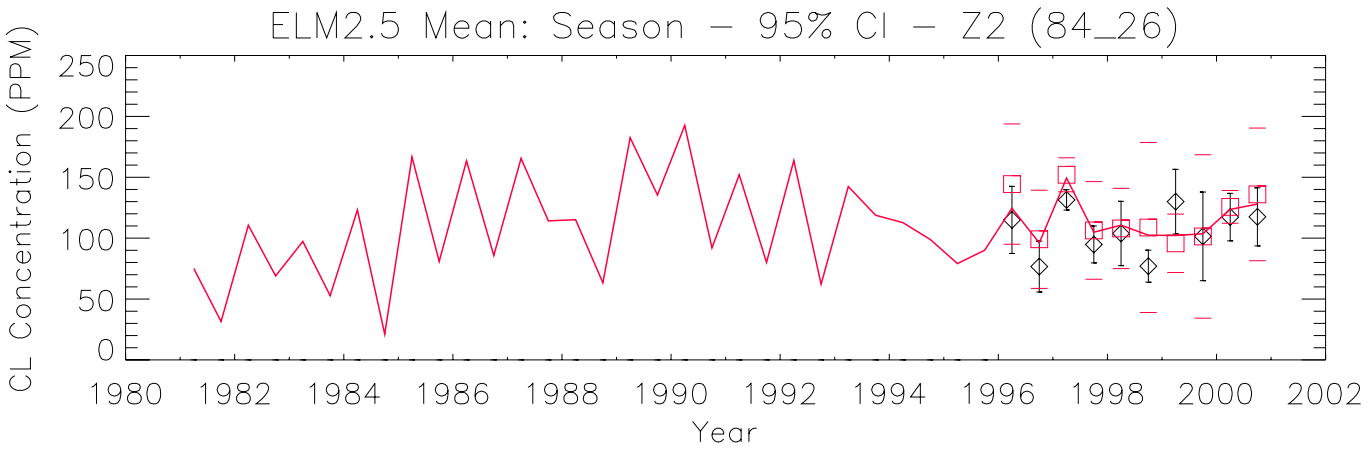
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – Z2 (84_26)
CL Concentration (PPM)
250
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1982
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1986
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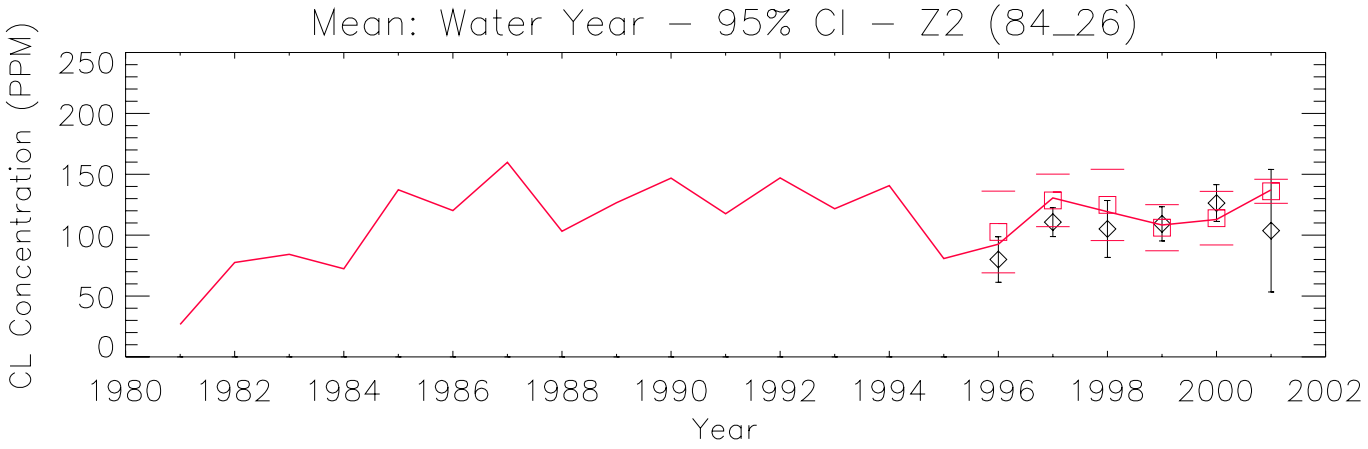
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – Z2 (84_26)
CL Concentration (PPM)
250
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100
50
0
1980
1982
1984
1986
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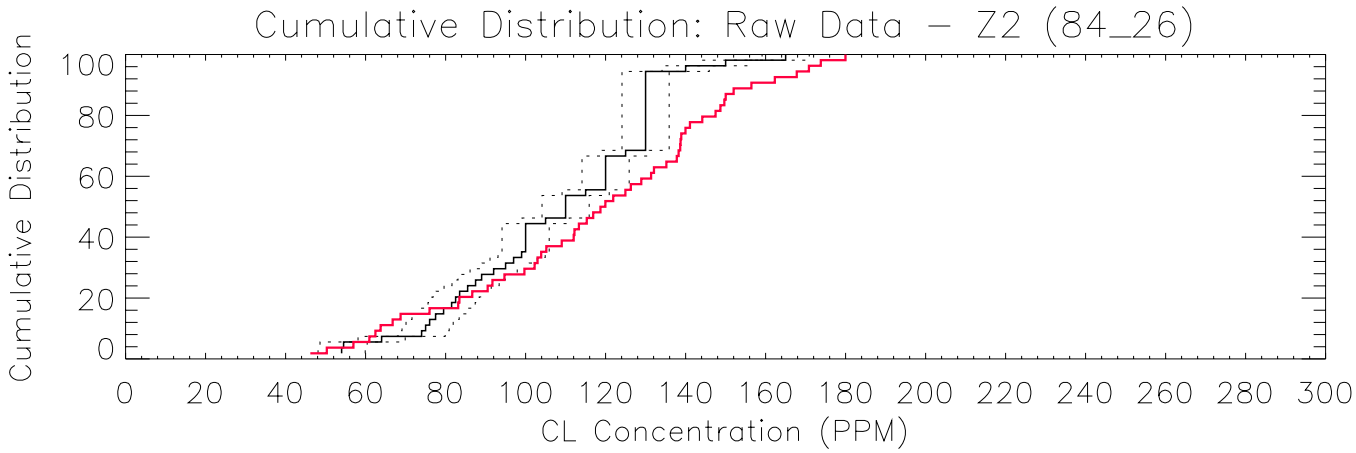
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – Z2 (84_26)
Cumulative Distribution
100
80
60
40
20
0
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60
80
100
120
140
160
180
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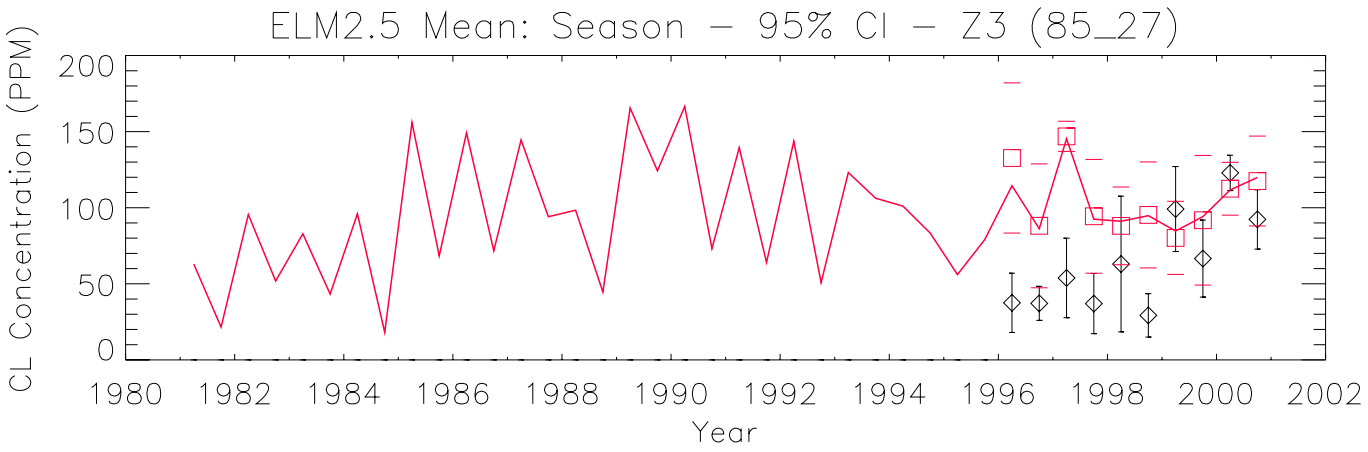
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – Z3 (85_27)
CL Concentration (PPM)
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0
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1982
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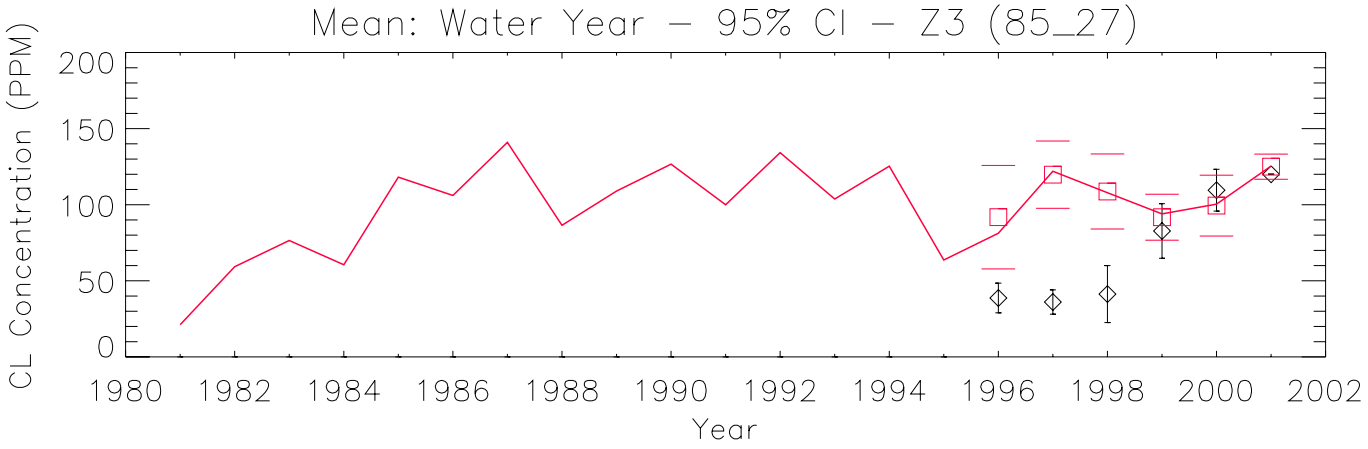
1998
2000
2002
Year


Mean: Water Year – 95% CI – Z3 (85_27)
CL Concentration (PPM)
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1980
1982
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1986
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1998
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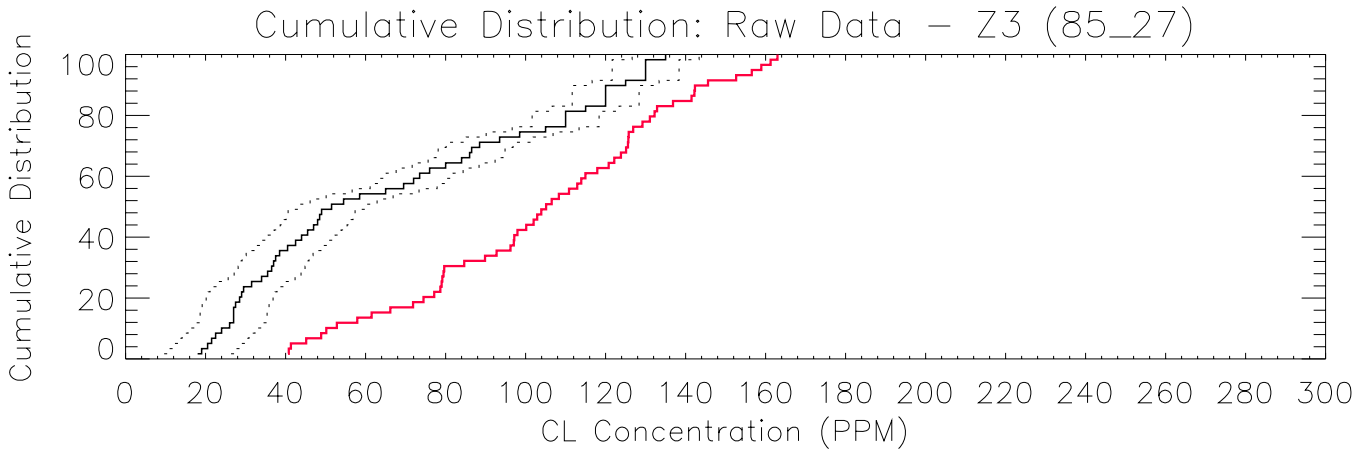
2002
Year


Cumulative Distribution: Raw Data – Z3 (85_27)
Cumulative Distribution
100
80
60
40
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0
0
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60
80
100
120
140
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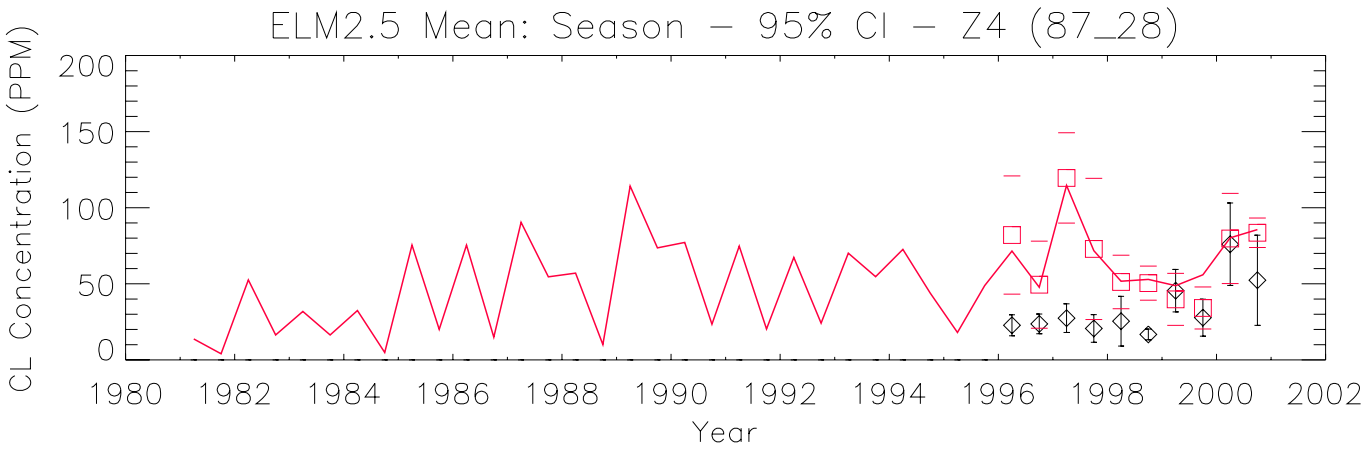
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – Z4 (87_28)
CL Concentration (PPM)
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100
50
0
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1982
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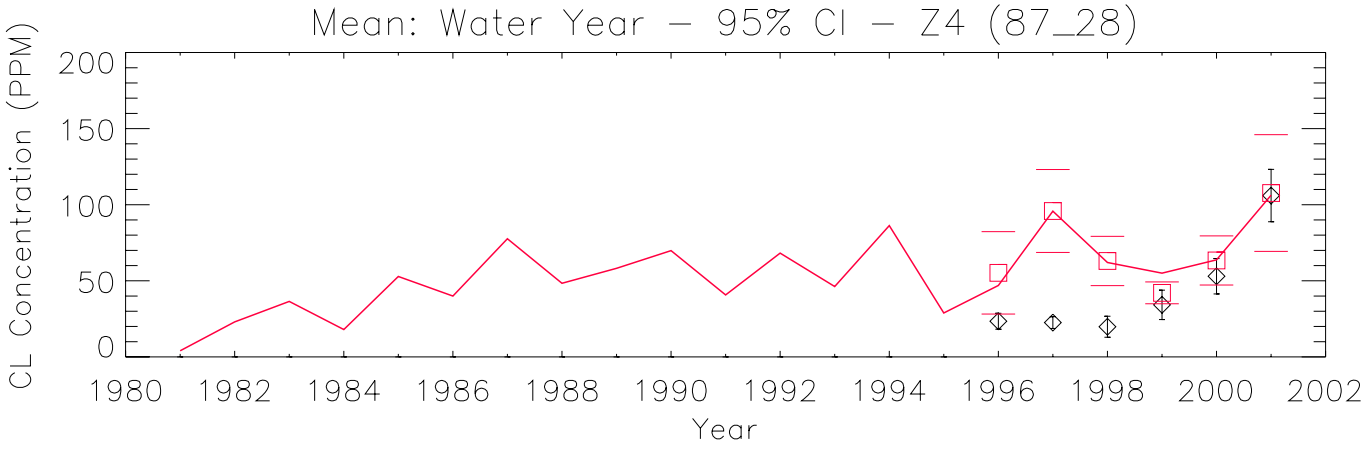
2002
Year


Mean: Water Year – 95% CI – Z4 (87_28)
CL Concentration (PPM)
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100
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0
1980
1982
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1986
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1990
1992
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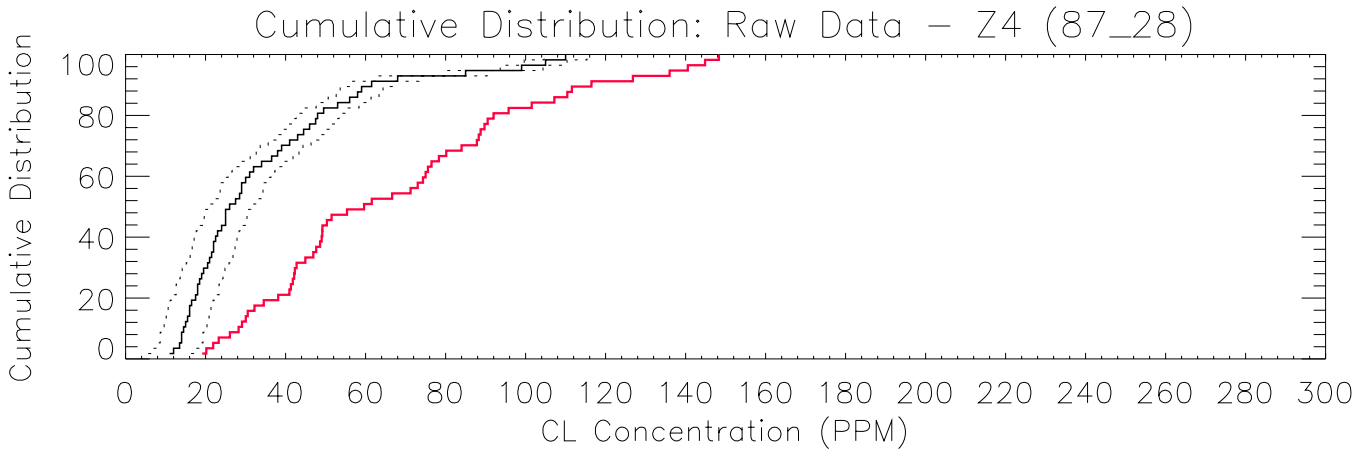
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – Z4 (87_28)
Cumulative Distribution
100
80
60
40
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0
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20
40
60
80
100
120
140
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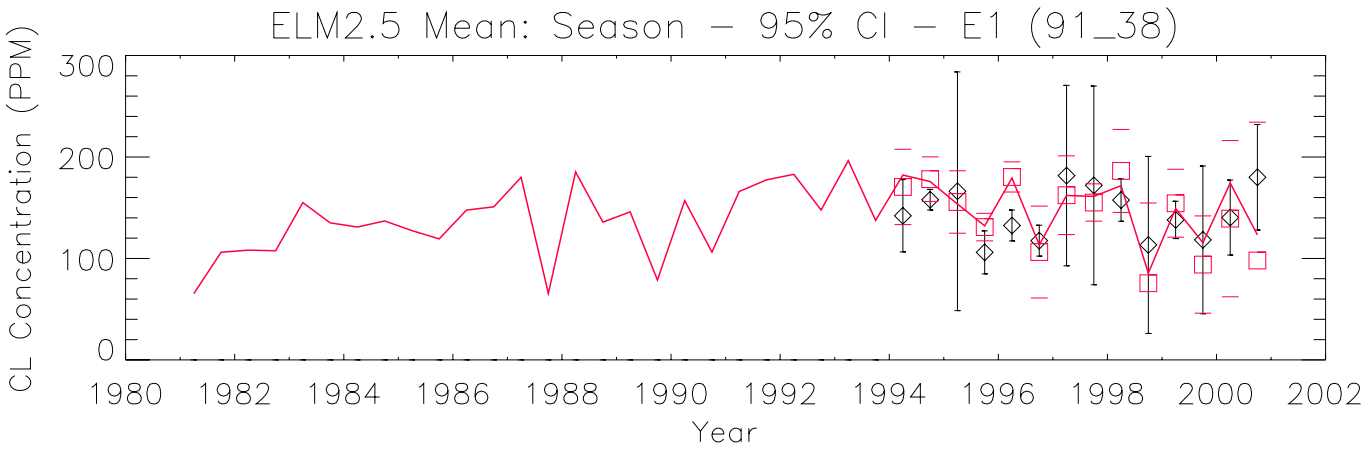
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – E1 (91_38)
CL Concentration (PPM)
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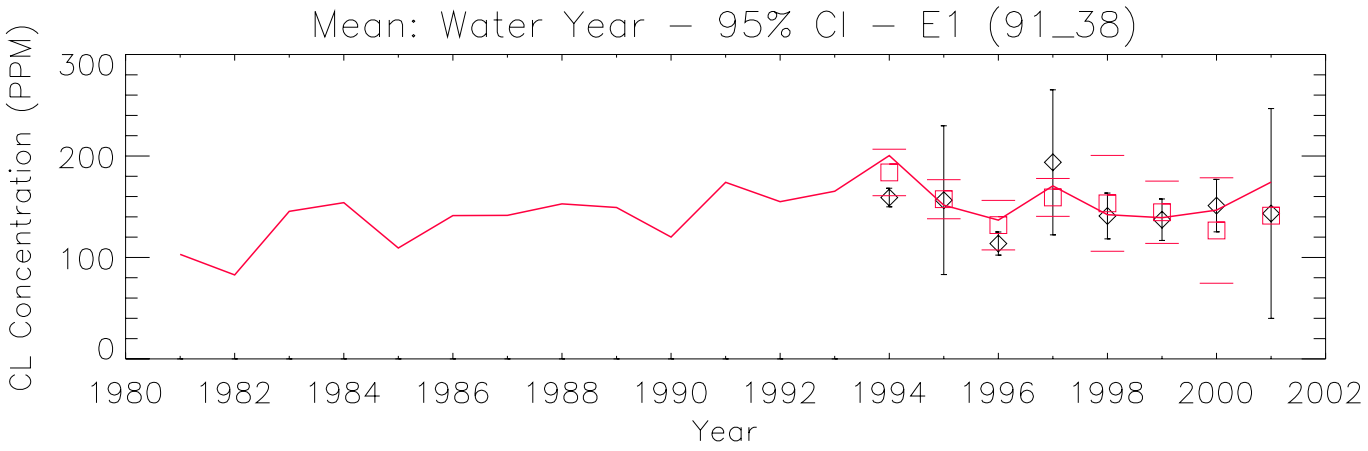
2002
Year


Mean: Water Year – 95% CI – E1 (91_38)
CL Concentration (PPM)
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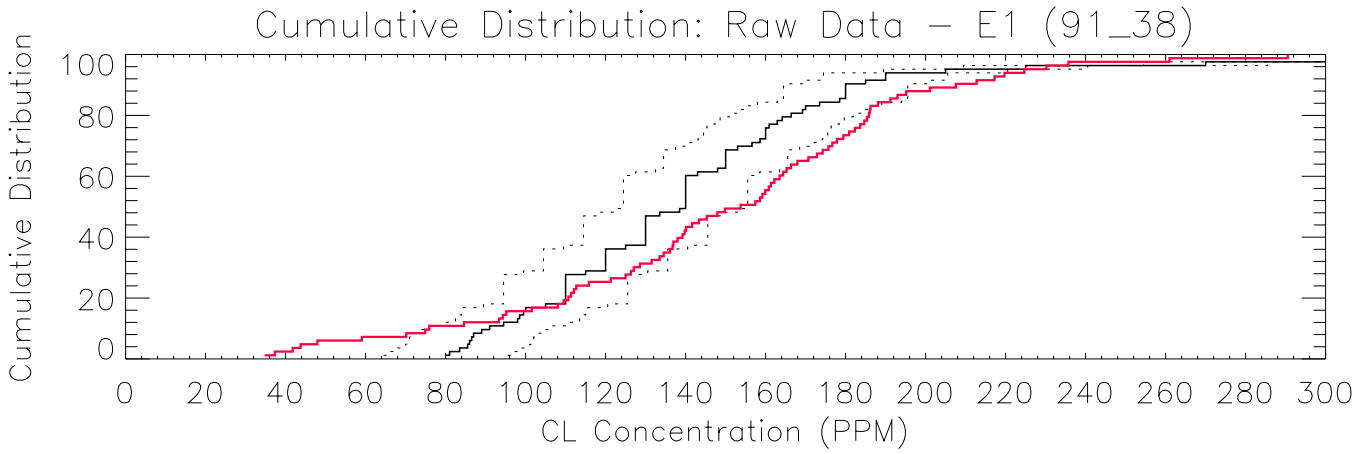
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – E1 (91_38)
Cumulative Distribution
100
80
60
40
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60
80
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120
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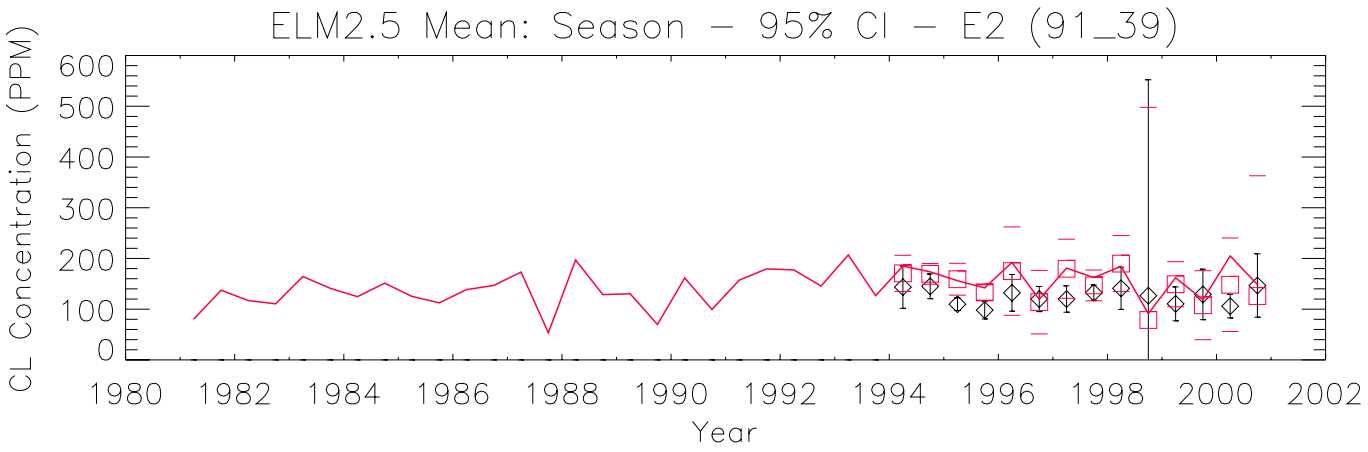
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – E2 (91_39)
CL Concentration (PPM)
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500
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200
100
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1982
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1986
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1994
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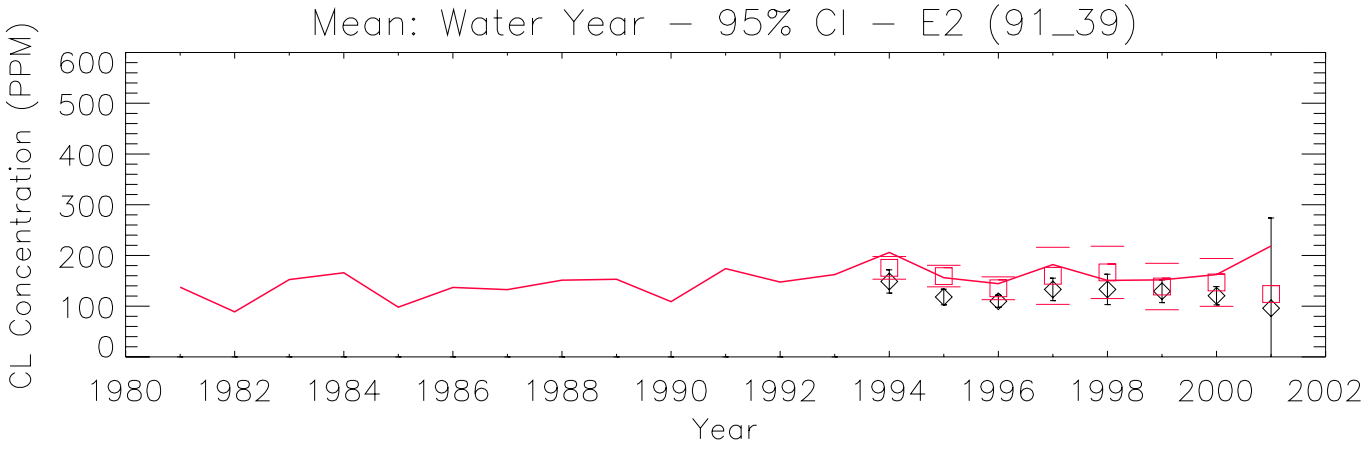
1998
2000
2002
Year


Mean: Water Year – 95% CI – E2 (91_39)
CL Concentration (PPM)
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200
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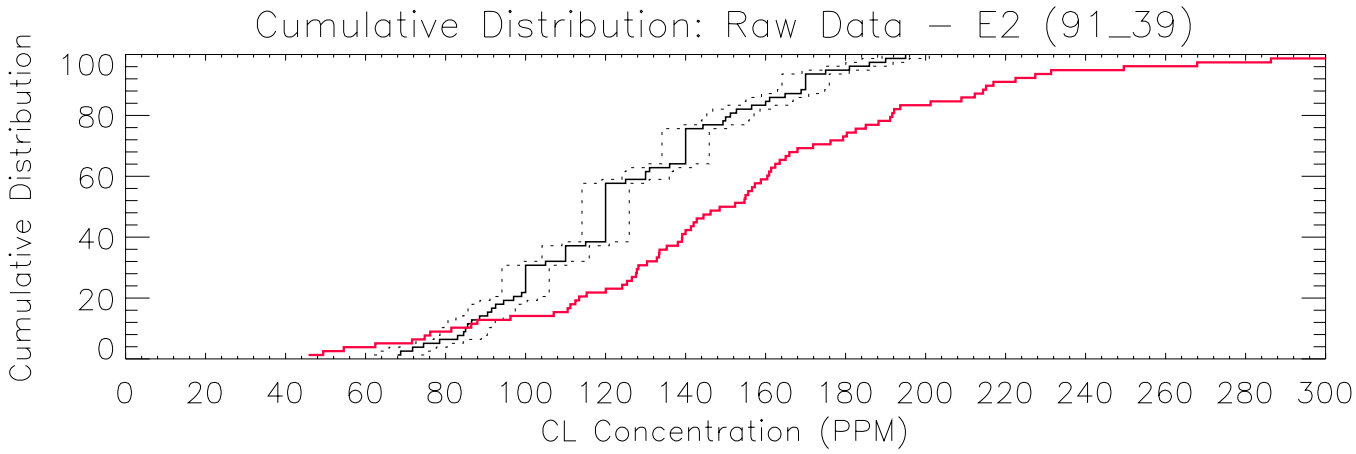
1998
2000
2002
Year


Cumulative Distribution: Raw Data – E2 (91_39)
Cumulative Distribution
100
80
60
40
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60
80
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120
140
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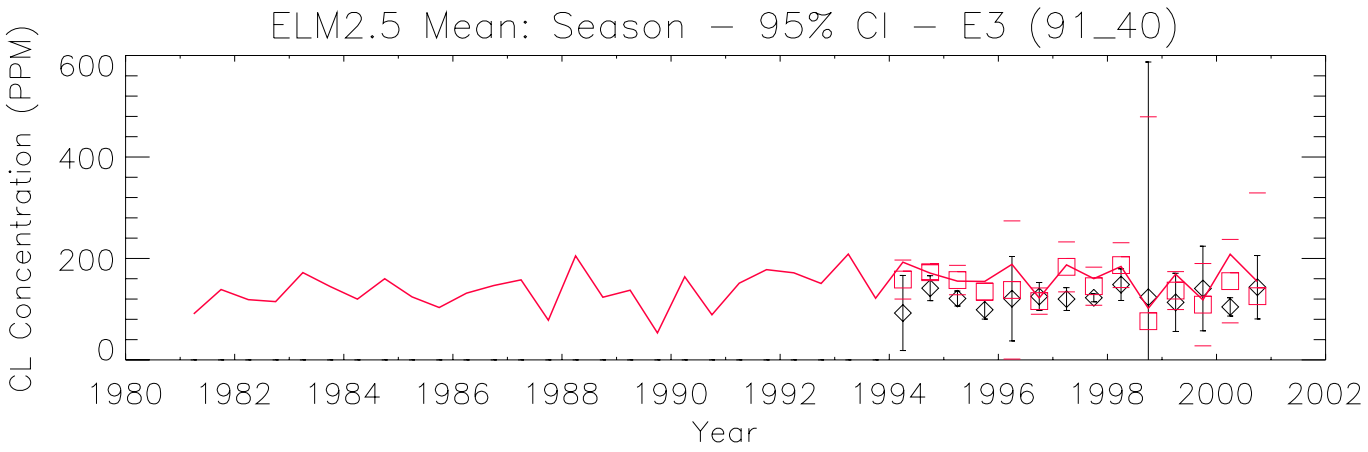
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – E3 (91_40)
CL Concentration (PPM)
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1982
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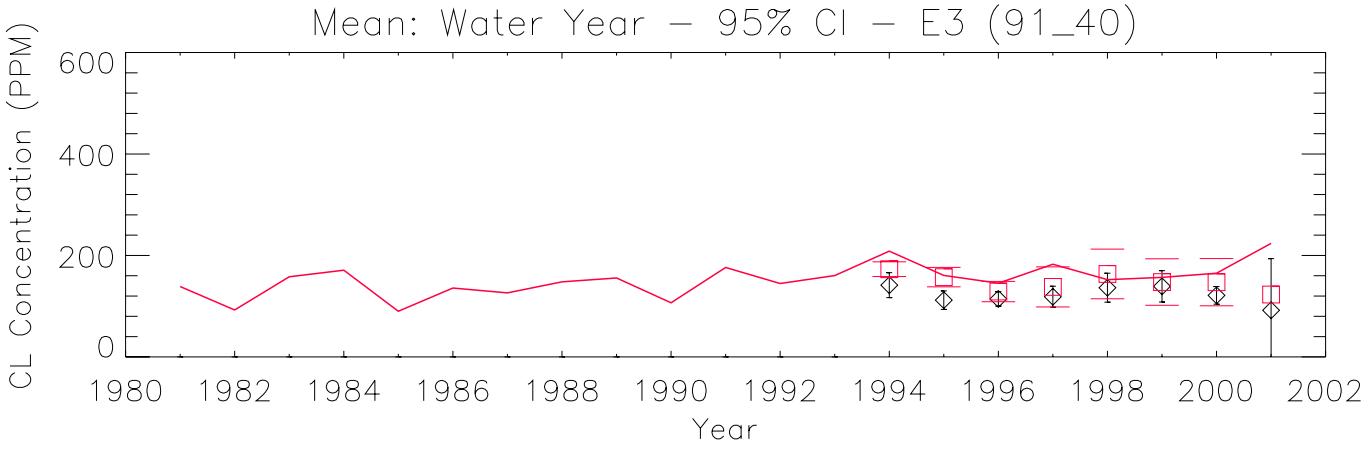
2002
Year


Mean: Water Year – 95% CI – E3 (91_40)
CL Concentration (PPM)
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1982
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1998
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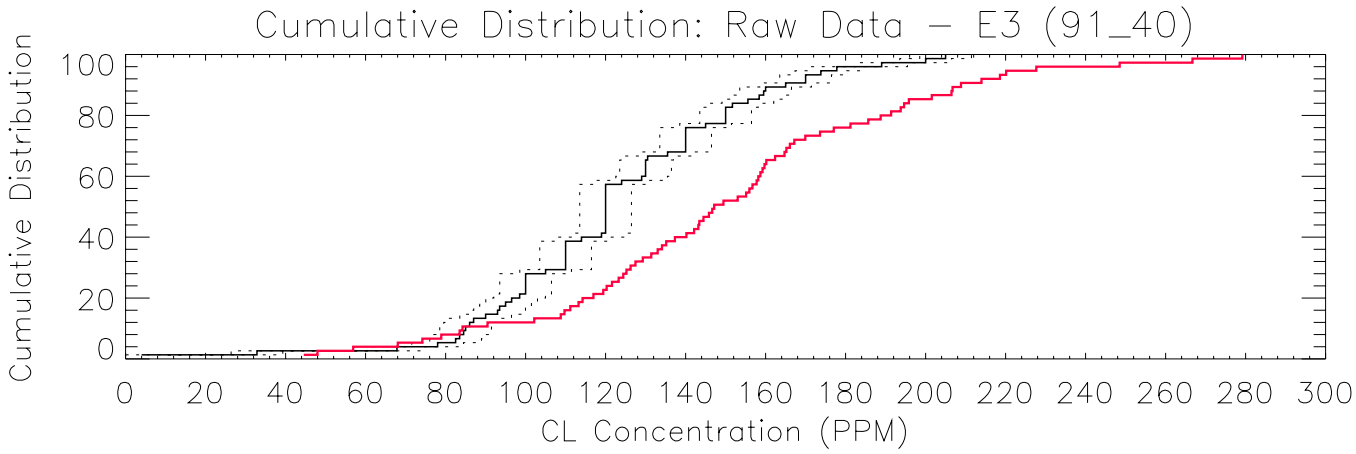
2002
Year


Cumulative Distribution: Raw Data – E3 (91_40)
Cumulative Distribution
100
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40
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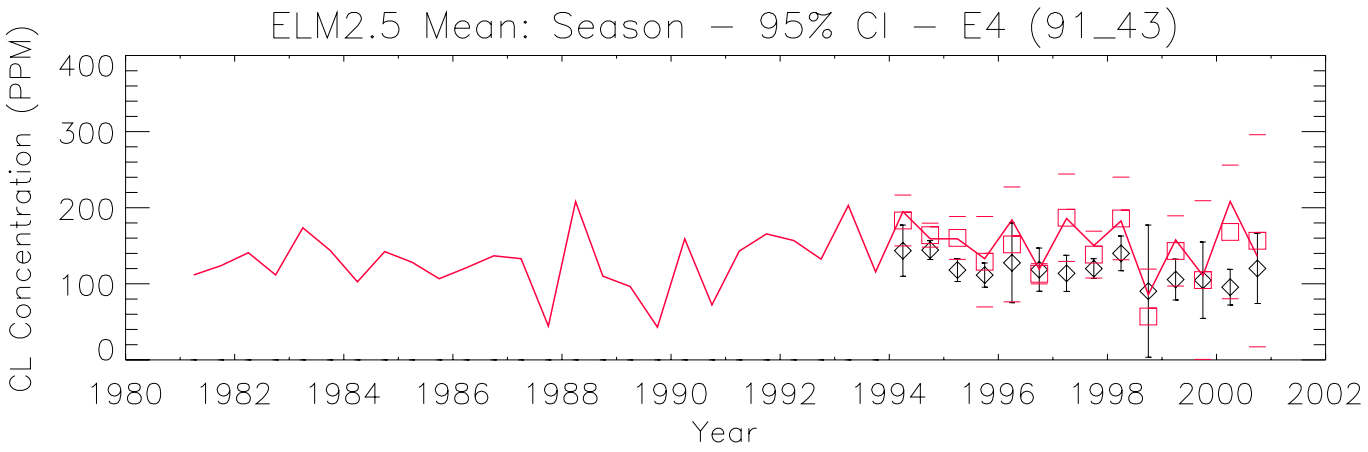
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – E4 (91_43)
CL Concentration (PPM)
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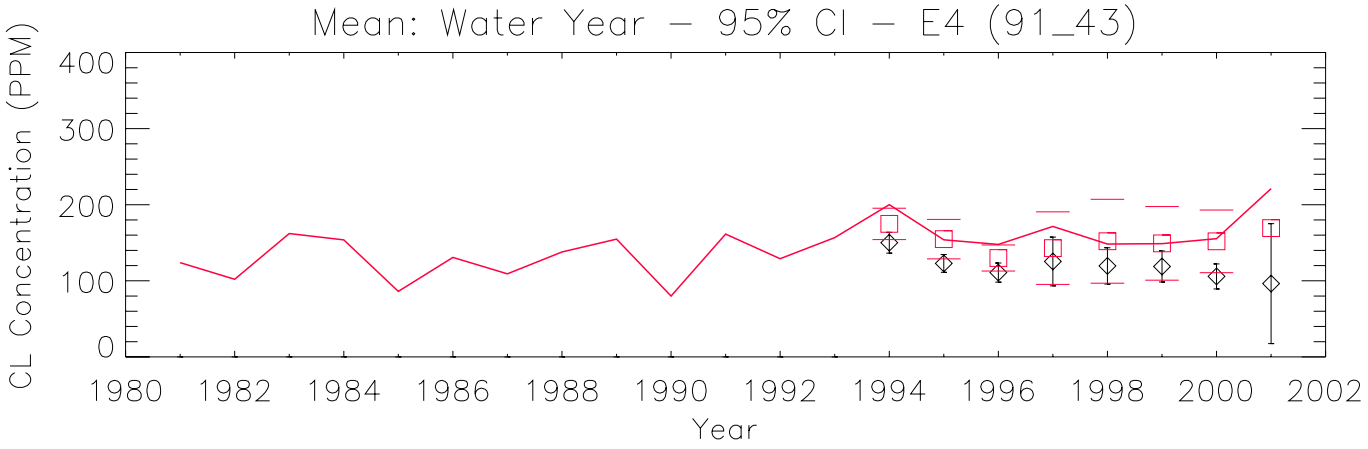
2002
Year


Mean: Water Year – 95% CI – E4 (91_43)
CL Concentration (PPM)
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200
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1982
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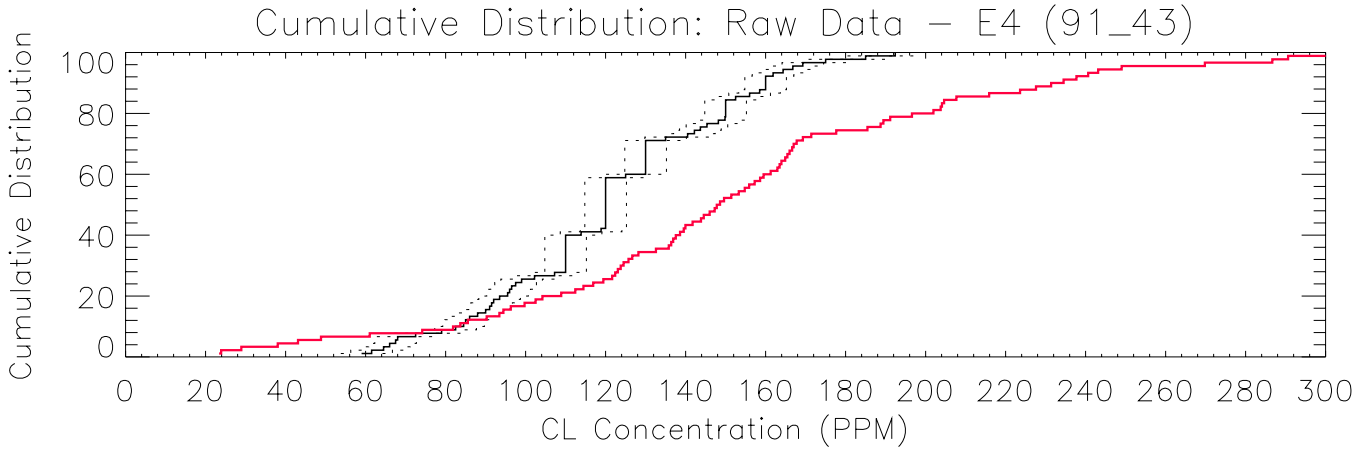
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – E4 (91_43)
Cumulative Distribution
100
80
60
40
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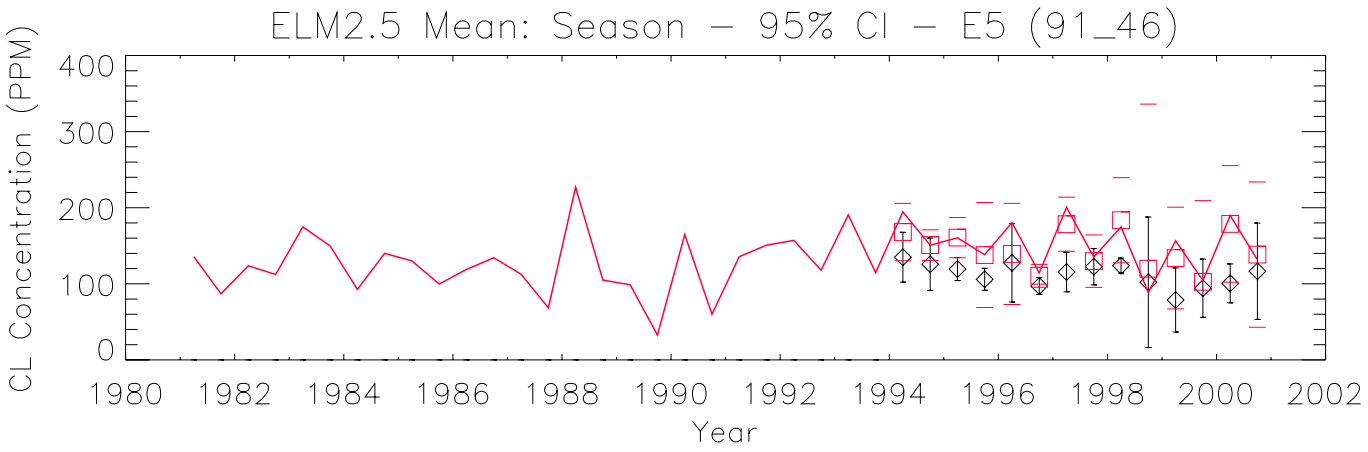
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – E5 (91_46)
CL Concentration (PPM)
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1982
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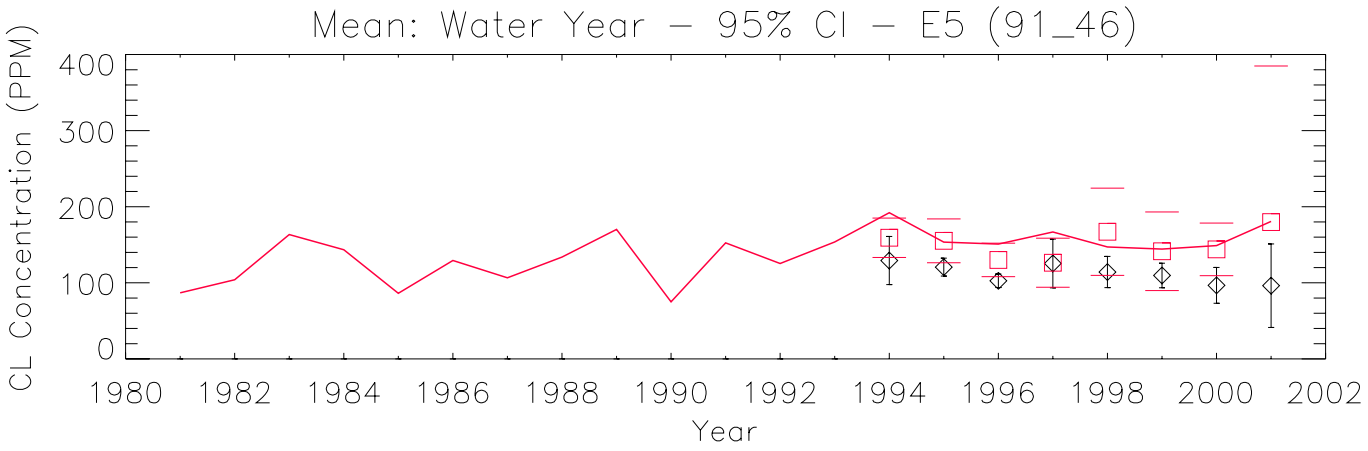
1998
2000
2002
Year


Mean: Water Year – 95% CI – E5 (91_46)
CL Concentration (PPM)
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200
300
400
1980
1982
1984
1986
1988
1990
1992
1994
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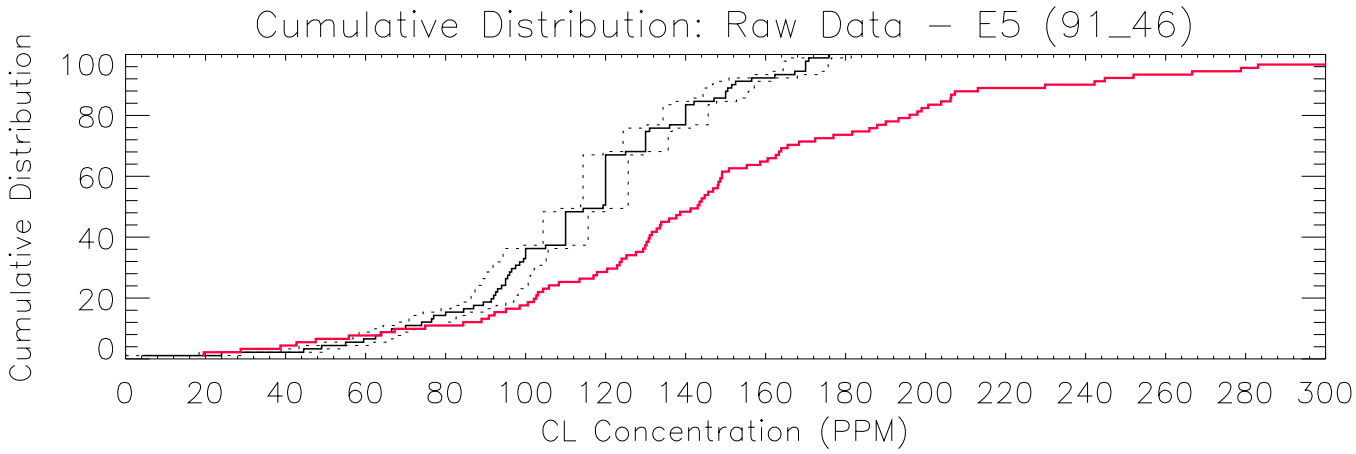
1998
2000
2002
Year


Cumulative Distribution: Raw Data – E5 (91_46)
Cumulative Distribution
0
20
40
60
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60
80
100
120
140
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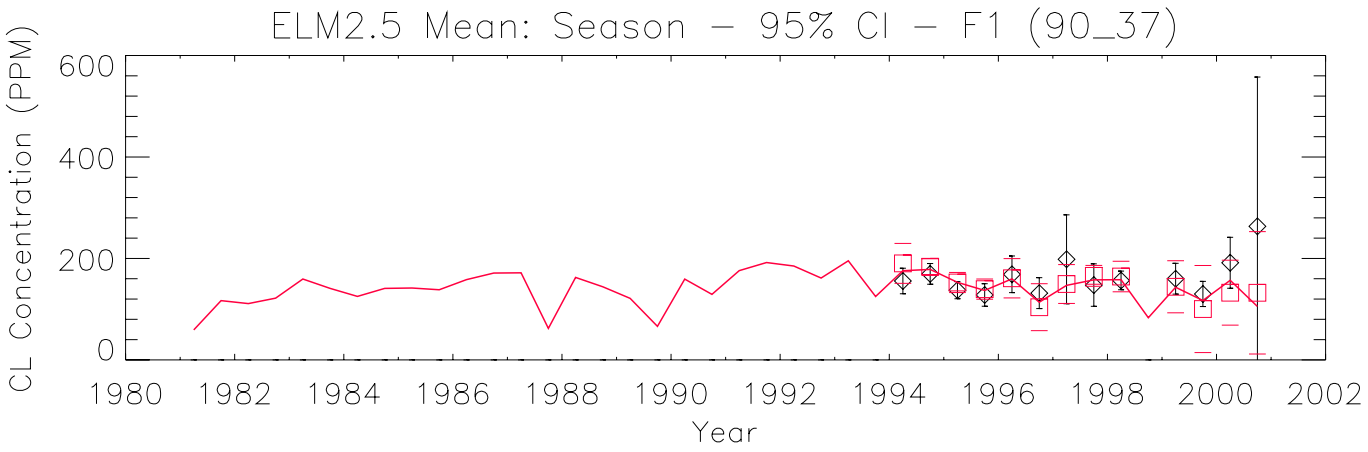
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – F1 (90_37)
CL Concentration (PPM)
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1980
1982
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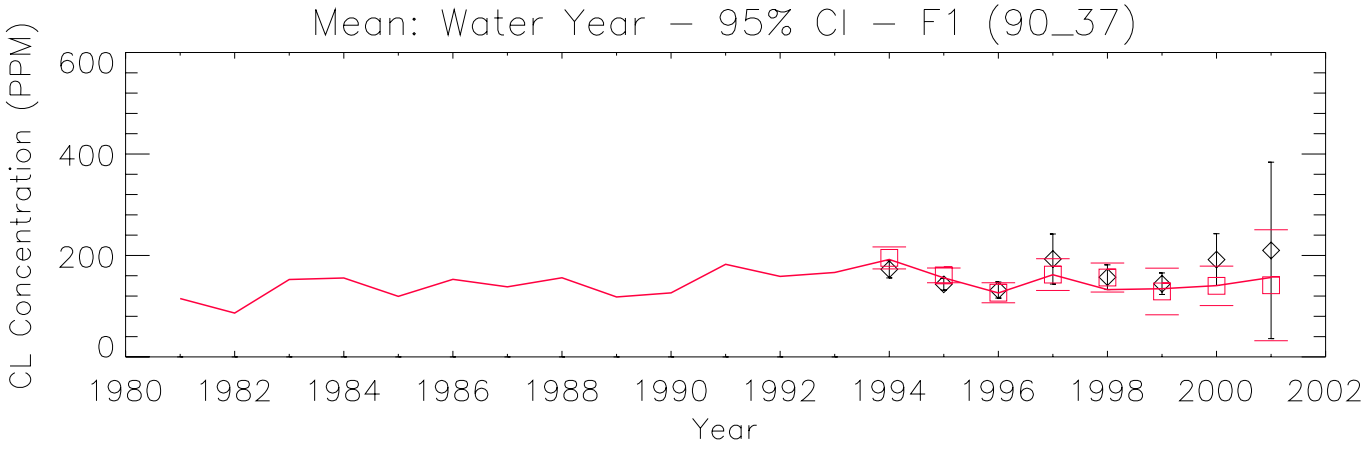
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – F1 (90_37)
CL Concentration (PPM)
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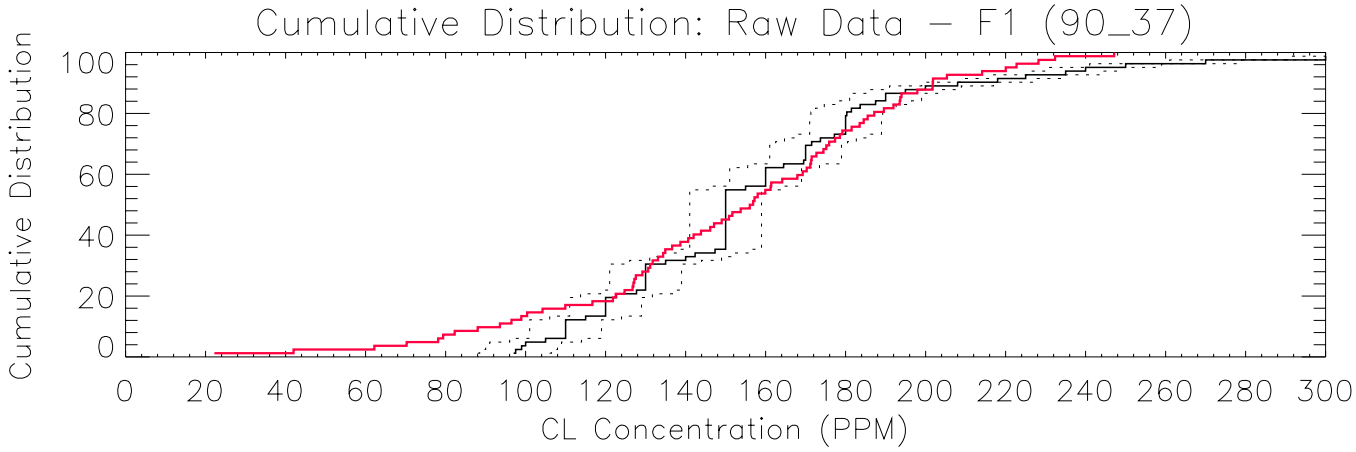
2000
2002
Year


Cumulative Distribution: Raw Data – F1 (90_37)
Cumulative Distribution
100
80
60
40
20
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0
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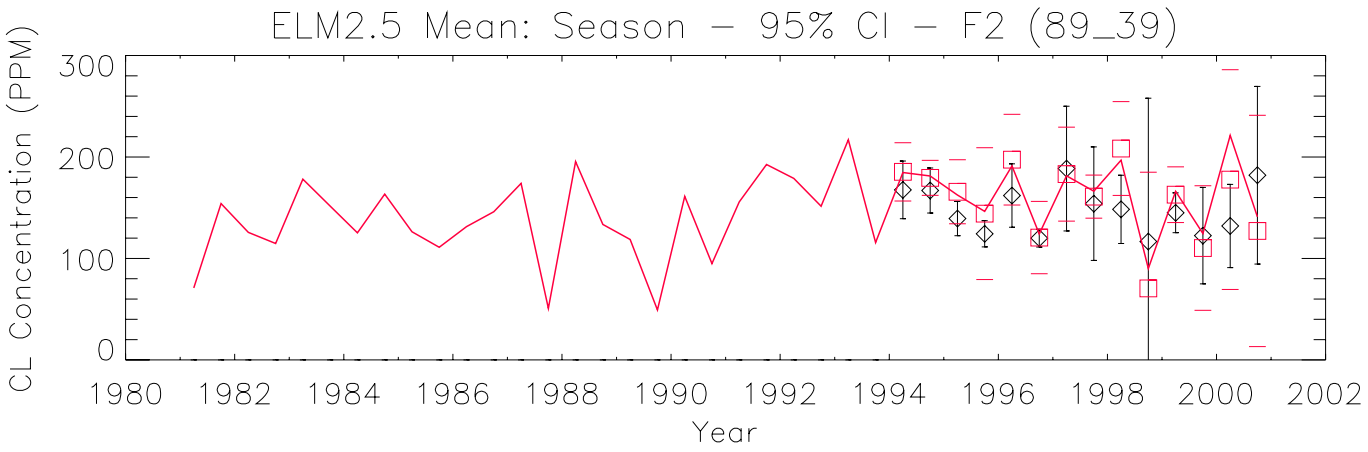
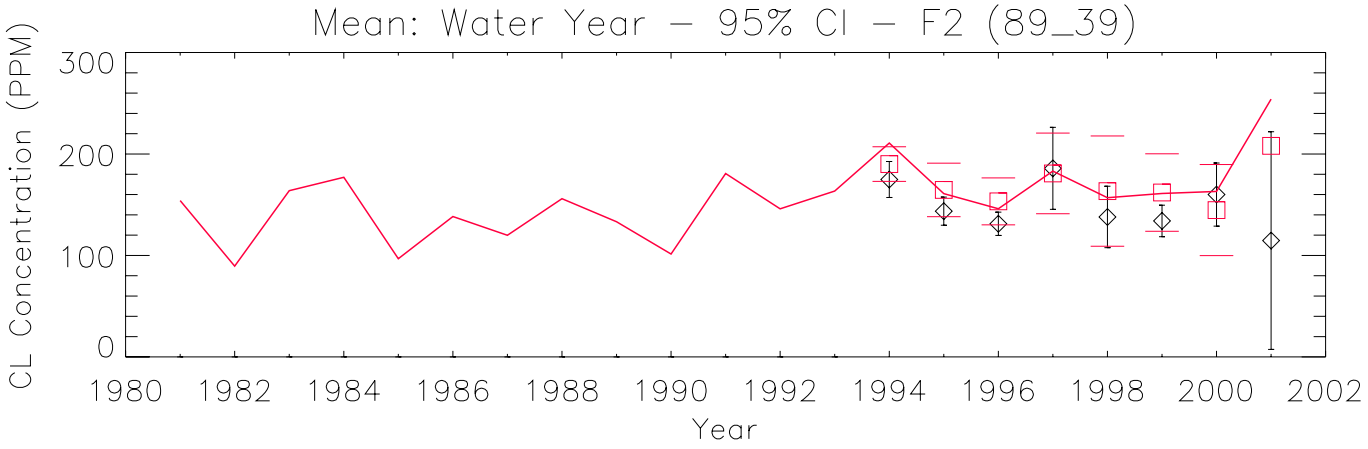
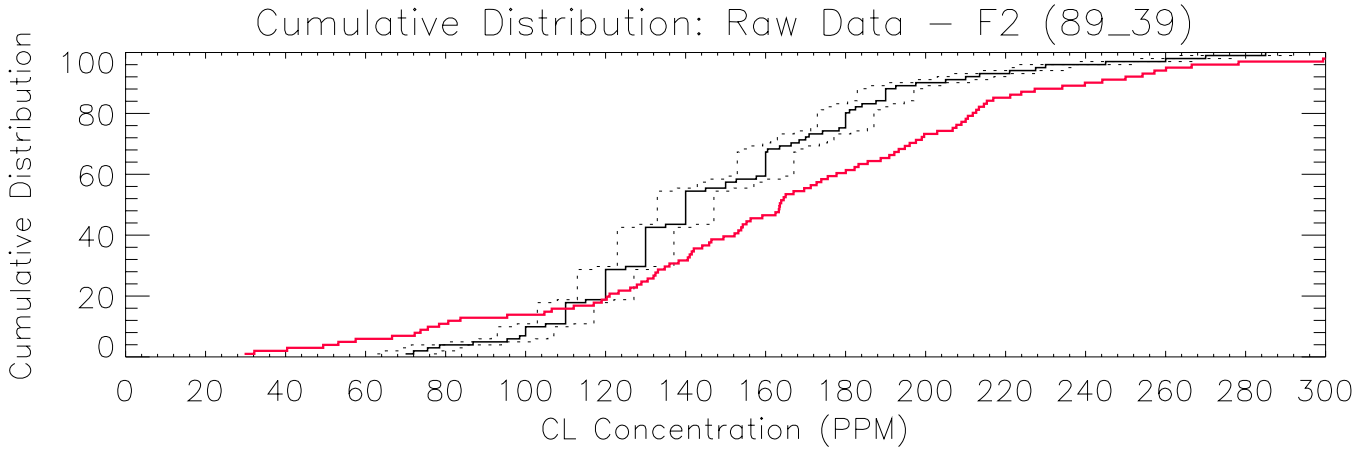
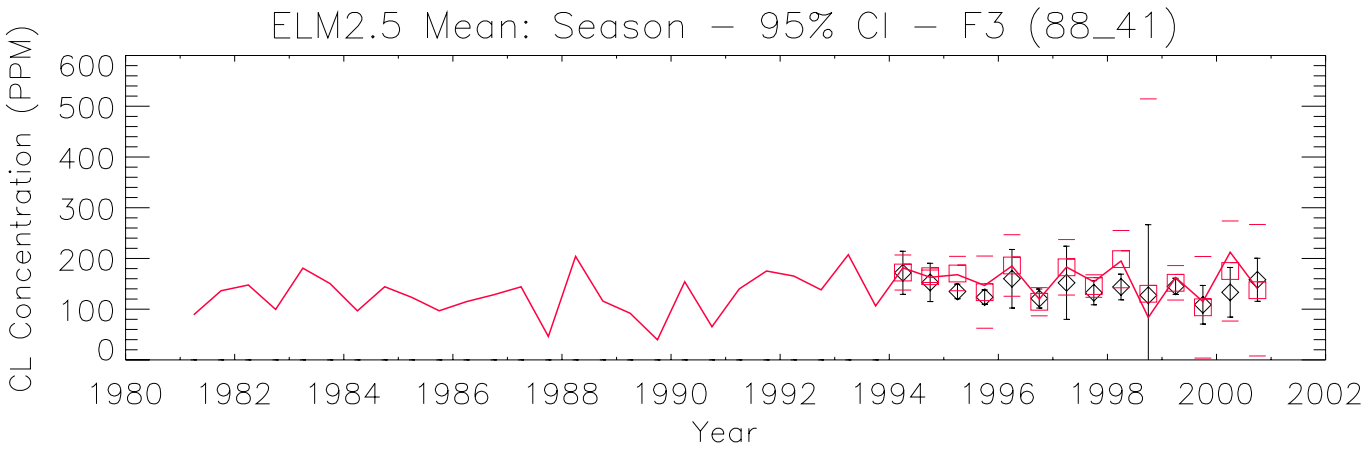
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – F2 (89_39)
CL Concentration (PPM)
300
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – F2 (89_39)
CL Concentration (PPM)
300
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – F2 (89_39)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – F3 (88_41)
CL Concentration (PPM)
600
500
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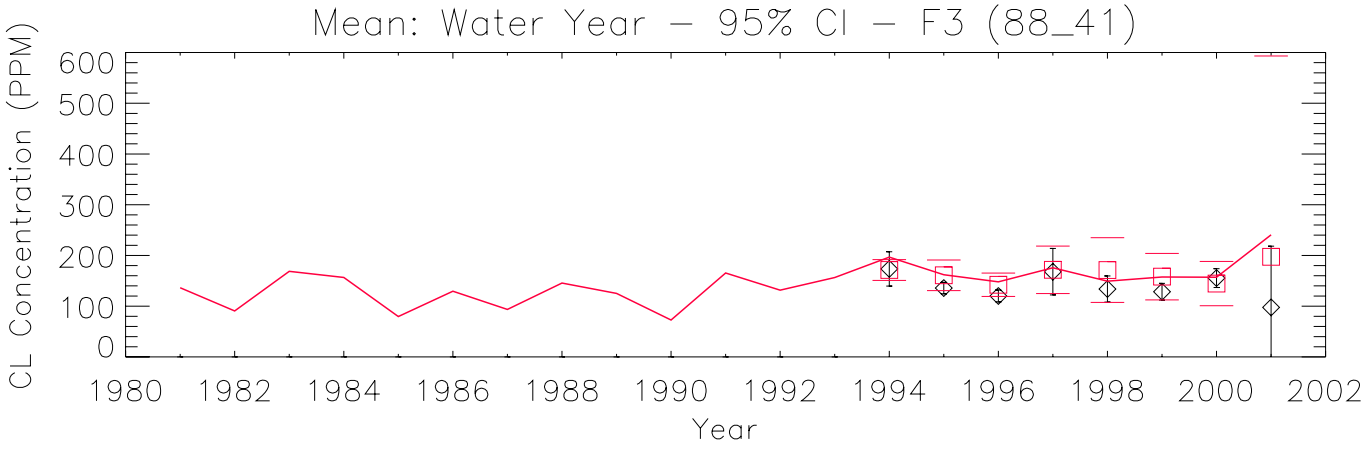
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – F3 (88_41)
CL Concentration (PPM)
600
500
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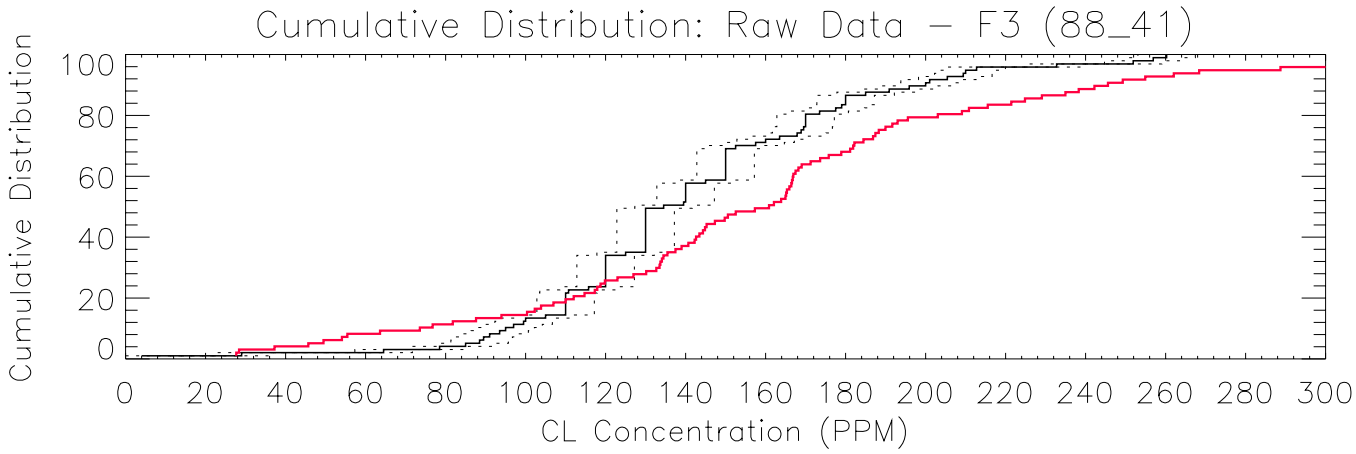
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – F3 (88_41)
Cumulative Distribution
100
80
60
40
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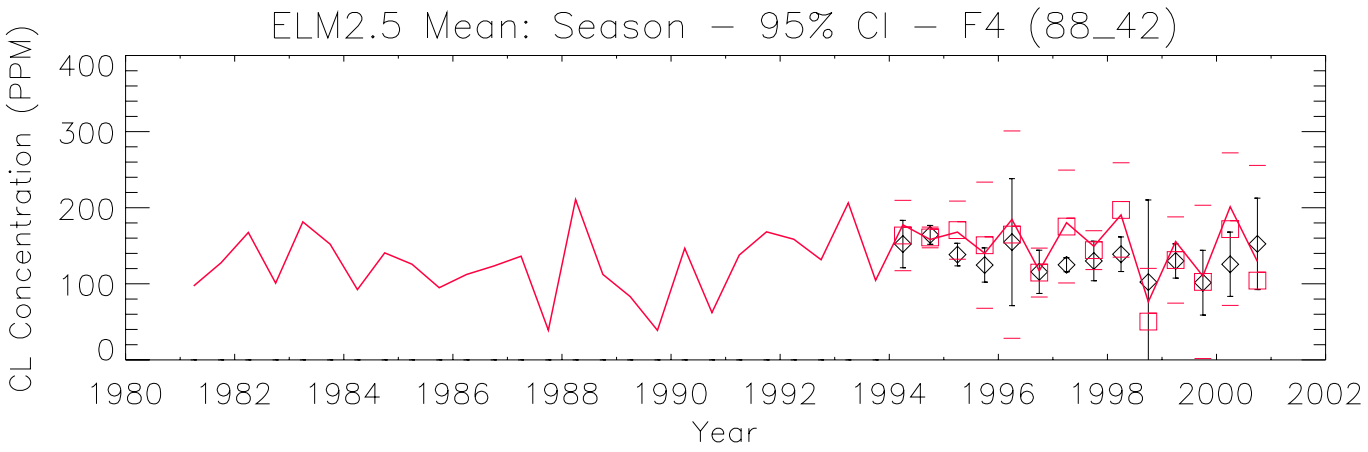
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – F4 (88_42)
CL Concentration (PPM)
400
300
200
100
0
1980
1982
1984
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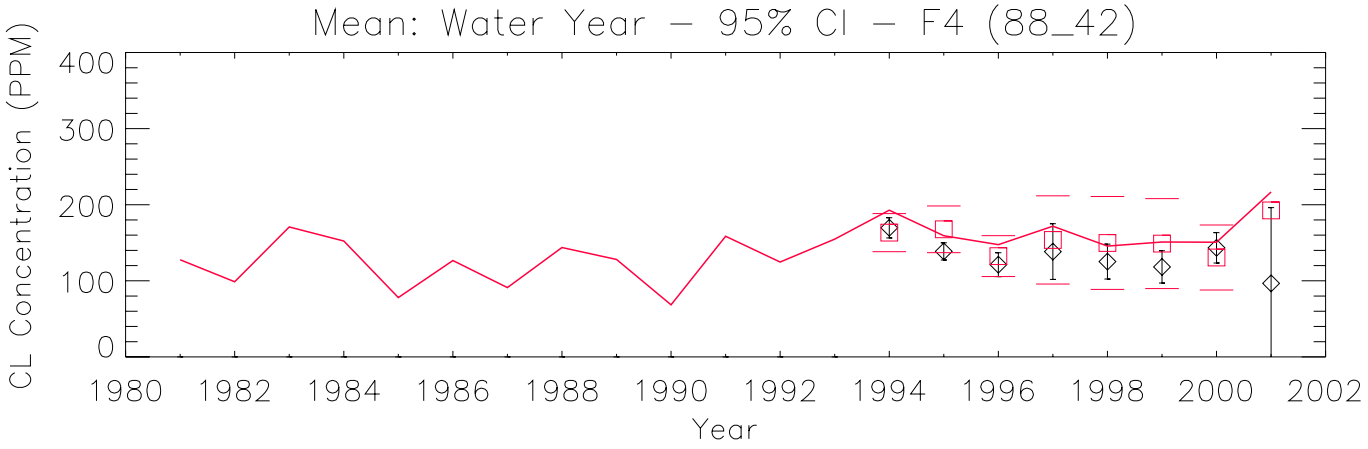
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – F4 (88_42)
CL Concentration (PPM)
400
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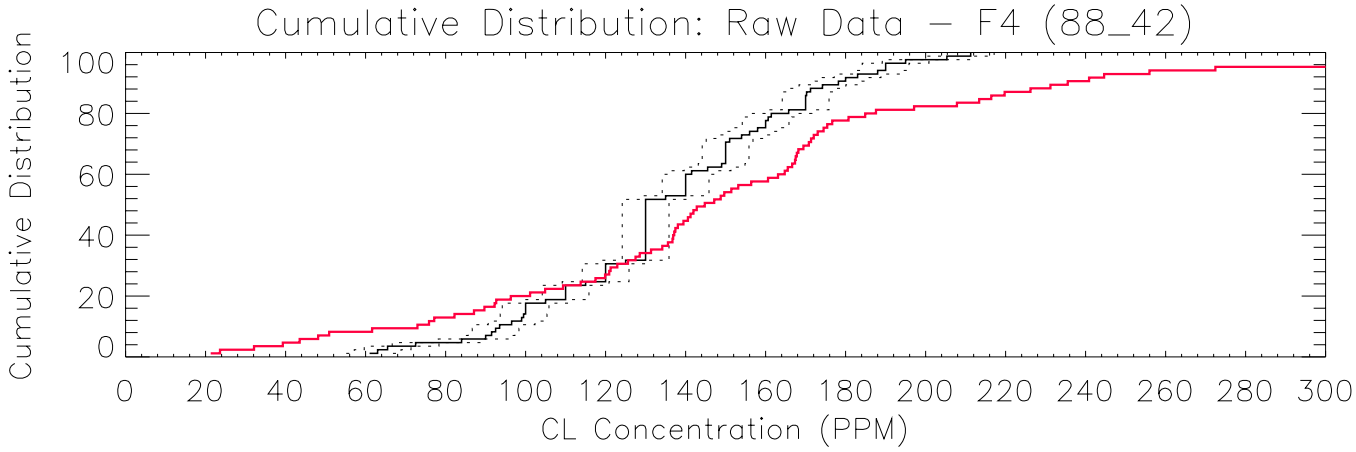
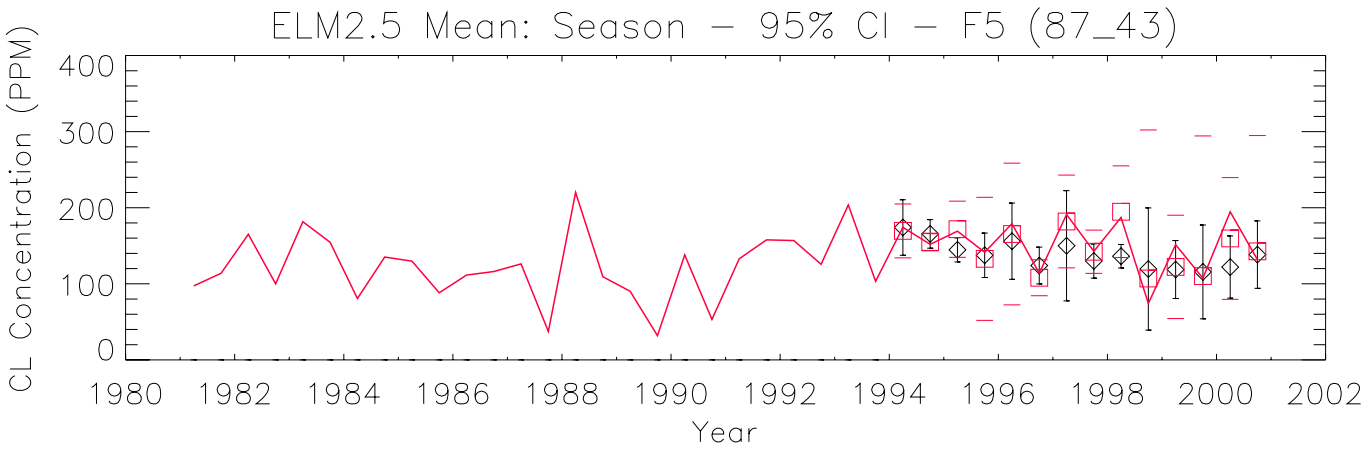
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – F4 (88_42)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – F5 (87_43)
CL Concentration (PPM)
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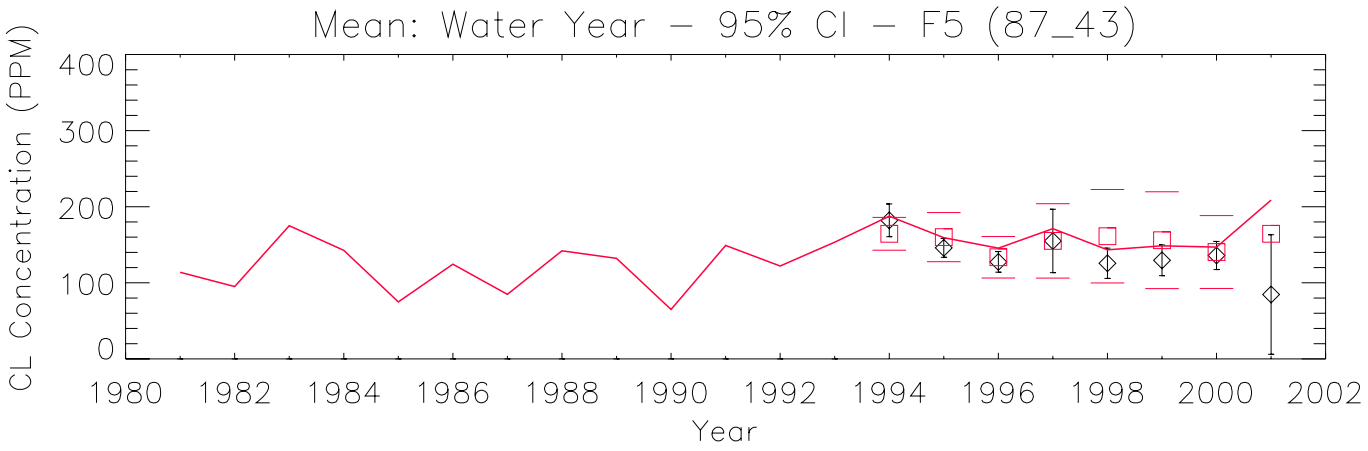
100
200
300
400
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – F5 (87_43)
CL Concentration (PPM)
0
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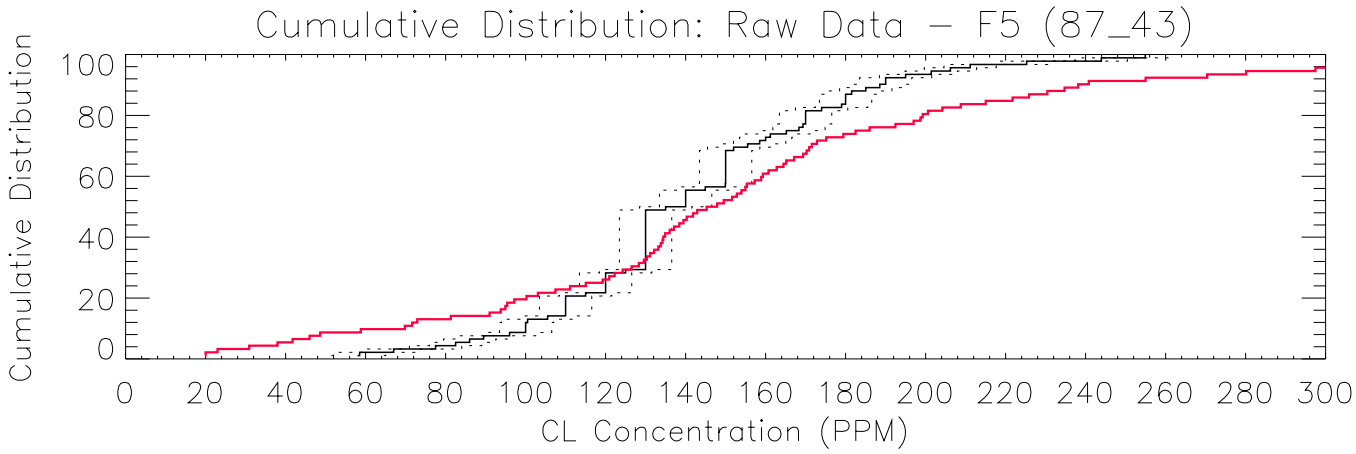
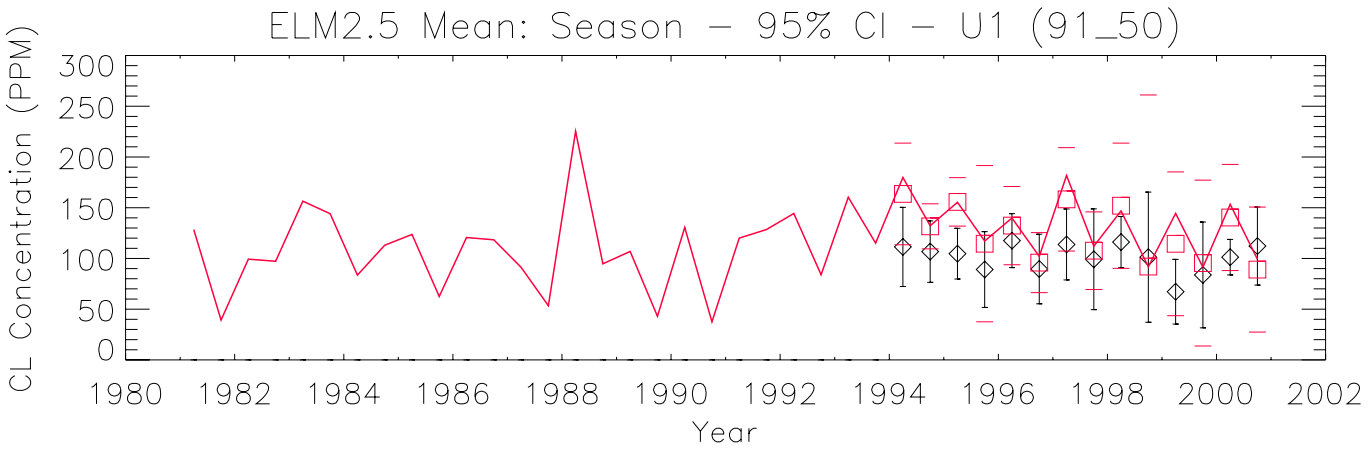
200
300
400
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – F5 (87_43)
Cumulative Distribution
0
20
40
60
80
100
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – U1 (91_50)
CL Concentration (PPM)
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250
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150
100
50
0
1980
1982
1984
1986
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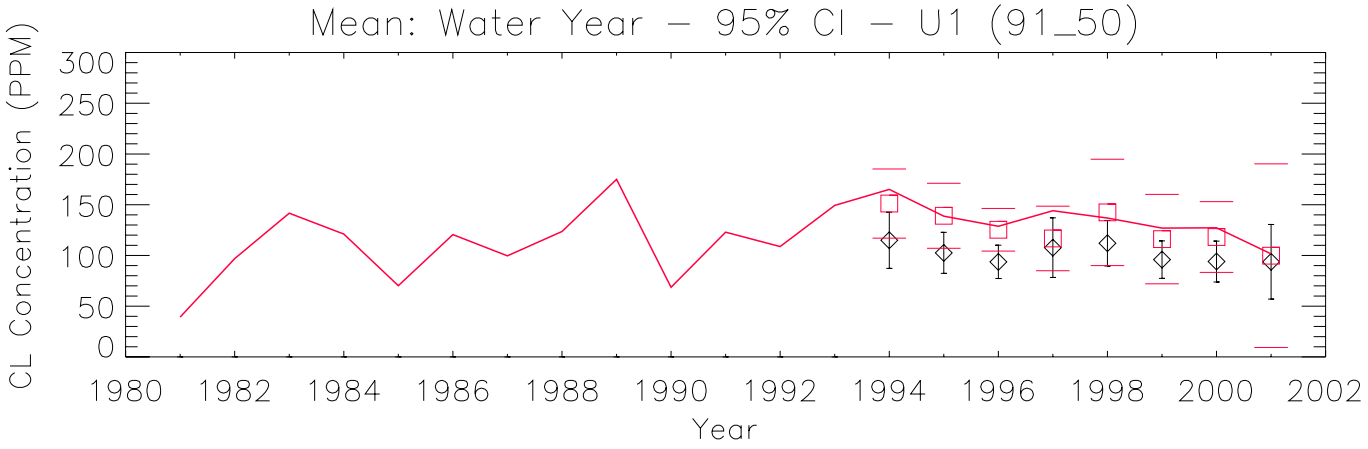
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – U1 (91_50)
CL Concentration (PPM)
300
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150
100
50
0
1980
1982
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1986
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1990
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1994
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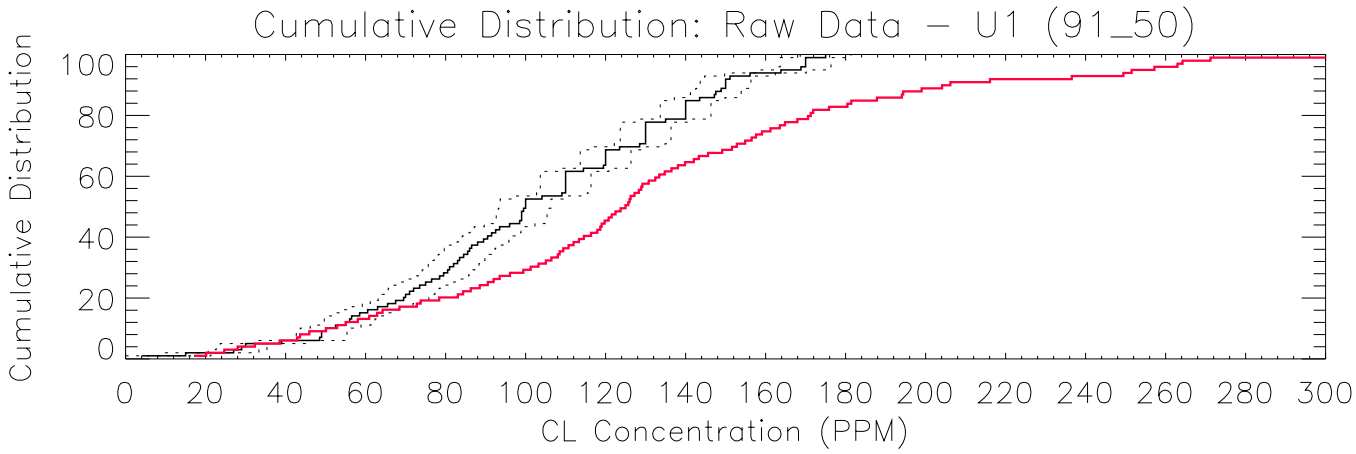
1998
2000
2002
Year


Cumulative Distribution: Raw Data – U1 (91_50)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
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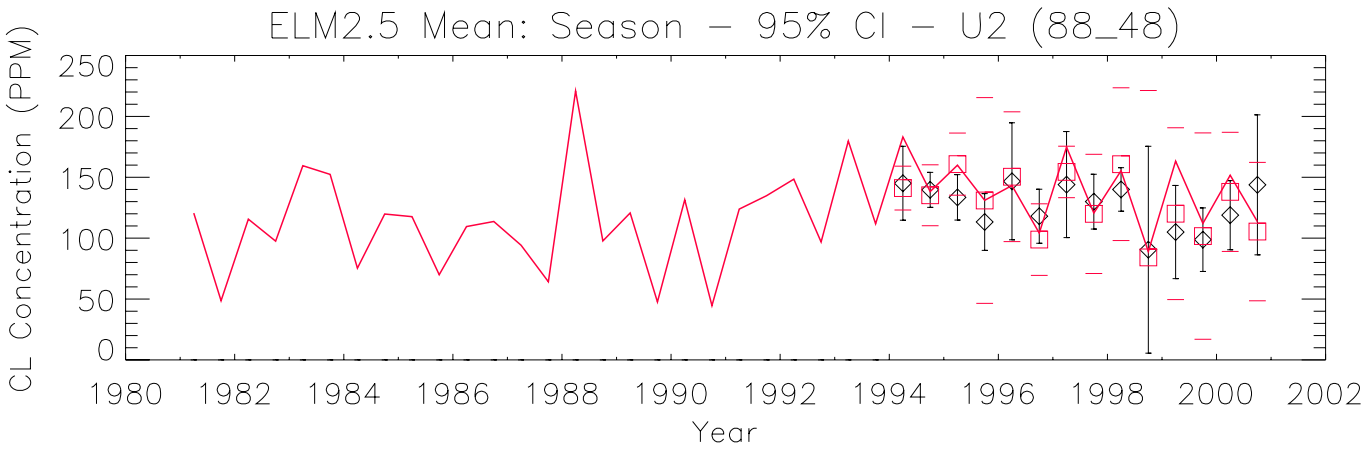
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – U2 (88_48)
CL Concentration (PPM)
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100
50
0
1980
1982
1984
1986
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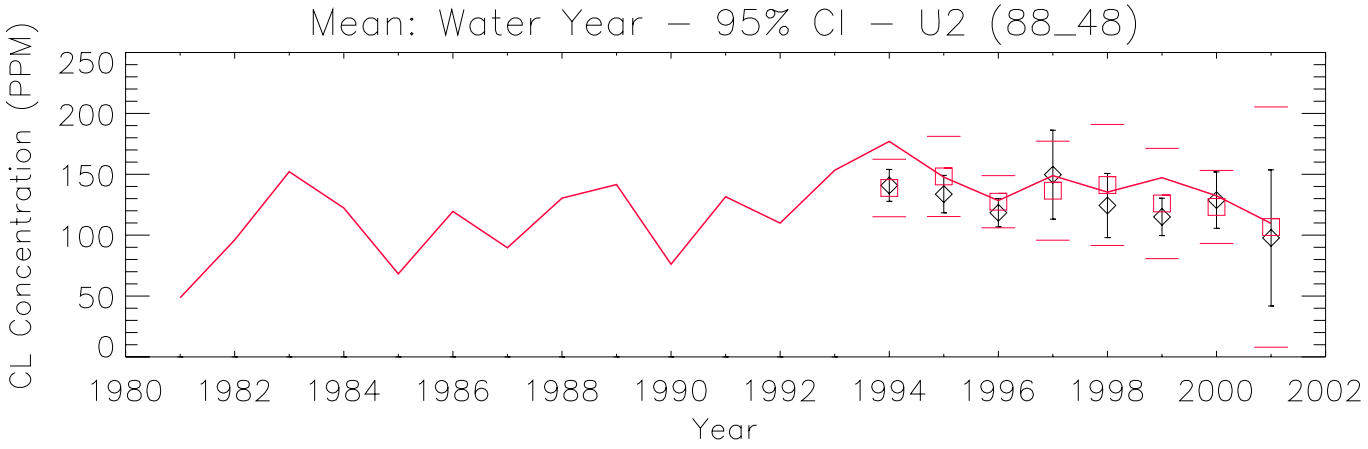
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – U2 (88_48)
CL Concentration (PPM)
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100
50
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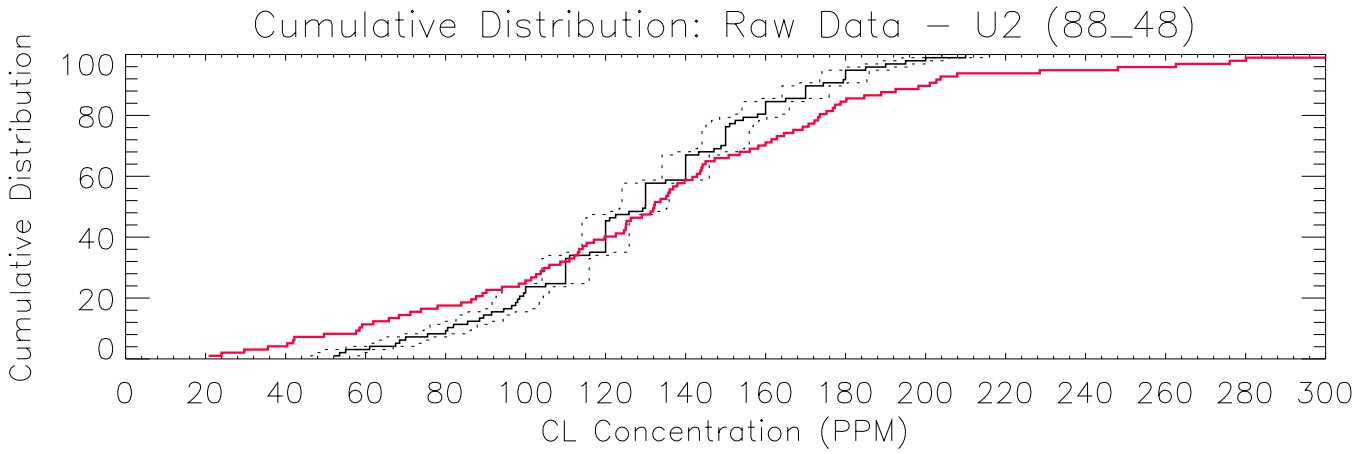
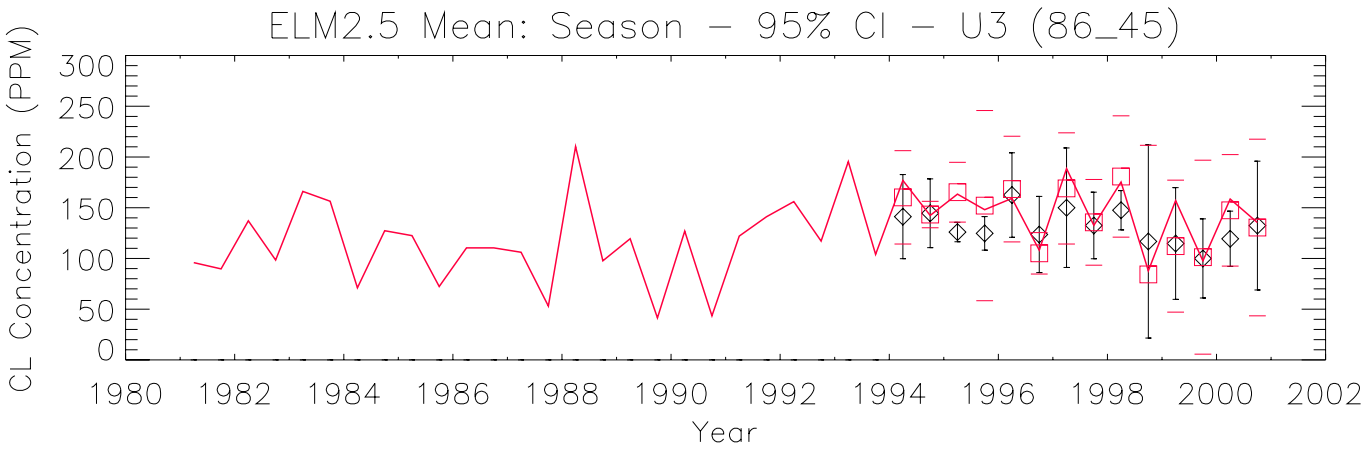
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – U2 (88_48)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – U3 (86_45)
CL Concentration (PPM)
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100
50
0
1980
1982
1984
1986
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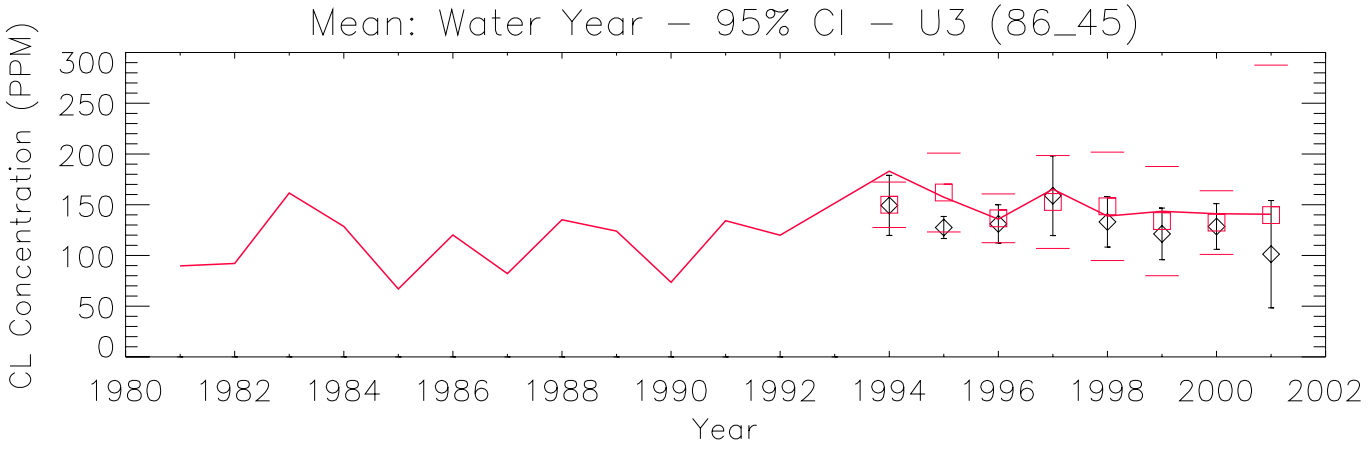
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – U3 (86_45)
CL Concentration (PPM)
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100
50
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1982
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1990
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1994
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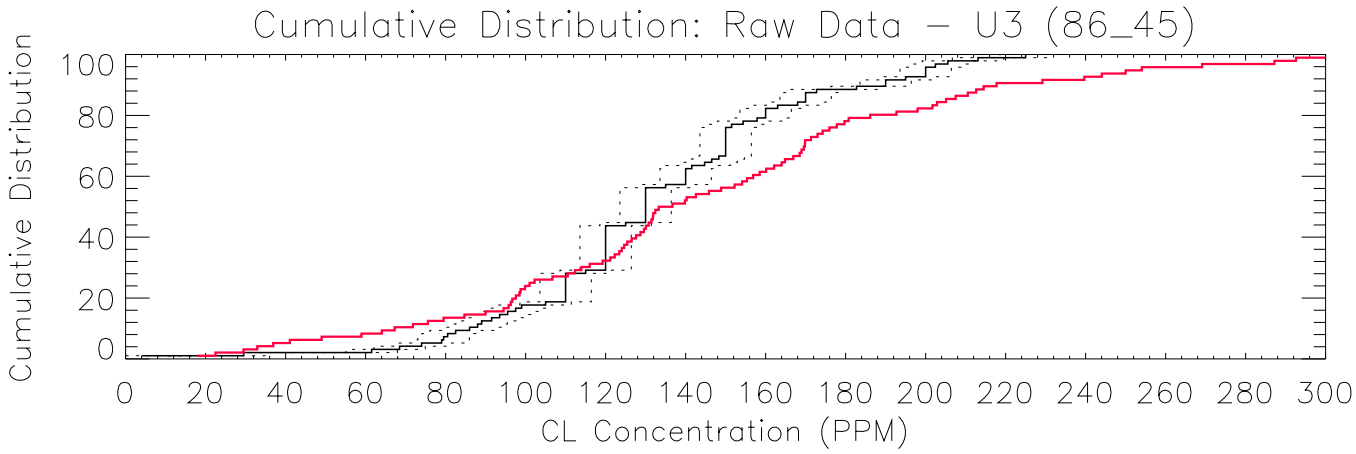
1998
2000
2002
Year


Cumulative Distribution: Raw Data – U3 (86_45)
Cumulative Distribution
100
80
60
40
20
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60
80
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120
140
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180
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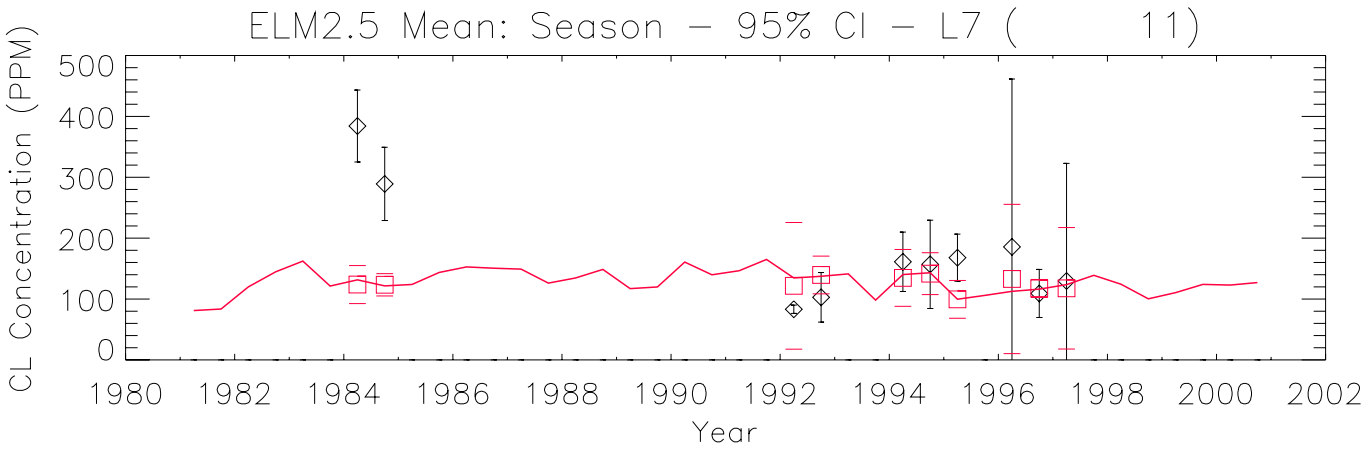
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – L7 (11)
CL Concentration (PPM)
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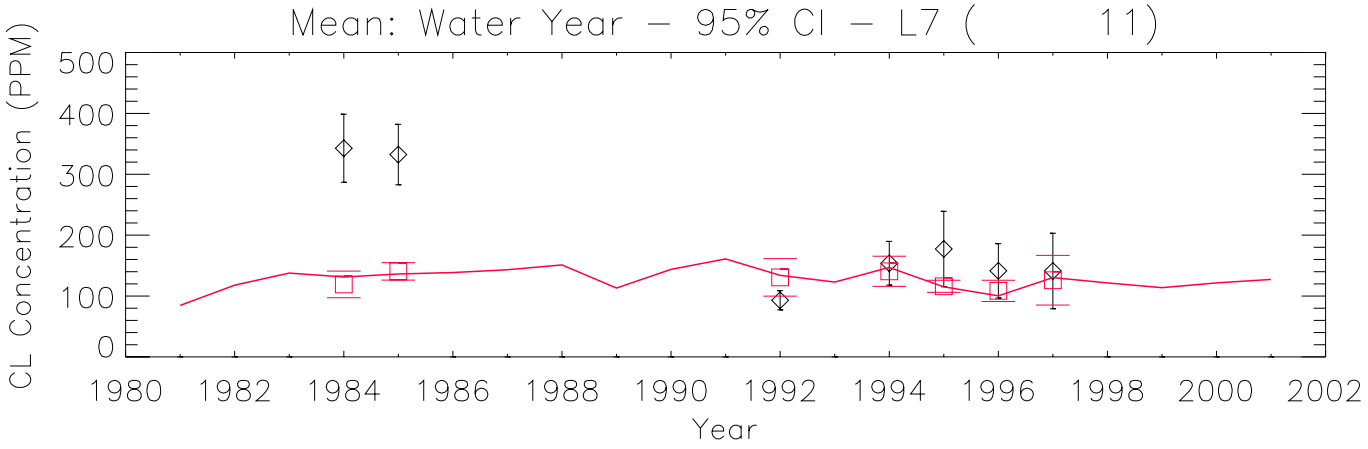
300
400
500
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – L7 (11)
CL Concentration (PPM)
0
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400
500
1980
1982
1984
1986
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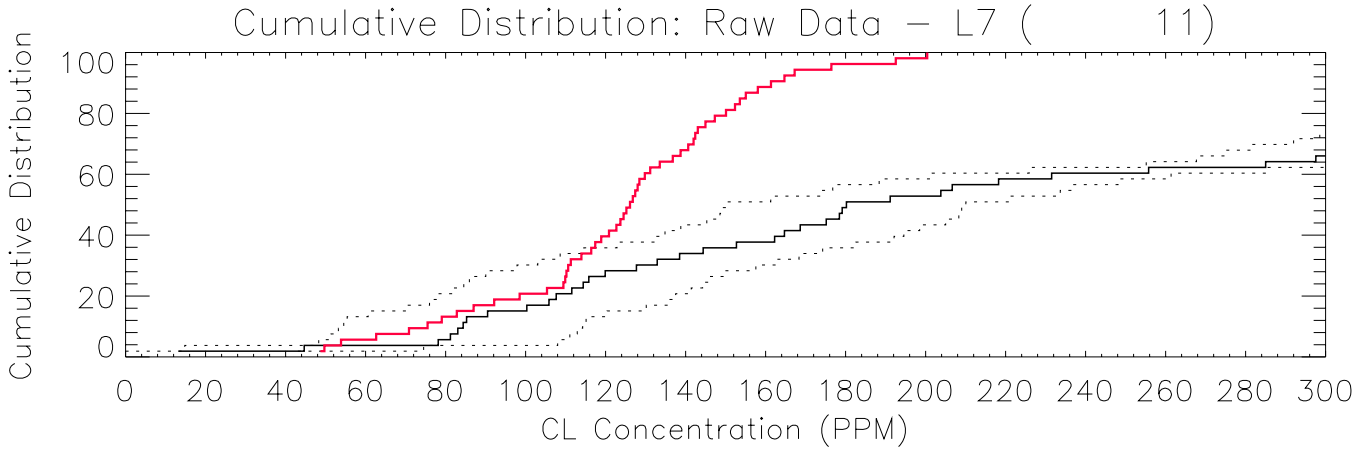
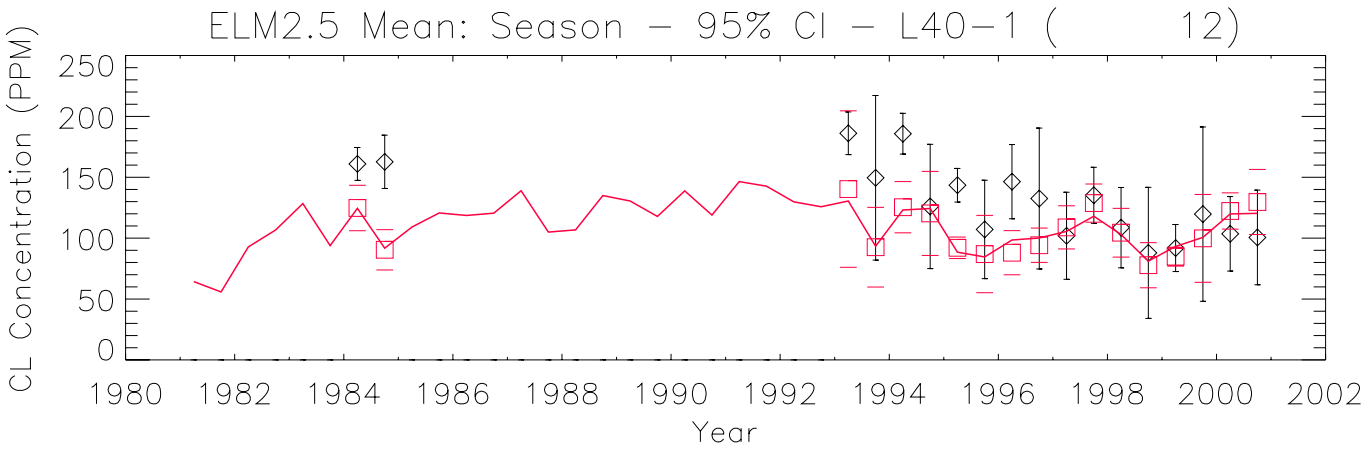
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – L7 (11)
Cumulative Distribution
0
20
40
60
80
100
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – L40–1 (12)
CL Concentration (PPM)
250
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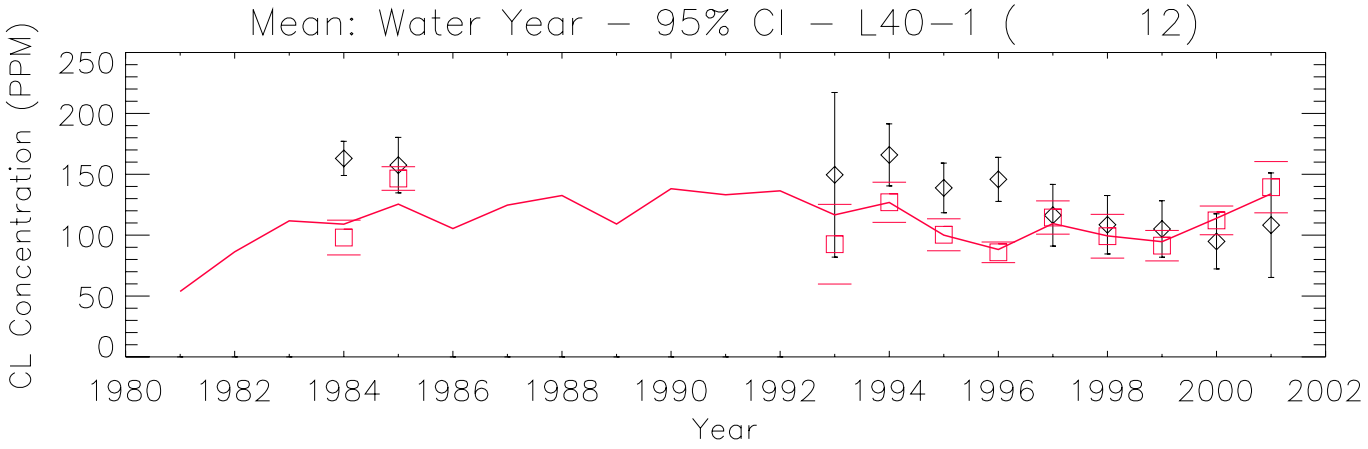
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – L40–1 (12)
CL Concentration (PPM)
250
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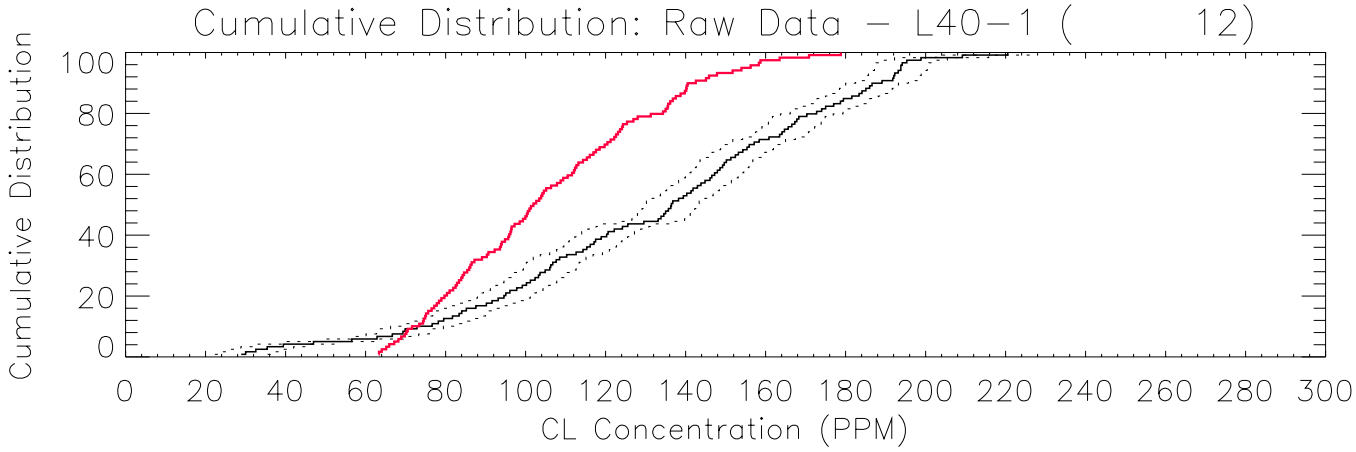
150
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – L40–1 (12)
Cumulative Distribution
100
80
60
40
20
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60
80
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120
140
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180
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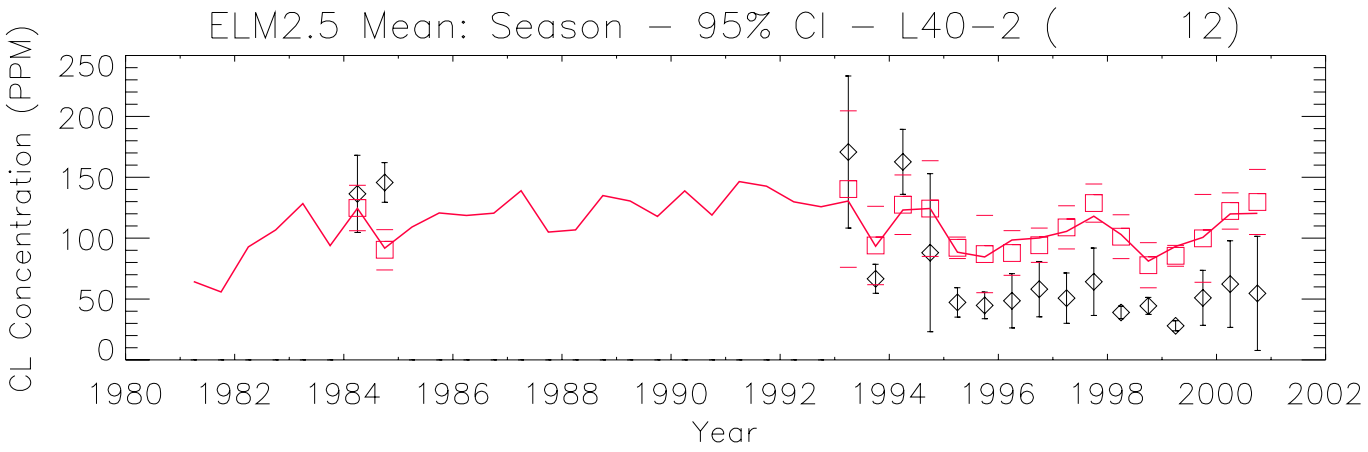
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – L40–2 (12)
CL Concentration (PPM)
250
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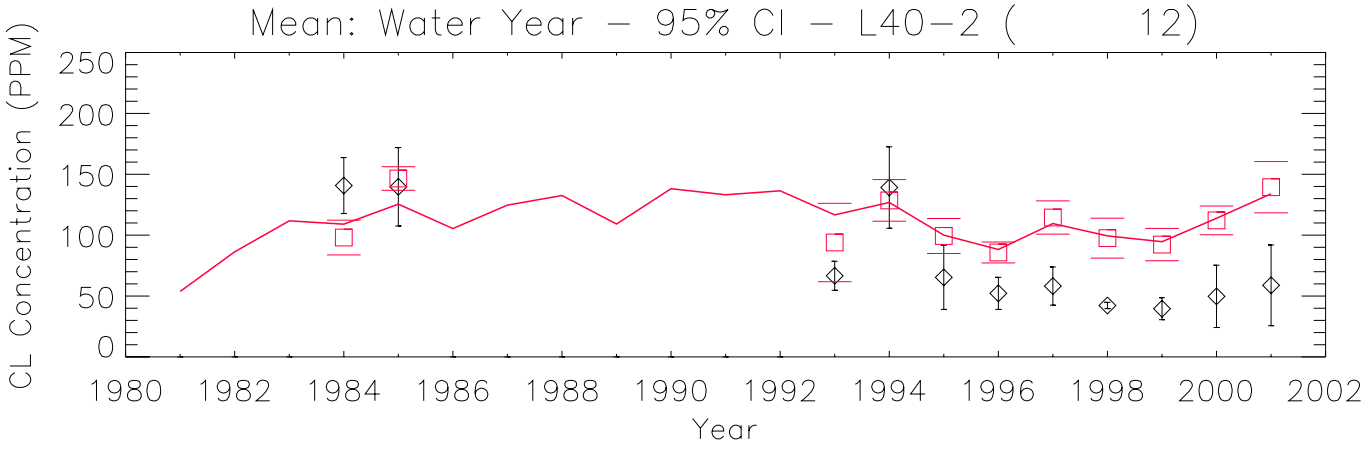
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – L40–2 (12)
CL Concentration (PPM)
250
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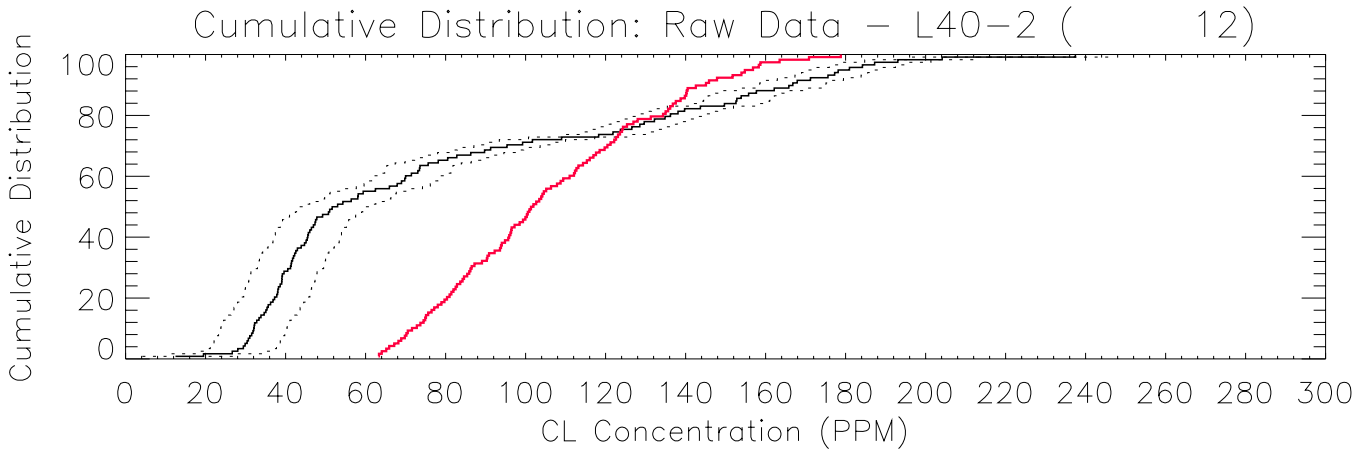
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – L40–2 (12)
Cumulative Distribution
100
80
60
40
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60
80
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140
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180
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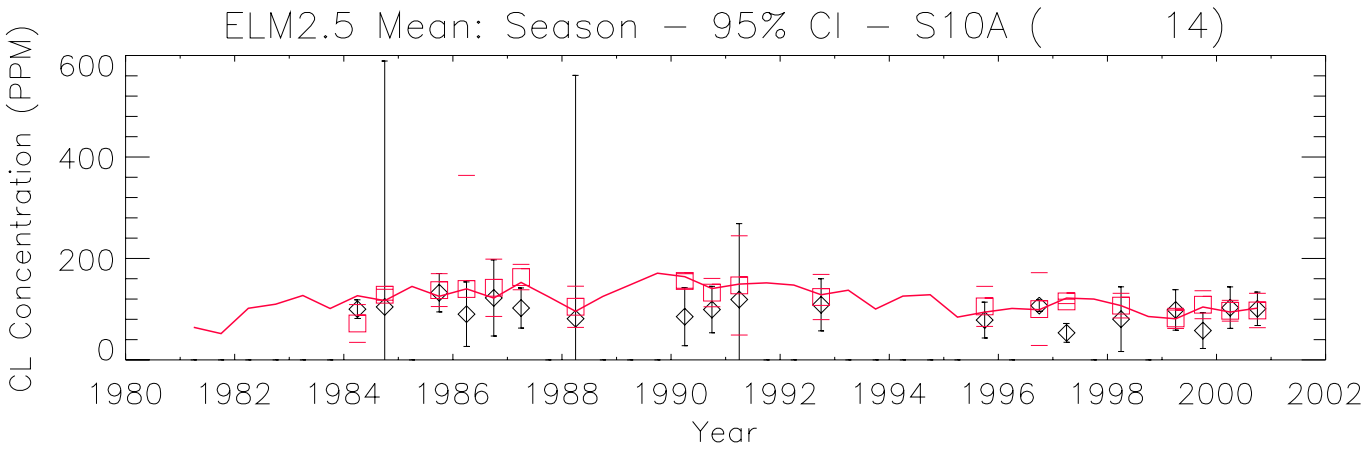
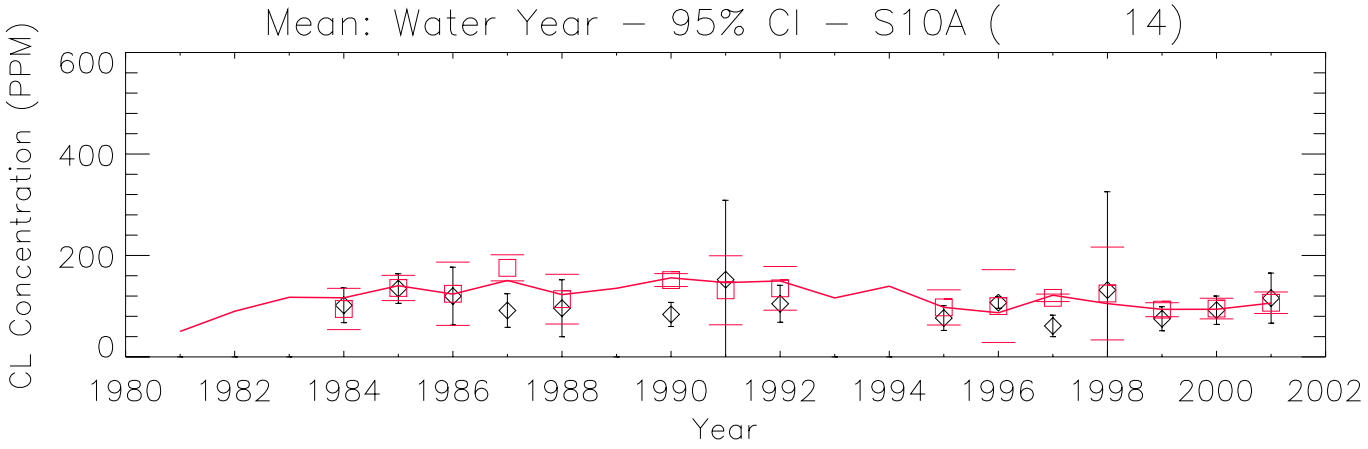
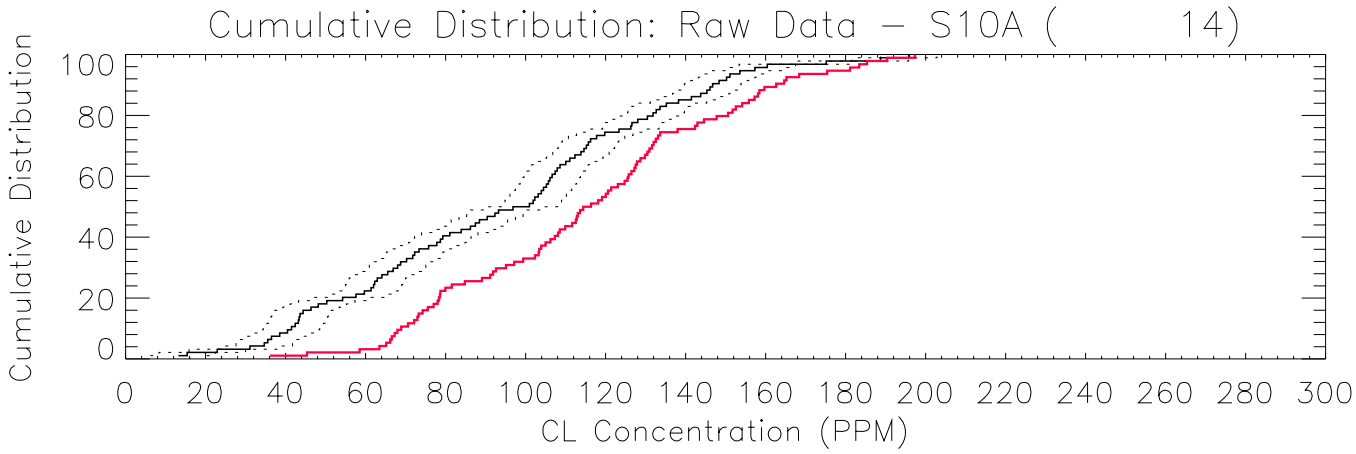
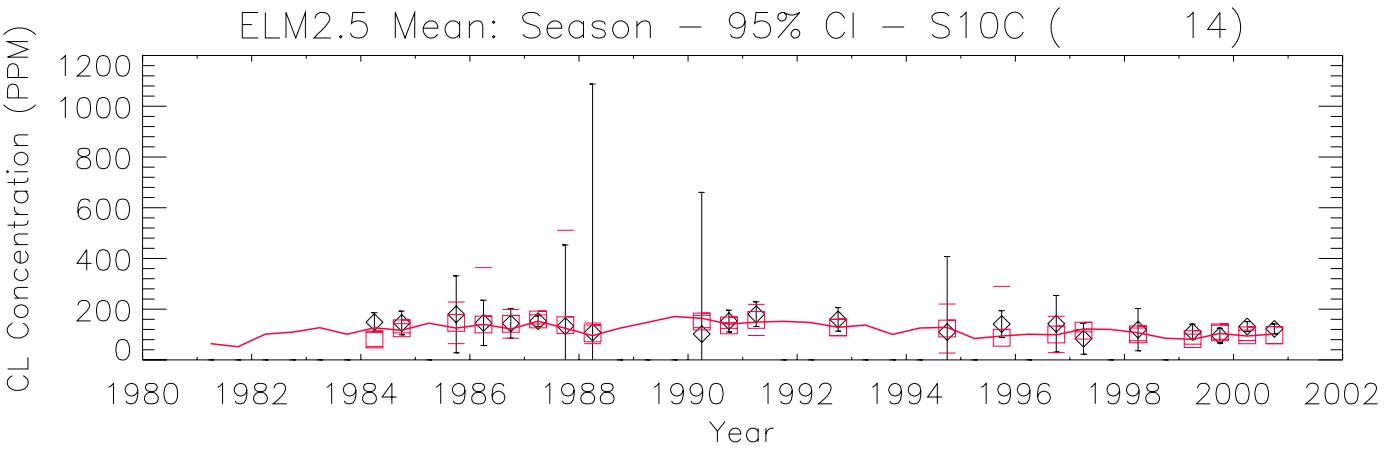
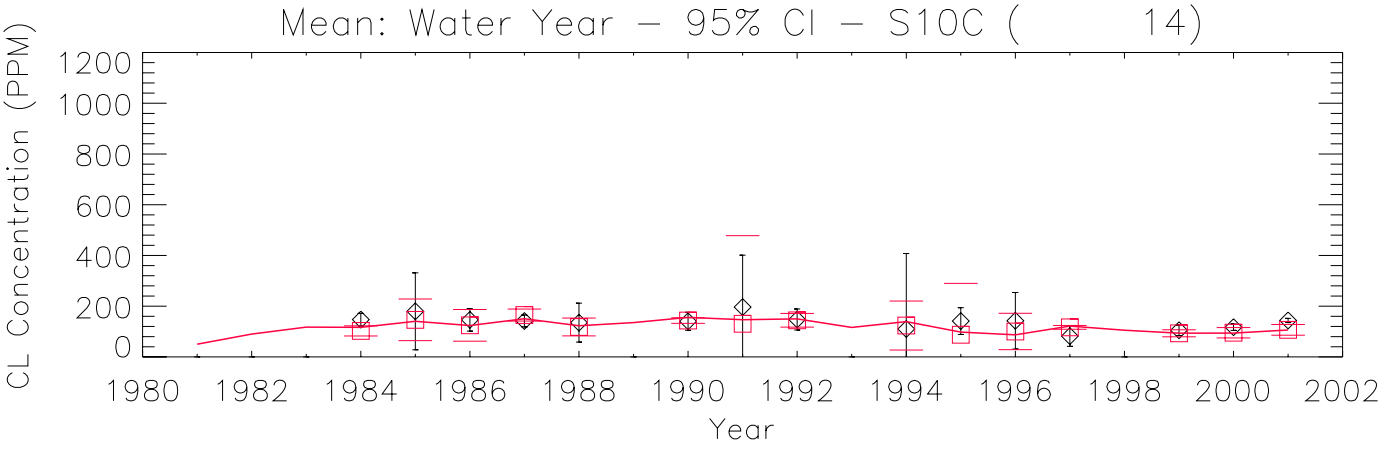
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S10A (14)
CL Concentration (PPM)
600
400
200
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S10A (14)
CL Concentration (PPM)
600
400
200
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S10A (14)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S10C (14)
CL Concentration (PPM)
0
200
400
600
800
1000
1200
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S10C (14)
CL Concentration (PPM)
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1982
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1986
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1990
1992
1994
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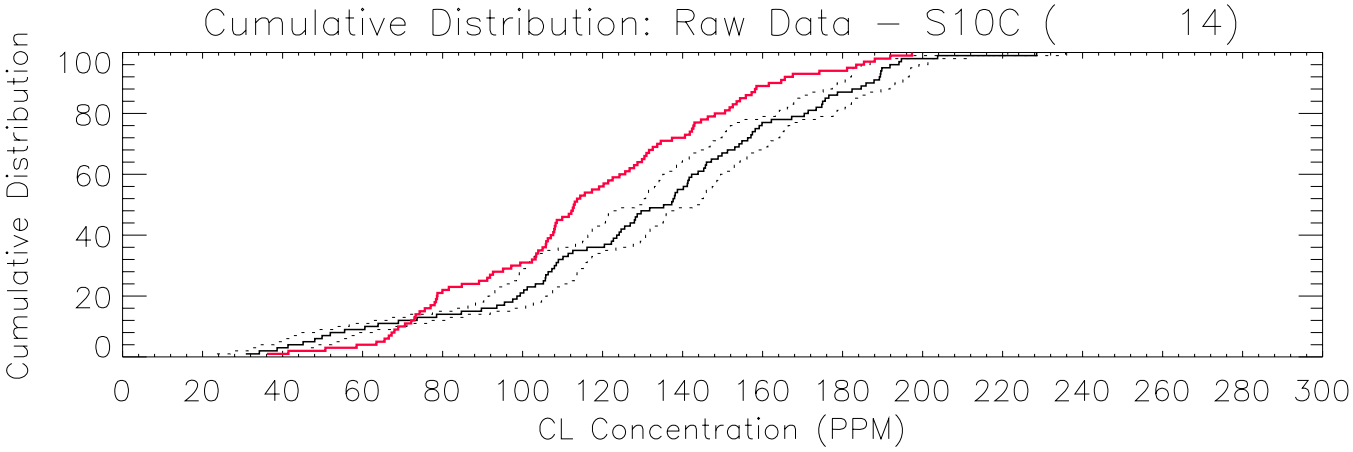
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S10C (14)
Cumulative Distribution
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20
40
60
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80
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120
140
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180
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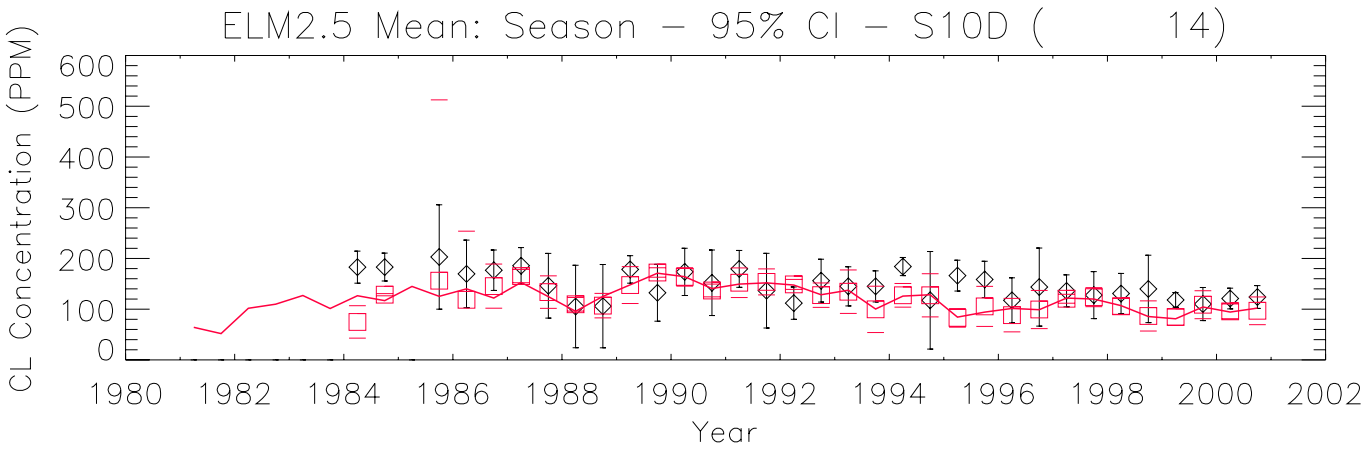
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S10D (14)
CL Concentration (PPM)
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1980
1982
1984
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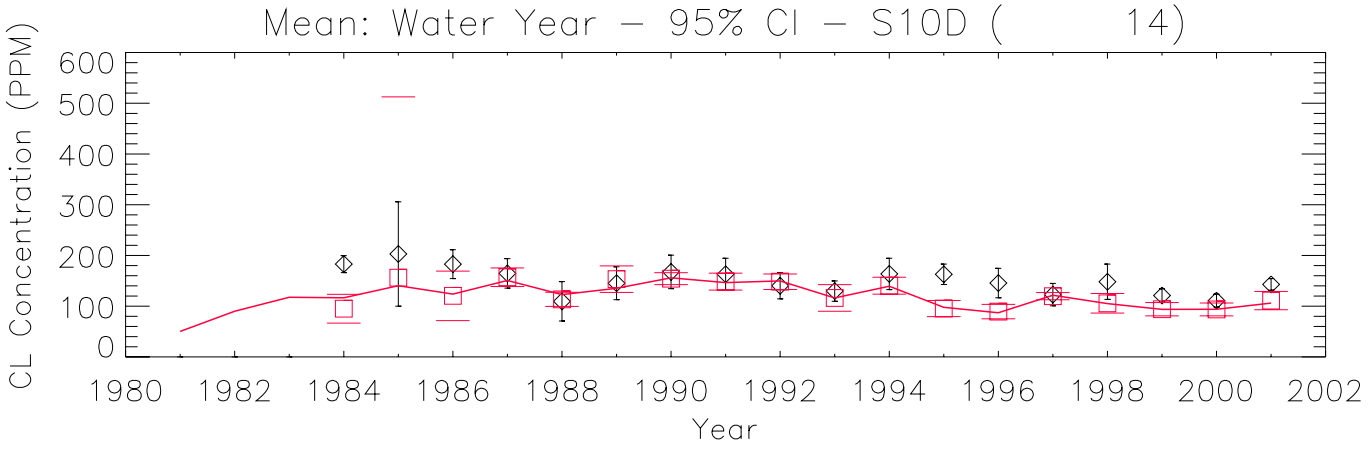
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S10D (14)
CL Concentration (PPM)
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1998
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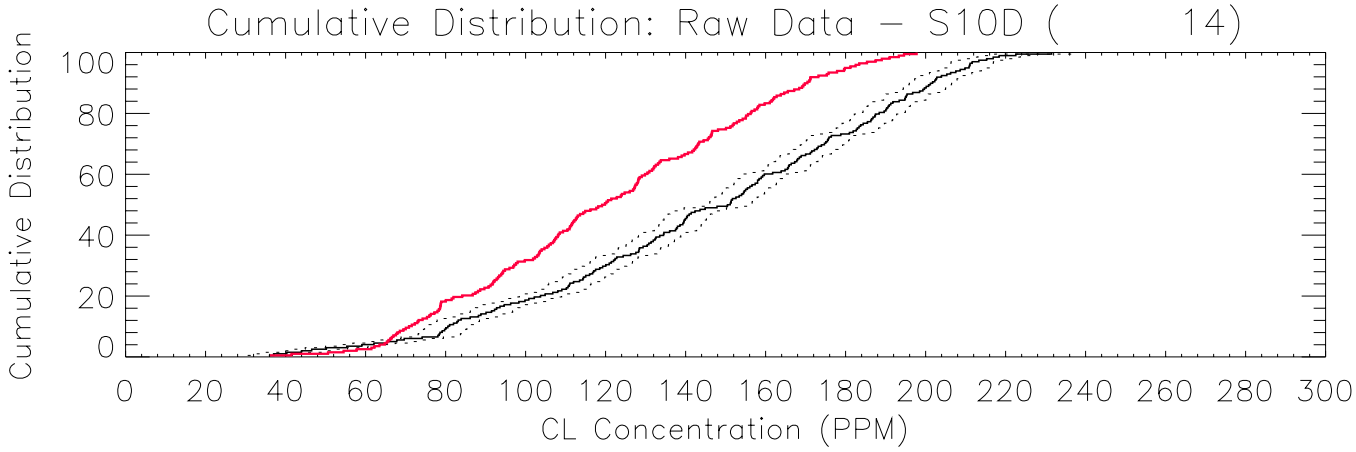
2002
Year


Cumulative Distribution: Raw Data – S10D (14)
Cumulative Distribution
100
80
60
40
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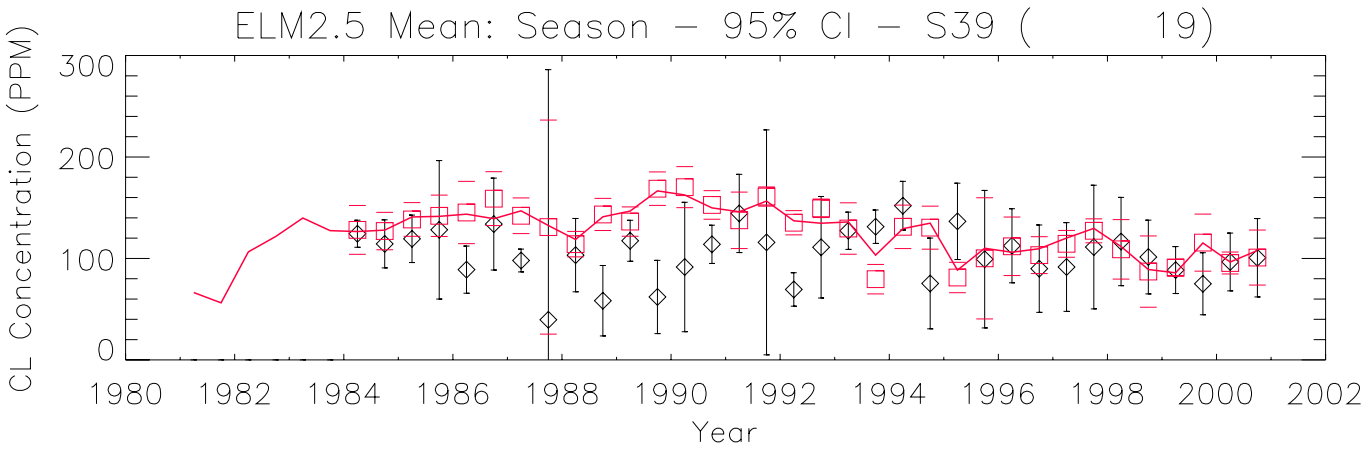
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S39 (19)
CL Concentration (PPM)
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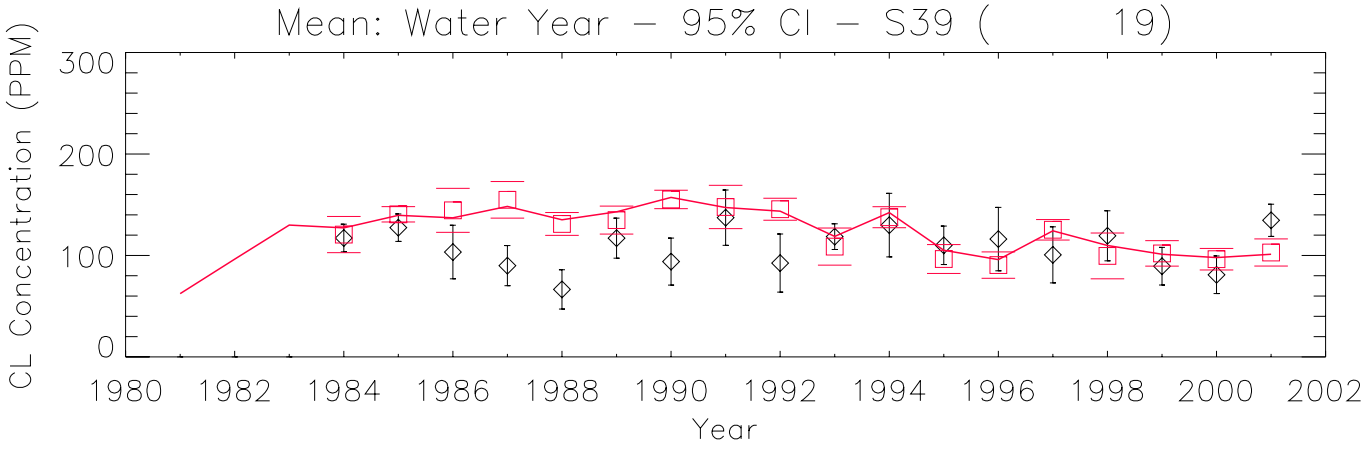
1998
2000
2002
Year


Mean: Water Year – 95% CI – S39 (19)
CL Concentration (PPM)
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100
0
1980
1982
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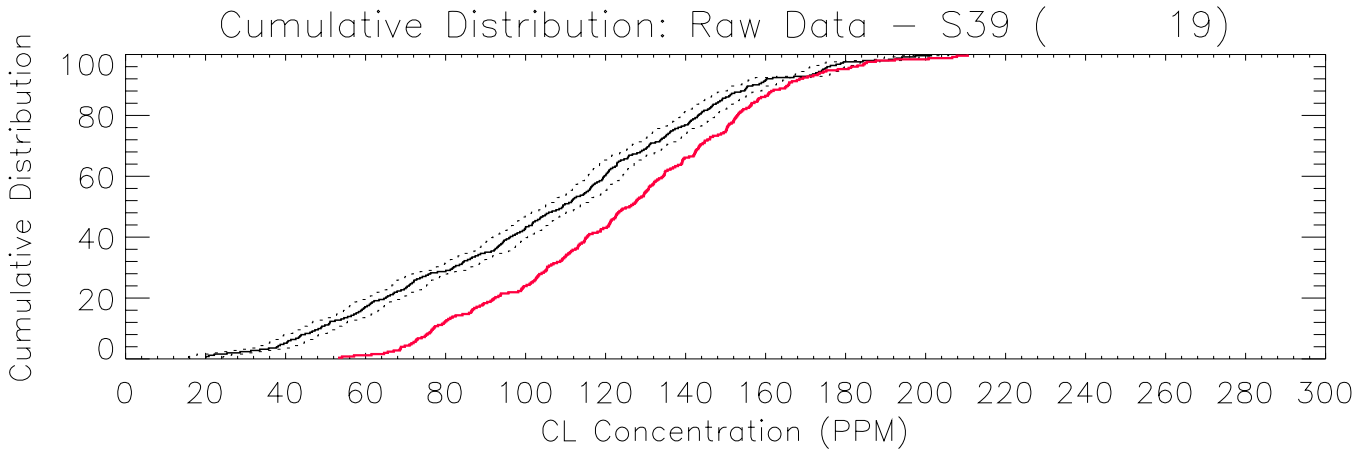
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S39 (19)
Cumulative Distribution
100
80
60
40
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0
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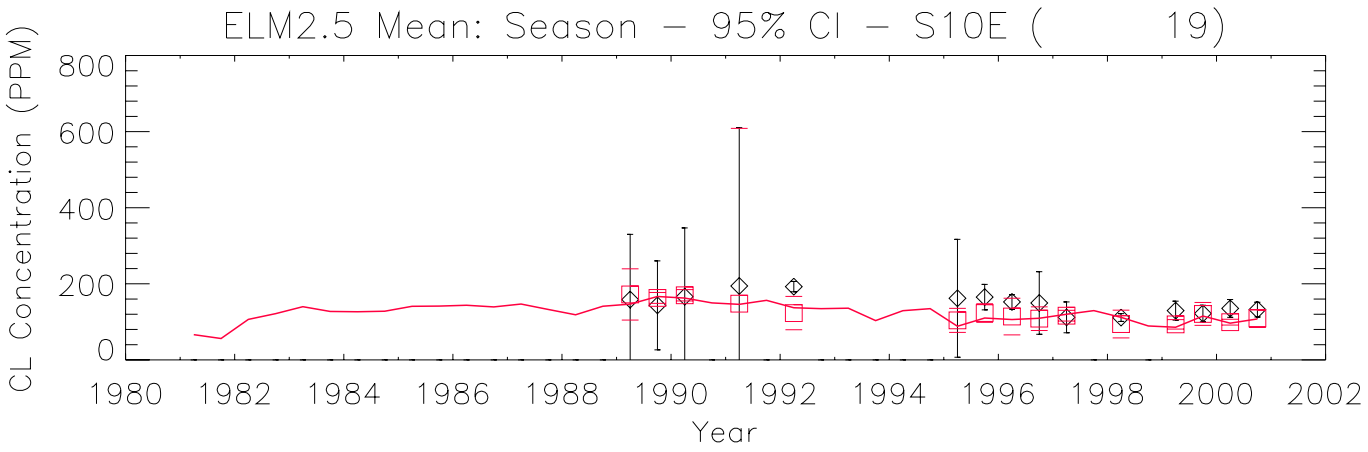
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S10E (19)
CL Concentration (PPM)
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200
0
1980
1982
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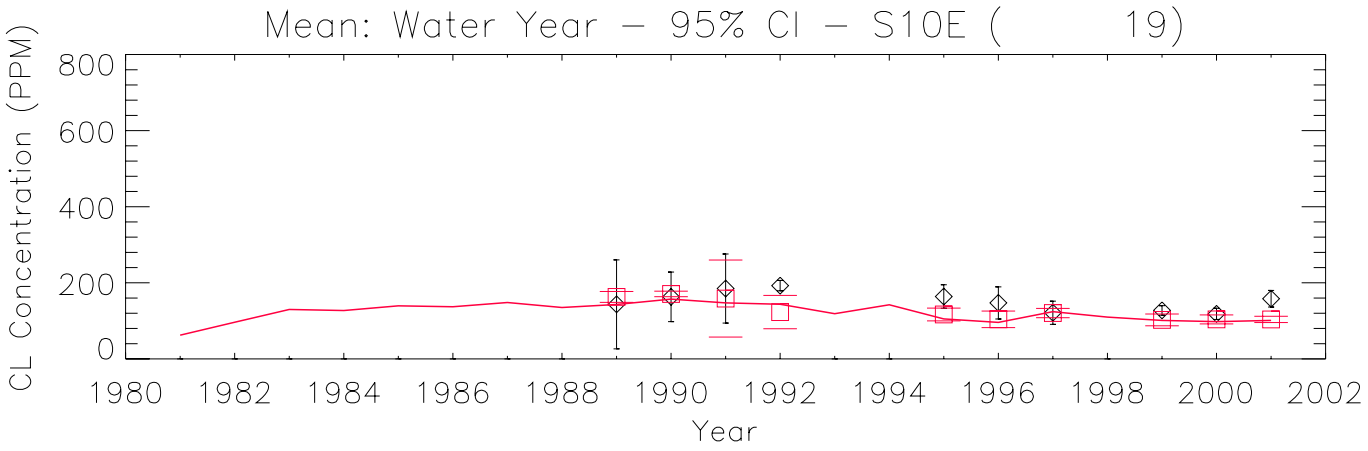
1998
2000
2002
Year


Mean: Water Year – 95% CI – S10E (19)
CL Concentration (PPM)
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400
200
0
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1982
1984
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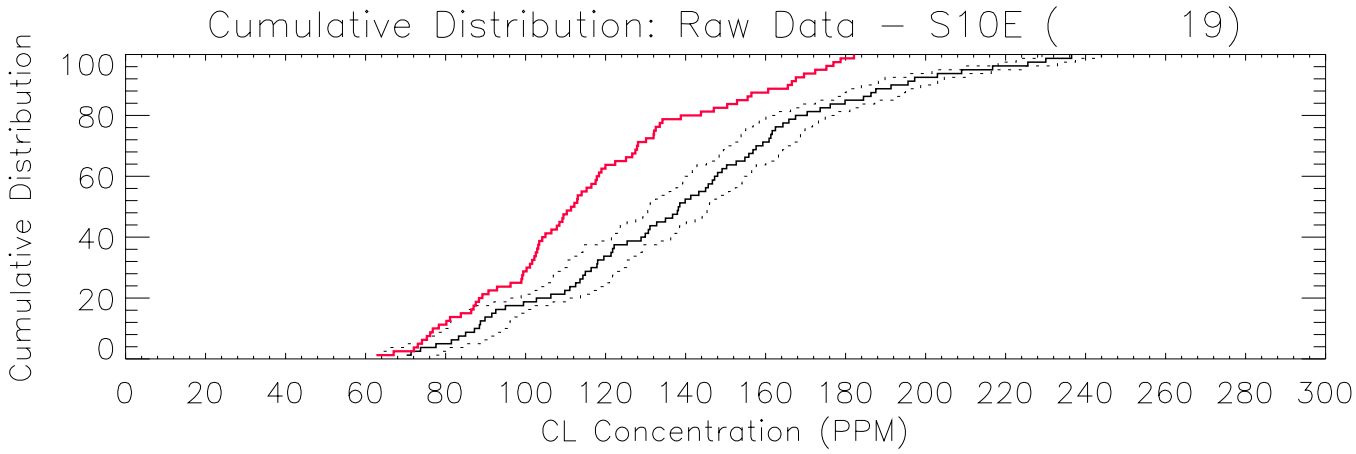
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S10E (19)
Cumulative Distribution
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60
40
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60
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120
140
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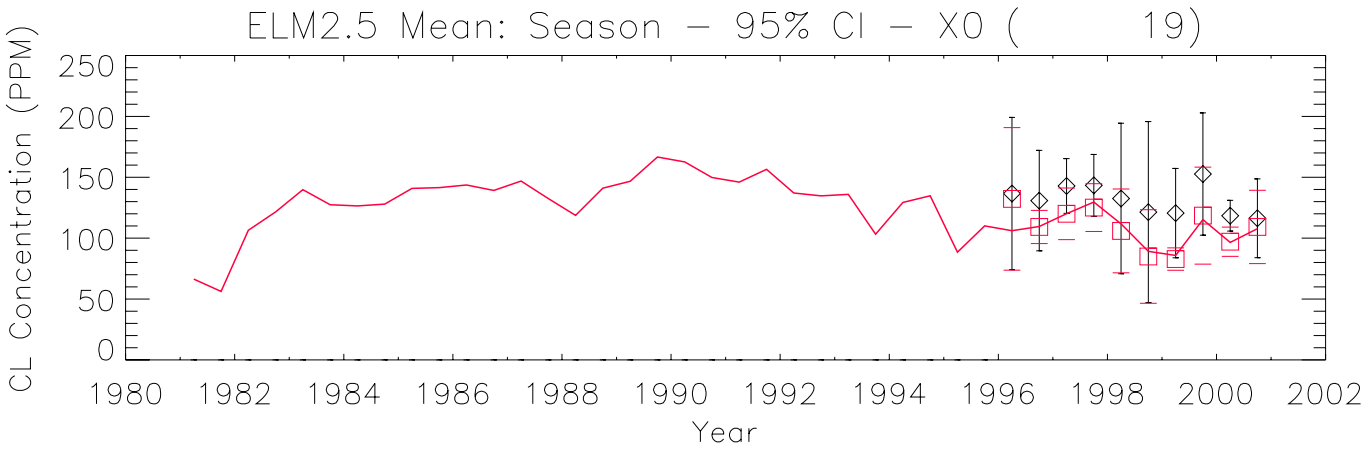
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – X0 (19)
CL Concentration (PPM)
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50
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1982
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1990
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1994
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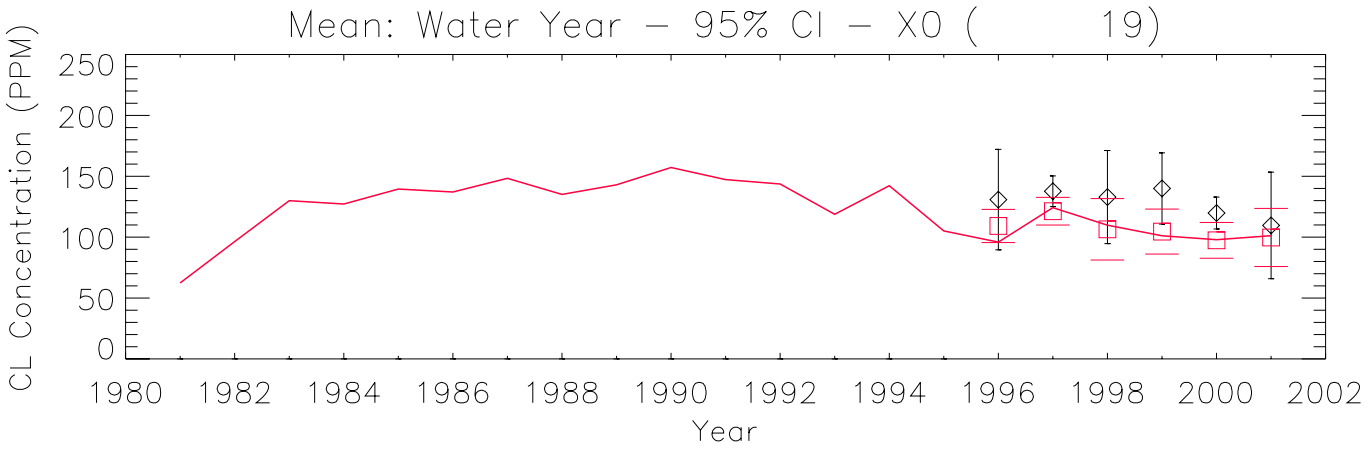
1998
2000
2002
Year


Mean: Water Year – 95% CI – X0 (19)
CL Concentration (PPM)
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1982
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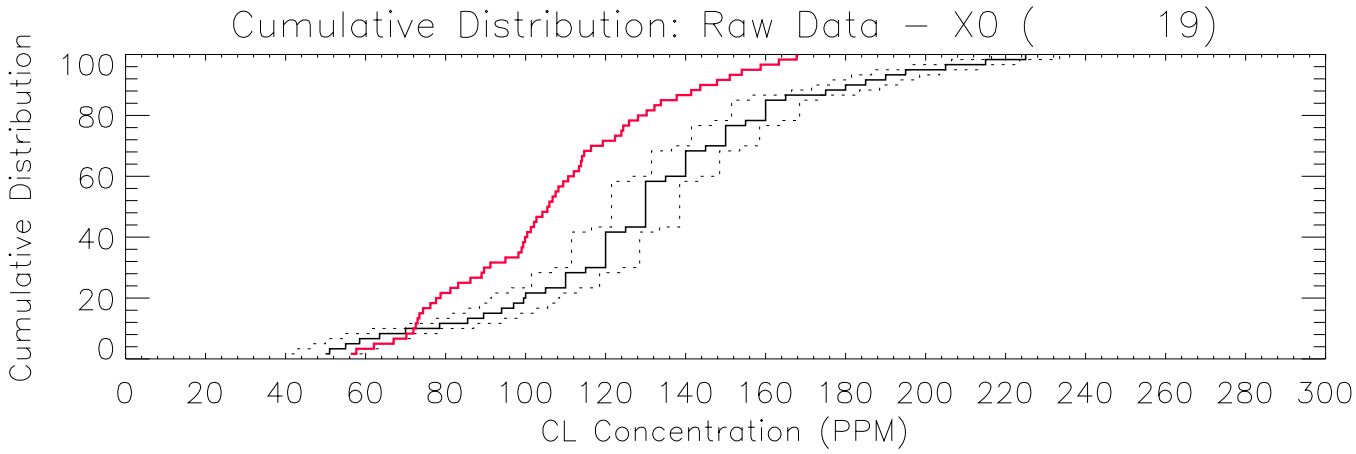
2000
2002
Year


Cumulative Distribution: Raw Data – X0 (19)
Cumulative Distribution
100
80
60
40
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60
80
100
120
140
160
180
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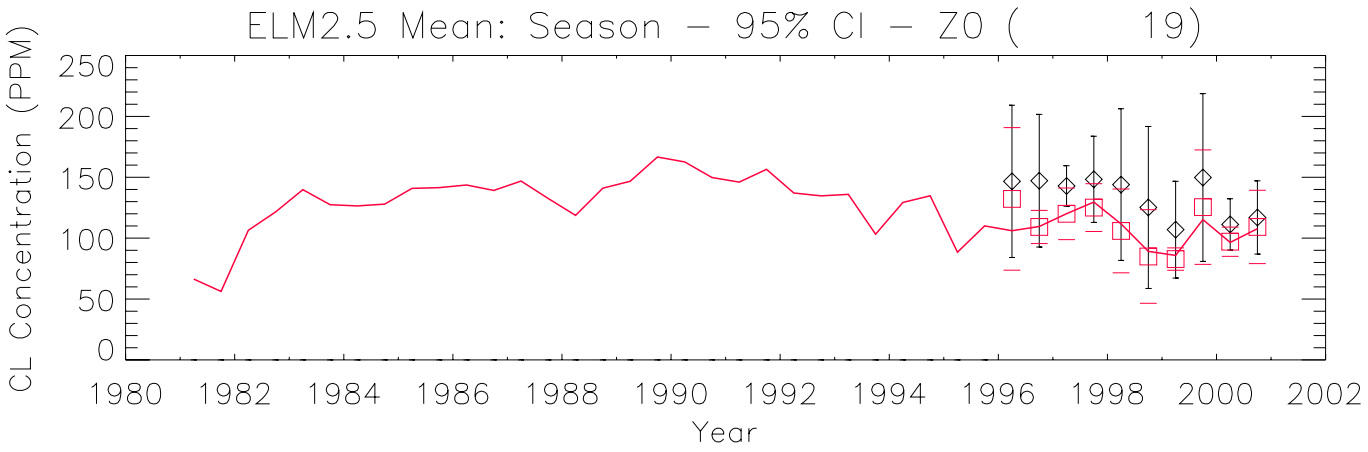
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – Z0 (19)
CL Concentration (PPM)
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1982
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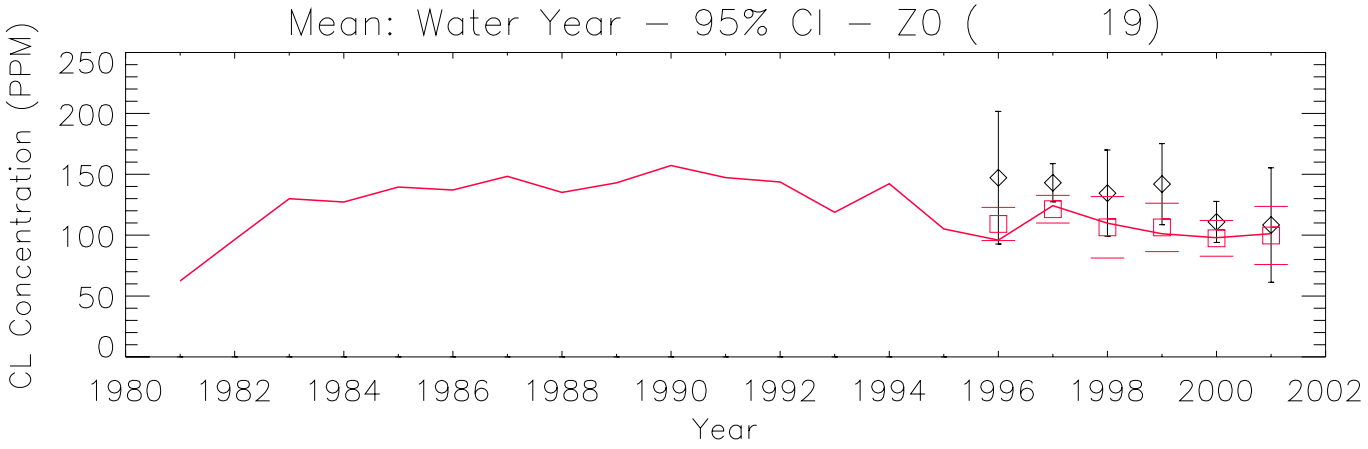
2002
Year


Mean: Water Year – 95% CI – Z0 (19)
CL Concentration (PPM)
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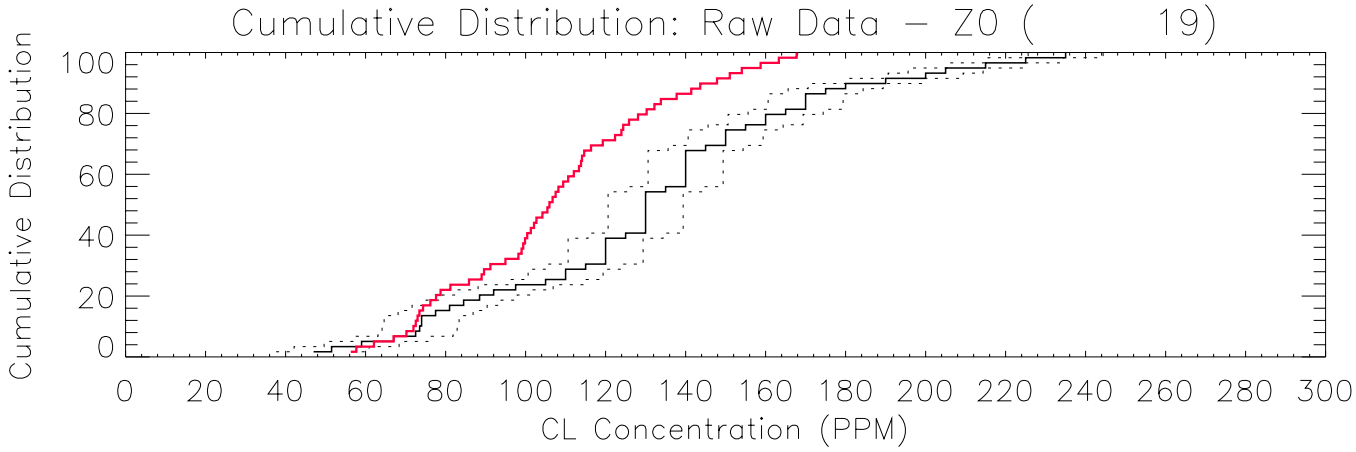
2002
Year


Cumulative Distribution: Raw Data – Z0 (19)
Cumulative Distribution
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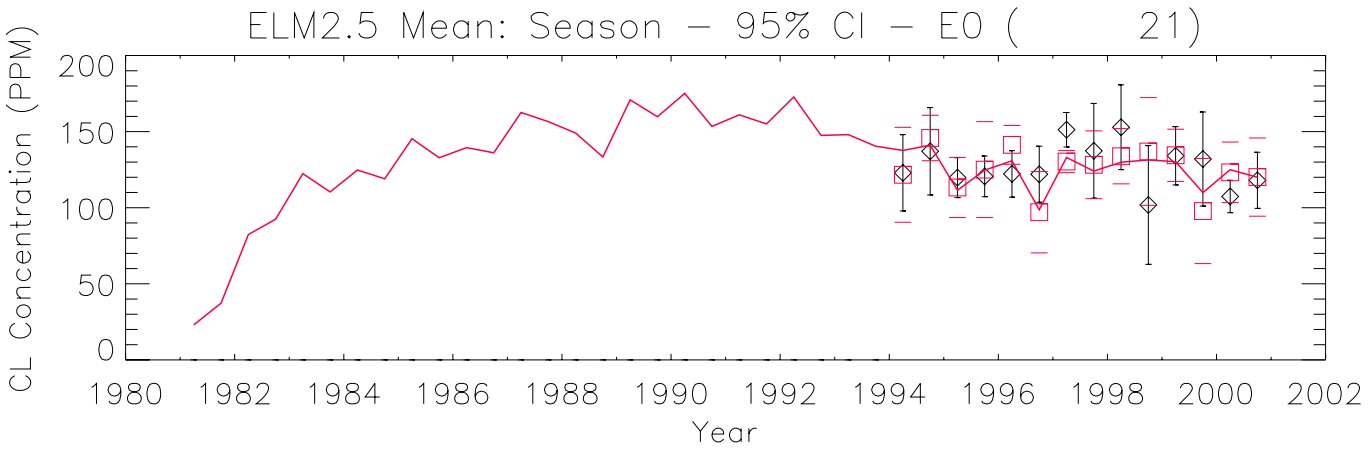
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – E0 (21)
CL Concentration (PPM)
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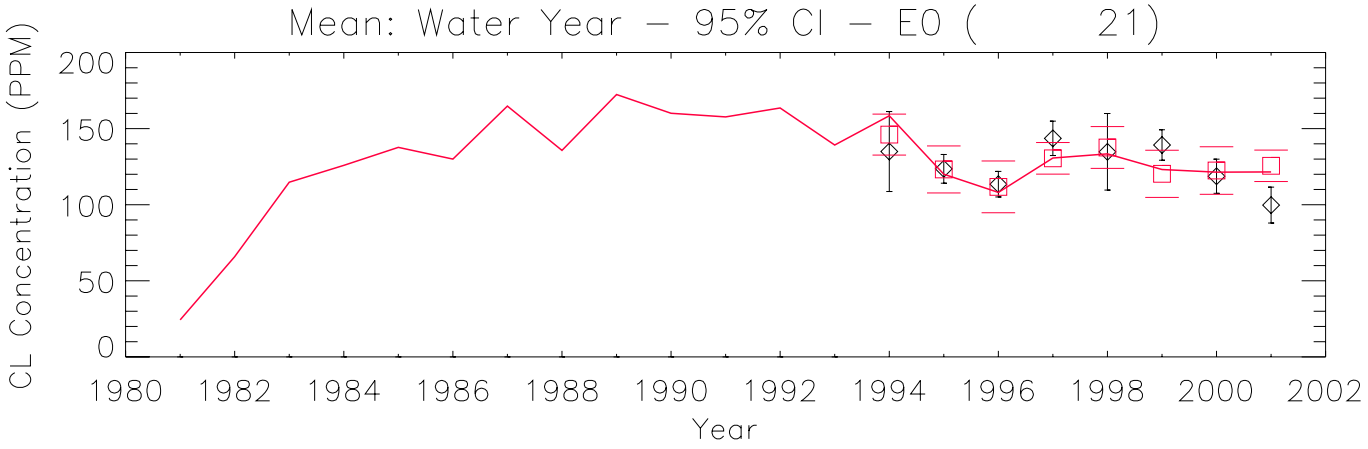
Year


Mean: Water Year – 95% CI – E0 (21)
CL Concentration (PPM)
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100
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1998
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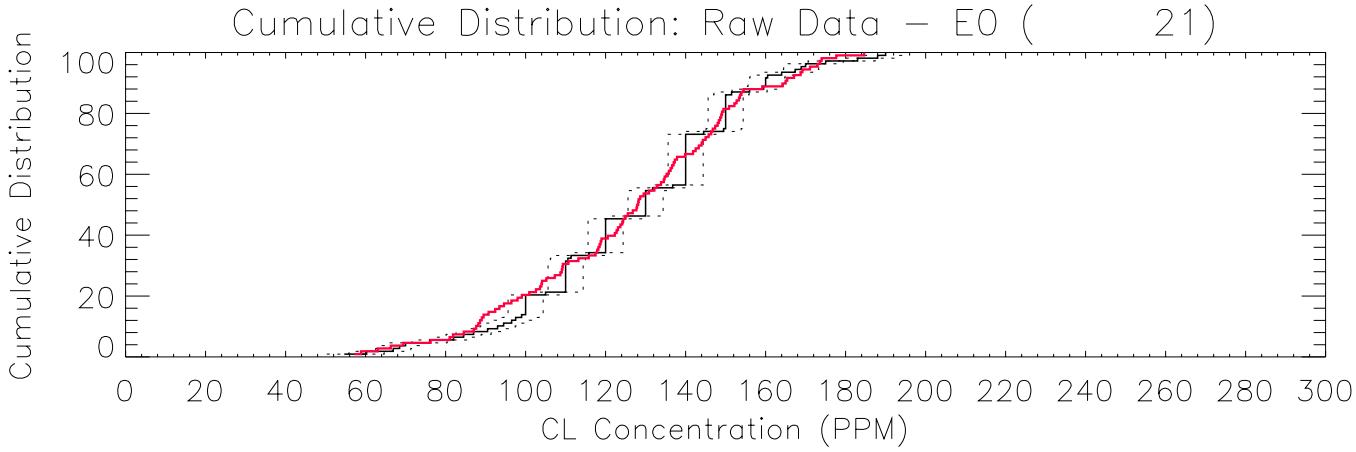
2002
Year


Cumulative Distribution: Raw Data – E0 (21)
Cumulative Distribution
0
20
40
60
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60
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140
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220
240
260
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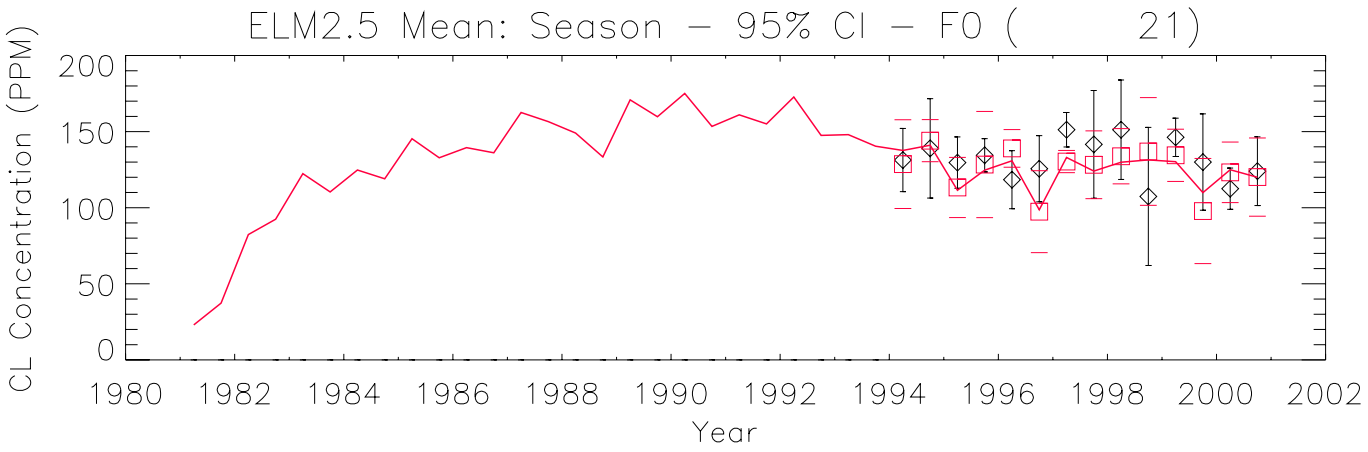
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – F0 (21)
CL Concentration (PPM)
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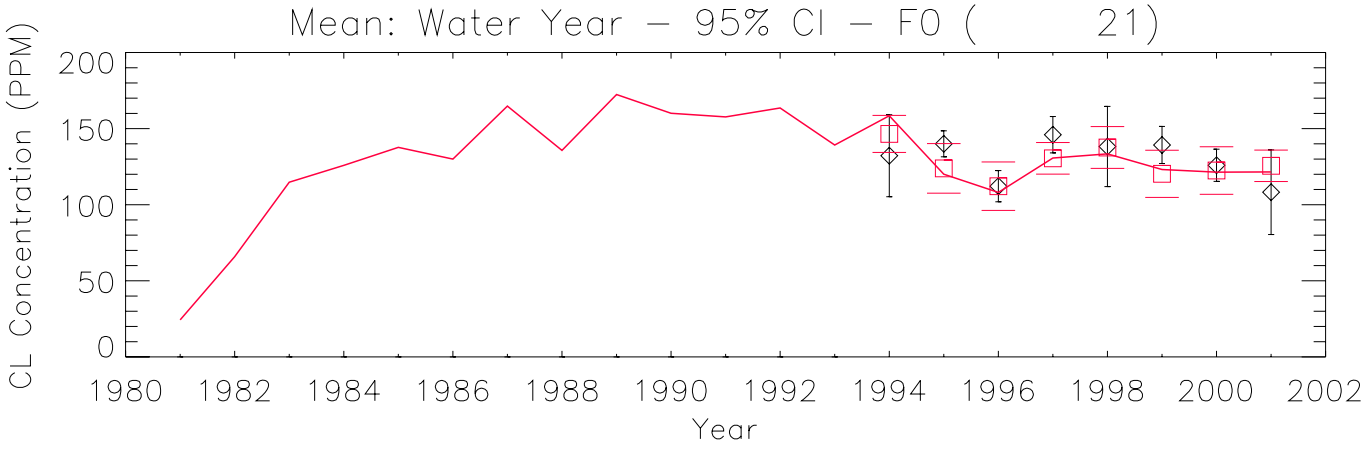
2002
Year


Mean: Water Year – 95% CI – F0 (21)
CL Concentration (PPM)
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2002
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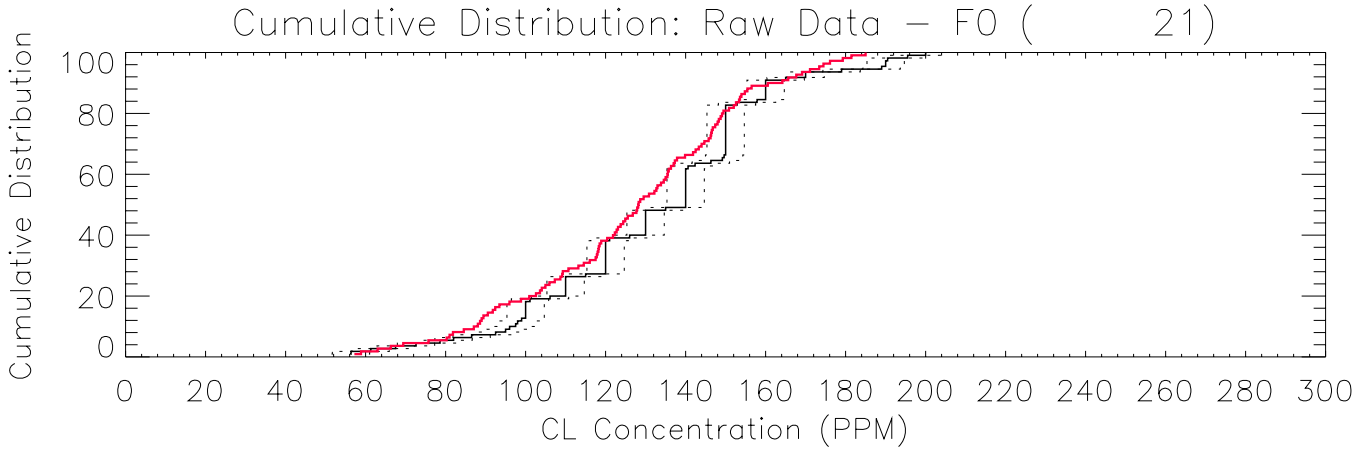
Cumulative Distribution: Raw Data – F0 (21)
Cumulative Distribution
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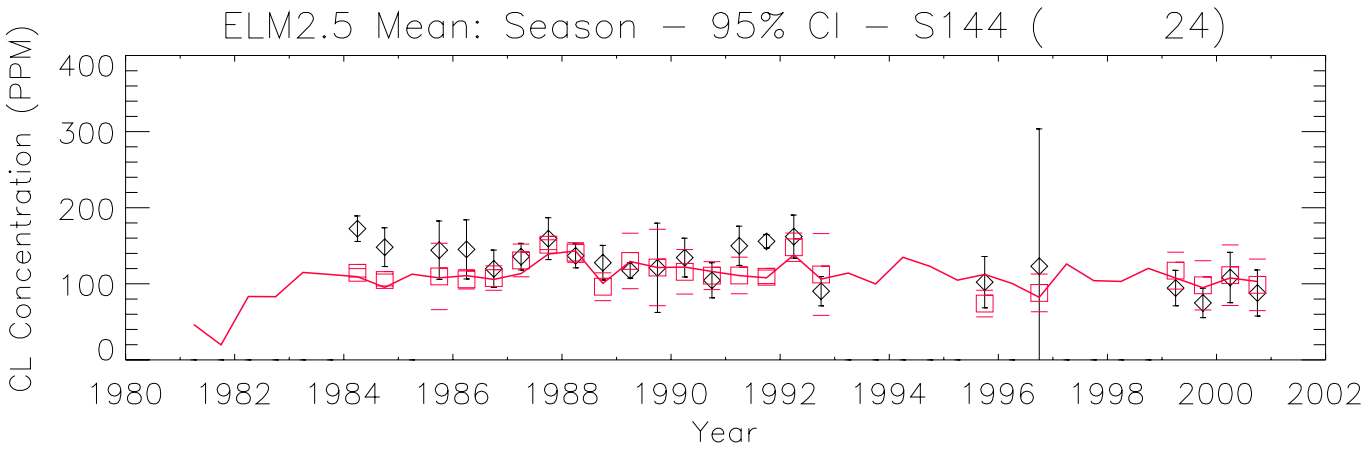
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S144 (24)
CL Concentration (PPM)
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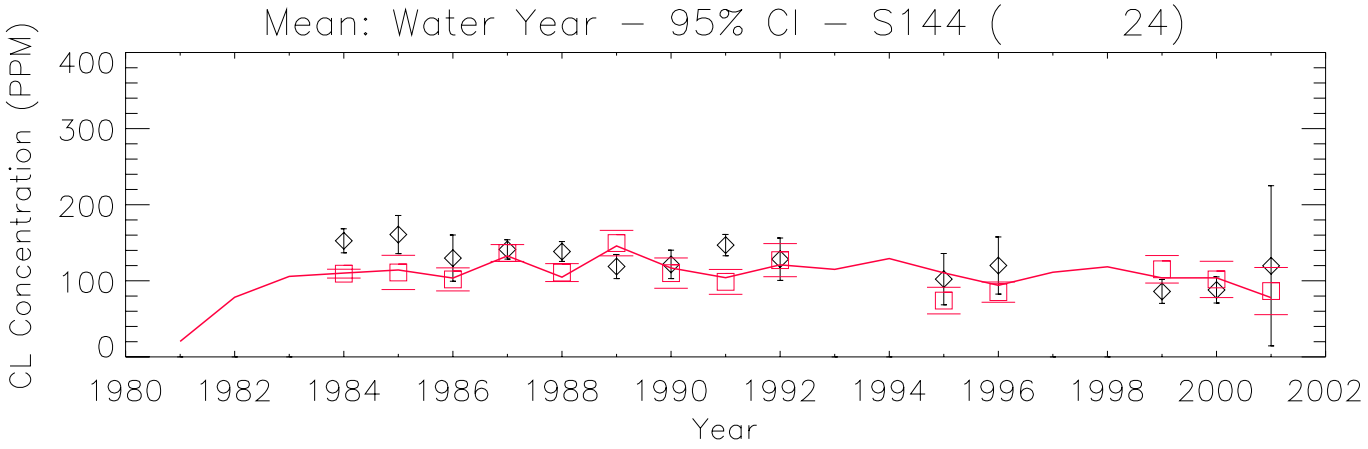
2002
Year


Mean: Water Year – 95% CI – S144 (24)
CL Concentration (PPM)
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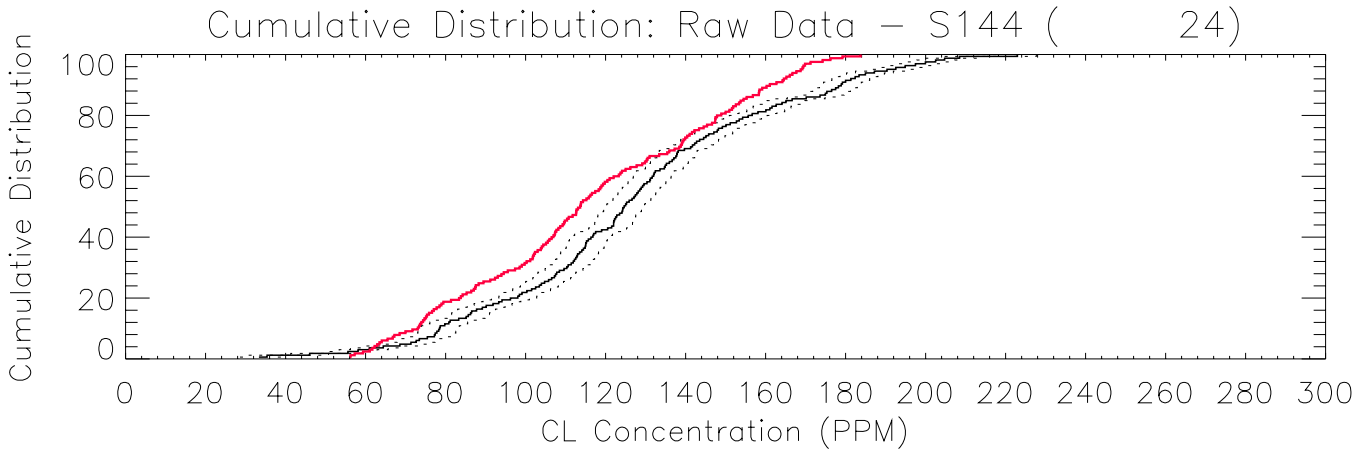
2002
Year


Cumulative Distribution: Raw Data – S144 (24)
Cumulative Distribution
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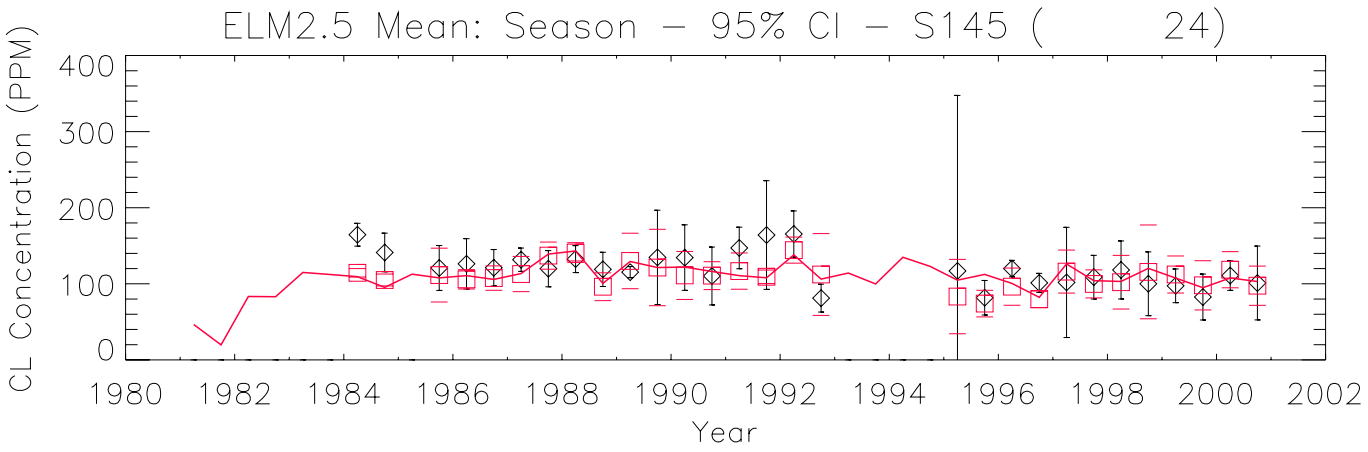
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S145 (24)
CL Concentration (PPM)
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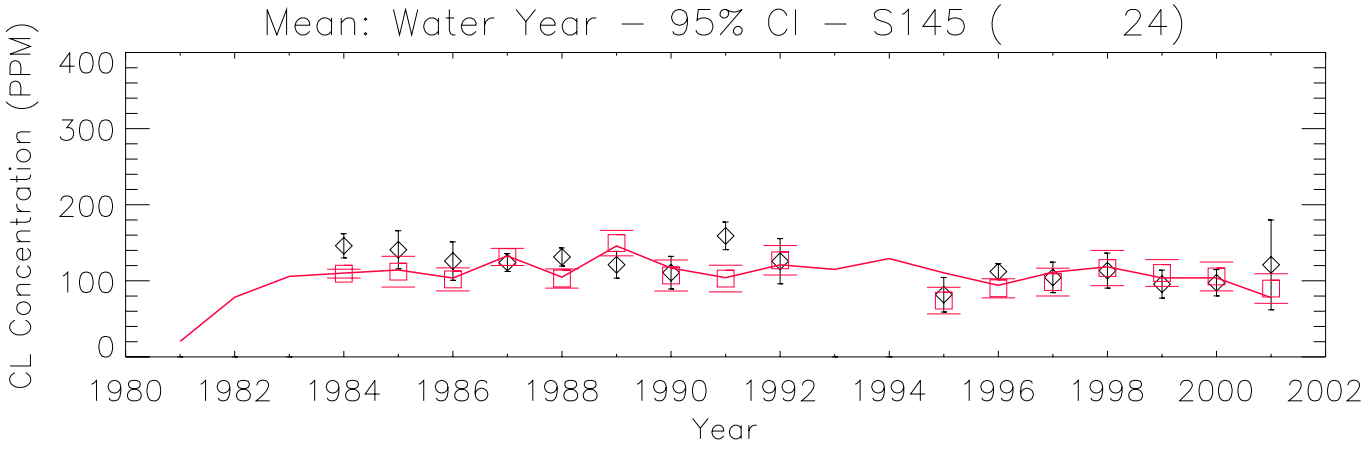
2002
Year


Mean: Water Year – 95% CI – S145 (24)
CL Concentration (PPM)
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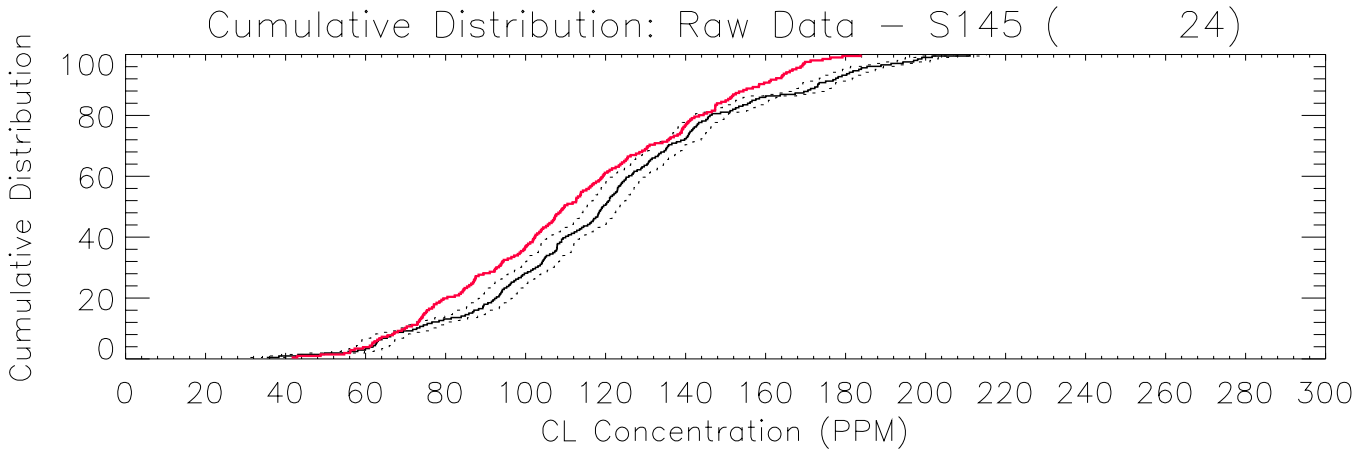
2002
Year


Cumulative Distribution: Raw Data – S145 (24)
Cumulative Distribution
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60
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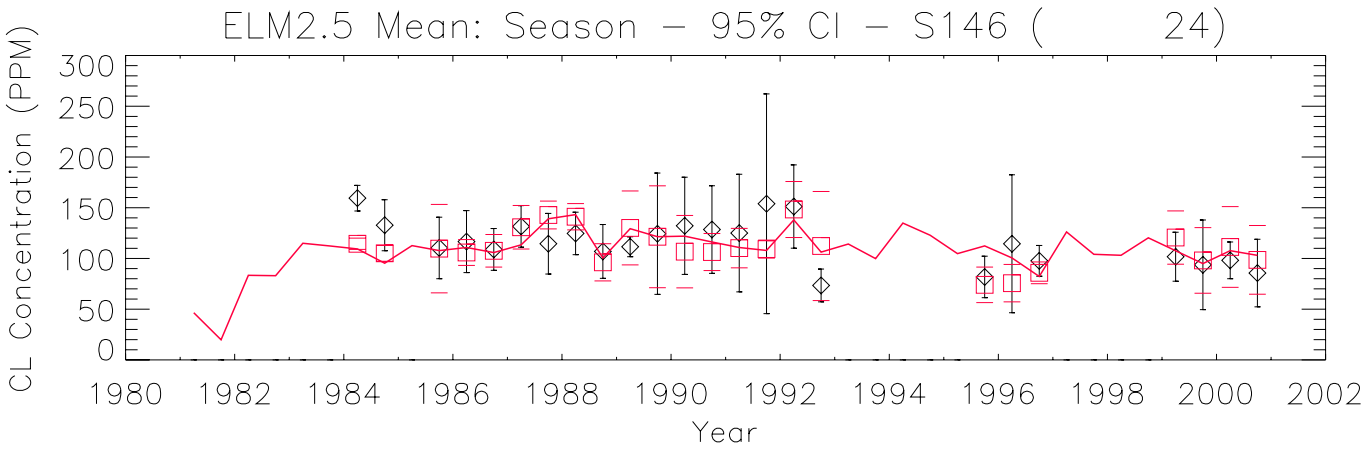
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S146 (24)
CL Concentration (PPM)
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0
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1982
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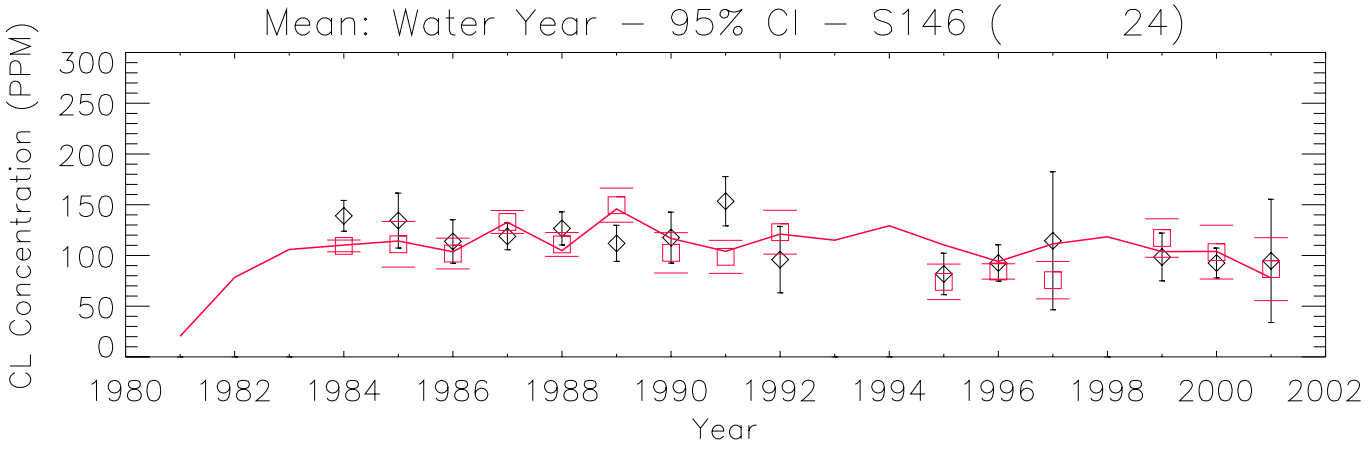
2002
Year


Mean: Water Year – 95% CI – S146 (24)
CL Concentration (PPM)
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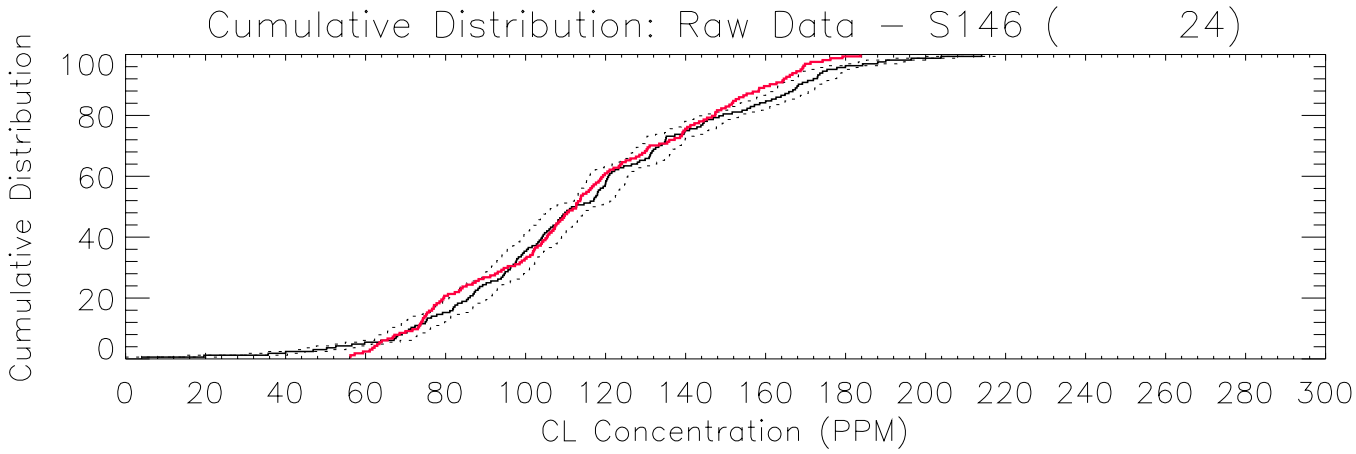
2002
Year


Cumulative Distribution: Raw Data – S146 (24)
Cumulative Distribution
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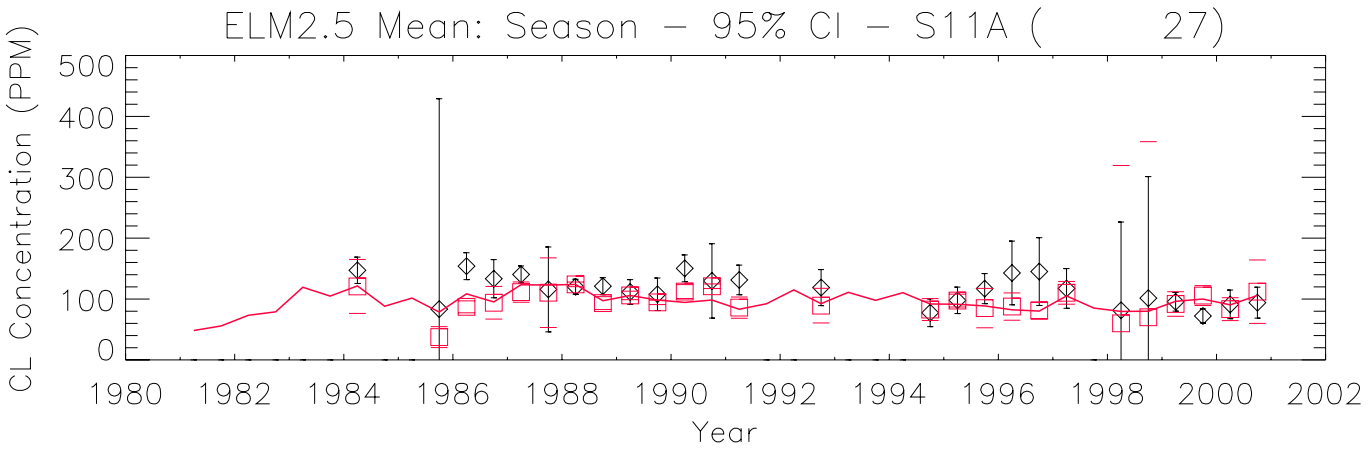
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S11A (27)
CL Concentration (PPM)
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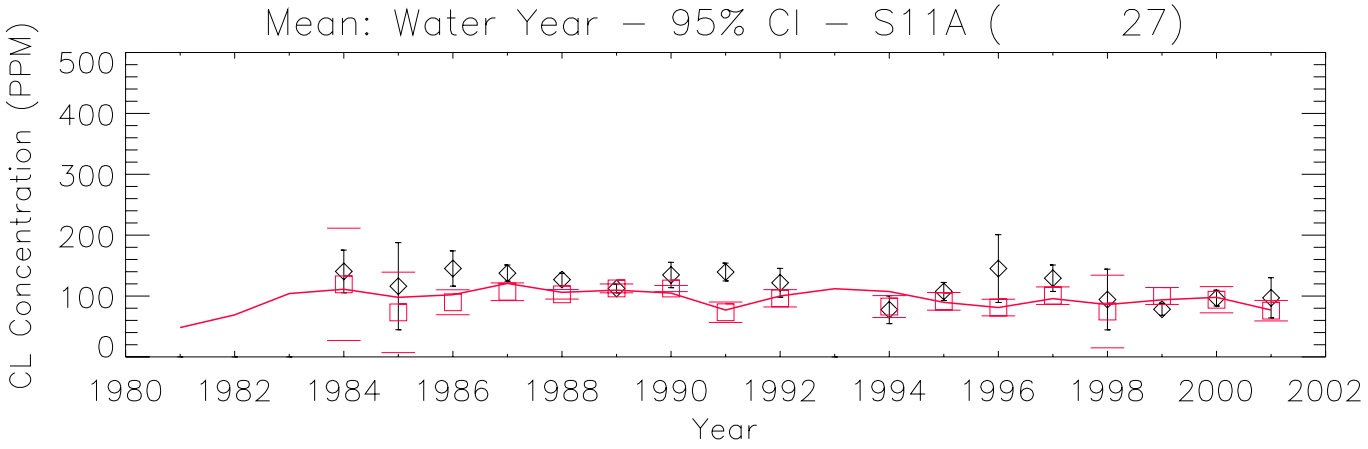
300
400
500
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S11A (27)
CL Concentration (PPM)
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300
400
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1980
1982
1984
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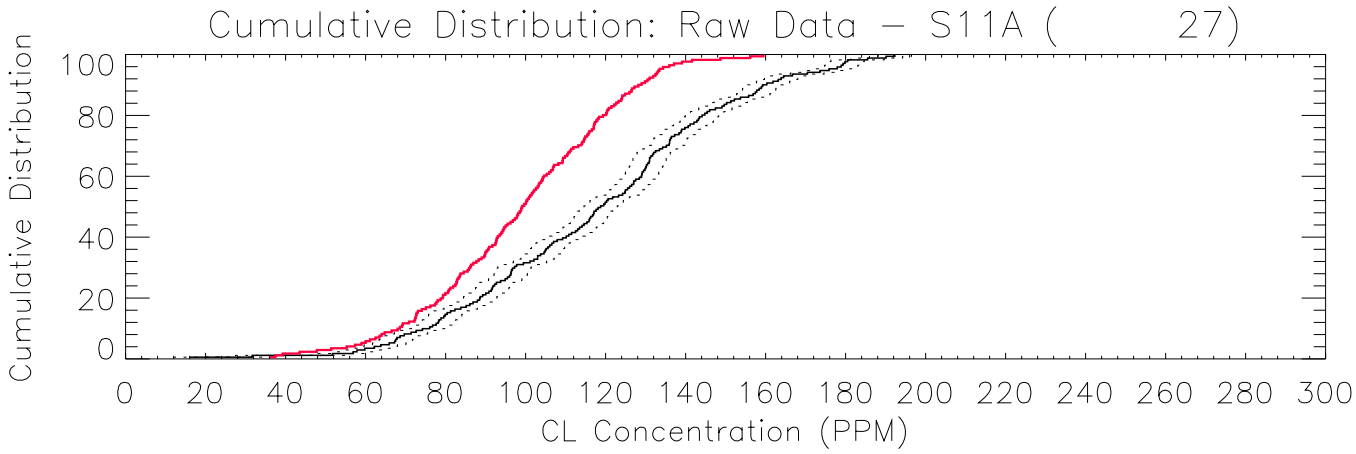
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S11A (27)
Cumulative Distribution
0
20
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60
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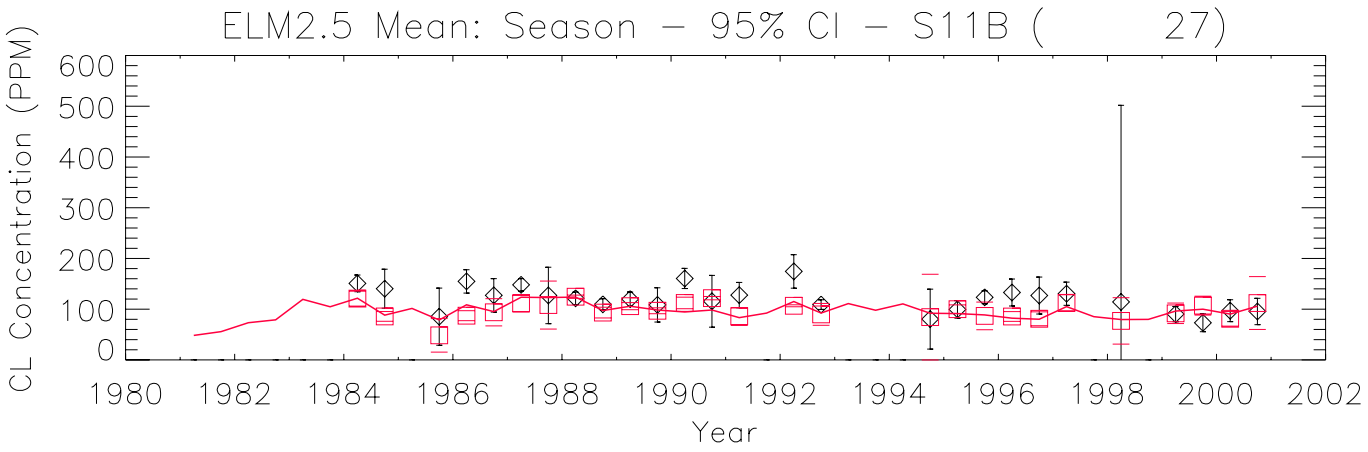
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S11B (27)
CL Concentration (PPM)
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1982
1984
1986
1988
1990
1992
1994
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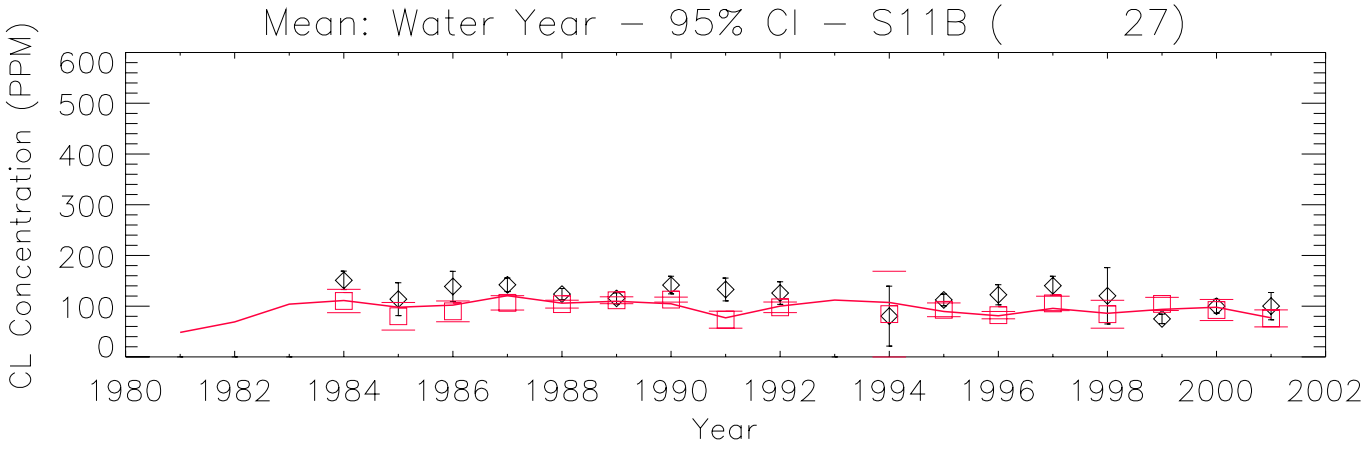
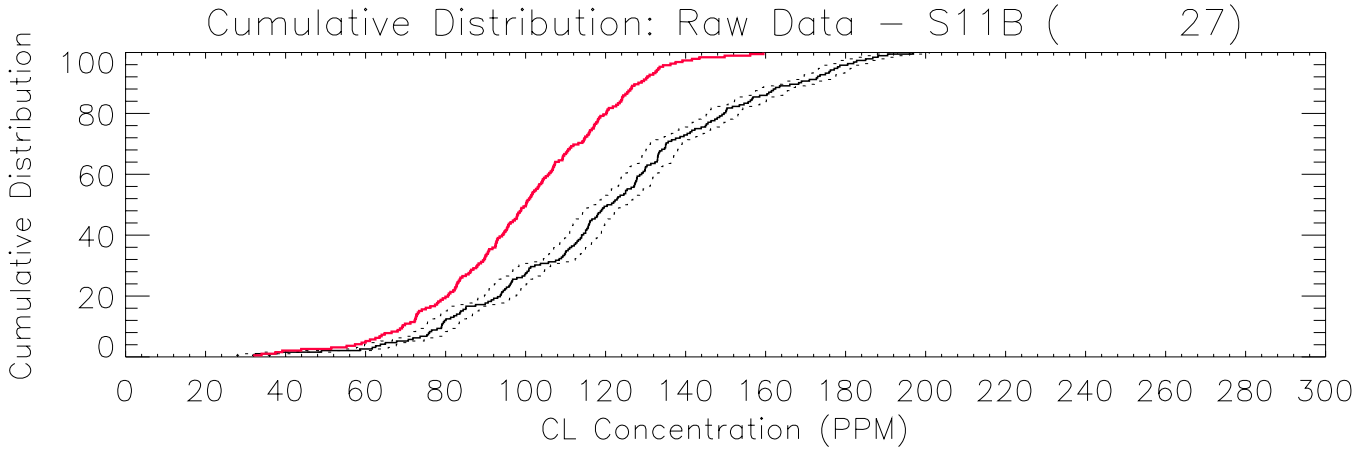
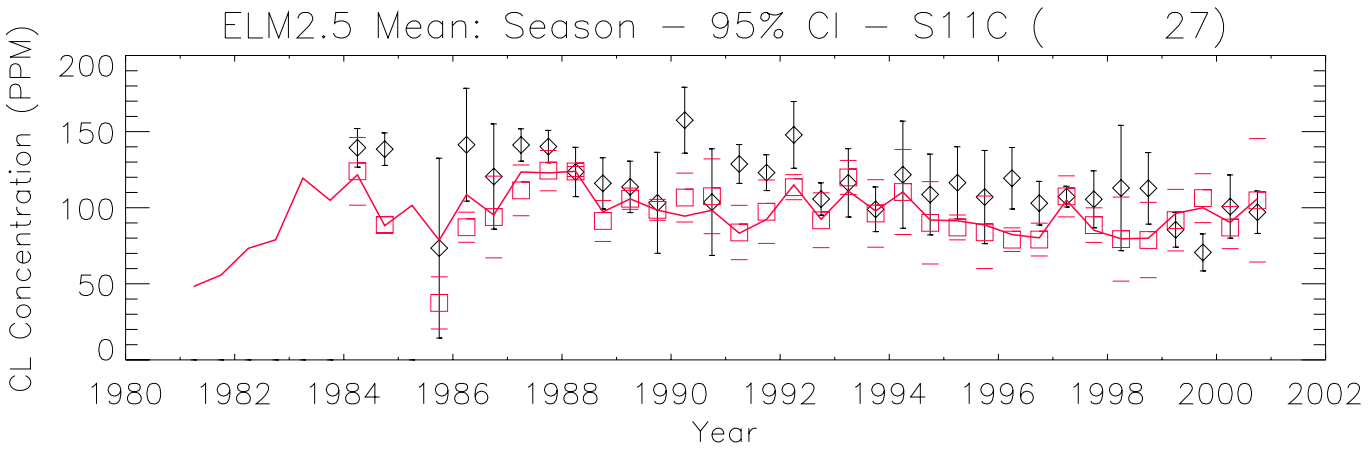
1998
2000
2002
Year


Mean: Water Year – 95% CI – S11B (27)
CL Concentration (PPM)
600
500
400
300
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S11B (27)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S11C (27)
CL Concentration (PPM)
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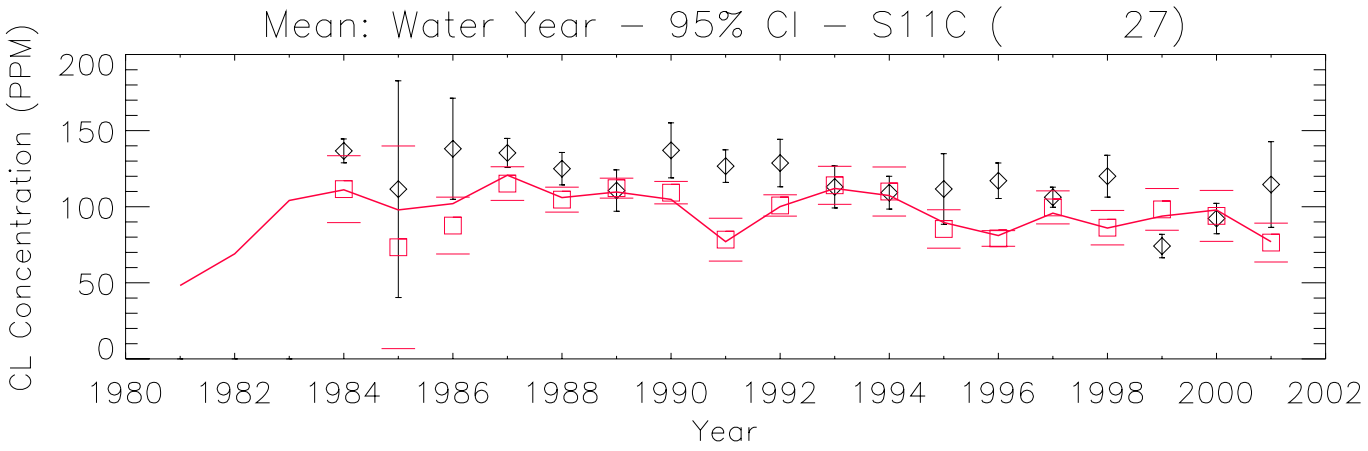
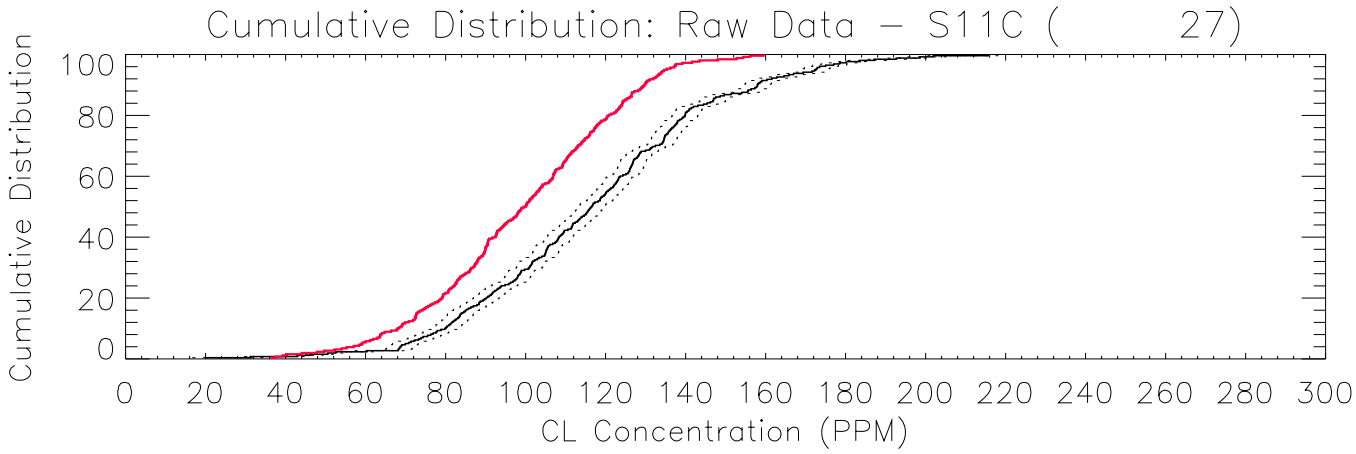
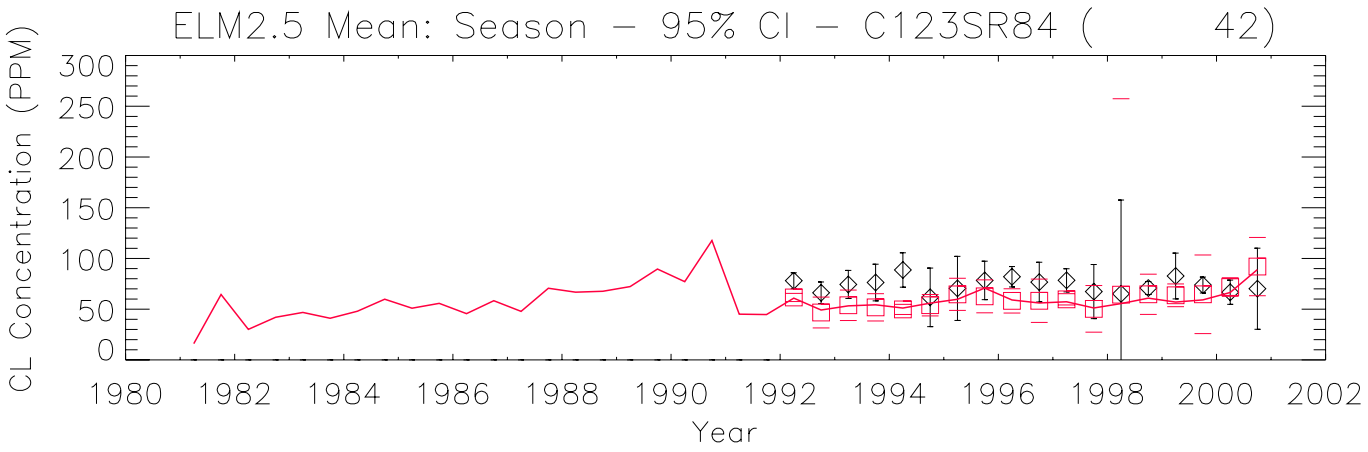
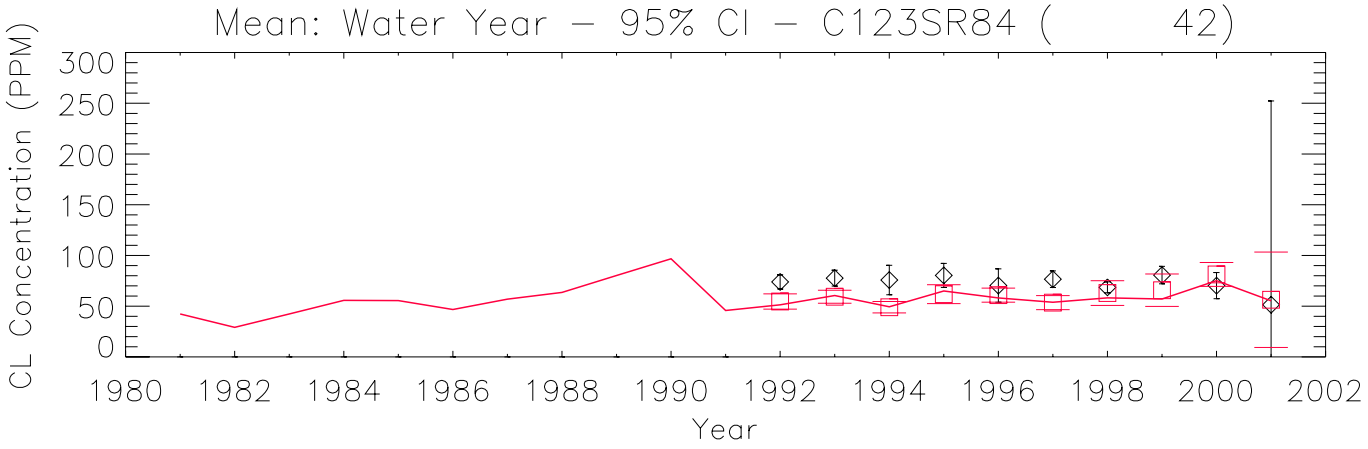
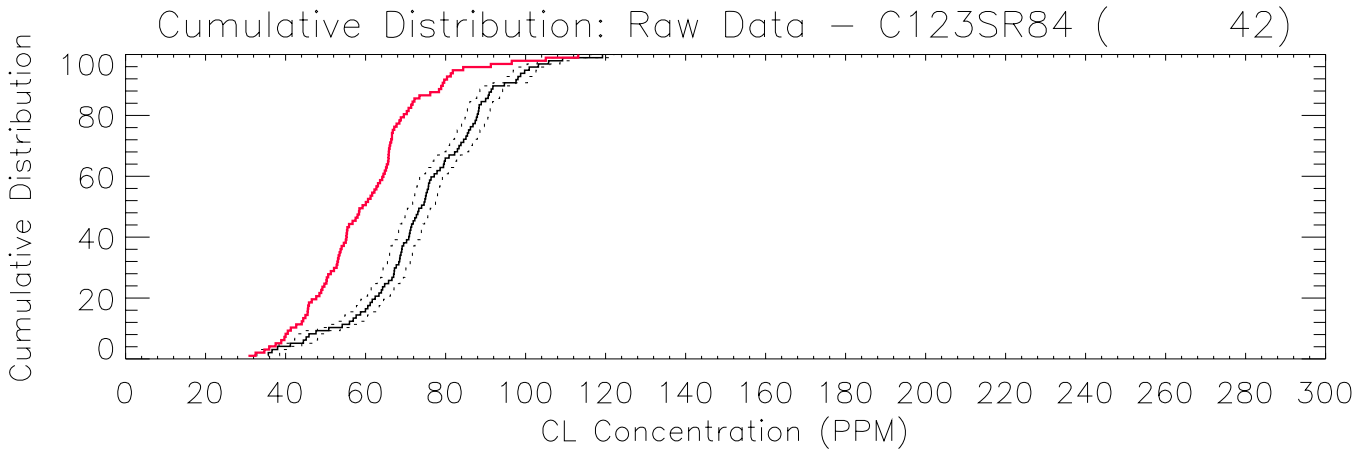
50
100
150
200
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

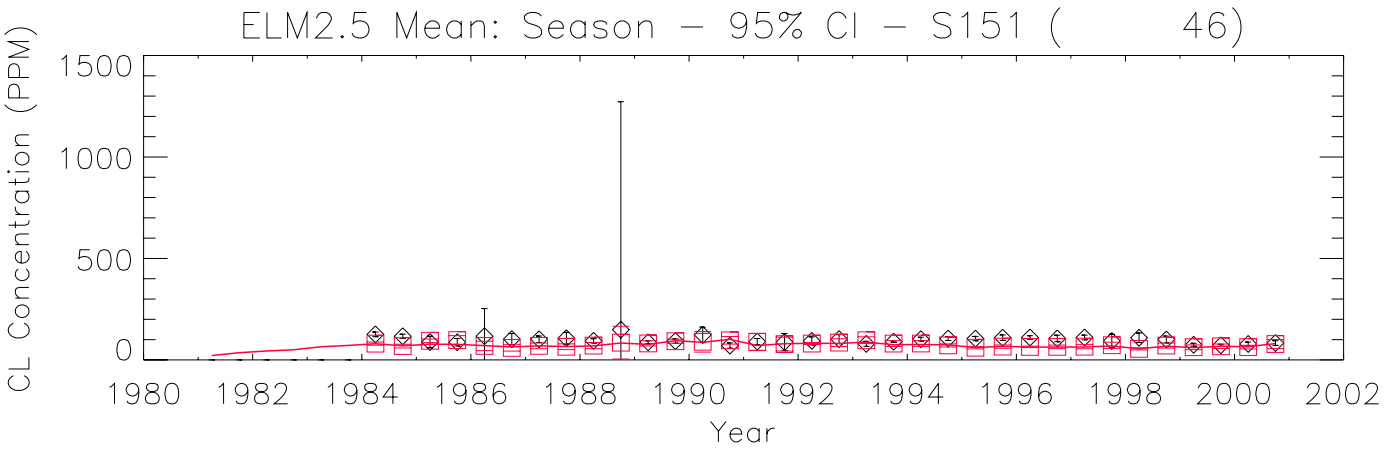

Mean: Water Year – 95% CI – S11C (27)
CL Concentration (PPM)
0
50
100
150
200
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year

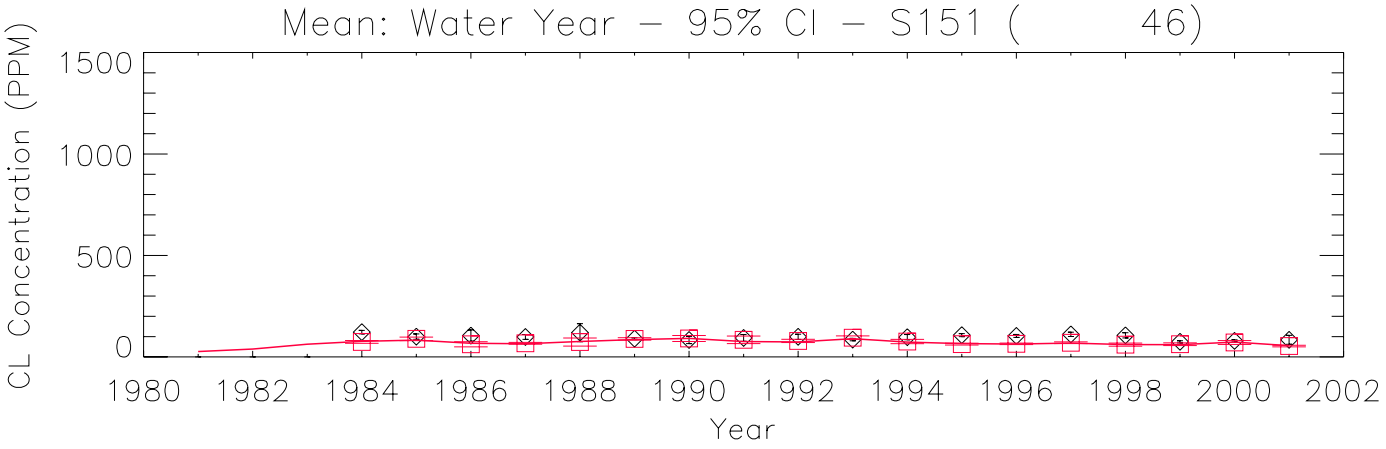

Cumulative Distribution: Raw Data – S11C (27)
Cumulative Distribution
0
20
40
60
80
100
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)

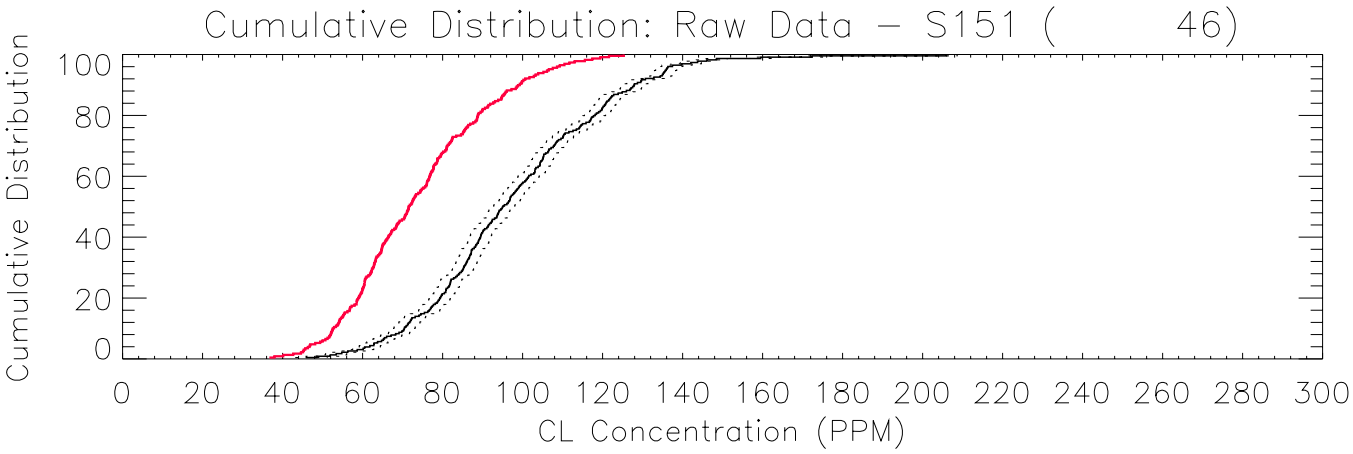

ELM2.5 Mean: Season – 95% CI – C123SR84 (42)
CL Concentration (PPM)
300
250
200
150
100
50
0
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

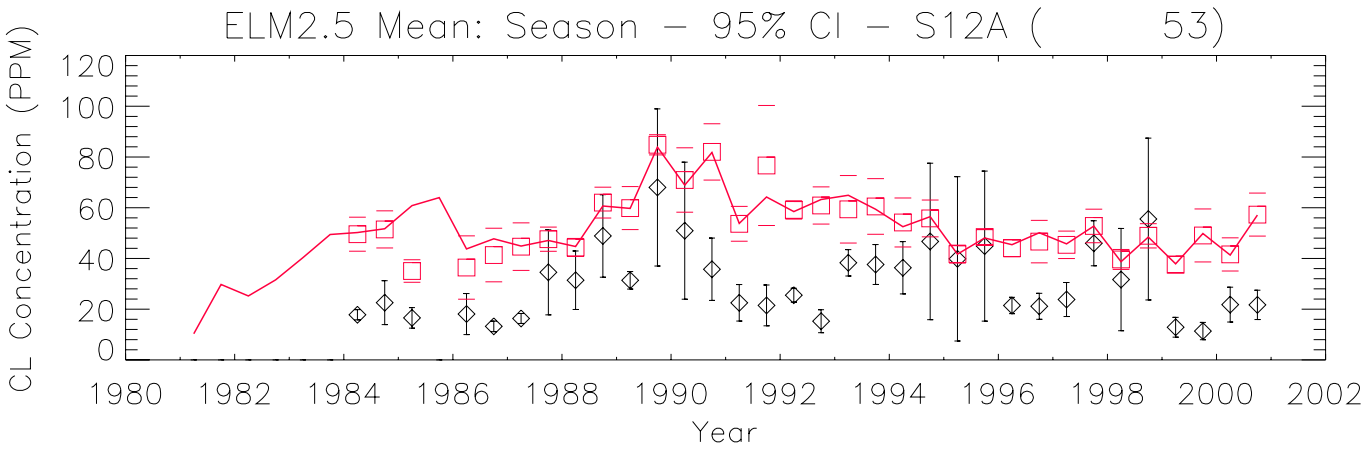

Mean: Water Year – 95% CI – C123SR84 (42)
CL Concentration (PPM)
300
250
200
150
100
50
0
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002
Year

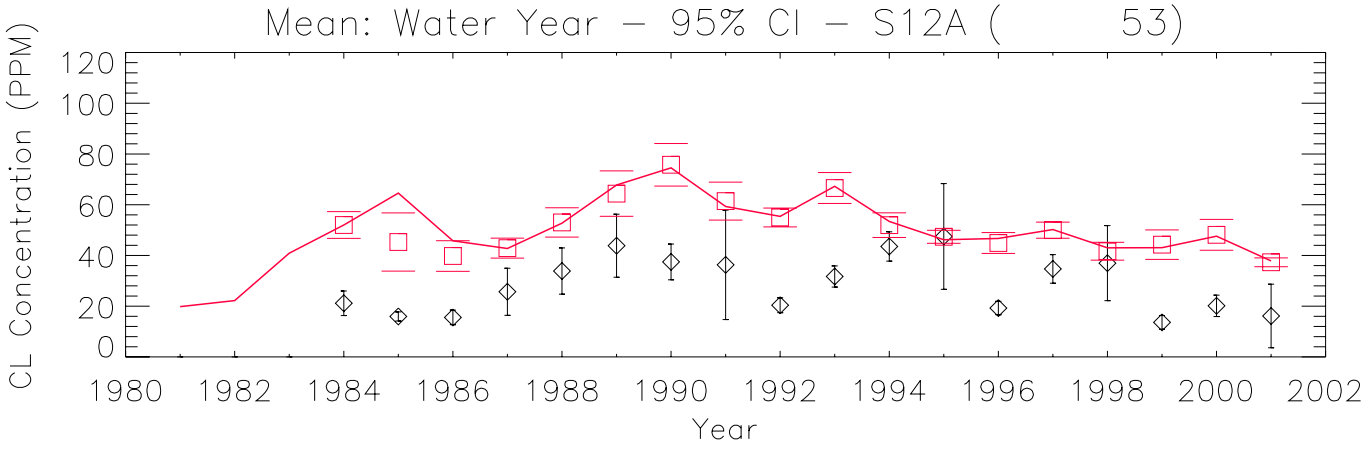

Cumulative Distribution: Raw Data – C123SR84 (42)
Cumulative Distribution
100
80
60
40
20
0
0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S151 (46)
CL Concentration (PPM)
1500
1000
500
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S151 (46)
CL Concentration (PPM)
1500
1000
500
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S151 (46)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S12A (53)
CL Concentration (PPM)
120
100
80
60
40
20
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S12A (53)
CL Concentration (PPM)
120
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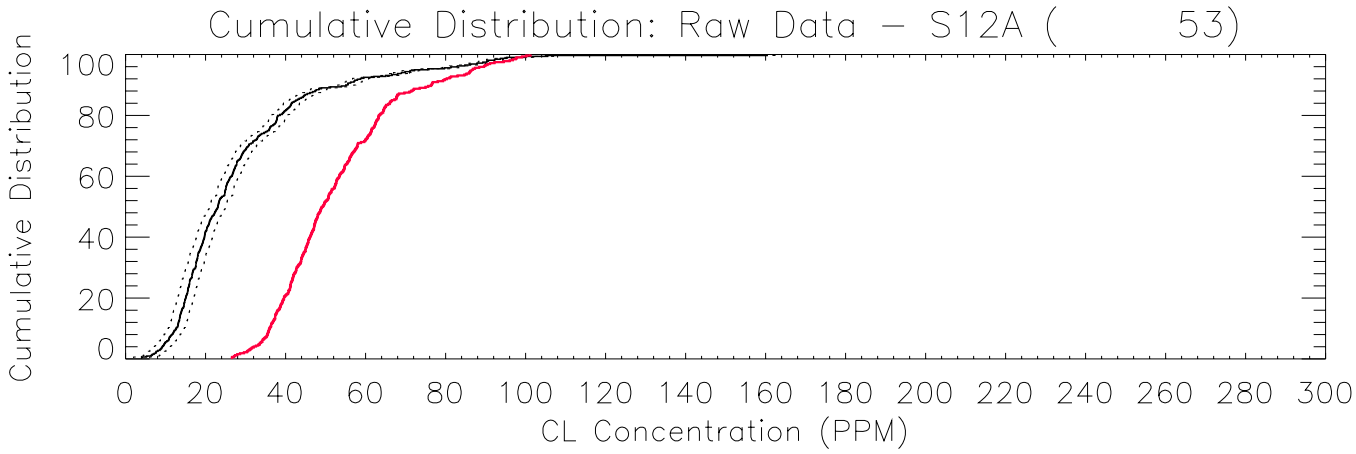
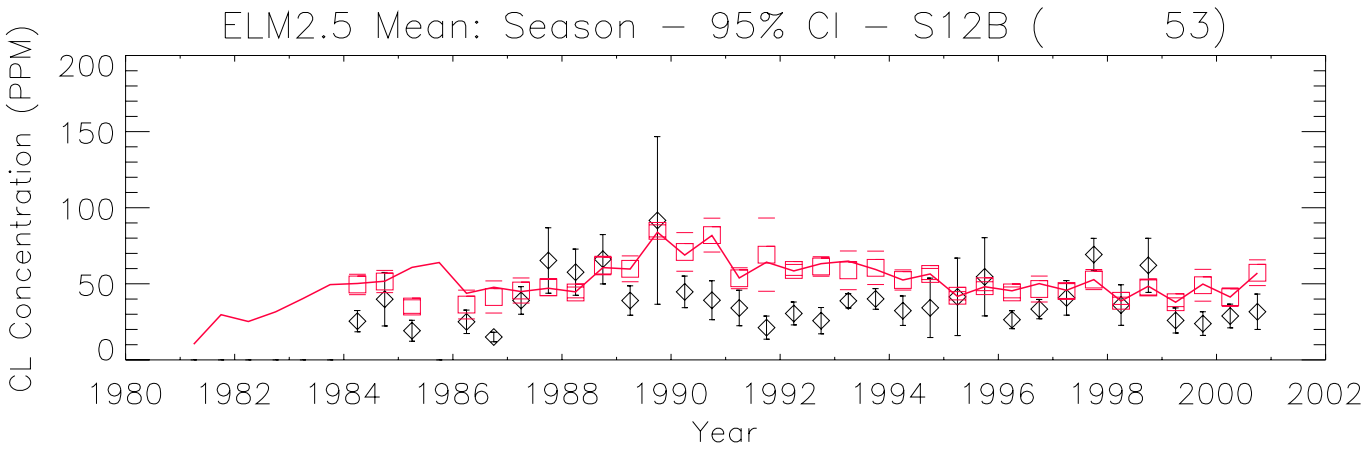
60
40
20
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S12A (53)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S12B (53)
CL Concentration (PPM)
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100
50
0
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1982
1984
1986
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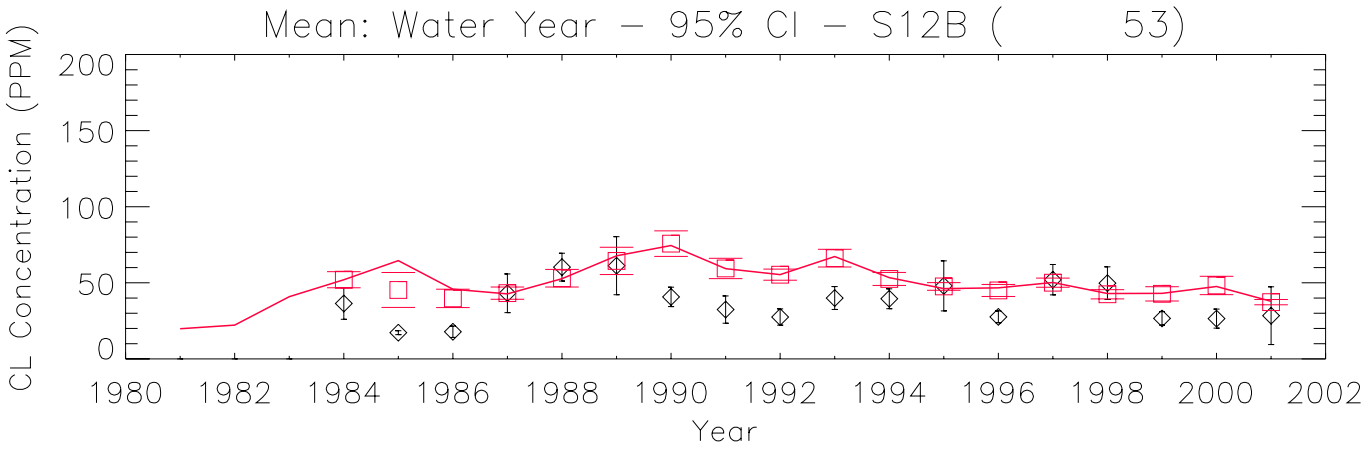
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S12B (53)
CL Concentration (PPM)
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100
50
0
1980
1982
1984
1986
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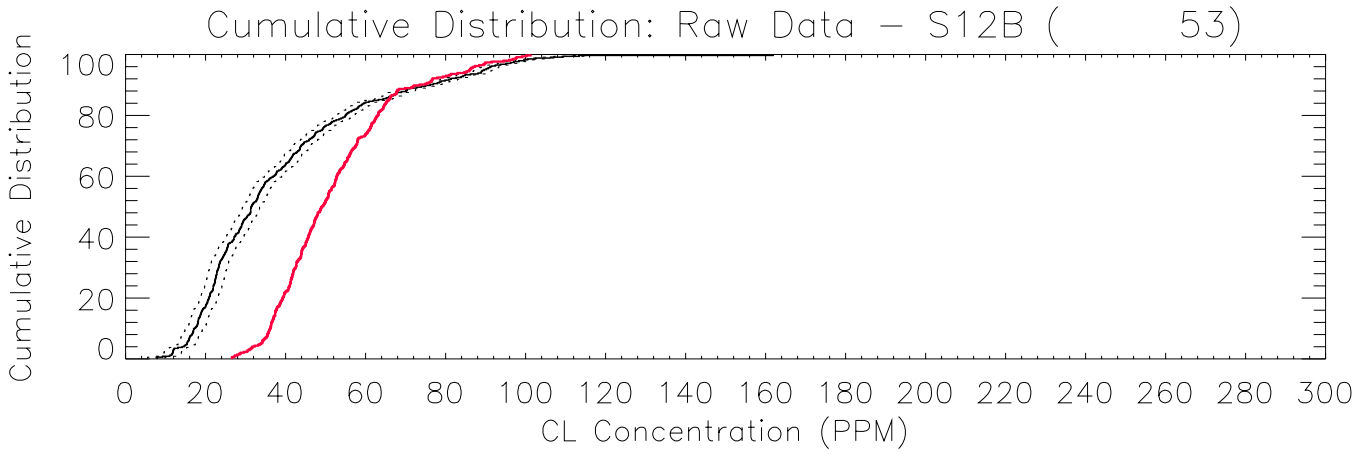
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S12B (53)
Cumulative Distribution
100
80
60
40
20
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0
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60
80
100
120
140
160
180
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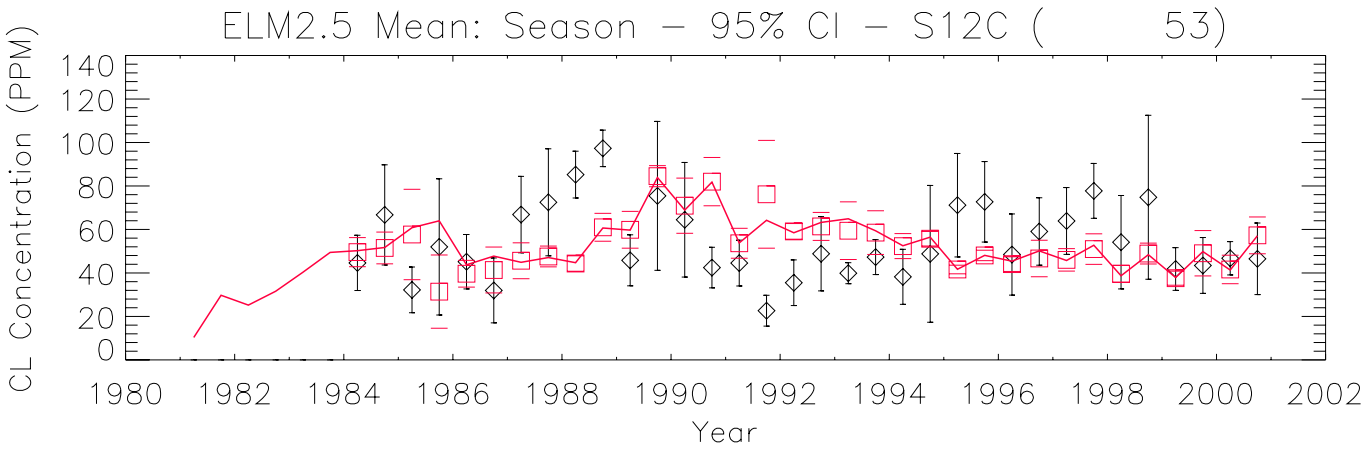
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S12C (53)
CL Concentration (PPM)
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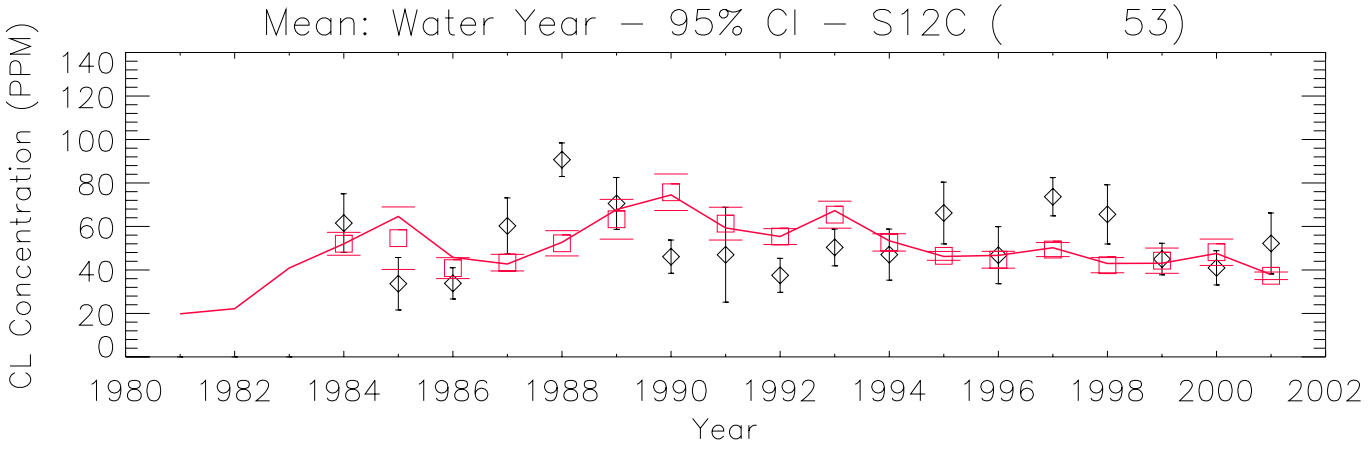
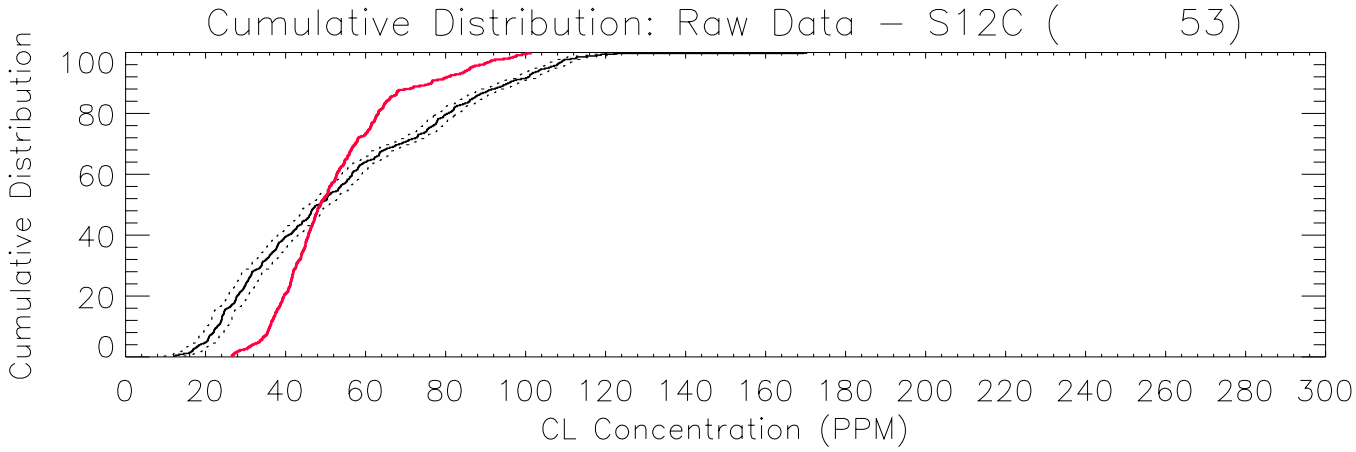
100
120
140
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S12C (53)
CL Concentration (PPM)
0
20
40
60
80
100
120
140
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S12C (53)
Cumulative Distribution
0
20
40
60
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20
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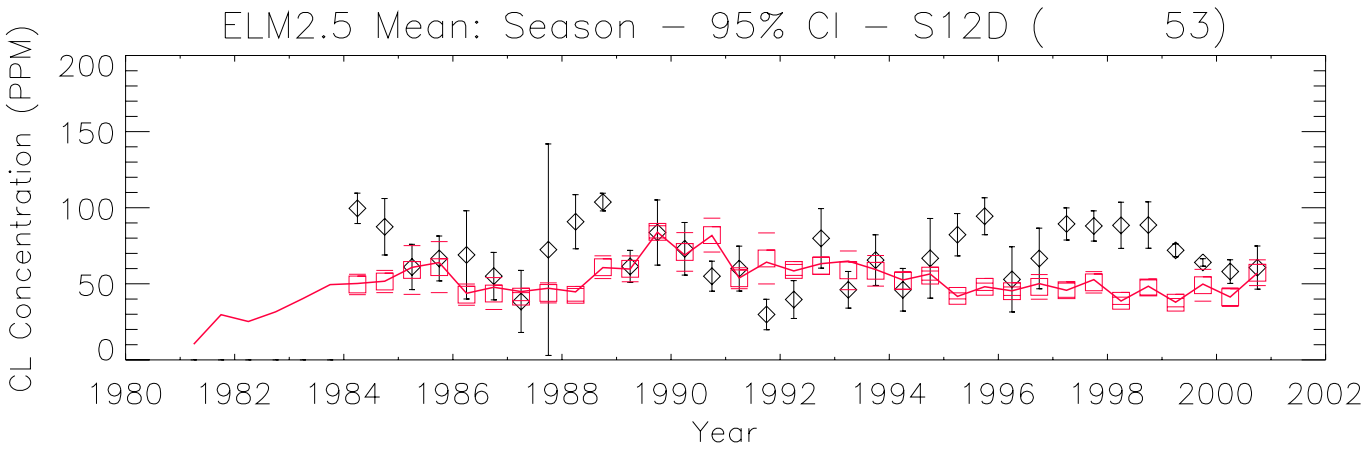
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S12D (53)
CL Concentration (PPM)
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100
50
0
1980
1982
1984
1986
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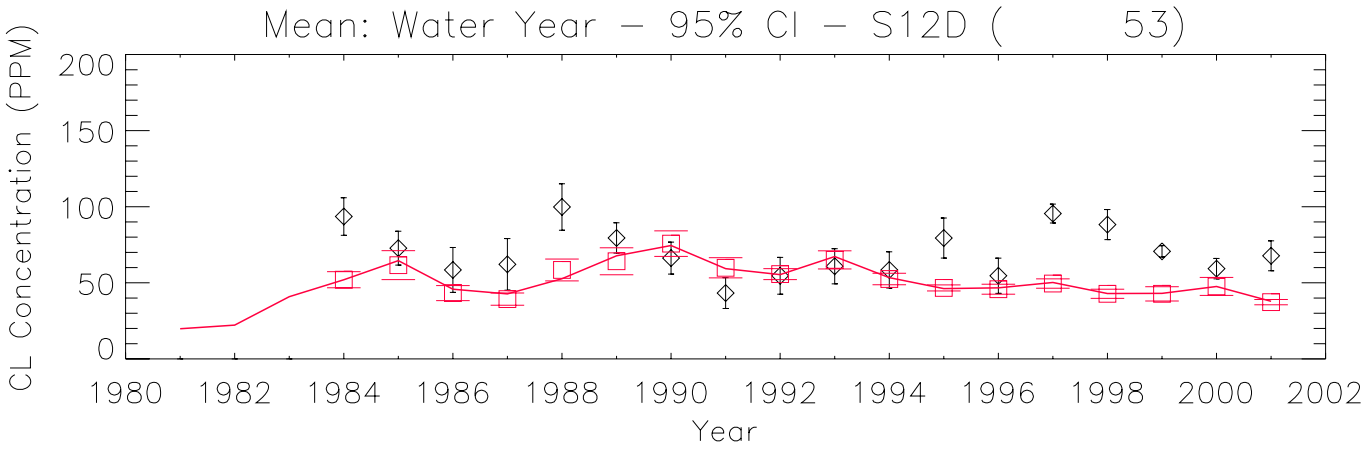
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S12D (53)
CL Concentration (PPM)
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100
50
0
1980
1982
1984
1986
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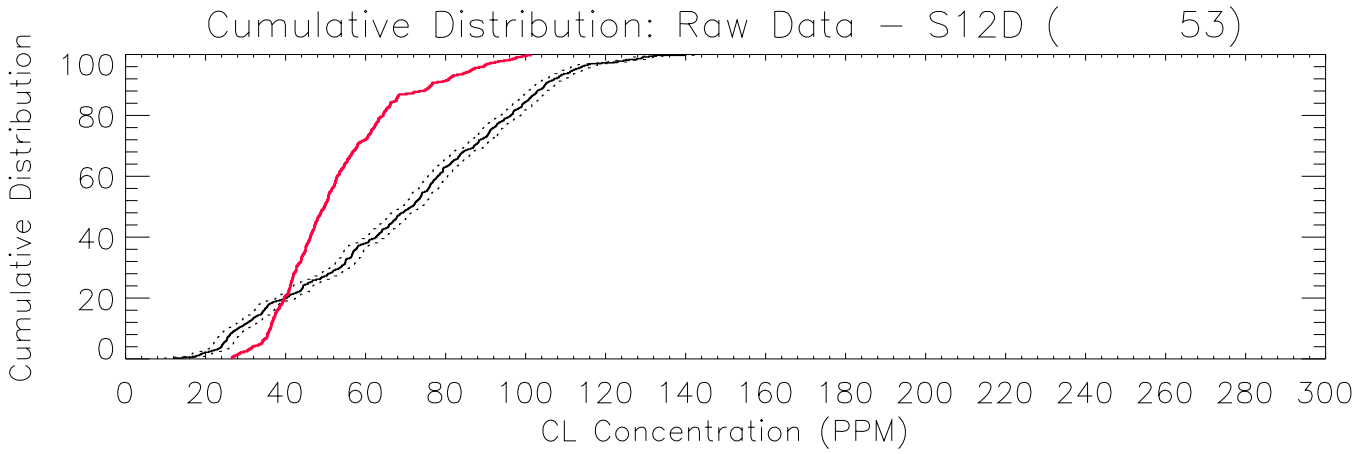
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S12D (53)
Cumulative Distribution
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80
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40
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140
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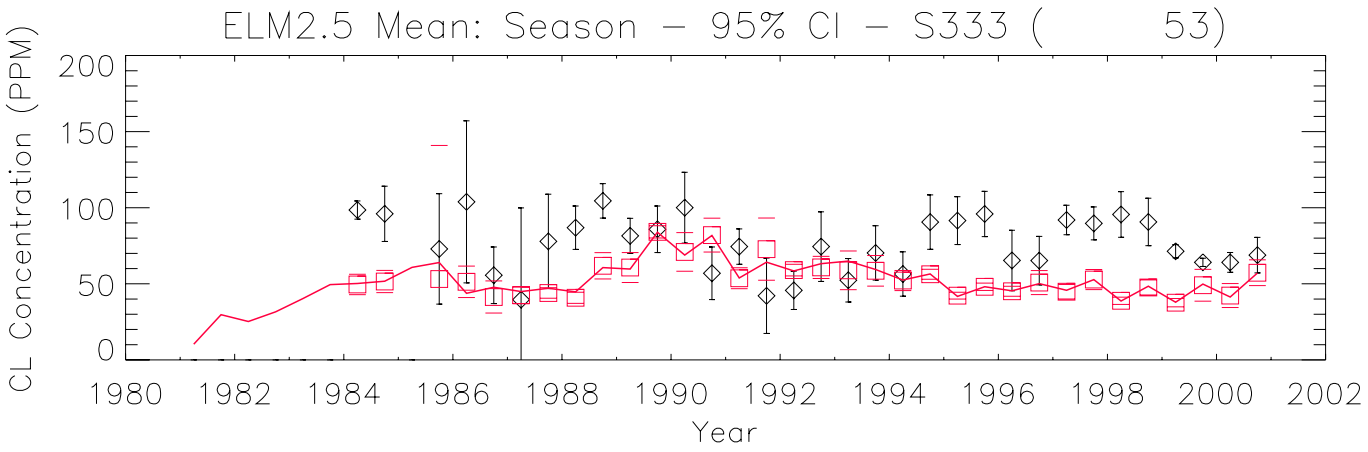
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S333 (53)
CL Concentration (PPM)
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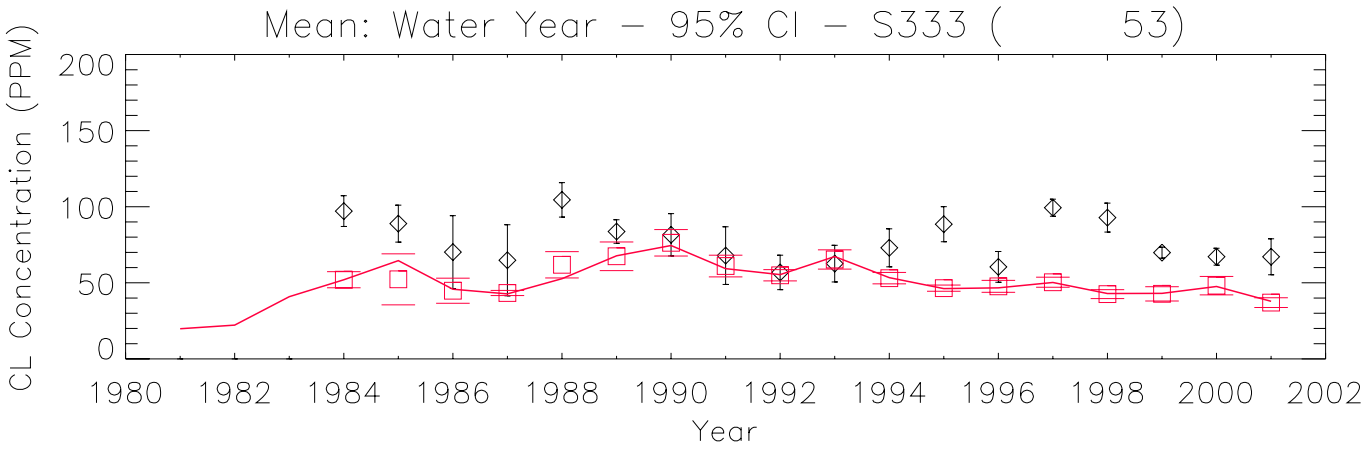
100
50
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S333 (53)
CL Concentration (PPM)
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100
50
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1980
1982
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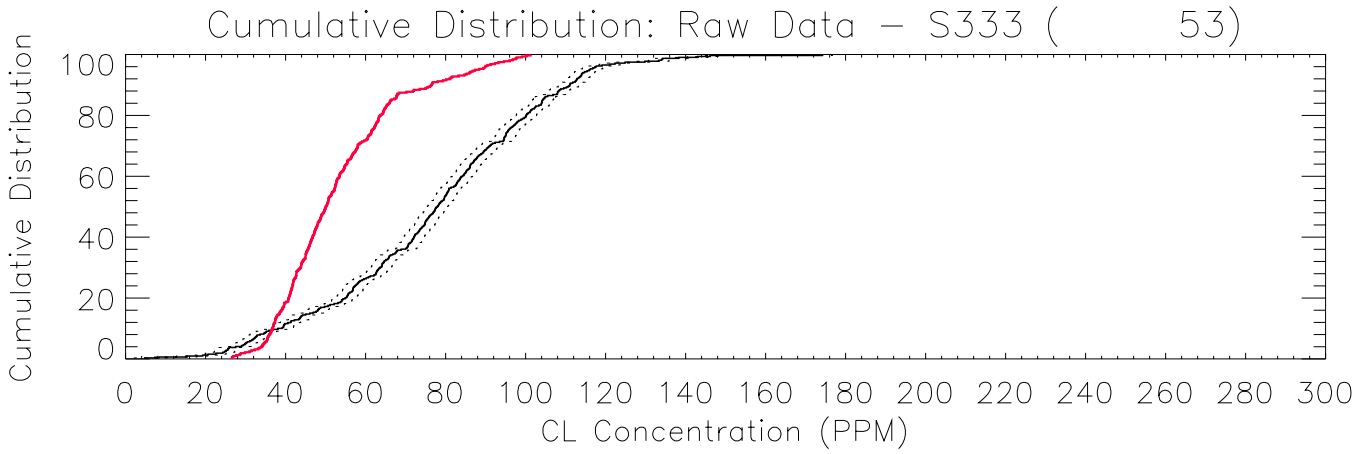
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S333 (53)
Cumulative Distribution
100
80
60
40
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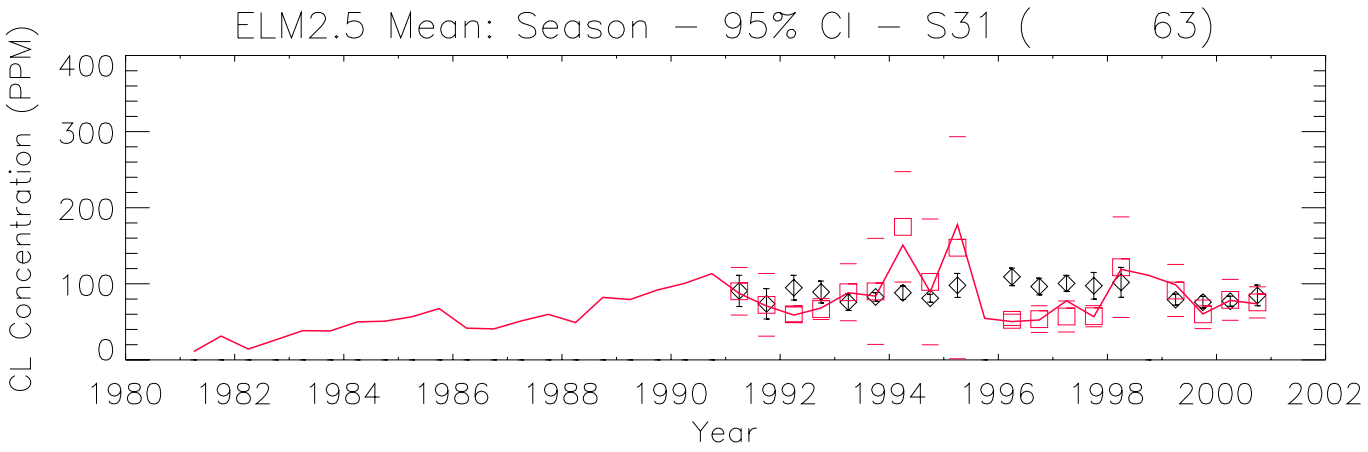
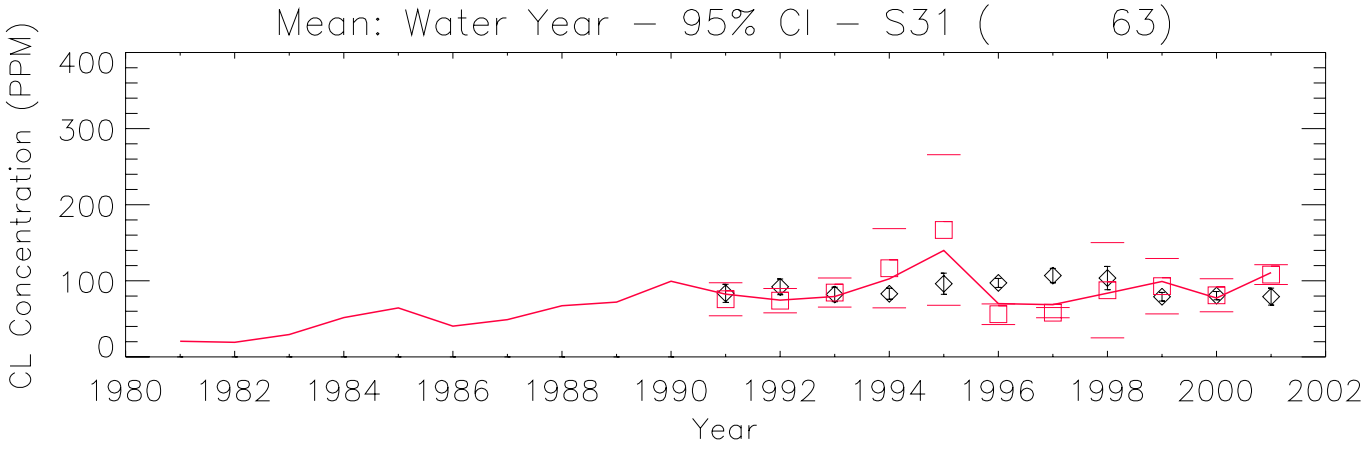
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)


ELM2.5 Mean: Season – 95% CI – S31 (63)
CL Concentration (PPM)
400
300
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Mean: Water Year – 95% CI – S31 (63)
CL Concentration (PPM)
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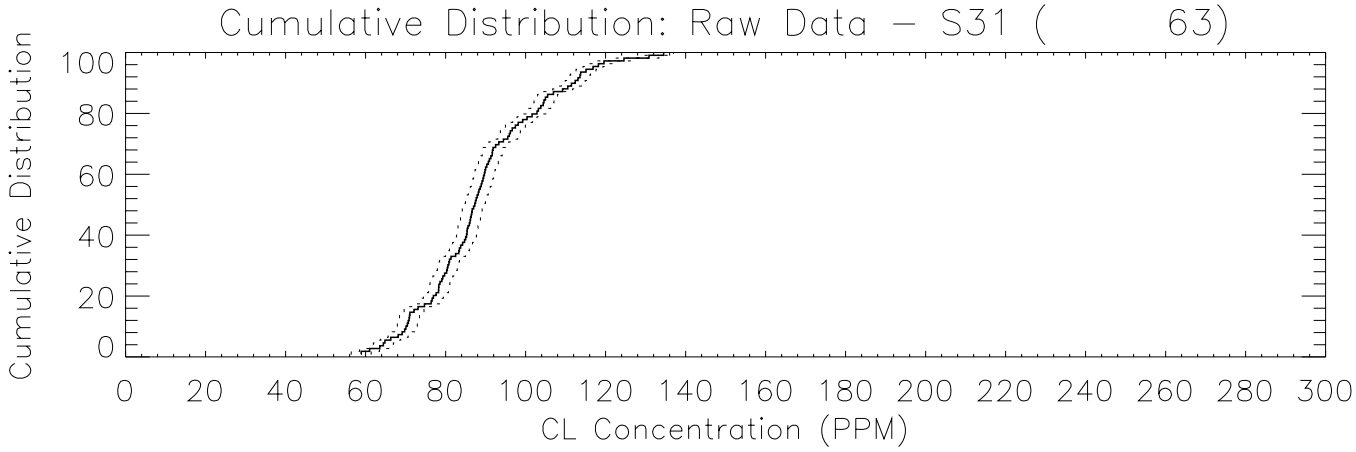
300
200
100
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
Year


Cumulative Distribution: Raw Data – S31 (63)
Cumulative Distribution
100
80
60
40
20
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
CL Concentration (PPM)