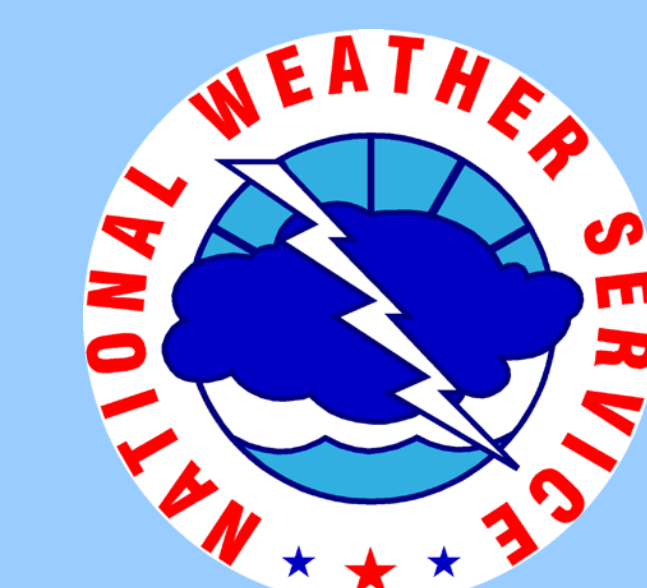


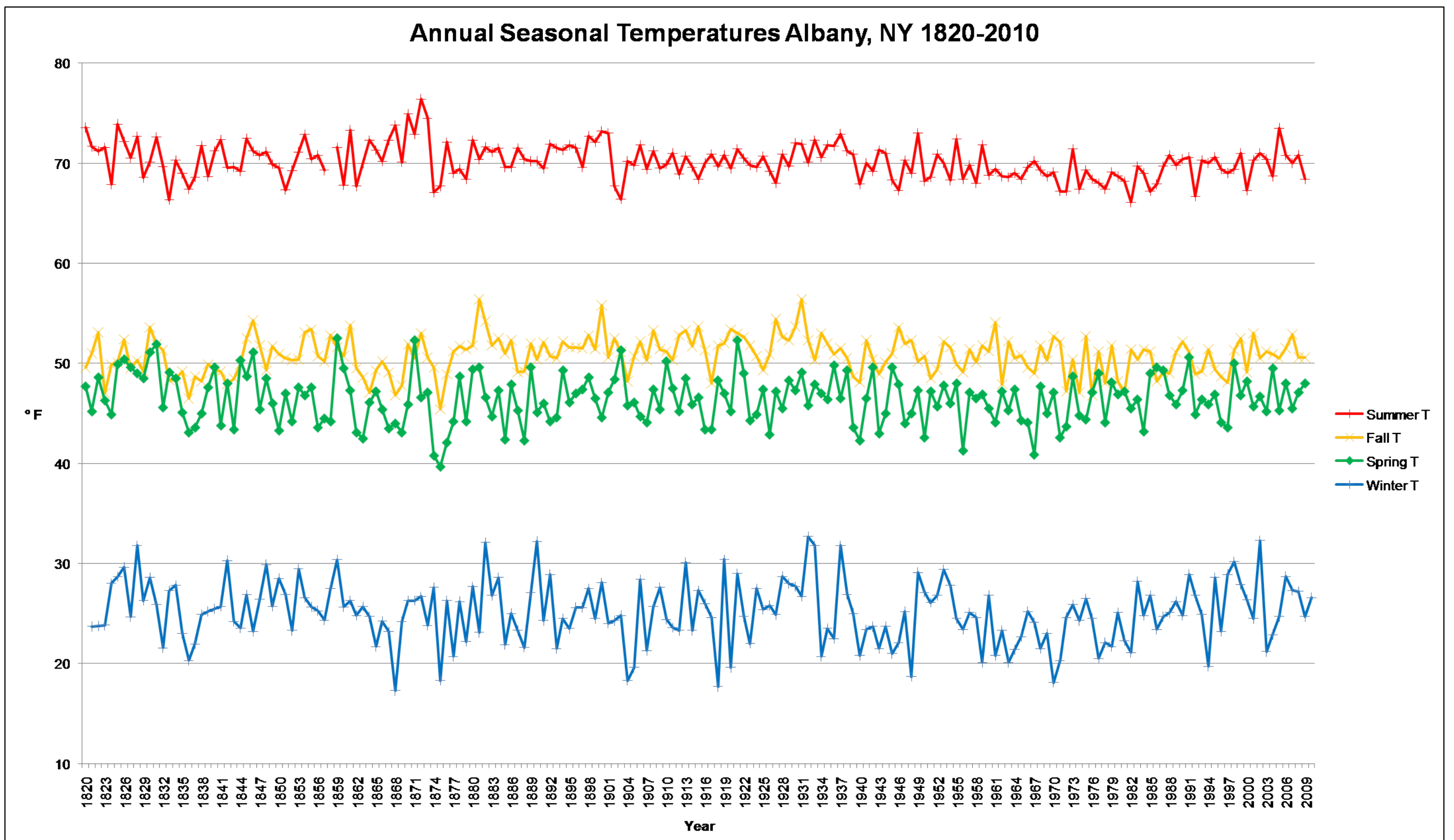
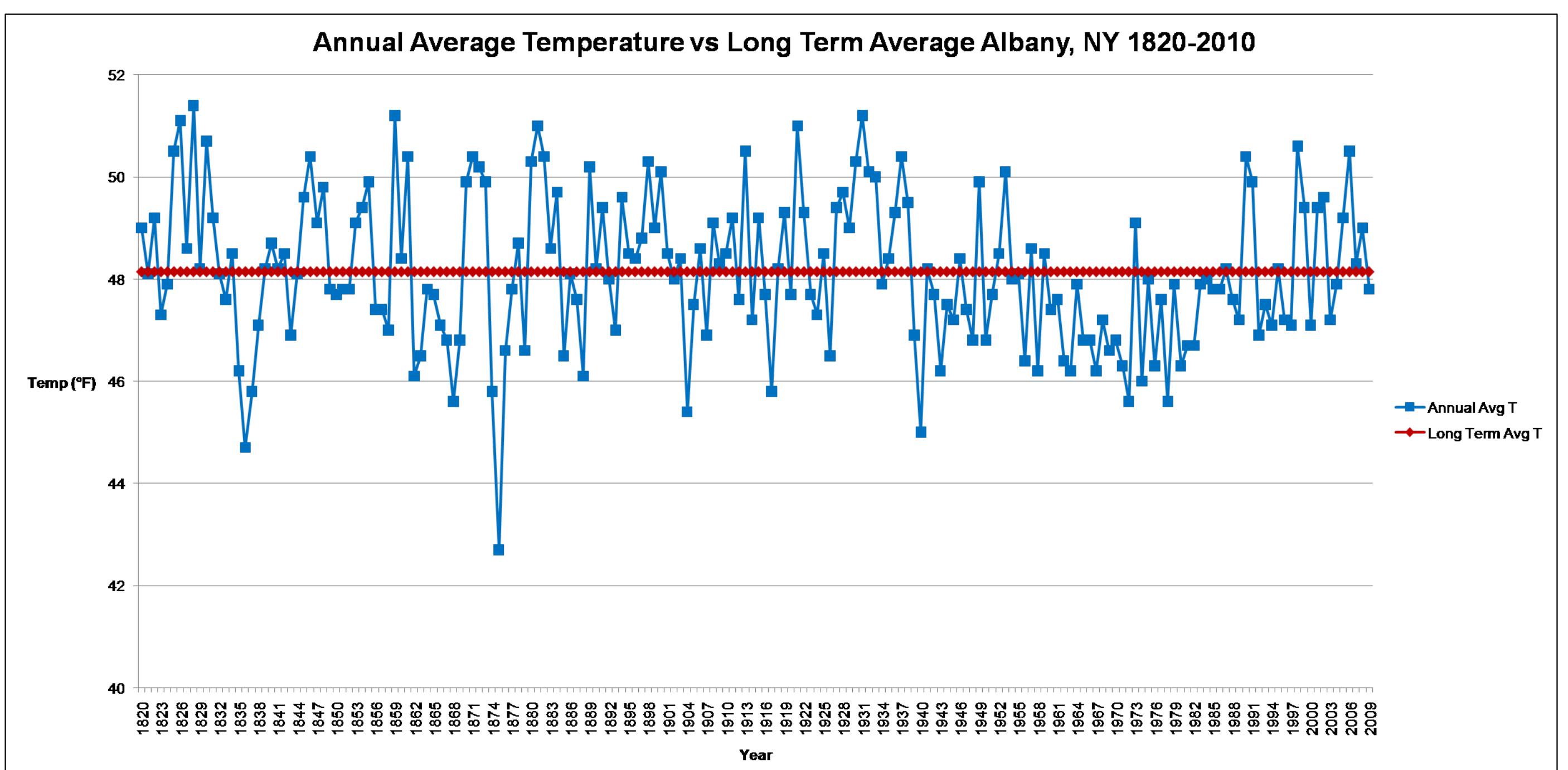
Using Long Term Climate Records to Predict Future Trends



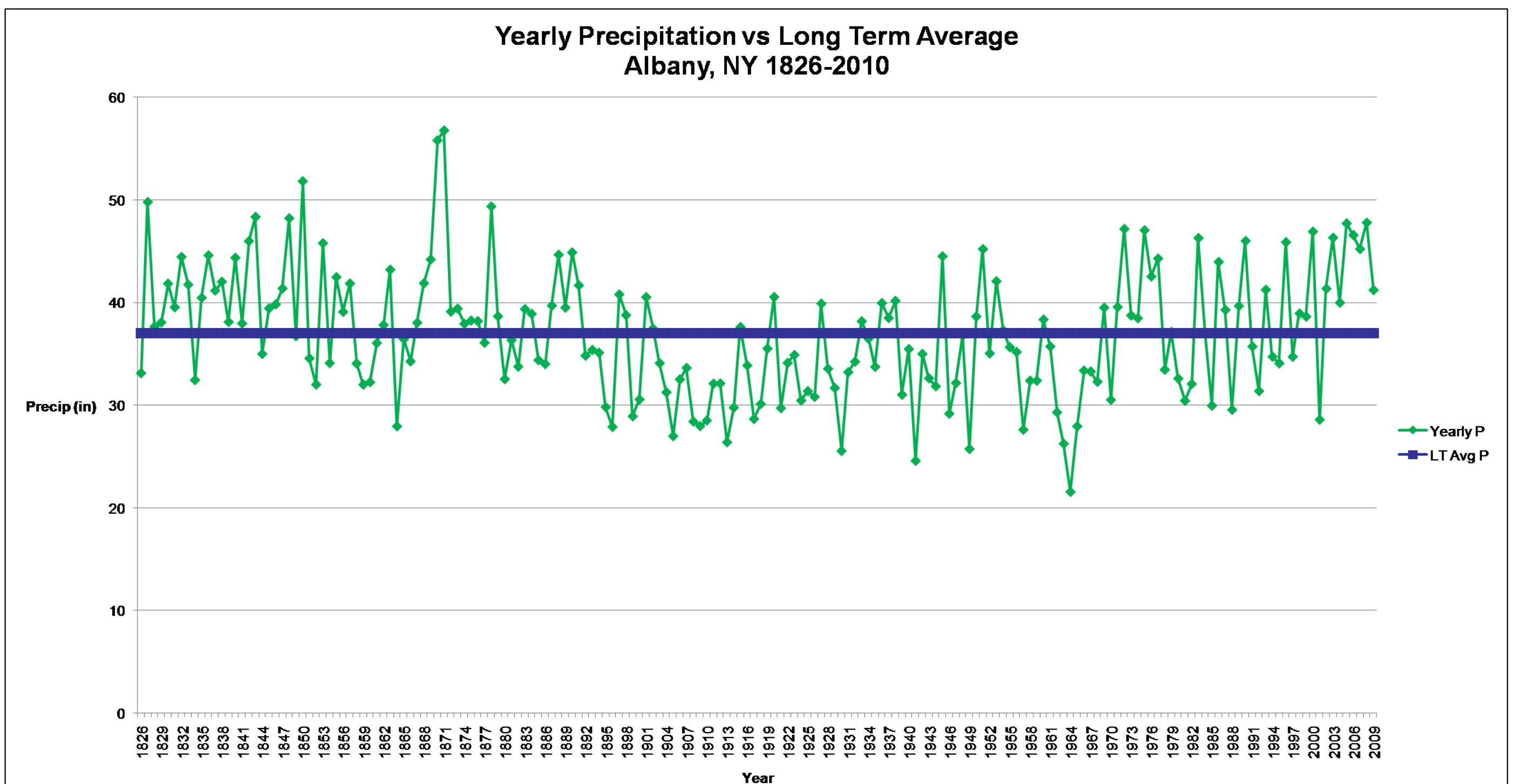
Steve DiRienzo
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Introduction: There is a relatively long record of weather observations for Albany, New York, with continuous monthly data extending back to 1820. The Albany weather record is assumed to be a good proxy for examining long term trends or cycles in the Albany Hydrologic Service Area. Weather data from the official records was entered into a spreadsheet for analysis. Charting Albany precipitation, temperature and snowfall data reveals cycles on the order of 100 years in precipitation and snowfall. In presenting these data, we will learn about past climate cycles of the area and the clues they hold about possible future trends in weather and hydrology.

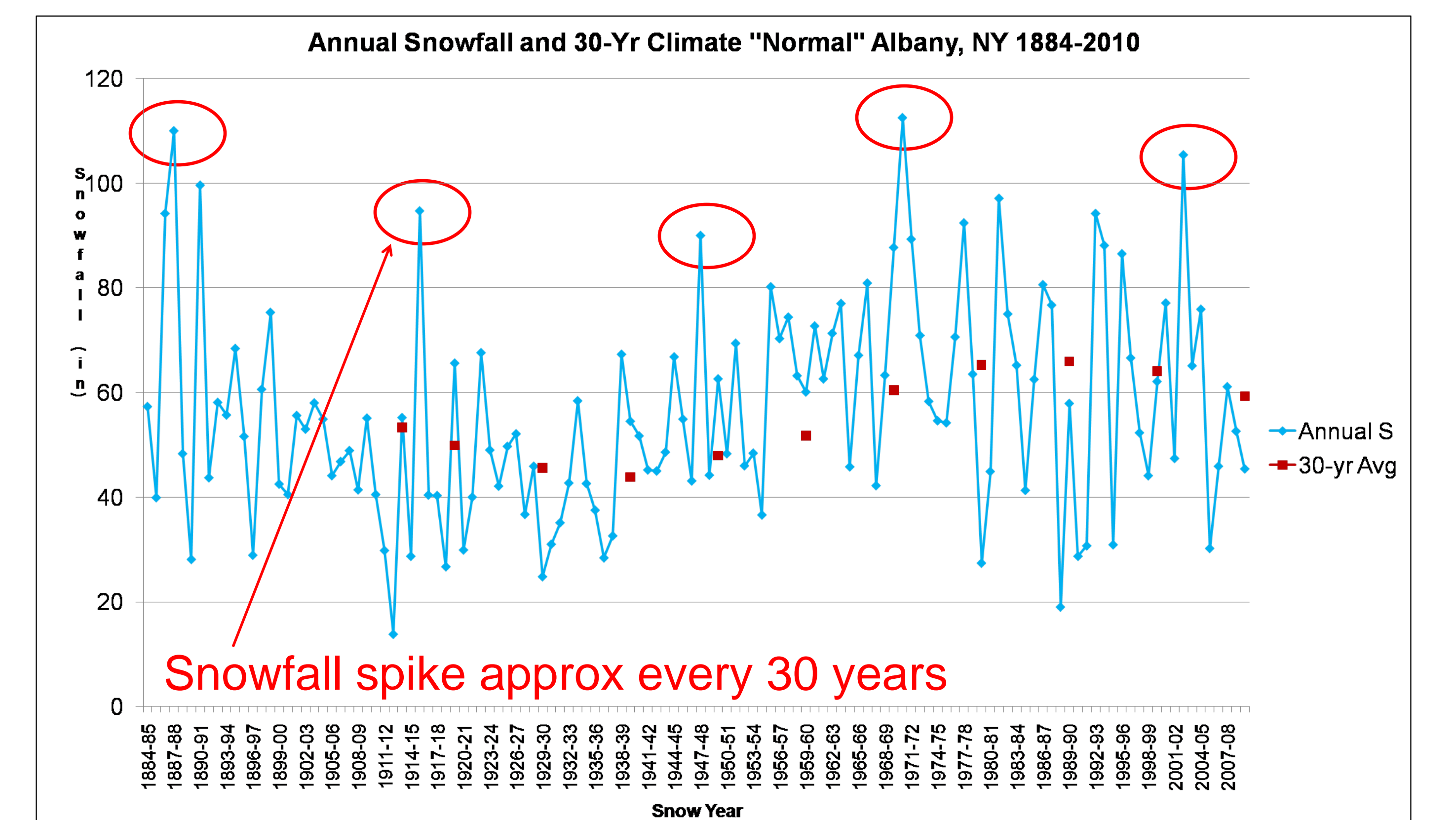
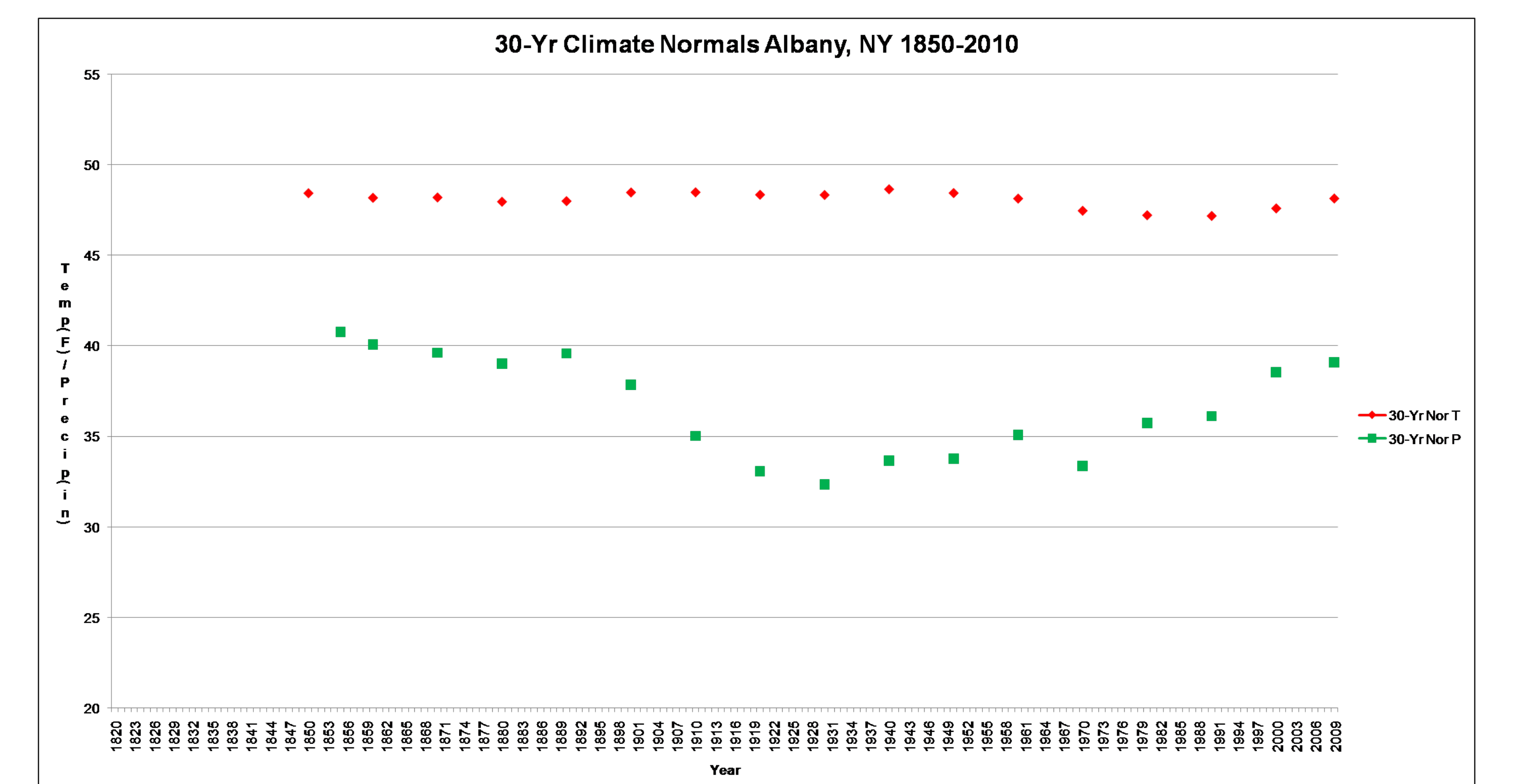
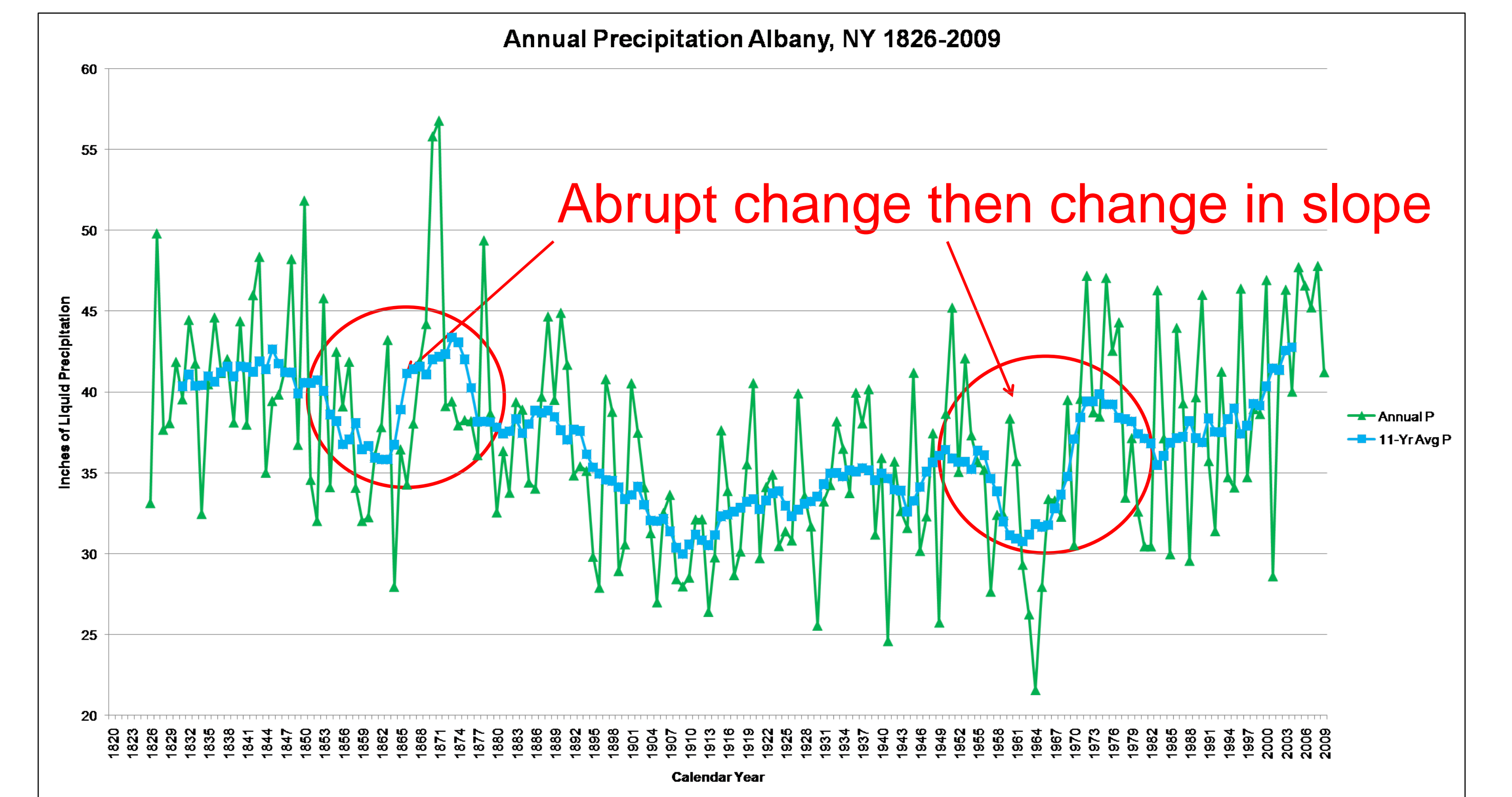
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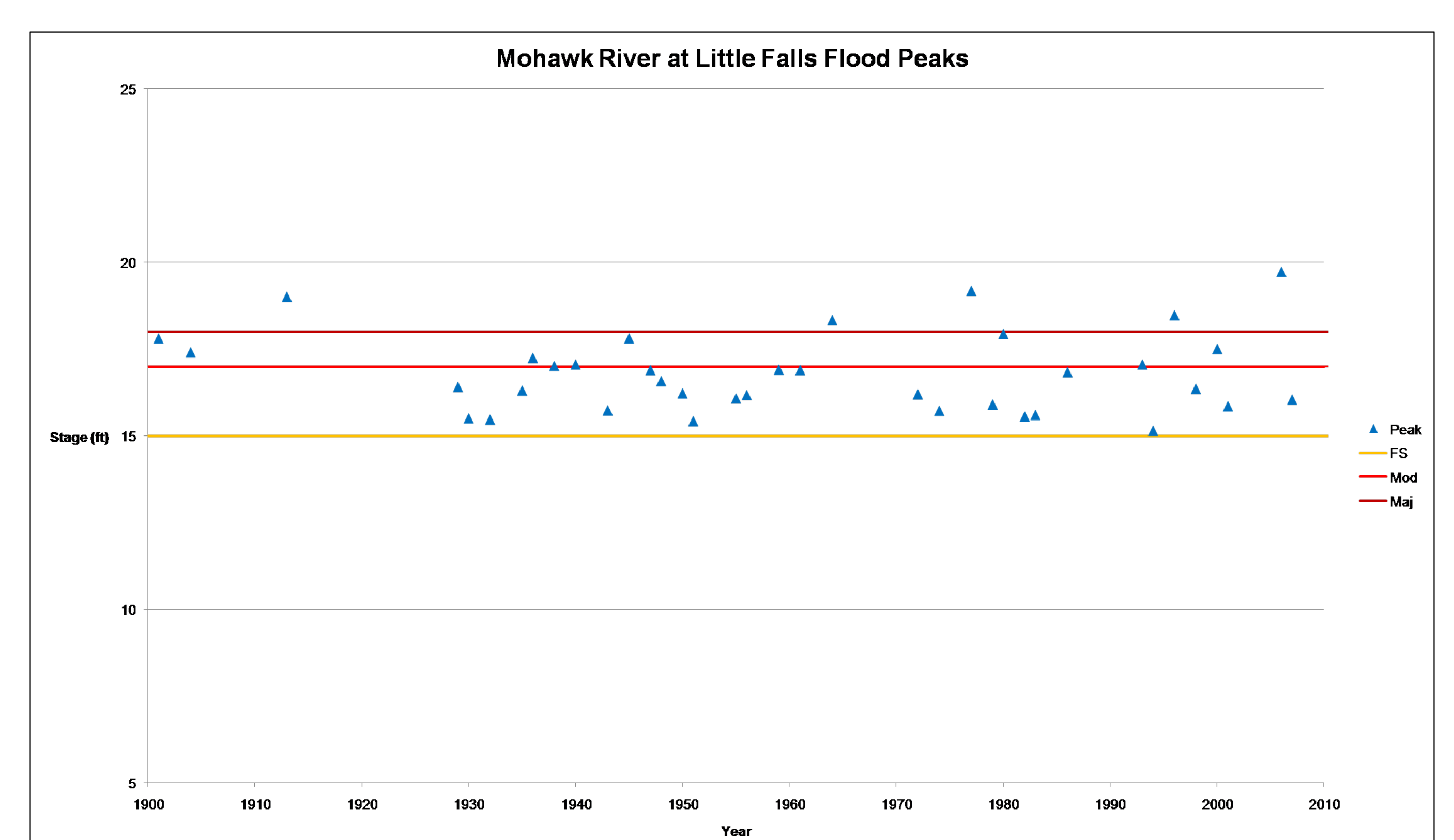
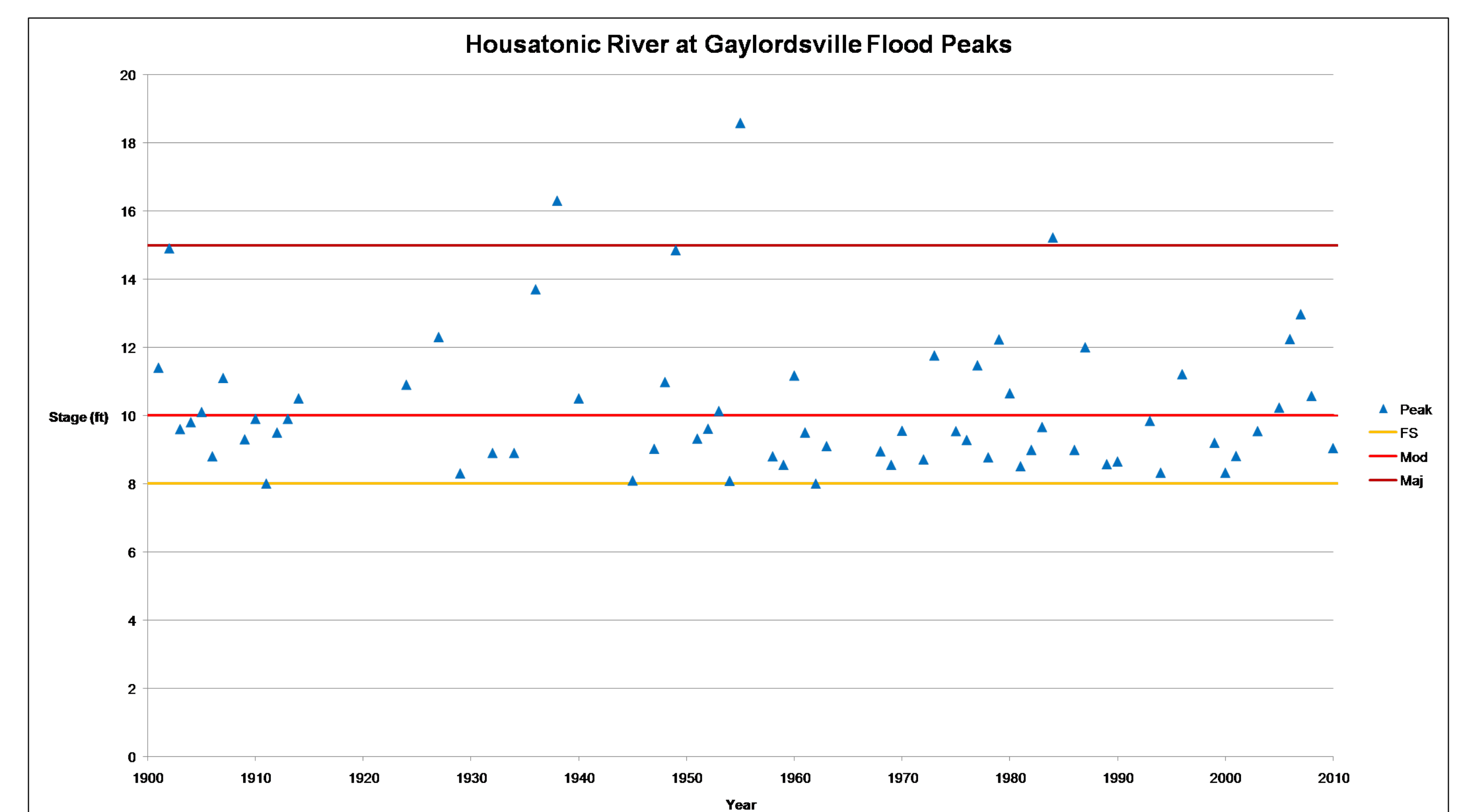
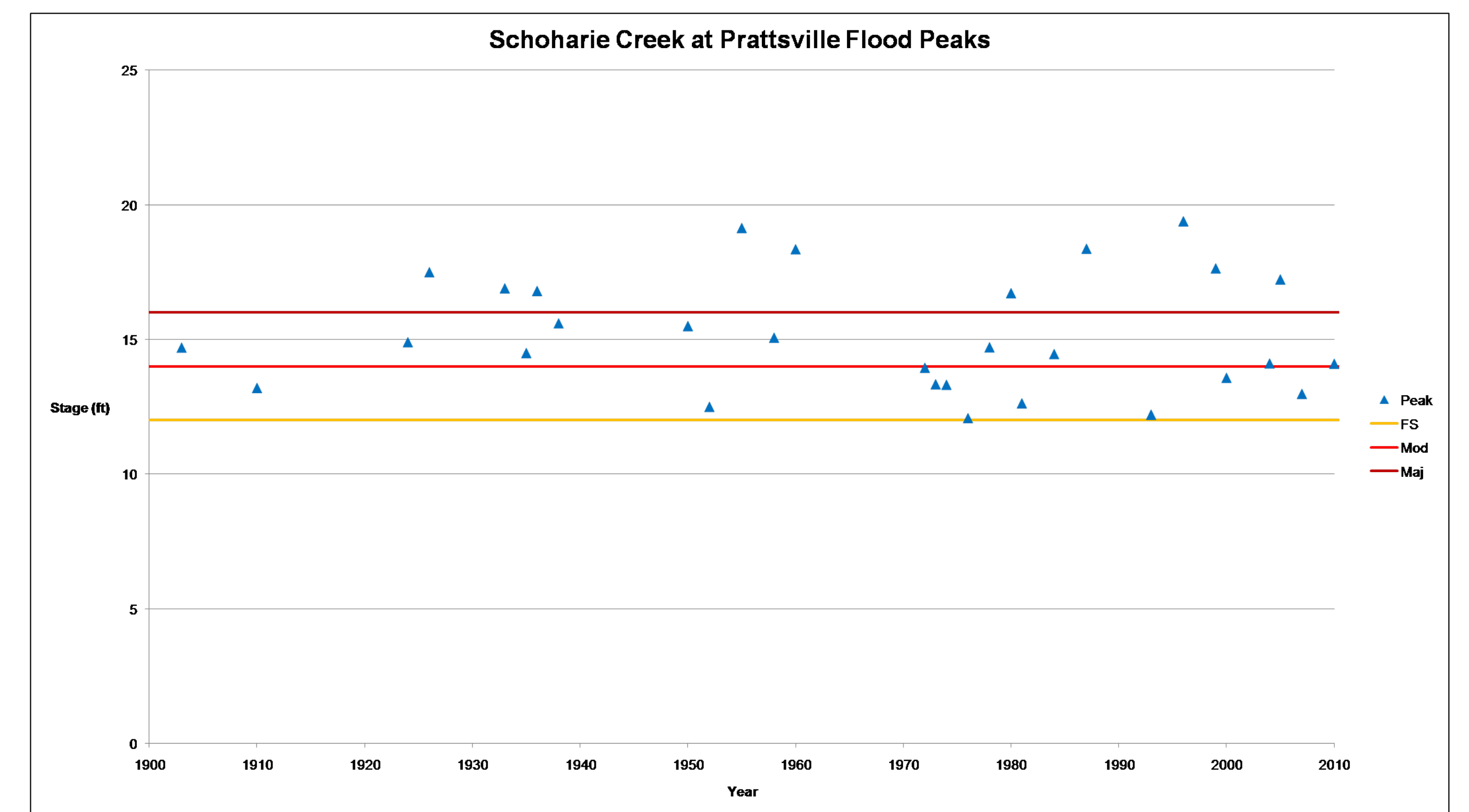
Precipitation:



Precipitation Cont. – Climate Normals:



River Flood Peaks



Observations: The coldest 30 year period ended 1990 and the warmest 30 year period ended 1940. The driest 30 year period ended 1930 and the wettest 30 year period ended 1860. Albany's climate "normal" precipitation ranges from 33 to 41 inches. The least snowiest 30 year period ended 1940 and the snowiest 30 year period ended 1990. Albany's climate "normal" snowfall ranges from 42 to 64 inches. Albany gets a very heavy snow year roughly every 30 years. **Conclusions:** Although temperatures at Albany, NY seem to show no significant trends, annual precipitation seems to be trending upward. Precipitation data suggest that this may be part of a repeating cycle that has a timescale of around 200 years. If this is true, the peak of the wet cycle would occur around 50 years from now. This continued current wet period may have implications such as increased threat of flooding and flash flooding in our area.