HUC1 01010000

Katherine Schlef November 26, 2018

Gage Information

HUC: 1

USGS gage ID: 01010000

Latitude: 46.7; Longitude: -69.716 Catchment area: 1341 square miles Catchment elevation: 931.3 feet

Data availability (64 water years): 10/1/1951-9/30/2014

Flood Information

Mean Flood Date: 04/27 Flood Seasonality Index: 0.861

Table 1: Peaks-over-threshold floods (record flood bolded)

Date	Streamflow (cfs)
1958-04-25	33700
1974-05-01	38600
1979-04-29	34200
1981-08-06	36200
2008-04-30	42300
2011-04-30	35100

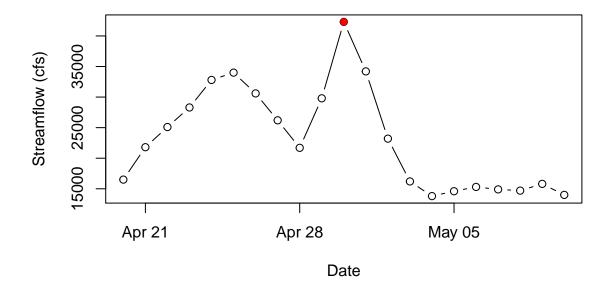


Figure 1: Streamflow at time of record flood (record magnitude in red)

Reanalysis Data

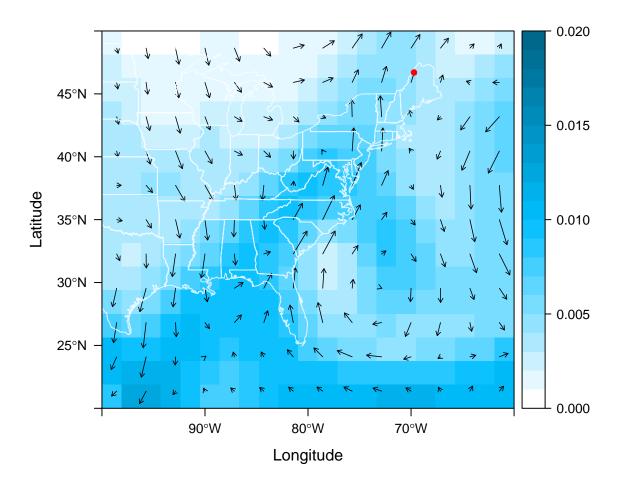


Figure 2: Reanalysis climate data two days before record flood at 850 mbar where vectors are wind (units m/s, multipled by 2) and color field is specific humidity (units kg/kg) (red dot is gage location)

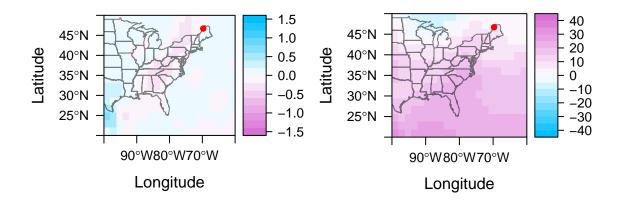


Figure 3: Reanalysis climate data two days before record flood (left) omega at 850 mbar (vertical velocity in pressure units Pascals/s) and (right) air temperature at 1000 mbar (units deg C) (red dot is gage location)

Hurricane Data

No hurricane (Figure 4 not created)

Extreme Precipitation Data

No extreme precipitation/data not available (Figure 5 not created)

Tropical Moisture Export Data

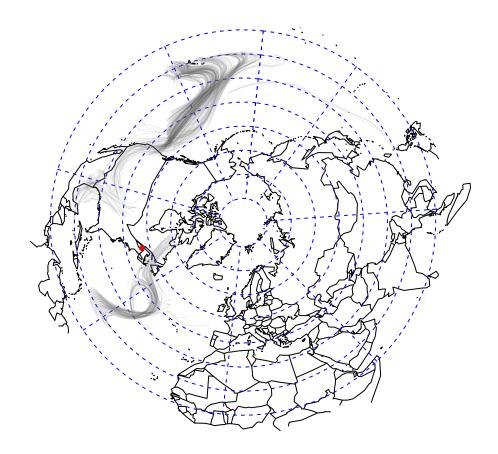


Figure 6: Tropical moisture export tracks originating five days prior to record flood with a total of 0 tracks and change in specific humidity = 0 (units g/kg, negative indicates precipitation) through day of record flood over 4 degree cell centered at gage location (red dot)

Historic Report Data

[&]quot;This is the test citation"

Self-Organizing Map Results

Self-organizing map classification of cause of record flood: eastern front

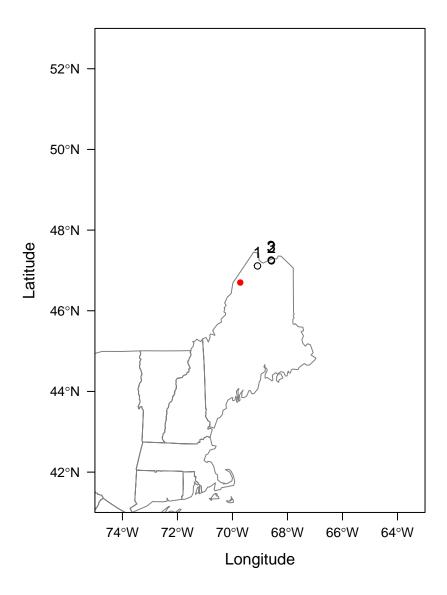


Figure 7: Event (2008-04-30) based on self-organizing map analysis (red dot is gage location, other numbered gages given in Table 2)

Table 2: ID of numbered gages in Figure 7

Number	Gage ID
1	HUC1_01010500
2	HUC1_01013500
3	HUC1_01014000

Best Guess

 tbd

References

To cite this work or for details regarding the analysis

- Schlef et al. (n.d.). Atmospheric Circulation Patterns Associated with Extreme Floods in the Contiguous United States.

Data for the "Gage Information" and "Flood Information" sections was obtained from

- U.S. Geological Survey (2016). National Water Information System data available on the World Wide Web (USGS Water Data for the Nation), accessed Nov. 1, 2018 at URL http://waterdata.usgs.gov/nwis/

Data for the "Reanalysis Data" section was obtained from

- Compo, G. P., Whitaker, J. S., & Sardeshmukh, P. D. (2006). Feasibility of a 100-year reanalysis using only surface pressure data. Bulletin of the American Meteorological Society, 87(2), 175-190. https://doi.org/10.1175/BAMS-87-2-175
- Compo, G. P., Whitaker, J. S., Sardeshmukh, P. D., Matsui, N., Allan, R. J., Yin, X., et al. (2011). The Twentieth Century Reanalysis Project. Quarterly Journal of the Royal Meteorological Society, 137(654), 1-28. https://doi.org/10.1002/qj.776
- Whitaker, J. S., Compo, G. P., Wei, X., & Hamill, T. M. (2004). Reanalysis before radiosondes using ensemble data assimilation. Bulletin of the American Meteorological Society, 2983-2991. https://doi.org/10.1175/1520-0493(2004)132<1190:RWRUED>2.0.CO;2

Data for the "Hurricane Data" section was obtained from

- Landsea, C. W., & Franklin, J. L. (2013). Atlantic Hurricane Database Uncertainty and Presentation of a New Database Format. Monthly Weather Review, 141, 3576-3592.

Data for the "Tropical Moisture Export Data" section was obtained from

- Knippertz, P., & Wernli, H. (2010). A lagrangian climatology of tropical moisture exports to the northern hemispheric extratropics. Journal of Climate, 23(4), 987-1003. https://doi.org/10.1175/2009JCLI3333.1