

The Role of a Predecessor Rainfall Event (PRE) in the Devastating Floods Associated with Tropical Cyclone Agnes in June, 1972

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Catastrophic flooding associated with Tropical Cyclone Agnes will long be remembered across many sections of the Northeastern United States and Mid-Atlantic region. In fact, it is widely recognized as one of the greatest natural disasters in Pennsylvania State history.

A key factor in this major flood event was the formation of a long-lived PRE. PRE are coherent areas of heavy rainfall, that develop separately and well in advance of tropical cyclones' main precipitation shields, but are still indirectly tied to the existence of the tropical systems themselves (Moore, 2010 and Galarneau, et al., 2009).

An overview of the synoptic pattern that led to this excessive rainfall event will be presented. This pattern will then be compared to those typically associated with PRE formation in the Eastern United States, utilizing the latest composites and conceptual models (Moore, 2010 and Galarneau, et al., 2009).

REFERENCES

Moore, B. J., 2010: *Predecessor Rain Events*.

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Galarneau, T. J., Jr., L. F. Bosart, and R. S. Schumacher, 2009: *Predecessor rain events ahead of tropical cyclones*. Mon. Wea. Rev., conditionally accepted.