

*Meso- α Scale Examination of the 29 March 2000 Dauphin Island Alabama
'Wedge Tornado's' Pre-Storm Environment*

Jeffrey M. Medlin*

Science and Operations Officer

NOAA-NWS Forecast Office

Mobile, Alabama

and

Matthew Grantham

Undergraduate Meteorology Student

University of South Alabama

Mobile, Alabama

*** Corresponding Authors Contact Information:**

Jeffrey M. Medlin

4000 Lakefront Dr. W.

Mobile, AL 36695

jeff.medlin@noaa.gov

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ABSTRACT

During the afternoon of 29 March 2000, an extraordinarily large and long-lived supercell thunderstorm produced a wedge tornado south of Dauphin Island, Alabama. The tornado and very large- diameter hailstones were captured on video by a citizen. Using North American Regional Re-Analysis Data available every three hours, this presentation focuses on a short time period leading up to tornadogenesis. Soundings and hodographs were modified for the time and location of tornado occurrence. Special focus was given to the examination of meso- α scale event kinematics, the regional evolution of both thermodynamic instability and vertical wind shear parameters and observed surface outflow boundary evolution. The magnitude of the ambient vertical wind shear magnitude and its vertical distribution were compared to thirteen other well-documented tornado-producing supercells in the vicinity of Mobile Alabama since 1994.