

Eustis Tornado

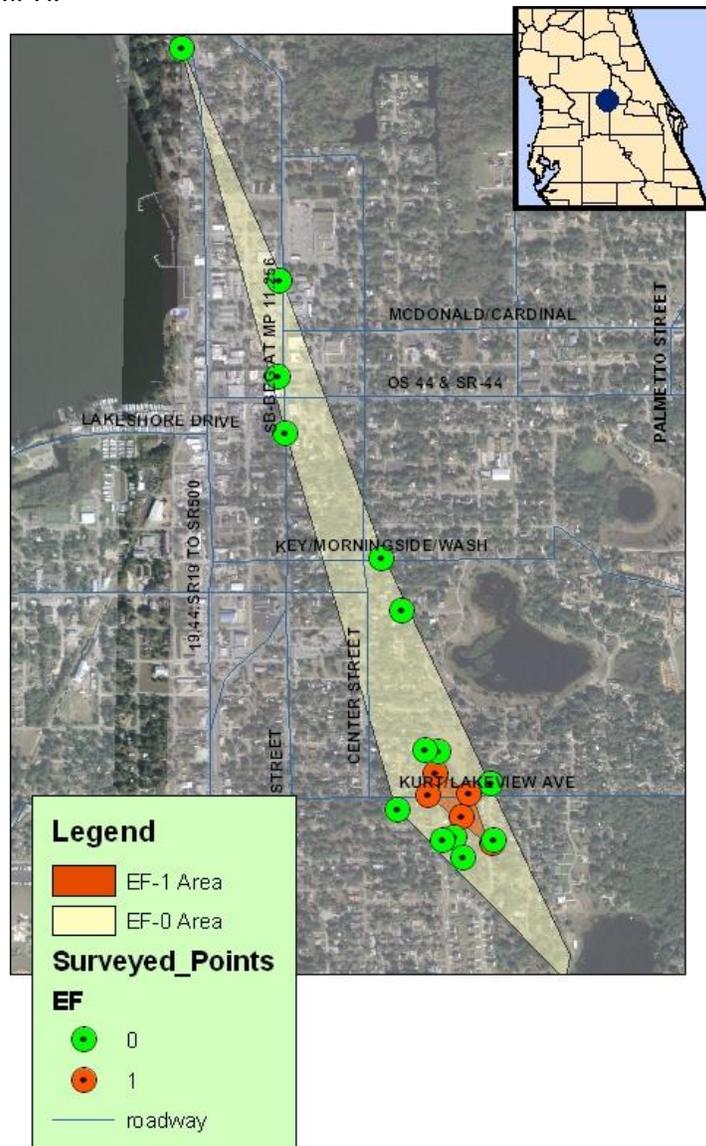
September 20, 2007

Preliminary Survey

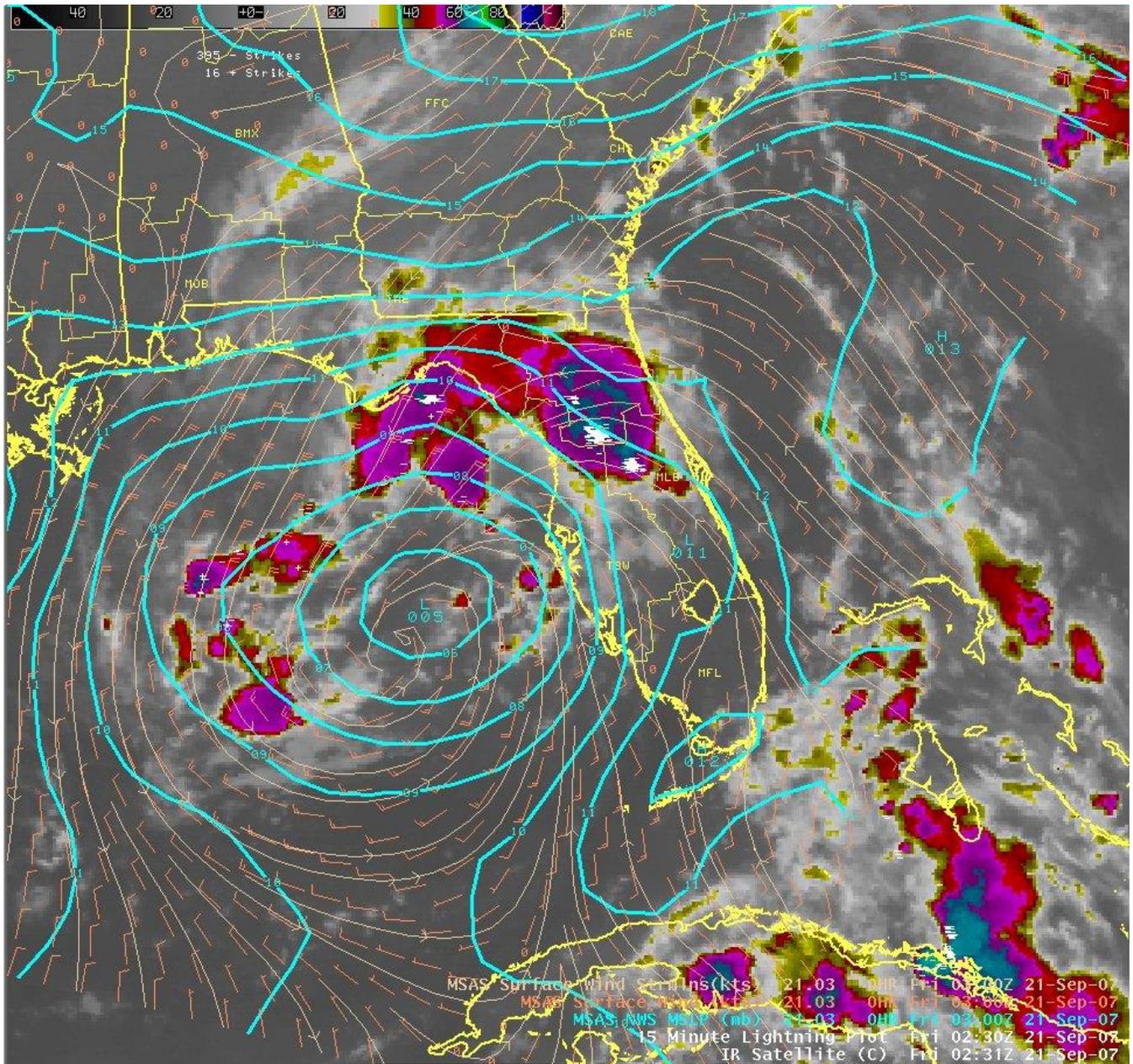
Synopsis:

A stacked mid to upper level low across the Eastern Gulf of Mexico induced an area of surface low pressure to develop on Thursday, September 20th. During the late afternoon into the early evening hours the low level southeasterly flow strengthened as the east coast sea breeze moved into far interior sections and the surface low pressure that would become Tropical Depression #10 continued to slowly organize. Mid to upper layer south to south southwest flow along with low level southeasterly flow allowed deep moisture to surge northward. The directional shear and low level helicity increased by late evening and deep convection developed along quasi-stationary boundaries across western Orange and Lake counties. After sunset, lowering LCLs and storms forming in a conducive environment for low level rotation allowed a long tracked super cell to develop near Lake Apopka and track northward toward Mount Dora, and finally Eustis where the tornado touched down at about 11 PM, along approximately a two mile path length before the storm eventually crossed into Marion county.

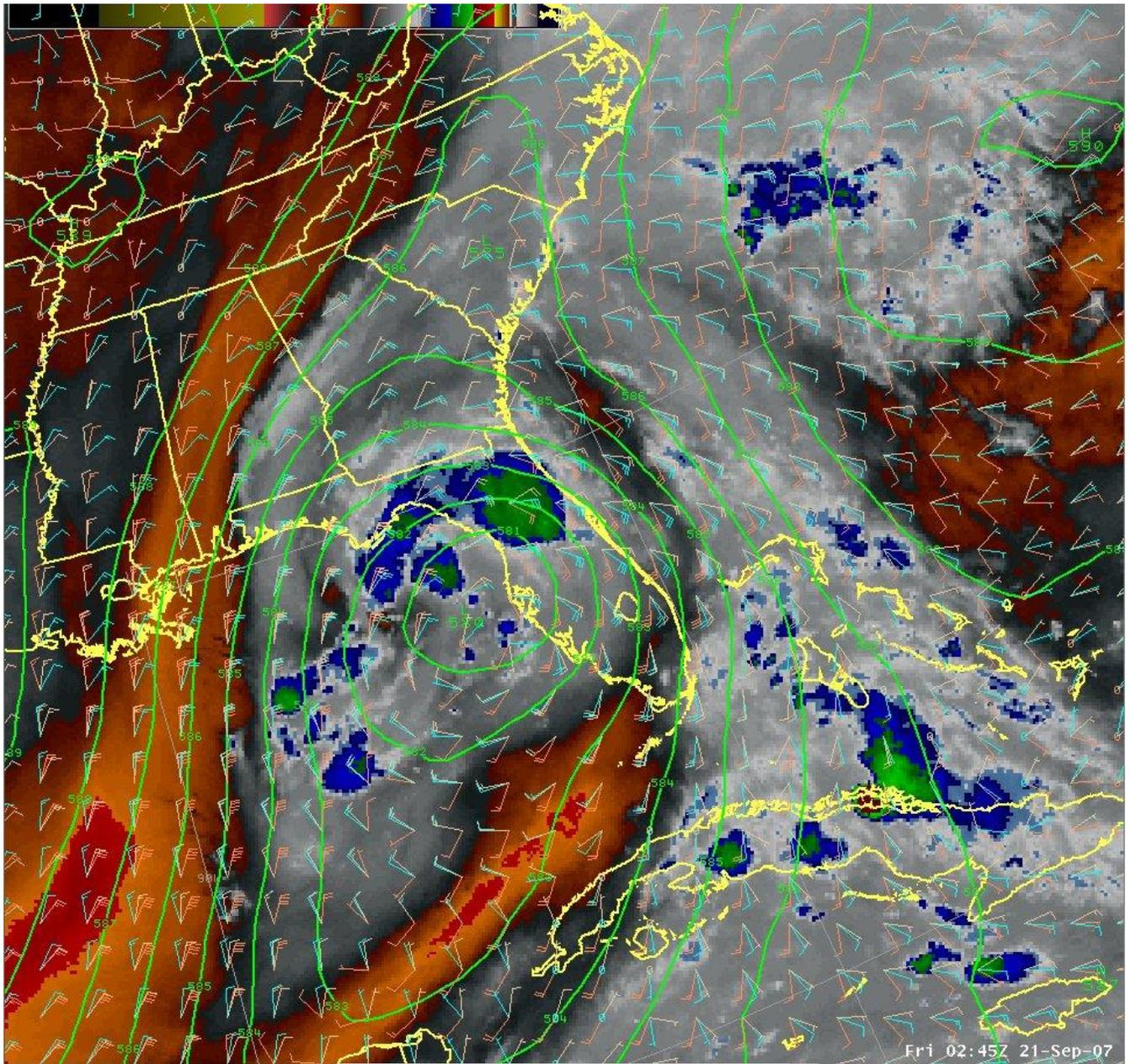
The NWS Survey judged the tornado to have reach the EF-1 level on the [Enhanced Fujita Scale of Tornado Intensity](#), with maximum winds of 100 - 105 MPH.



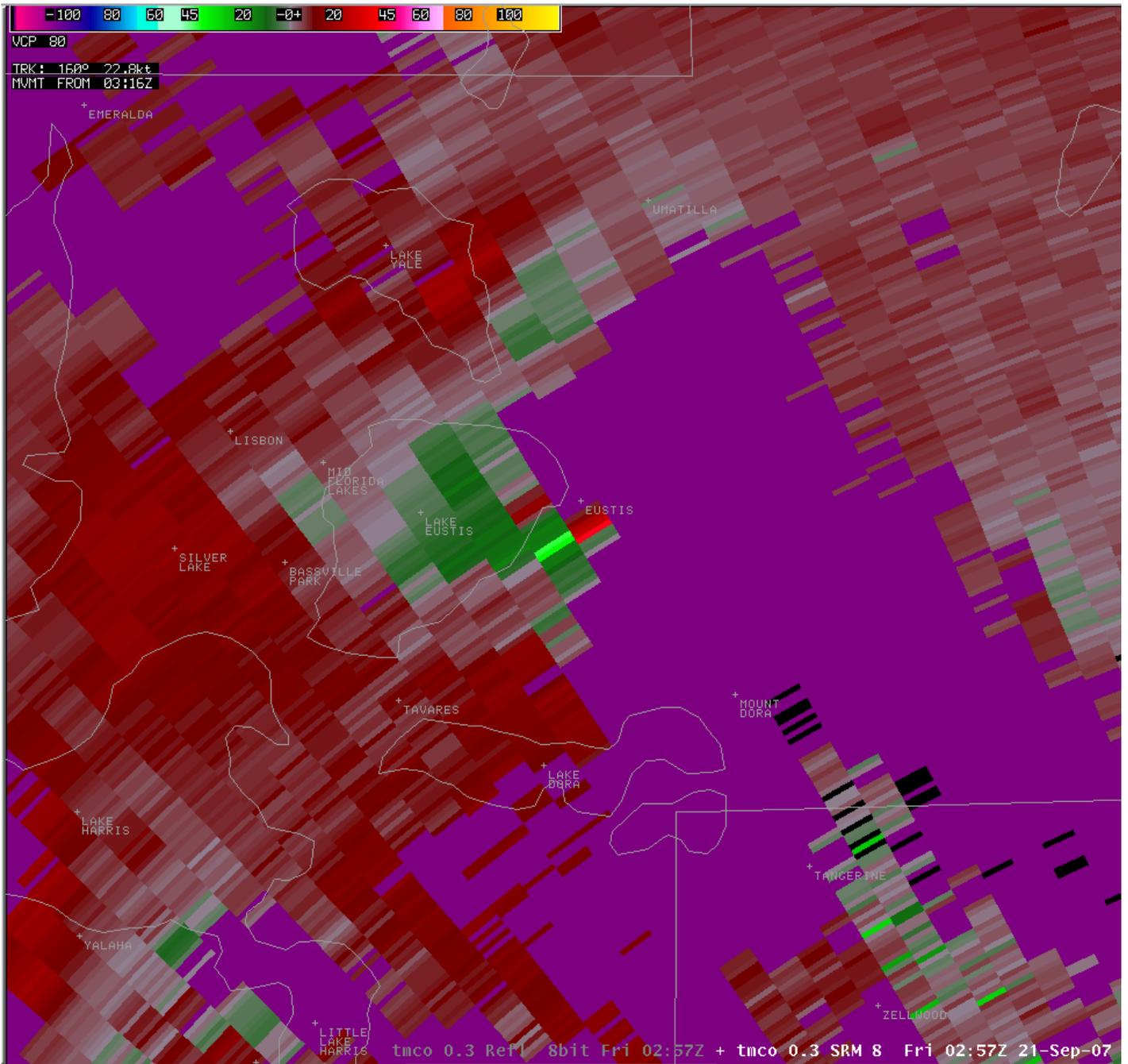
Map showing aerial imagery of Eustis, and the general track of the tornado.



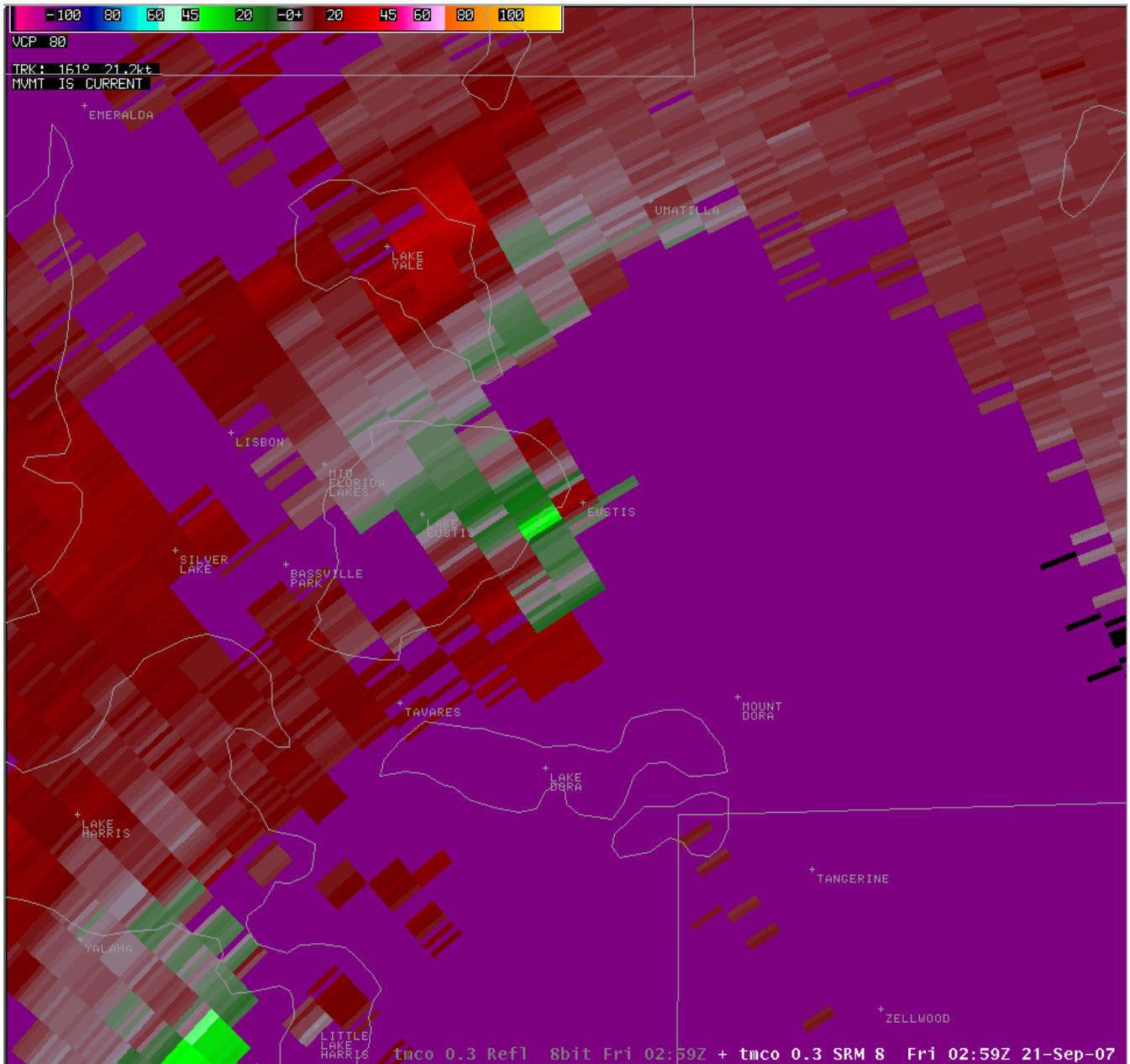
Surface Analysis with IR Imagery



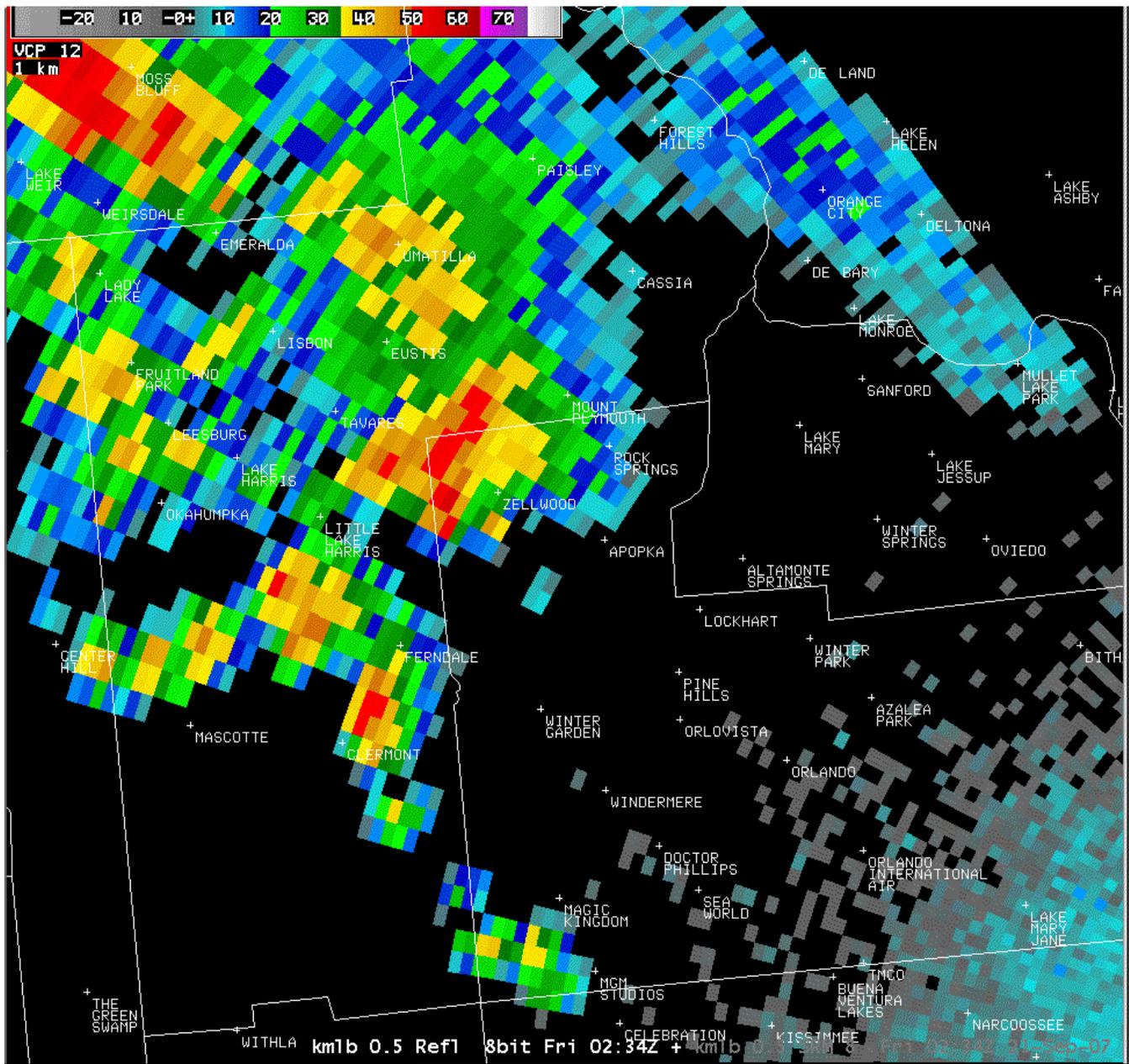
Water Vapor Image with Shear Vectors



TDWR Image from MCO Site
SRM @ 10:57 PM



TDWR Image from MCO Site
SRM @ 10:59 PM



**Zoomed Reflectivity Loop
(10:35 PM - 1117 PM)**

Products Issued by NWS Melbourne:

- 5:10 AM - Hazardous Weather Outlook
- 10:17 PM - Tornado Warning
- 10:30 PM - Severe Weather Statement
- 10:33 PM - Tornado Warning
- 10:49 PM - Severe Weather Statement
- 10:51 PM - Severe Weather Statement
- 10:59 PM - Severe Weather Statement
- 11:09 PM - Tornado Warning
- 11:17 PM - Local Storm Report
- 12:15 AM (9/21) - Severe Weather Statement



EF-1 Damage to Home



EF-1 Damage to Home



Vehicle Damaged



EF-1 Damage to Home



EF-1 Damage to Home



Damage Downtown