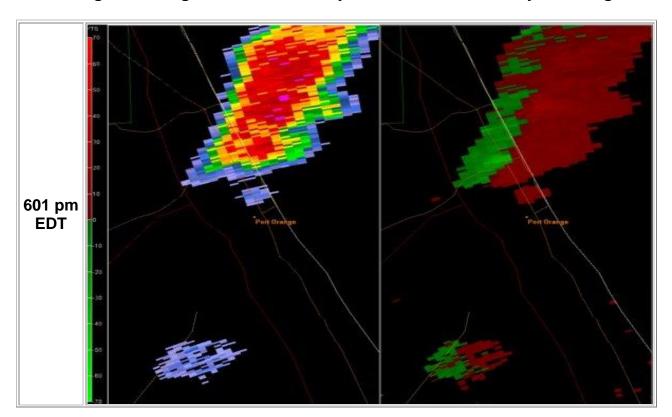
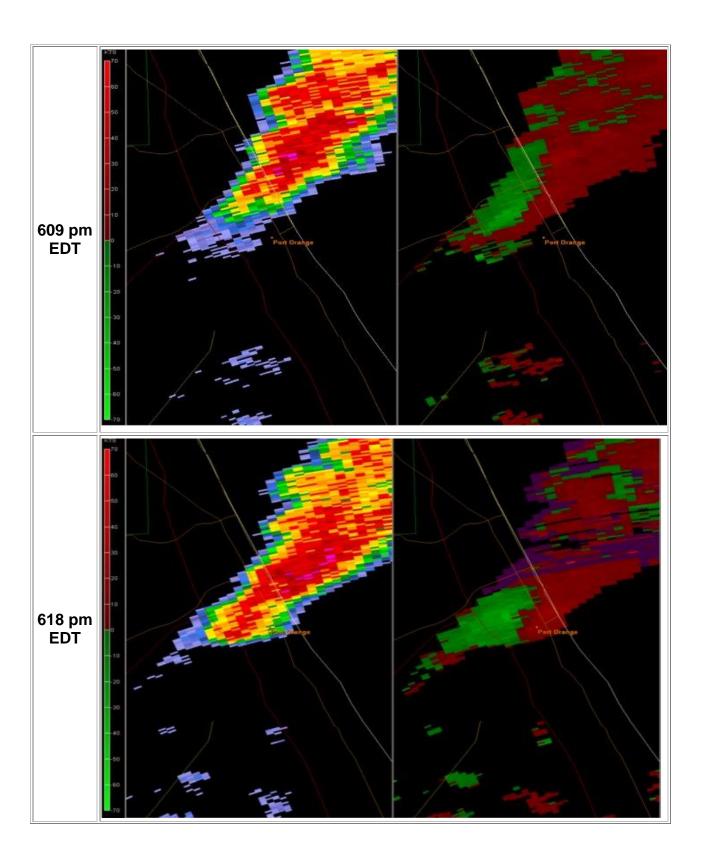
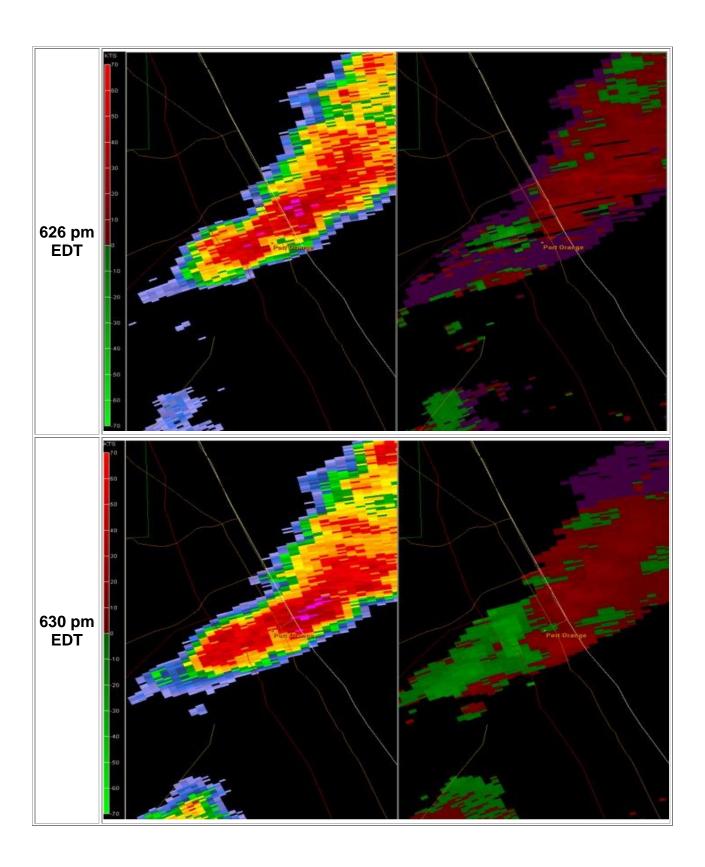
# **Volusia County Tornadoes/Waterspouts July 24, 2009**

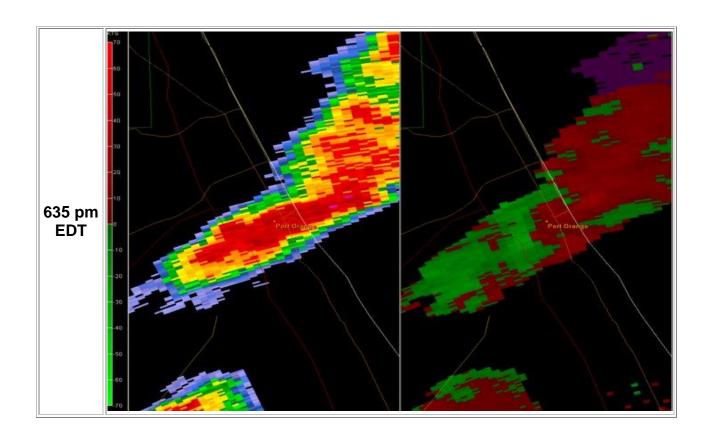
A strong late afternoon sea breeze merger led to low level rotation in thunderstorms. Numerous reports of funnel clouds and waterspouts were received in coastal Volusia County. A National Weather Service storm survey conducted 7/25/09 revealed a waterspout moved onto the beach in Ormond Beach, then a separate tornado touchdown occurred in Port Orange as the persistent band of rotating storms moved down the Volusia County coast.

### Radar Images - 0.5 degree Base Reflectivity on the left/Base Velocity on the right.









## **Ormond Beach Waterspout:**



photo courtesy Scott Dowling

### **Port Orange Damage Survey:**

Damage path map courtesy Jim Roberts, FL DEM



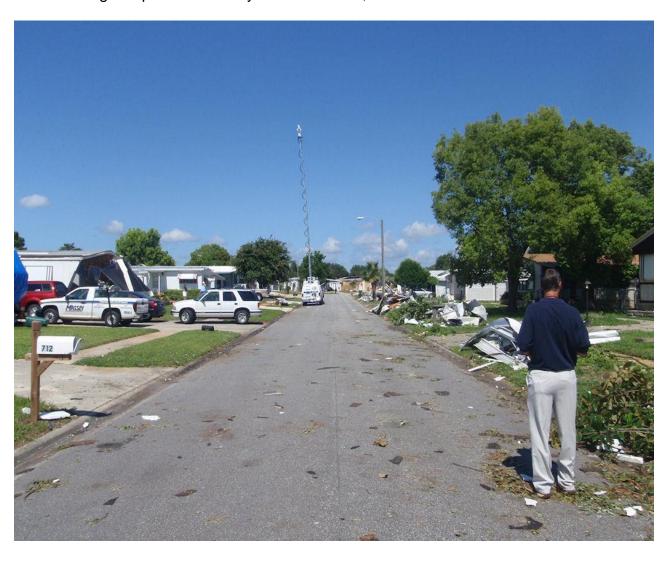








The following two photos courtesy of Jim Roberts, FL DEM:





#### **Text Products Issued by NWS Melbourne**

WHUS52 KMLB 242051 SMWMLB AMZ550-552-242145-/O.NEW.KMLB.MA.W.0099.090724T2051Z-090724T2145Z/

BULLETIN - IMMEDIATE BROADCAST REQUESTED SPECIAL MARINE WARNING NATIONAL WEATHER SERVICE MELBOURNE FL 451 PM EDT FRI JUL 24 2009

THE NATIONAL WEATHER SERVICE IN MELBOURNE HAS ISSUED A

- \* SPECIAL MARINE WARNING FOR THE COASTAL WATERS...

  FROM THE VOLUSIA BREVARD COUNTY LINE TO CAPE CANAVERAL OUT TO 20 NM.
- \* UNTIL 545 PM EDT
- \* AT 448 PM EDT...NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED A THUNDERSTORM...PRODUCING STRONG WINDS OVER 35 KNOTS OVER

VOLUSIA-BREVARD COUNTY LINE TO SEBASTIAN INLET 0-20 NM...OR ABOUT 13 MILES SOUTHEAST OF OAK HILL...MOVING EAST AT 5 KNOTS.

\*THE THUNDERSTORM WILL MOVE OFF THE COAST THROUGH 515 PM AND MAY PRODUCE A BRIEF WATERSPOUT.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

THESE THUNDERSTORMS WILL LIKELY PRODUCE WINDS OVER 34 KNOTS AND LOCALLY ROUGH SEAS. SMALL CRAFT...ESPECIALLY THOSE UNDER SAIL... SHOULD MOVE TO A SAFE HARBOR IF POSSIBLE. MAKE SURE YOU AND YOUR CREW ARE WEARING APPROVED FLOTATION DEVICES DURING THESE HAZARDOUS CONDITIONS.

A WATERSPOUT IS A TORNADO OVER WATER THAT CAN BE DANGEROUS AND EVEN DEADLY. SMALL CRAFT CAN BE SWAMPED OR OVERTURNED BY A WATERSPOUT. STAY AWAY FROM THEM AT ALL TIMES.

& &

LAT...LON 2881 8084 2878 8082 2878 8079 2882 8081 2894 8055 2867 8043 2864 8064 2865 8064 2864 8065 2867 8070 2871 8073 2866 8077 2863 8077 2862 8081 2879 8086 TIME...MOT...LOC 2050Z 257DEG 5KT 2872 8072

\$\$ BRAGAW

WHUS52 KMLB 242152 SMWMLB AMZ550-242245-/O.NEW.KMLB.MA.W.0100.090724T2152Z-090724T2245Z/

BULLETIN - IMMEDIATE BROADCAST REQUESTED SPECIAL MARINE WARNING NATIONAL WEATHER SERVICE MELBOURNE FL 552 PM EDT FRI JUL 24 2009

THE NATIONAL WEATHER SERVICE IN MELBOURNE HAS ISSUED A

\* SPECIAL MARINE WARNING FOR THE COASTAL WATERS...

FROM FLAGLER BEACH TO NEW SMYRNA BEACH OUT TO 20 NM.

- \* UNTIL 645 PM EDT
- \* AT 551 PM EDT...NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED A THUNDERSTORM...PRODUCING A WATERSPOUT JUST OFFSHORE ORMOND BEACH MOVING SOUTHEAST AT 10 KNOTS.
- \*THE THUNDERSTORM WILL MOVE OVER THE NEAR SHORE WATERS AND ADDITIONAL DEVELOPMENT NEAR THE COAST AND INTRACOASTAL WATERS WILL BE POSSIBLE. INTERERSTS IN THESE AREAS SHOULD BE ALERT FOR FUNNEL CLOUDS OR WATERSPOUTS.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

IF YOU SIGHT A WATERSPOUT...CONTACT THE COAST GUARD VIA MARINE RADIO OR LOCAL OFFICIALS AND ASK THEM TO RELAY YOUR REPORT TO THE NATIONAL WEATHER SERVICE.

LAT...LON 2892 8042 2885 8080 2899 8088 2900 8087 2902 8089 2901 8089 2908 8093 2909 8093 2939 8110 2938 8108 2940 8108 2949 8080 TIME...MOT...LOC 2151Z 324DEG 7KT 2932 8102

\$\$ 52

WWUS82 KMLB 242159 SPSMLB

SPECIAL WEATHER STATEMENT NATIONAL WEATHER SERVICE MELBOURNE FL 559 PM EDT FRI JUL 24 2009

FLZ141-242245-COASTAL VOLUSIA COUNTY-559 PM EDT FRI JUL 24 2009

...FUNNEL CLOUDS POSSIBLE OVER EASTERN VOLUSIA COUNTY...

AT 558 PM EDT...WEATHER SPOTTERS REPORTED A FUNNEL CLOUD JUST OFFSHORE DAYTONA...MOVING SOUTHEAST AT 10 MPH.

LOCATIONS IN THE PATH OF THE STORM WHICH MAY EXPERIENCE GUSTY WINDS AND FUNNEL CLOUDS INCLUDE DAYTONA BEACH...DAYTONA BEACH SHORES AND WILBUR BY THE SEA.

FUNNEL CLOUDS CAN OCCASIONALLY TOUCH DOWN AND PRODUCE BRIEF...SMALL TORNADOES. MOVE INDOORS AND STAY AWAY FROM WINDOWS.

\$\$ 52

WFUS52 KMLB 242203 TORMLB FLC127-242230-/O.NEW.KMLB.TO.W.0023.090724T2203Z-090724T2230Z/

BULLETIN - EAS ACTIVATION REQUESTED TORNADO WARNING NATIONAL WEATHER SERVICE MELBOURNE FL 603 PM EDT FRI JUL 24 2009

THE NATIONAL WEATHER SERVICE IN MELBOURNE HAS ISSUED A

- \* TORNADO WARNING FOR...

  EAST CENTRAL VOLUSIA COUNTY IN FLORIDA...

  THIS INCLUDES THE CITIES OF...NEW SMYRNA BEACH...SOUTH DAYTONA...

  PORT ORANGE...PONCE INLET...ORMOND BEACH...HOLLY HILL...

  EDGEWATER...DAYTONA BEACH...
- \* UNTIL 630 PM EDT.
- \* AT 602 PM EDT...NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED A SEVERE THUNDERSTORM CAPABLE OF PRODUCING A TORNADO NEAR DAYTONA BEACH...MOVING SOUTHEAST AT 10 MPH.
- \* THE TORNADO WILL BE NEAR...

SOUTH DAYTONA BY 620 PM EDT... WILBUR BY THE SEA...PORT ORANGE AND PONCE INLET BY 630 PM EDT...

PRECAUTIONARY/PREPAREDNESS ACTIONS...

IF YOU ARE CAUGHT OUTSIDE...SEEK SHELTER IN A NEARBY REINFORCED BUILDING. AS A LAST RESORT...SEEK SHELTER IN A CULVERT...DITCH OR LOW SPOT AND COVER YOUR HEAD WITH YOUR HANDS.

& &

LAT...LON 2925 8100 2915 8096 2910 8091 2908 8091 2906 8089 2901 8086 2899 8086 2891 8095 2924 8113 2931 8104
TIME...MOT...LOC 2203Z 322DEG 8KT 2921 8101

\$\$ 52

WWUS52 KMLB 242214 SVSMLB

SEVERE WEATHER STATEMENT NATIONAL WEATHER SERVICE MELBOURNE FL 614 PM EDT FRI JUL 24 2009

FLC127-242230-/O.CON.KMLB.TO.W.0023.000000T0000Z-090724T2230Z/ VOLUSIA-614 PM EDT FRI JUL 24 2009

...A TORNADO WARNING REMAINS IN EFFECT UNTIL 630 PM EDT FOR EAST CENTRAL VOLUSIA COUNTY...

AT 612 PM EDT...NATIONAL WEATHER SERVICE DOPPLER RADAR CONTINUED TO INDICATE A TORNADO. THIS TORNADO WAS LOCATED NEAR SOUTH DAYTONA... MOVING SOUTHEAST AT 10 MPH.

OTHER LOCATIONS IN THE WARNING INCLUDE BUT ARE NOT LIMITED TO WILBUR BY THE SEA...PORT ORANGE...PONCE INLET...AND DAYTONA BEACH SHORES.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

SEEK SHELTER ON THE LOWEST FLOOR OF THE BUILDING IN AN INTERIOR HALLWAY OR ROOM SUCH AS A CLOSET. USE BLANKETS OR PILLOWS TO COVER YOUR BODY AND ALWAYS STAY AWAY FROM WINDOWS.

IF IN MOBILE HOMES OR VEHICLES...EVACUATE THEM AND GET INSIDE A SUBSTANTIAL SHELTER. IF NO SHELTER IS AVAILABLE...LIE FLAT IN THE NEAREST DITCH OR OTHER LOW SPOT AND COVER YOUR HEAD WITH YOUR HANDS.

& &

LAT...LON 2920 8107 2926 8102 2925 8100 2915 8096 2910 8091 2908 8091 2906 8089 2901 8086 2899 8086 2891 8095
TIME...MOT...LOC 2212Z 318DEG 8KT 2921 8102

\$\$

52

WFUS52 KMLB 242228
TORMLB
FLC127-242300/O.NEW.KMLB.TO.W.0024.090724T2228Z-090724T2300Z/

BULLETIN - EAS ACTIVATION REQUESTED TORNADO WARNING NATIONAL WEATHER SERVICE MELBOURNE FL 628 PM EDT FRI JUL 24 2009

THE NATIONAL WEATHER SERVICE IN MELBOURNE HAS ISSUED A

- \* TORNADO WARNING FOR...

  EAST CENTRAL VOLUSIA COUNTY IN FLORIDA...

  THIS INCLUDES THE CITIES OF...NEW SMYRNA BEACH...SOUTH DAYTONA...

  PORT ORANGE...PONCE INLET...EDGEWATER...
- \* UNTIL 700 PM EDT.
- \* AT 627 PM EDT...DOPPLER RADAR CONTINUED TO INDICATE A TORNADO NEAR PORT ORANGE...MOVING SOUTHEAST AT 10 MPH.
- \* OTHER LOCATIONS IN THE WARNING INCLUDE BUT ARE NOT LIMITED TO WILBUR BY THE SEA AND BETHUNE BEACH

PRECAUTIONARY/PREPAREDNESS ACTIONS...

IF YOU ARE CAUGHT OUTSIDE...SEEK SHELTER IN A NEARBY REINFORCED BUILDING. AS A LAST RESORT...SEEK SHELTER IN A CULVERT...DITCH OR LOW SPOT AND COVER YOUR HEAD WITH YOUR HANDS.

& &

LAT...LON 2921 8100 2915 8096 2910 8091 2908 8091 2906 8089 2895 8083 2894 8084 2897 8086 2898 8089 2893 8086 2888 8093 2914 8110 TIME...MOT...LOC 2228Z 322DEG 8KT 2917 8097

\$\$ 52

WWUS52 KMLB 242244 SVSMLB

SEVERE WEATHER STATEMENT NATIONAL WEATHER SERVICE MELBOURNE FL 644 PM EDT FRI JUL 24 2009

FLC127-242300-/O.CON.KMLB.TO.W.0024.000000T0000Z-090724T2300Z/ VOLUSIA-644 PM EDT FRI JUL 24 2009

...A TORNADO WARNING REMAINS IN EFFECT UNTIL 700 PM EDT FOR EAST CENTRAL VOLUSIA COUNTY...

AT 644 PM EDT...A TORNADO WAS REPORTED. THIS TORNADO WAS LOCATED JUST SOUTH OF PORT ORANGE...MOVING SOUTHEAST AT 10 MPH.

OTHER LOCATIONS IN THE WARNING INCLUDE BUT ARE NOT LIMITED TO ALLENDALE...HARBOR OAKS...PONCE INLET...NEW SMYRNA BEACH AND EDGEWATER.

LAT...LON 2919 8103 2920 8100 2915 8096 2910 8091 2908 8091 2906 8089 2899 8085 2897 8087 2898 8089 2897 8088 2894 8097 2914 8110 TIME...MOT...LOC 2241Z 335DEG 11KT 2910 8101

\$\$ 52

WFUS52 KMLB 242259 TORMLB FLC127-242330-/O.NEW.KMLB.TO.W.0025.090724T2259Z-090724T2330Z/

BULLETIN - EAS ACTIVATION REQUESTED TORNADO WARNING NATIONAL WEATHER SERVICE MELBOURNE FL 659 PM EDT FRI JUL 24 2009

THE NATIONAL WEATHER SERVICE IN MELBOURNE HAS ISSUED A

- \* TORNADO WARNING FOR...

  EAST CENTRAL VOLUSIA COUNTY IN FLORIDA...

  THIS INCLUDES THE CITIES OF...NEW SMYRNA BEACH...SOUTH DAYTONA...

  PORT ORANGE...PONCE INLET...EDGEWATER...
- \* UNTIL 730 PM EDT.
- \* AT 658 PM EDT...NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED A SEVERE THUNDERSTORM CAPABLE OF PRODUCING A TORNADO NEAR PONCE INLET...MOVING SOUTHEAST AT 10 MPH.
- \* OTHER LOCATIONS IN THE WARNING INCLUDE BUT ARE NOT LIMITED TO BETHUNE BEACH

PRECAUTIONARY/PREPAREDNESS ACTIONS...

IF YOU ARE CAUGHT OUTSIDE...SEEK SHELTER IN A NEARBY REINFORCED BUILDING. AS A LAST RESORT...SEEK SHELTER IN A CULVERT...DITCH OR LOW SPOT AND COVER YOUR HEAD WITH YOUR HANDS.

& &

LAT...LON 2910 8091 2908 8091 2906 8089 2900 8086 2895 8083 2894 8084 2897 8086 2898 8089 2893 8086 2888 8093 2914 8110 2921 8100 TIME...MOT...LOC 2259Z 322DEG 8KT 2912 8092

\$\$

52

WWUS52 KMLB 242313 SVSMLB

SEVERE WEATHER STATEMENT
NATIONAL WEATHER SERVICE MELBOURNE FL
713 PM EDT FRI JUL 24 2009

FLC127-242330-/O.CON.KMLB.TO.W.0025.000000T0000Z-090724T2330Z/ VOLUSIA-713 PM EDT FRI JUL 24 2009

...A TORNADO WARNING REMAINS IN EFFECT UNTIL 730 PM EDT FOR EAST CENTRAL VOLUSIA COUNTY...

AT 712 PM EDT...NATIONAL WEATHER SERVICE DOPPLER RADAR CONTINUED TO INDICATE A TORNADO. THIS TORNADO WAS LOCATED NEAR INTERSTATE 95 WEST OF NEW SMYRNA BEACH...MOVING SOUTHEAST AT 10 MPH.

OTHER LOCATIONS IN THE WARNING INCLUDE BUT ARE NOT LIMITED TO NEW SMYRNA BEACH...BETHUNE BEACH...TURTLE MOUND...EDGEWATER AND OAK HILL.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

SEVERAL ROOFS WERE DAMAGED IN THE PORT ORANGE AREA AS THE TORNADO MOVED THROUGH.

& &

LAT...LON 2910 8091 2908 8091 2906 8089 2900 8086 2895 8083 2894 8084 2897 8086 2898 8089 2893 8086 2888 8093 2914 8110 2921 8100 TIME...MOT...LOC 2310Z 322DEG 8KT 2910 8090

\$\$ 52

WWUS52 KMLB 242326 SVSMLB

SEVERE WEATHER STATEMENT NATIONAL WEATHER SERVICE MELBOURNE FL 726 PM EDT FRI JUL 24 2009

FLC127-242335-/O.EXP.KMLB.TO.W.0025.000000T0000Z-090724T2330Z/ VOLUSIA-726 PM EDT FRI JUL 24 2009

...THE TORNADO WARNING FOR EAST CENTRAL VOLUSIA COUNTY WILL EXPIRE AT 730 PM EDT...

NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED THE SEVERE STORM THAT PROMPTED THE WARNING WAS NO LONGER EXHIBITING STRONG ROTATION AND THUS THE WARNING HAS BEEN ALLOWED TO EXPIRE.

LAT...LON 2910 8091 2908 8091 2906 8089 2900 8086 2895 8083 2894 8084 2897 8086 2898 8089 2893 8086 2888 8093 2914 8110 2921 8100 TIME...MOT...LOC 2325Z 322DEG 8KT 2907 8088

NWUS52 KMLB 251818 LSRMLB

PRELIMINARY LOCAL STORM REPORT NATIONAL WEATHER SERVICE MELBOURNE FL 217 PM EDT SAT JUL 25 2009

..TIME... ..EVENT... ...CITY LOCATION... ..LAT.LON...
..DATE... ..MAG... ..COUNTY LOCATION..ST.. ..SOURCE...
..REMARKS..

VOLUSIA

0537 PM TORNADO ORMOND BEACH 29.28N 81.06W

LOW END EF-0 -ZERO- TORNADO WITH ESTIMATED WINDS 65 MPH.WATERSPOUT WENT TO LAND -TORNADO- TO WATER, FROM BEACH EAST OF OSCEOLA DRIVE SOUTHWARD TO ROCKEFELLER DRIVE, ENTERING SOME YARDS. DURATION FROM 537PM TO 546PM. APPROXIMATE PATH LENGTH .6 MILE. NO DAMAGE. VERY SMALL CATAMARAN BOAT TOSSED ON THE BEACH WITH MINOR DAMAGE TO

FL NWS STORM SURVEY

&& MRT

07/24/2009

NWUS52 KMLB 250302 LSRMLB

MAST.

PRELIMINARY LOCAL STORM REPORT...CORRECTED NATIONAL WEATHER SERVICE MELBOURNE FL 1102 PM EDT FRI JUL 24 2009

..TIME... ..EVENT... ...CITY LOCATION... ..LAT.LON...
..DATE... ..MAG... ..COUNTY LOCATION..ST...SOURCE...
..REMARKS..

0625 PM TORNADO PORT ORANGE 29.12N 81.03W 07/24/2009 VOLUSIA FL FIRE DEPT/RESCUE

\*\*\* 1 INJ \*\*\* UPDATE TO PREVIOUS REPORT...1 MINOR INJURY DUE TO FLYING GLASS...7 MOBILE HOMES DESTROYED...8 HEAVILY DAMAGED...26 MODERATELY DAMAGED...122 LIGHTLY DAMAGED IN THE VICINITY OF MADELINE AVENUE IN THE SUBDIVISIONS OF LIGHT HOUSE POINT...LAUREL WOODS...BRANDY HILLS.

\$\$ DVD