

STARKE TORNADO

January 21, 2010

STORM DAMAGE ASSESSMENT

A study of the installation of manufactured/mobile homes
and the effects of storm damage.



Prepared by the



Bureau of Mobile Home and RV Construction
Division of Motor Vehicles
Department of Highway Safety and Motor Vehicles

MOBILE\MANUFACTURED HOME DAMAGE ASSESSMENTS FROM Starke Tornado

TABLE OF CONTENTS

	Page No.
I. Note on Limitations of the Report.....	ii
II. Assessment.....	1

TABLES AND FIGURES

Figure 1: Area of coverage.....	2
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PHOTOGRAPHS

Five pages of storm damaged homes.....	3
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MOBILE/MANUFACTURED HOME DAMAGE

LIMITATIONS OF REPORT

Starke Tornado

NOTE

The purpose of this report is strictly for the use of the Florida Department of Highway Safety and Motor Vehicles to determine the effectiveness of current department administrative rules governing the installation of mobile/manufactured homes.

All statistics reported here are from a sample of mobile home inspected. In addition, due to debris, entry into some of the mobile homes observed was not possible to make more specific determinations. Consequently, the statistics reported here are estimates. There may be differences between what is reported here and determinations by local building departments, insurance companies or other government agencies

When reporting the number of homes "destroyed or non-repairable" the totals represent homes with severe roof damage to the point of the roof being blown from the home, one or more exterior walls being separated from the home or water completely penetrating the unit.

**DEPARTMENT OF HIGHWAY SAFETY AND MOTOR VEHICLES
DIVISION OF MOTOR VEHICLES
BUREAU OF MOBILE HOME AND RV CONSTRUCTION**

ASSESSMENT

An EF 1 tornado touched down just north of Starke on January 21, 2010 and has been confirmed by National Weather Service. The area affected was an approximate 10 mile long path in Bradford County. The Bureau of Mobile Home and Recreational Vehicle Construction personnel investigated mobile/manufactured homes in this area where the tornado touched down and/or where mobile homes were damaged.

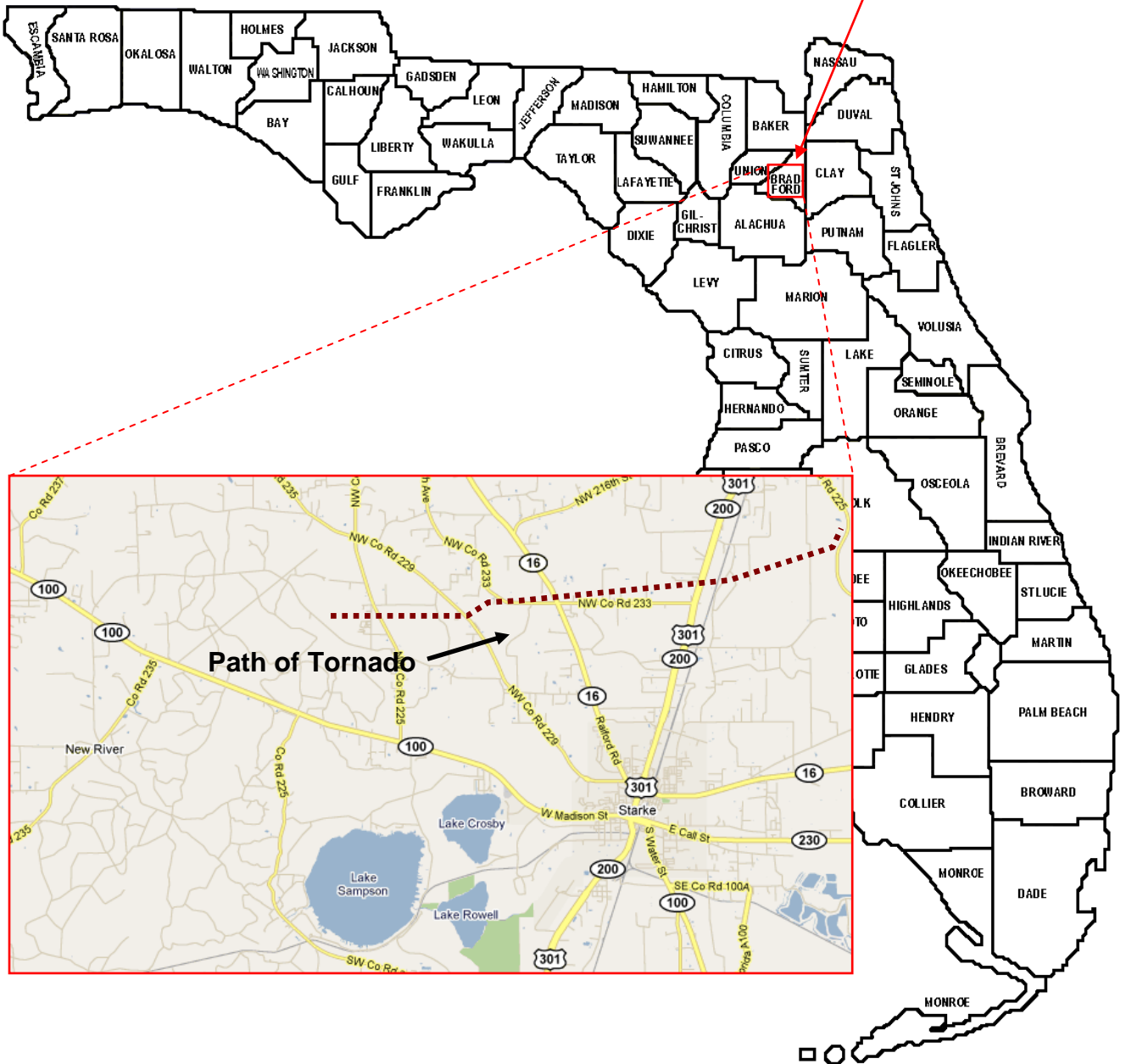
Bradford County Building Department confirmed that around 80 homes both stick built and mobile homes were damaged in the tornado that hit the area. The Bureau investigated mobile homes on CR229, CR233, SR 16 and US Hwy 301 and noted approximately 25 mobile homes were damaged. Bureau staff investigated any movement of homes on their foundation and when movement was noted, piers, anchors and other tie down equipment were checked and the approximate time of installation was noted along with the age of the home. Only one mobile home moved on its foundation.

- **County Road 229** – The tornado touched down in this community damaging approximately eight homes, tearing off carports, awnings, and screened rooms. Three older homes were destroyed. One pre HUD home moved off its foundation due to "old style installation techniques" (no longer allowed) and rusted straps.
- **County Road 233** – The tornado damaged about six homes by blowing off the roof, skirting, siding and carports. Most of the homes were built in the 80's and 90's and were not installed to the latest codes but did not move off their foundations. The tornado blew down barns and heavily damaged vehicles and a recreational vehicle.
- **State Road 16** – The tornado damaged about six homes by blowing off the roof, skirting, siding and car ports. Most of the homes were built in the 80's and 90's and were not installed to the latest codes but did not move off their foundations. One home was severely damaged due to a falling tree. No homes moved on their foundations.
- **US Highway 301** – The tornado damaged about five homes by blowing off the roof, skirting, siding and carports. No homes moved on their foundations.

After several hours of investigating mobile/manufactured homes in areas affected by the tornado, the Bureau found only one home that had moved on its foundation. The damaged home was built in the 70s and installed in the same time frame. While the installation may have been correct at the time, no retrofitting had occurred since the initial installation and the home simply slid off its foundation.

AREA OF COVERAGE

**Bradford County
CR 229, CR233, SR16
& US HWY 301**





Homes with roof damage, but no movement on the foundations.





This home moved off its foundation.



The home moved off its foundation due to rusted anchors, too few anchors and the straps were improperly spliced.

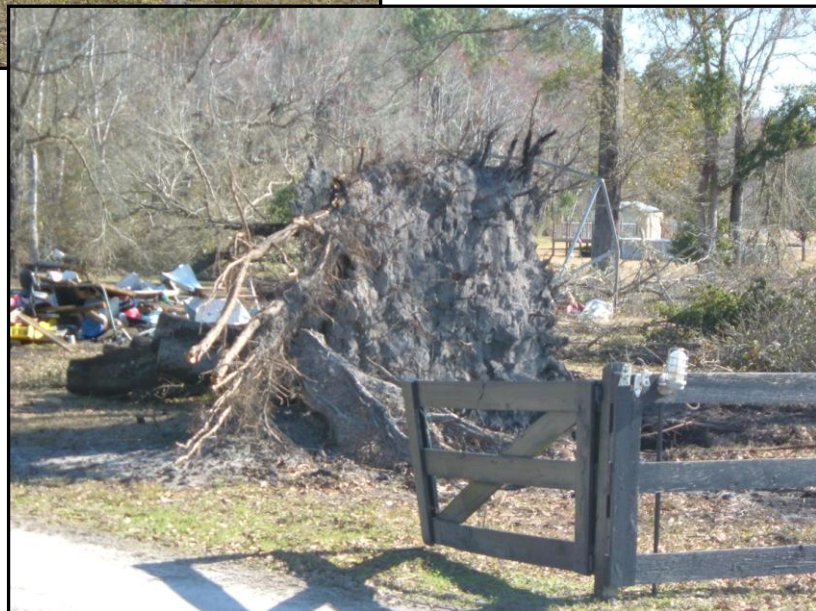




A home severely damaged due to a fallen tree. Front and back view. The home stayed on its foundation.



Many trees down and several nearly missed homes. Note the truck that flipped over.





Other homes with roof damage and siding ripped from the stud walls. These homes did not move on their foundation.

