

= Tropical Depression Ten (2007) =

Tropical Depression Ten was a short-lived tropical cyclone that made landfall on the Florida Panhandle in September 2007 . The system developed as a subtropical depression on September 21 in the northeastern Gulf of Mexico from the interaction of a tropical wave , the tail end of a cold front , and an upper-level low . Initially containing a poorly defined circulation and intermittent thunderstorm activity , the system transitioned into a tropical depression after convection increased over the center . Tracking northwestward , the depression moved ashore near Fort Walton Beach early on September 22 and dissipated over southeastern Alabama shortly thereafter .

Initially the depression was forecast to move ashore as a minimal tropical storm , and the threat of the depression prompted state of emergency declarations in Mississippi and Louisiana . It was the first tropical cyclone to threaten the New Orleans area since Hurricane Katrina and the destructive 2005 hurricane season . Overall impact from the cyclone was minor and largely limited to light rainfall . However , the precursor system spawned a damaging tornado in Eustis , Florida , where 20 houses were destroyed and 30 more were damaged .

= Meteorological history =

Tropical Depression Ten formed from the complex interaction between an upper-level low , a tropical wave that produced Tropical Storm Ingrid , and the tail end of a cold front . By September 17 , the system produced widespread thunderstorm activity over The Bahamas and western Atlantic Ocean . The upper-level low over the Florida Panhandle increased convection across the area , and on September 18 the system began crossing Florida . Initially very disorganized , surface pressures gradually decreased across the region , with a weak low-pressure area developing on September 19 .

A reconnaissance aircraft flight into the system on September 20 reported a well-defined low and strong wind gusts in squalls as the system tracked into the northeastern Gulf of Mexico , along with limited and disorganized thunderstorm activity . Convection gradually became better organized , with a well-defined band in its eastern semicircle and intermittent thunderstorm activity near the center . Despite an overall disorganized structure , with a poorly defined circulation and an upper-level low aloft , the National Hurricane Center initiated advisories on Subtropical Depression Ten at 1500 UTC on September 21 while it was located about 40 miles (60 km) south of St. Vincent Island , Florida , citing " the potential for additional development right along the coastline . " In post-analysis , it was classified a subtropical cyclone three hours earlier .

With a mid-level ridge to its northwest , the subtropical depression was anticipated to parallel the coastline of the Gulf Coast of the United States . As a result , it was forecast to attain winds of 45 mph (75 km / h) and move ashore along southern Mississippi . The circulation became better defined as convection modestly increased over the center , and within six hours of its development the system transitioned into a tropical depression . The cyclone continued tracking northwestward , making landfall around 0000 UTC on September 22 near Fort Walton Beach , Florida , with winds of 35 mph (55 km / h) . The cloud pattern deteriorated as it tracked inland , and 3 hours after it moved ashore the National Hurricane Center issued its last advisory on the depression . As the depression tracked into Alabama , it became increasingly disorganized , and the system dissipated as a tropical cyclone early on September 22 . Its remnant surface low continued west-northwest before dissipating near the Louisiana / Texas border early on September 23 .

= Preparations and impact =

The combination of wind shear and low-level helicity produced moderate convection across central Florida in association with the precursor low pressure system . Late on September 20 , a supercell developed near Lake Apopka , and tracking quickly northward it spawned an EF1 tornado near Eustis ; the tornado tracked for 1 @ 83 mi (2 @ 94 km) and reached winds of about 100 mph (160 km / h) . The tornado destroyed 20 homes , left 30 others severely damaged , injured

one person , and caused power outages for about 300 people . Damage totaled \$ 6 @. @ 2 million (2007 USD) . Tornadoes were also reported near Marianna and Chipley . The precursor low pressure system also generated lightning that struck and killed a man in Hendry County , Florida .

Outer rainbands began affecting coastal sections of the Florida Panhandle by about 12 hours prior to the formation of the depression . Coinciding with the first advisory on the depression , the National Hurricane Center issued a tropical storm warning from Apalachicola , Florida , westward to the mouth of the Mississippi River . Shortly thereafter , an inland tropical storm warning was issued for Pearl River , Walthall , and Pike counties in Mississippi and Washington Parish in Louisiana . Additionally , the New Orleans National Weather Service issued a coastal flood watch for four parishes in southeastern Louisiana . In Mississippi , Governor Haley Barbour declared a state of emergency . Officials ordered a mandatory evacuation for residents in shallow areas and in mobile homes for Jackson , Harrison , and Hancock counties . Officials in New Orleans opened three emergency shelters , citing the potential need of shelter for citizens in about 17 @, @ 000 FEMA trailers after Hurricane Katrina . Due to the threat of the cyclone , Louisiana governor Kathleen Blanco declared a state of emergency and placed the state 's National Guard and other disaster services on reserve .

Waves of about 5 feet (1 @. @ 5 m) and rip currents were reported along the west coast of Florida . However , no beach erosion was reported . Rainfall associated with the system peaked at 7 @. @ 29 inches (185 mm) at Hastings . Elsewhere , rainfall totals reached 1 @. @ 46 inches (37 @. @ 1 mm) in Albany , Georgia , and 0 @. @ 51 inches (13 mm) in Dothan , Alabama . Wind gusts from the storm peaked at 46 mph (74 km / h) in Milton , Florida , which blew down a few trees in Escambia County . Overall damage from the depression was minimal . Storm surge ranged from 2 @. @ 5 to 4 @. @ 1 feet (0 @. @ 76 to 1 @. @ 25 m) along the Panhandle .

Prior to the storm 's development , several oil and gas companies removed unneeded workers from offshore oil platforms in the northern Gulf of Mexico ; Shell Oil Company evacuated about 700 employees , while Noble Energy removed its workforce of about 300 people from two oil rigs . ExxonMobil cut its output by about 1 @, @ 000 barrels of oil and 55 @, @ 000 cubic feet (1 @, @ 600 m3) . With 27 @. @ 7 % of the daily crude oil production halted due to the depression , oil prices rose further after days of increasing levels , and on September 20 reached a record rate of over \$ 84 per barrel .

== = Tornadoes == =