

= Hurricane Debby (1982) =

Hurricane Debby was the strongest tropical cyclone of the 1982 Atlantic hurricane season , with winds peaking at 130 mph (215 km / h) . The fourth named storm , second hurricane , and the only major hurricane on the season , Debby developed near the north coast of Hispaniola from a westward moving tropical wave on September 13 . Forming as a tropical depression , it headed northwestward , and eventually strengthened into Tropical Storm Debby the following day . Thereafter , Debby rapidly intensified into a hurricane early on September 15 . The hurricane then curved northeastward and grazed Bermuda as a Category 2 hurricane on September 16 . It continued to strengthen , and by September 18 , Debby briefly peaked as a Category 4 hurricane on the Saffir ? Simpson Hurricane Scale , with winds at 130 mph (215 km / h) and a minimum pressure of 950 mbar (hPa ; 28 @. @ 05 inHg) .

After reaching peak intensity , Debby slowly weakened , and was between Category 2 and 1 when it passed south of Newfoundland early on September 19 . Thereafter , the storm accelerated and was moving at roughly 60 mph (95 km / h) towards the east . Debby was rapidly approaching the British Isles on September 20 , shortly before it transitioned into an extratropical cyclone . Overall , impact was minor in the Lesser Antilles , with only light to moderate rainfall in Dominican Republic , Puerto Rico , and the United States Virgin Islands . On Bermuda , high winds caused some power outages and knocked over trees , though damage on the island was minimal . In addition , Debby dropped rainfall and produced moderately strong winds on Newfoundland .

= = Meteorological history = =

A weather system moved off the coast of Africa on September 3 . The disturbance was small and became unidentifiable within 24 hours of formation . Satellite imagery indicated that the disturbance may have acquired a circulation on September 7 , but the circulation was gone by the next day . The remaining tropical wave moved into the Lesser Antilles on September 11 and a reconnaissance aircraft was deployed . The aircraft found circulation ; however , by the next day , only a strong wave was detected . Atmospheric conditions became more favorable for development , yielding lower wind shear near Hispaniola for several days . The system moved into this area as the latest Reconnaissance aircraft was deployed , declaring it a tropical depression on September 13 near the Dominican Republic .

The next Reconnaissance aircraft that investigated the system discovered a minimal pressure of 1005 mbar (28 @. @ 67 inHg) and winds of 45 mph (70 km / h) in the depression 's center , prompting an upgrade to Tropical Storm Debby on the morning of September 14 . Uncertainty arose as to whether Debby would interact with an approaching trough or enter the influence of a ridge over the southeastern United States . The storm was later picked up by the trough , moving away from land and moved to the north . Debby strengthened further , becoming a minimal hurricane late on September 14 . The hurricane deepened further , reaching maximum winds of 110 mph (180 km / h) , a Category 2 storm . Debby approached Bermuda in this time , and on September 16 , Debby passed 80 miles (130 km) west of the island and continued north .

Debby began to slow down to 5 mph (10 km / h) early on September 17 as another trough in the westerlies arrived and the system entered it . As the hurricane entered the trough , its forward speed picked up from 5 mph (10 km / h) to 30 mph (50 km / h) . During this time , Debby reached Category 4 strength , reaching a peak intensity of 130 mph (215 km / h) and a minimal pressure of 950 mbar (28 @. @ 05 inHg) . Early on September 19 , Debby passed just south of Cape Race , Newfoundland and started accelerating to the east at 60 mph (100 km / h) on the following day . Debby remained a tropical cyclone while crossing the North Atlantic Ocean and weakened to a tropical storm at 0600 UTC September 20 . Debby was rapidly approaching the British Isles on September 20 shortly before it transitioned into an extratropical cyclone .

The remains of Debby maintained plenty of intensity over northern Europe , and on September 21 it struck northern parts of Finland (where it was named storm Mauri) as one of the most powerful windstorms in the country 's recorded history . Winds over 85 mph (137 km / h) felled millions of

cubic miles of forest , and a storm surge severely damaged the cities of Kemi and Tornio , claiming two lives .

Starting in the 1982 season (with Debby) , the Hurricane Hunter Aircraft (also known as P 3s) began running a new mission for NOAA 's Hurricane Research Division . The mission was to drop dropwindsondes that deployed very low Omega frequency signals . These signals were to estimate the sonde 's motion compared to the aircraft in certain areas in a storm .

= = Preparations and impact = =

Rainfalls from Debby in Puerto Rico ranged between 3 inches (76 mm) around the northern end of the island to 10 inches (250 mm) in the southern ridge of the island . Rains on the island peaked at 12 @. 86 inches (326 mm) in Penuelas . The U.S. Virgin Islands reported rain of about 3 inches (76 mm) , while about 5 inches (130 mm) of precipitation fell in Dominican Republic . The United States Navy removed its 700 personnel on Bermuda 's Air Force Base , placing them in a gymnasium nearby . Thousands of tourists took last @-@ minute flights out of Bermuda on September 16 as Debby drew near . Some of the airlines had pulled back the number of flights going in and out of the island . Eastern Airlines dropped from five flights to two , with them going to only New York City , Newark , New Jersey and Boston , Massachusetts .

The storm had sustained winds of 110 mph (180 km / h) winds , and forecasters were predicting that the hurricane 's eye would be over the island the next day . Airlines canceled flights , buildings boarded up , and cruise liners were hurried out of their harbors in the time before Debby arrived . Rescue teams evacuated workers from Mobil oil rigs in Debby 's path as it neared . Bermuda experienced heavy gusts of wind , which caused minor damage with no injuries or fatalities . Power outages were reported on the island , though electricity was quickly restored . Numerous trees were knocked down on the island due to high winds . As the storm was approaching Canada , some oil rigs offshore of Newfoundland were evacuated and a science expedition off Grand Banks was discontinued . Onshore , Debby produced light rainfall in the southeastern portions of Newfoundland , with precipitation peaking at approximately 3 @. 5 inches (89 mm) . In addition , a few areas experienced tropical storm forces winds , though damage was minimal .