

A Weekend Under Threat - Hurricane Erin

At one time having fizzled out, on its way westwards across the Atlantic, Erin revived and finally grew into the first major (Category 3) Hurricane of the 2001 season, as it brushed by to the east of Bermuda on the 9th September with only Tropical Storm force winds affecting the Island. Ironically, this strengthening may well have been a factor in sparing the Island from substantial damage, since Erin's increased "self-steering" effect, may have assisted in turning the storm further to the east of the Island than had at first been predicted.

The following is an account of the action at the Bermuda Weather Service (BWS) over the weekend as Erin closed in on Bermuda. Full details of Erin's track can be seen on the attached diagram.

Friday 7 September – Roger Williams, BWS Director, briefs the Emergency Measures Organisation (EMO) Committee on possible scenarios. It's known that Erin is a potential threat, but how close will it come...and how intense? Williams reviews the latest predicts from the National Hurricane Center (NHC) in Miami and the predicted track "plume" from the Hurricane forecast computer models – some to the west, some to the east, and some right over the Island. The EMO draw up their plan of action for the weekend.

Saturday 8 September - After an early morning conference with the experts at the, Declan O'Connell, BWS duty Meteorologist labels Tropical Storm Erin as a "threat" to the Island. Erin is forecast to pass close to the northeast of Bermuda, by early Monday morning.

...Sunrise. The 'phones begin ringing and Williams arrives early to assist with the extra workload.

...Late morning. After another conference call, O'Connell issues a Hurricane Watch, indicating that hurricane force (64 knots or more) winds may affect Bermuda within the next 36 hours.

...Williams is in constant touch with the EMO and takes part in periodic conference calls and group briefings. By now the "Hurricane Hunters" are making regular flights, every six hours, measuring winds and pressures in and around the storm.

Mid-afternoon...with fresh information from the reconnaissance aircraft, Erin is upgraded to a Category 1 Hurricane, becoming the first hurricane of the 2001 Atlantic Season, with maximum sustained winds of 65 knots and gusts to 80 knots near its centre. With Erin only 360 miles to the southeast and moving towards Bermuda at 16 m.p.h., the latest "best track" estimate is for Erin to pass less than 20 miles east of Bermuda on Sunday afternoon, with hurricane force winds impacting the island. O'Connell upgrades the Hurricane Watch to a Hurricane Warning.

...Evening....By now the 'phones are going frantic. All the radio and TV stations want live "clips" from the forecaster and an additional Meteorologist, Liz Nelson, is pulled in from her day off, to assist forecaster Mark Guishard, observer, Christa Gierlinger and our trainee observer, Nadine Basden, on their overnight vigil. Meanwhile, Williams is off

again down to Prospect for a further EMO briefing session, following which the EMO contact the media to assist them in getting out the word, urging the general Public to make haste their precautions.

...Midnight... Latest track forecasts from the NHC have Erin's Closest Point of Approach (CPA) now reckoned as 80 nm. to the NE on Sunday evening. Things begin to look a lot better for Bermuda, but it is not wise to get complacent when dealing with a Hurricane!

Sunday, 9 September –

...3:30am, reports from a Hurricane Hunter aircraft determine that Erin is now a Category 2 Hurricane, and intensifying, with winds of 90 knots and gusts to 105 knots. Winds of up to 100 knots were expected over open waters by Sunday evening, with the slight chance of severe thunderstorms and tornado activity, as the intensifying system approaches its closest point to Bermuda.

...6am... The 'phones are on the go again and the media are hungry for sound bites, throughout the day. Williams is in early again to assist today's duty Meteorologist, James Morrison and Observer, Kevin Zuill. The latest advisory calls for the CPA at 60 nm to the ENE at 6pm this evening.

...mid-afternoon... Thankfully, Erin moves further east than anticipated, sparing the island from the worst conditions, with sustained wind speeds barely reaching Tropical Storm force (34 knots or more). There were frequent squalls with rain and heavy showers, but little in the way of thunder and lightning. The peak wind gust was 47 kt at Harbour Radio. Sea wave and swell heights up to 14 feet were also reported.

The actual track of Erin showed the closest point of approach to Bermuda at 8pm on Sunday evening, at 90 nm to the northeast. (see tracking map). At the time of closest approach, Erin had been upgraded to a Category 3 Hurricane, with maximum sustained winds of 100 knots and gusts to 120 near its well-defined eye.

Once again, Bermuda breathed a sigh of relief as yet another Hurricane passed by, and moved away into the North Atlantic. However, had the track been just a tad further west, it would have been a very different story.....

Roger Williams & Mark Guishard,
Bermuda Weather Service