

THE GREAT STORM

of 1987

Thirty years ago this month Suffolk was badly battered as hurricane force winds wreaked havoc across the UK – and forecasters famously got it wrong. Veteran East Anglian meteorologist Jim Bacon recalls the event and tells Mike Trippitt how forecasting has come a long way since then





Ipswich Airport hurricane

“EARLIER on today, apparently, a woman rang the BBC and said she’d heard there was a hurricane on the way. Well, if you are watching don’t worry, there isn’t.” Michael Fish’s often quoted, but frequently misunderstood lunchtime forecast on October 15, 1987 remains as memorable as the Great Storm that arrived before dawn the next day.

“I remember driving home, through lashings of rain with windscreen wipers on double speed,” says Jim Bacon, meteorologist and former TV weatherman. He had been attending a TV reception in Essex that was curtailed at 10.30pm on police advice, over fears of rain and flooding.

“When I got home the rain had gone through. I stood outside the back door at one o’clock in the morning near Norwich and

‘I remember driving home, through lashings of rain with windscreen wipers on double speed’

thought, “This is odd, this does not feel right.” It was a starry, autumn night. Jim knew that should mean low temperatures and frost, yet there was a warm, gentle breeze.

“In all my life I have never known weather to feel as weird as that. I went to bed thinking that it was really odd, that I did not understand it, and that it was not going to be good.” A deep depression had developed explosively above the Atlantic ocean. Forecasters thought it would produce strong winds in Holland and the English Channel, but only light winds and rain over the UK.

Twelve hours later, winds up to 115 mph had wreaked havoc on East Anglia and Southern England, 18 people were dead and 15 million trees uprooted. The Met Office stood accused of getting the forecast wrong.

“The weather models (predictions of possible weather outcomes by computers, based on calculations from current weather conditions) were very good in picking up the potential for this big development, but there were two flows and the models were not particularly good at resolving which one was going to develop into the big low.” Jim says that, contrary to forecasters’ views, it was the second low to the west, not the first, that developed and tracked further north. Although it brought high winds over land, he is supportive of former colleagues. Could the forecast have been done better?

“Probably not with the technology that was available then. It wasn’t so much that anything was wrong, but more that there wasn’t enough computing power to do a much better job with

The day after, All Saints Church Sutton and a damaged house, on the Orwell Bridge



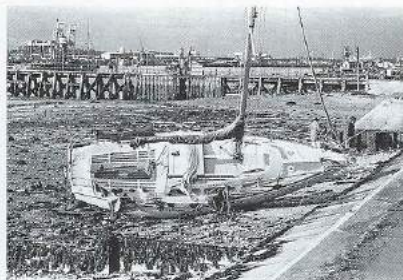
the information available at that time." Jim Bacon will celebrate 50 years in meteorology next year and has seen vast changes in forecasting. He says advances outside pure meteorological science have led to more timely and accurate predictions.

"The biggest changes are to do with computing power, and how rapidly computers grow in their capability, both in terms of data storage, and particularly in terms of processing speed. In 1987, the computer models were running using data points 150km apart and 10 layers of data from the upper atmosphere. That was still hundreds of thousands of calculations.

"The data points now are not 150km apart, but 4km apart, and there are not 10 layers of atmosphere, but 90. That immediately scales up the amount of calculations a computer has to do. Because computers are so powerful we do not just run the forecast once, we run it several times with many variations in starting conditions.

"We are exploring all the possible outcomes where things interact, so we can see for a week, maybe a week-and-a-half ahead what the possible outcomes are."

This 'ensemble forecasting' not only allows forecasters to assess the risk of a particular weather event occurring, but also allows for degrees of relative confidence in their predictions. Such detailed analysis is vital to emergency services, local authorities, port authorities, farmers and other businesses



whose operations are affected by the weather.

Since 2001, Jim has been a director of Weatherquest, a private company set up by him and former Met Office colleagues to supply weather forecasting and consultancy services to customers across the public sector, private industry, media (including live TV weather forecasts) and to the public. Based on the university campus at Norwich, the business has always looked to provide a lot more than what can be obtained freely from newspapers, television or online.

"We have tried to define what we do in a way that starts with the user and works back to meteorology," says Jim. "We are always trying to think 'What question are they trying to answer, and what will they do differently if they know a certain thing about the weather?'"

He says forecasters do not just look at what the weather will be in, say, 10 days'

'What question are they trying to answer, and what will they do differently if they know a certain thing about the weather?'



Top, the aftermath at Shotley, above, Ipswich Airport, left, Rendlesham forest, right, there was only one possible front page for the Evening Star



time. Instead, they look at 50 or so possible outcomes for the weather on that day, to ascertain whether any of them carries a risk such that something needs to be done, or some protection put in place.

“For example, whether the risk of rain requires an event organiser to put hard standing on the ground, whether the risk of frost requires a farmer not to leave sugar beet out on top of the land.”

Jim Bacon did his last TV weather bulletin in 2016, after more than a combined 20 years in front of the camera, at BBC Television Centre in London, then later at Anglia TV and BBC East. He looks back with enormous pleasure at those enjoyable times.

“I had a jolly good run doing it. I didn’t become a meteorologist to do television. That was an accidental by-product. But I had a great time and I wouldn’t change any of it.”

But, he says modestly, he was there to convey a message. “There was no reason why people would switch the television on to see Jim Bacon. It was all about the message, and if they remember the message then you have done your job. If all they remember is what you were wearing then you have not.”

At 67, Jim combines his work – what he calls “semi-retirement that has not quite worked out like that” – with home and family life in his native county of Norfolk.

“Rural eastern England is what makes life enjoyable for me. Growing up in the fens meant I saw a lot of sky and I could not help but become aware of what the clouds were telling us.

“I love the weather, and getting paid is a real treat. I appreciate, and genuinely value, how lucky I am, that I have done something in my career I have always loved doing.” ♦





Blowing a hoolie

*The 1987 storm was not a meteorological hurricane, though winds did reach hurricane force 12 on the Beaufort scale
Mean wind speeds of 50 mph were observed across South East England*

The maximum gust of 115 mph was observed at Shoreham-by-Sea, West Sussex

Gusts of 94mph were recorded in London in the early hours.

The Royal Sovereign lightship in the English Channel recorded an average wind speed of 86mph

Temperatures rose by up to 10°C briefly overnight, as the storm tracked north.

A pressure rise of more than 20 millibars was observed in just three hours.

Pressure fell to 951 millibars at the centre of the storm.

Later, the government provided funds for the Met Office to set up Severe Weather Warnings

The storm did its worst all over the county. Clockwise from top left, Bardwell Mill, Ipswich, Felixstowe, Beccles, and Shotley. Main image, Felixstowe.



When the wind blew: Suffolk's story

Do you remember the night the 1987 hurricane hit Suffolk hard? We awoke to a new landscape. Trees were felled, homes and gardens damaged, buildings were battered, rail lines closed, power lines downed. It was the morning of October 16, 1987, and for the people of Great Britain it brought the realisation that we had just been visited by the worst storm in more than 200 years, with winds gusting up to 115mph.

The ferocious gale left 18 dead, brought down 15 million trees and left hundreds of thousands of homes across the country without power. With power out for days and a massive nationwide clean up needed to tackle the aftermath, it would be a long and expensive time before the country recovered from the damage of that single October night. Suffolk saw some of the strongest of these gales, with the wind speed

recorded at more than 102mph at Martlesham Heath, outside Ipswich. The morning light brought shock and horror at the damage wrought by the power of the wind. Along the coast caravans were turned to matchwood, and from towns and villages across Suffolk - and around the country - came reports of cars crushed by trees, roofs smashed by chimneys, walls toppled, debris blocking roads and causing transport chaos.

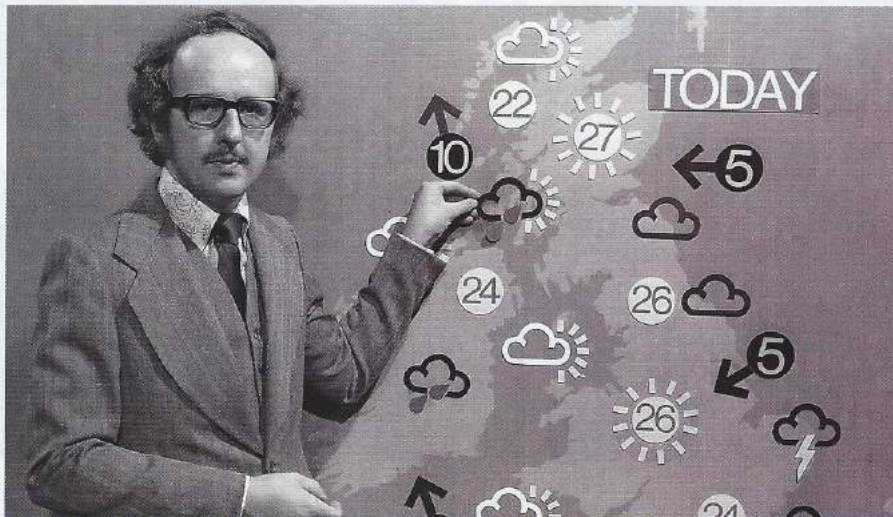
The county was bruised and battered, as the striking images on these pages, taken by photographers from the East Anglian Daily Times, recall.

Thirty years on our sister magazine Let's Talk looks at the trail of devastation left in its wake. For more nostalgia, great features and interesting interviews, subscribe to Let's Talk magazine each month.

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Britain's longest-serving weatherman Michael Fish retired on October 6, 2004 after charting more than 30 years of the nation's sunshine, showers and storms. Fish revealed then that he was hoping to cash in finally on the notorious gaffe for which he will always be remembered - his comments ahead of the Great Storm of 1987.