

# Correspondence

## IS FORECASTING NECESSARY?

FROM SIR FRANCIS CHICHESTER, K.B.E.

In the middle of January there was a hurricane wind in Scotland and northern England which did a great deal of damage to life and property. The wind strength was reported as being up to 134 m.p.h.

I would like to ask the following questions:

1. Was there any forecast of this wind?
2. If not, was there any forecast of a wind of even half this speed, i.e. 67 m.p.h.?
3. If not, has there been any explanation by the Met. Office as to why the wind was not forecast?
4. There was a high wind in Sheffield some years ago. I believe the wind was up to 160 m.p.h. Was this wind forecast at all by the Met. Office? If not, why not?

Some years ago I presented a paper to the Institute (*Journal* 1, 354) entitled, *Is Forecasting Necessary?* My contention was that a wrong forecast in certain cases would lead to a pilot taking off unprepared and that this might get him into serious trouble. On the other hand, if he had no forecast, the pilot would take precautions against the worst conditions likely.

If catastrophic conditions cannot be foretold, would it not be better, for the whole community, to abolish forecasting?

*Dr. B. J. Mason, F.R.S., Director General of the Meteorological Office, writes:*

The gales which struck northern England and Scotland and caused serious damage and loss of life in Glasgow in the early hours of 15 January were caused by a depression which, at 6 a.m. on 14 January, was situated in mid-Atlantic. It subsequently moved very rapidly—at about 50 knots—to reach the Outer Hebrides by midnight. It deepened as it travelled and brought winds which were particularly strong on its southern flank. Its effect was probably intensified by the local topography of the Forth and Clyde valleys. The gale reached its peak in western Scotland between 3 a.m. and 5 a.m. on 15 January—the mean wind speeds recorded in Glasgow were about 60 m.p.h. and these were accurately forecast. Of course, it is usual for such severe gales to be accompanied by gusts, lasting for perhaps only a few seconds, that are considerably stronger than the mean winds, but it is impossible to forecast the extreme strength and time of occurrence of such random and transient phenomena. The maximum gusts recorded in Glasgow reached 104 m.p.h.; the value of 134 m.p.h. refers to the strongest gust recorded at Great Dum Fell, Westmorland, at 2780 ft. asl.

The Meteorological Office issued warnings of Force 8 gales for the northern half of the British Isles at 10 a.m. on 14 January and, at 10.30 p.m., warned that Force 10 winds (up to 63 m.p.h.) would occur in northern and western districts within the next six hours. These warnings were broadcast to shipping by the

B.B.C. and G.P.O. coastal radio stations, and to the general public in numerous B.B.C. bulletins during the 17 hours that preceded the height of the storm.

With regard to the Sheffield gales of February 1962, which were locally intensified by topography and mountain lee-waves, our records indicate that the highest mean wind speeds were 65 m.p.h. and the highest gust about 100 m.p.h.

Utility of weather forecasts must, of course, be judged by the individual user in relation to his own particular needs. However, the daily forecast is essentially correct on about 80 per cent of occasions, and the demand for weather information and advice by industry and the general public is continually increasing and becoming more exacting. We are continually seeking new ways of improving our services to the public and we are always grateful for constructive criticism and advice to this end.

I am concerned about the very difficult problem of getting weather warnings and advice quickly to the large and rapidly increasing numbers of small boats that sail in our coastal waters, and am most grateful for the very helpful advice we receive from yachting organizations and individuals. Although it may not always be possible to forecast extreme and very localized events, I should be sorry if Sir Francis Chichester's rather extreme views were to encourage less experienced helmsmen to ignore warnings and advice that will keep them out of serious trouble on the great majority of occasions. It is seldom practical or economic to take precautions against the freak events that may occur only once in 100 years.