# LOW Q

Ian Maclagan, LL.B., Solicitor

The meteorological situation at midday on 12th January 1968 out over the Atlantic Ocean at point 36°N 49°W probably was of little concern to anybody in Scotland at that time, but some sixty hours later many Scots felt the effects of a depression which was described as the most terrifying since 28th January, 1927. At midday on the 12th the Meteorological Office picked up the depression as a shallow cold front wave depression of 1008mb. at the said point some 1200 miles west of the Azores. Twenty four hours later the depression had deepened to 998mb. and had moved north east to 42° N 38° W, that is about 600 miles north west of the Azores. During the first day of its life the depression had travelled 630 nautical miles at an average speed of 26 knots. Another twenty four hours later the depression had deepened to 966mb. and had moved further north east to 53° N 22° W, that is to about 400 miles west of Ireland. During its second day of life the depression had travelled 940 nautical miles at an average speed of 39 knots.

Things then began to hot up. In the following six hours the depression's speed increased to 62 knots although it did not deepen any further and it continued on its north easterly course bringing it at 1800 G.M.T. on the 14th to 56°N 13°W that is some 200 miles west south west of Tiree and much the same distance due west of Jura. By this time the depression was also beginning to occlude. The warm front lay from near the centre of the depression to the Mull of Kintyre, then to Dumfries and on south eastwards in a shallow curve. The cold front lay from the centre of the depression in a tighter curve south eastwards to the north west of Ireland, southwards down the west coast of Ireland and finally south-westwards over the Atlantic.

By 001 G.M.T. on the 15th of January the depression was to the west of the Uists and Benbecula at 57½°N 8°W and although it had further deepened to 959 mb. its speed had slackened to 32 knots. The depression was continuing north-eastwards. Also by this time both warm and cold fronts had crossed eastwards over Scotland and put the country into deepening cold air. There were occasional rain showers. Behind the fronts a broad trough extended from the centre of the depression south westwards down the west coast of Ireland and in this trough, in a band of about 100 miles north to south centred some 150 miles south east, south and south west of the centre of the depression, the strong westerly gradient was extremely tight. Wind speed in this band was up to 190 knots.



The depression continued to deepen to 957mb. and by 0300 G.M.T. on the 15th the centre had moved to the Minch between Cape Wrath and Stornoway at an average speed of 33 knots. This took the band of high winds over the Clyde and Forth valleys.

The next 3 hours up till 0600 G.M.T. on the 15th saw the depression change its direction from north east to east and increase in velocity again to 65 knots. At 0600 it had deepened further to 956mb. and was rather less than half way across the North Sea between Caithness and Norway at point 58½°N ½°E. It is believed that the central value of the depression probably reached its lowest value in its whole life at this point. By now the area of highest gradient velocities had cleared the Clyde and Forth Valleys and was affecting the east coast of Scotland between Montrose and St. Abb's Head. The areas of Scotland which had been cleared were still being affected by very strong winds although now of slightly less velocity and the wind had veered north west. Pressure was also beginning to rise again.

By noon on the 15th the centre of the depression had moved east south-east from its position six hours earlier at an average speed of 45 knots and was now between Sweden and Denmark over the Skagerrak. It had filled to 962mb. and its position was 57½°N 8½°E. The very tight gradient was over the North Sea while behind in Scotland the west and north west winds were continuing to decrease in force and pressure was continuing to rise.

In the third day of its existence Low Q had travelled 1120 nautical miles at an average speed of 47 knots.

At noon on the 16th the depression was well clear of Scotland and was in fact 890 nautical miles further east south east at point 50½°N 31° E over Kiev in the Ukraine. Its average speed during its fourth day of life was 37 knots.

The precipitation over Scotland from Low Q was in the form of rain and there was generally 7/8ths to 8/8ths cloud cover.

The area of greatest wind velocity probably passed over the Island of Bute between 0200 and 0300 on the 15th. Unfortunately there were no wind recordings taken on the Island but it is reasonable to assume that exposed areas experienced gusts of from 110 to 120 knots. The highest recorded wind gusts were, Tiree 118 m.p.h. and Glasgow (Abbotsinch Airport) 103 m.p.h. between 0200 and 0300; Prestwick Airport 104 m.p.h. and Leuchers Airport 106 m.p.h. between 0300 and 0400; and Lowther Hill, Lanarkshire 124 m.p.h. between 0400 and 0500 on the 15th.

Those Brandanes who were lucky enough to sleep awoke on Monday morning to a scene of devastation. To inventory the damage to property is impossible. One can but instance strong stone-built chimney heads flicked from their bases either to the ground below or through the roof of the building, roofs stripped in varying degrees of their slates, T.V. aerials twisted and torn from their mountings, ridging ripped off, garden sheds blown over, green houses smashed and windows blown in. One local slater received on the Monday and the following two days orders to repair over four-hundred roofs and twenty-six chimney heads. It took fully a year to repair the damage.

The gale also took its toll of standing timber. In some cases trees and their roots were torn out of the ground; in other cases the trunks were snapped like matches. Several roads on the island were blocked by fallen trees which brought down telephone poles and lines which stood in their way.

Although some two hundred and thirty telephones were put out of order the G.P.O. had everyone connected again within fourteen days, but this was only due to the fact that gangs were brought to the island by the G.P.O. from



areas not affected by the storm. Most of the damage to telephone property was in the outskirts of the town.

About 100 mature trees were brought down in the main avenue leading to Mount Stuart House and about 130 big trees came down in the Black Wood. About two thirds of Bruchog Wood, half of Piper Hall Wood, half of Tor Wood, half of Kirk Wood, two thirds of Culevin Wood and two thirds of Drumreoch Wood were brought down. In total something like one half of the Bute Estate's coniferous timber came down that night and at the time of writing it is estimated that it will take until mid 1973 to clear all the wind blown timber. Where the trunks have been snapped there is bound to be some loss in that it will not be possible to clear all the timber before it decays, but where the trees still have some roots in the ground it is hoped most of that timber will still be useable when it is cleared. An extra squad of local labour has been established by the Estate to help extract the wood. But for Low Q the Tor Wood would not have been cleared for some 10 years and many of the others not for some 15 to 20 years, though thinning would of course have taken place before then.

At the time of writing the Piper Hall Wood has been cleared of 7500 trees which yielded 82,519 cu. hoppus feet of timber. This wood has been replanted. Some 250 trees have been taken out of the Estate Policies alone yielding 23,000 cu. hoppus feet of timber. A further 3.500 trees have been extracted from the Tor Wood and 360 from the Kirk Wood. Up to the end of 1968 Kates Belt Wood had yielded 2,686 cu. hoppus feet of timber, Carnbaan Wood had yielded 5,984 cu. hoppus feet of timber and Culevin Wood had yielded 5,128 cu. hoppus feet of timber.

Of one thing we can be thankful namely that there was no loss of life on the island although in Glasgow and elsewhere twenty or more people died under falling masonry and three men were drowned in the Clyde off Greenock when the dredger Cessnock capsized and sank. The fact that the storm occurred at night undoubtedly resulted in the comparatively few deaths. What the result would have been had the trees and chimney heads been falling and the slates

flying during the day when people were out and about does not bear contemplation.

It is impossible to cost the damage. In February 1968 it was estimated that some £30 million of damage was caused to property throughout Scotland. In Bute there was probably several hundred thousand pounds of damage. The final figure however will probably never be known.

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## WEATHER REPORT

Detailed particulars of the daily weather may be obtained from the Meteorological records in the Society's Library at the Museum.

The whole of these daily readings were collected by Mr. J. McFie in the grounds of Rothesay Academy, and it is very unfortunate that, due to circumstances beyond Mr. McFie's control, the Sunshine Records are, in several instances, incomplete.

This is particularly unfortunate in the case of the records for 1968, as this was an unusually sunny year.

There is a record in the Society's papers, giving details of the rainfall at Rothesay from 1800 to 1875, and the average over the whole of this period is 48.56″.

The average over the past 30 years, from 1939 to 1968, is 53.4″, and it would be interesting to know the cause of this increase.

The Temperature Graphs and the monthly records of Sunshine and Rainfall were prepared by J. Boydell.