THE WINTER OF 1947 IN HALESOWEN, WEST MIDLANDS.

January 1947

January 1947 began fairly mild and wet, the first five days seeing 17.1mm of rain, the heaviest being on the 5th by which time cooler air had begun to encroach from the Continent with a SE wind gusting no higher than 14 knots. This cooler air brought a heavy fall of snow early on the 6th giving an accumulated depth of 5cm of level snow at 09 hr. This was added to during the day and overnight with 9cm lying by dawn on the 7th, the daytime maximum on the 6th having risen no higher than –1.1C with an overnight air minimum of –3.3C and a snow-surface minimum of –6.7C. During the 7th the snow turned to sleet then rain, though snow still continued to lie until the morning of the 9th by which time it was very patchy.

The weather then turned much milder under mainly westerly winds, with rain on most days until the 17th when it became fine and sunny. The 16th saw 5.7 hours of sunshine and the 17th 6.1 hours, daytime maximum temperatures reaching 12.8C on the 16th. The 18th saw a return to cooler conditions with a maximum of 8.9C though it was not until the 20th that night frosts again set in with a minimum of –2.2C.

By the 22nd much colder NE winds brought in frequent snow showers leading to a full snow cover of 2.5cm by 09hr on the 23rd. Daytime maxima rose no higher than 0.6C on both the 23rd and 24th with snow-surface minima of –5.0C and –6.7C. Further heavy snow showers occurred on the 25th and 26th bringing the level snow cover to 13.5cm by 09hr on the 27th. Heavy snowfall continued on the 27th and 28th, the winds gusting to 28 knots causing widespread drifting up to depths of 6ft in many rural areas. In addition persistent frost then set in with daytime maxima of –1.1C on the 26th, 27th and 28th and as low as –5.6C on the 29th by which time the level snow lay 18cm deep. The gusting SE winds piled up even deeper drifts, many of the minor roads becoming almost impassable. Overnight temperatures fell as low as -10.0C in the air on the 28th with a snow-surface minimum of –11.7C on the 29th and –13.3C on the 30th. Further continuous snow occurred on the 31st though the daytime maximum was –0.6C with a night minimum of –7.2C. By the end of the month level snow lay 14cm deep with drifts of up to 8 feet in isolated and open areas.

In summary, 16 days had snow, 4 had sleet, and snow lay on 13 days to a maximum level depth of 18cm and drifts of up to 8 feet. Air frost occurred on 13 days with ground frost on 24, precipitation in one form or another occurring on 22days. Sunshine totalled 46 hours with 13 days totally sunless, and "rainfall" 70.2mm. Winds were predominantly SE on 14 occasions with a maximum gust to 43 knots on the 12th. The maximum air temperature was 12.8C on the 16th with a minimum of –10.0C on the 28th. The coldest day was the 29th with –5.6C and the warmest night the 16th with 8.9C. The mean maximum temperature was 4.0C, the mean minimum –1.3C and the mean daily 1.3C.

Thus ended January 1947, the start of what was to be a memorable and extremely trying spell of severe winter weather.

February 1947.

Before embarking on the analysis for February, a few notes on the way in which snow depth had to be measured during that winter. Due to the very strong and gusting winds that blew for practically the whole month, it became necessary to make very careful estimates of depth due to the widespread, and deep drifting which had occurred. Several measurements were taken across the plot, melt water was measured and converted, and a board was placed on a clear patch to estimate fresh falls. In addition, estimates were made on the farmland adjacent to the site to give a further idea of falls in "open" areas. All depths of snow are for the plot or the immediate environs. Conditions in open country could, and did, vary considerably, and this is commented upon in the text.

February was ushered in with brisk SE winds and sub-zero temperatures, though no fresh snow fell on the first. However, further heavy snowfall began at around 04.00 on the 2nd that brought the total snow depth to 15cm by 09 hr. This was added to over the next 5 days with fresh falls of snow and snow grains bringing "level" snow to a depth of 19cm and drifts to well over 12 feet in places. Winds remained in an easterly quarter throughout and gusted to 40 knots on the 8th. This caused severe wind-chill and blew snow back into drifts as soon as attempts were made at clearance. By now most local roads were blocked and it was futile attempting clearance with winds of the strengths being encountered. During the first week temperatures rose no higher than 1.1C and fell at night to –4.4C in the air and –6.7C over the snowfield. Gusts during the week were regularly around the 30-knot mark peaking at 40 knots as mentioned. With the continued falls of snow, permanent frost and continuously overcast skies, Britain was akin to the Antarctic.

Air temperatures stood at 0C early on the 4th and there then ensued a period of sub-zero temperatures lasting the best part of 100 hours. It was not until the 9th that daytime maxima reached 1.1C, and this rise was to last barely 48 hours! To add to the depression felt by many struggling in to work or school [neither factories, schools nor shops closed], the skies remained totally overcast by day and night, apart from a short break on the 6th, until the 15th when we had the first glimpse of the sun for the month, and that lasted just one hour!

From the 11th until the 23rd inclusive persistent frost occurred totalling in excess of 320 hours of sub-zero conditions. During this period the lowest maximum reached no higher than –3.9C on the 17th and the nighttime low plunged to –5.0C from the 16th to the 18th. Temperature levels over the snow surface fell to –8.9C on the 16th, all these figures being held up by the fact that the sky was continuously overcast! In addition, 3 days, the 3rd, 7th and 10th saw freezing fog at 09 hr with thick fog at other times on a further 6 occasions [smokeless zones had not yet arrived]. During this time winds had been gusting regularly to levels between 21 and 31 knots bringing severe wind-chill, widespread drifting and reduced visibility due to blowing snow.

By the 23rd, level snow had reached 23cm, though drifting, which was widespread and severe, resulted in all roads [and railways] in cuttings being totally filled and blocked. In several places drifts were deep enough to cover hedges and reach the windowsills on the upper floors of many houses. The only way from the front door to the "road" in many cases was to dig a tunnel through the snow akin to that from an igloo! By this date we had had snow or sleet on 15 days and the sun on just 2!

The sun did reappear, howbeit briefly, on the 23rd giving a run of 2.4 hours, though this did lead to clearing skies and plummeting temperatures. Both the 23rd and 24th saw snow surface temperatures as low as –15.6C and –18.3C under clear skies, the 24th giving us the first really sunny day of the month with 7.1 hours. Payment for this was made during the night of the 24th/25th when snow surface temperatures plunged to –20.0C and the air to –8.9C. Despite this, snow or sleet continued to fall, only 4 days from the 14th to the 28th being clear from solid precipitation. At no time during the month had night time minima risen above zero and thus the mean daily temperatures were positive on only 3 days, the 3rd, 26th and 27th. Indeed, these reached their lowest on the 17th with a mean daily of just –4.4C.

With depressions crossing the country on the 25th and 26th winds turned to a westerly quarter and strengths increased appreciably giving gusts of 35 and 43 knots on these days. This resulted in much blowing snow, though a slight surface thaw occurred on the 26th, only to be followed by further snow to end the month.

By the end of February the countryside was in chaos, as were many towns and cities. Fuel was in very short supply since the railways were strike-ridden and impassable, as were almost all roads [we did not have any motorways then]. In truth, everywhere was practically at a standstill. People had to walk to work or school, an easier task in the immediate post-war years as almost everyone lived very near to their place of work. The "commuter-age" was fortunately still decades in the future. Rationing meant that people were "adequately" but not well, fed, and the biting cold without central heating or sufficient fuel, meant one room being heated with the bedrooms like iceboxes. I remember ink freezing on a table under my bedroom window and getting into bed was like slipping between a couple of sheets of ice!

And so, to draw the threads for February together. The warmest day was the 26th with a maximum of 4.4C with the coldest night occurring on the 25th with a minimum of –8.9C. The 17th was the coldest day when the mercury rose no higher than –3.9C with the warmest night seeing a temperature of 0.0C on the 3rd. The lowest temperature over the snowfield was –20.0C on the 25th. The mean maximum ended at –0.7C, the mean minimum at –3.8C and the mean daily at –2.3C. Snow lay on 28 days to a maximum "level" depth in the enclosure of 27cm and local drifts up to 12 feet. Frost in the air occurred on 27 nights and over snow on 28. Snow or sleet fell on 19 days with hail on 9 and fog on 4 days at 09 hr. Precipitation occurred on 21days to a total of 55.5mm [melt water]. Sunshine totalled a mere 15.2 hours with 22 sunless days. Winds were predominantly NE gusting to a maximum of 43 knots on the 25th. Finally, sub-zero temperatures occurred for a total in excess of 420 hours in 2 spells, the first of 4 successive days 5th to 8th inclusive and the second of 13 successive days the 11th to 23rd inclusive. Wind chill regularly reached –13C, sometimes –15C. The nation was "shell-shocked", but March was to bring even worse privations.

March 1947.

February 1947 produced some dramatic and extreme conditions, but March was to throw even more severe weather at us to include blizzard conditions, glazed ice, a gale, severe wind-chill and widespread flooding.

The month began with relative calm, the 1st showing little more than scattered snow showers and almost 8 hours of bright sunshine. It did, however, remain bitterly cold with a day maximum of 2.2C and a night minimum of –6.1C, winds gusting to 30 knots producing severe wind chill somewhat ameliorating the effects of the bright sunshine! Both the 2nd and 3rd remained dry with quite widespread fog, the snow surface minimum on the 3rd falling to –12.2C under the clear skies. By the 4th a brisk NE wind heralded the arrival of heavy snow under blizzard conditions that brought level snow to a depth of 27cm and drifts as deep as 16 feet in places. Roads and railways again succumbed as snow piled in as fast as it was cleared.

Further heavy snow falls occurred on the 5th bringing "level" snow to 42cm, this total being successively added to by further moderate to heavy falls from the 6th to the 9th. Most of the country was again at a standstill and wartime "bulldozers" were brought out in attempts to open roads to isolated towns and villages. It was the second week into March before my own village road was opened from Halesowen, and then only by cutting a single path. On the 12th freezing rain began to fall, coating everything in sheets of ice and making conditions treacherous putting a 5cm to 6cm layer of ice on top of the snow surface. Additional heavy glazing occurred on the 14th only to have a further layer of snow added after heavy snowfalls on the afternoon and evening of the 15th. Under these conditions the deep layer of snow was so solid that it was possible to walk on it's surface, which in many cases left one standing above hedgerows, fences and road signposts.

The 16th saw a complete change with the daytime maximum rising to 8.3C after early morning fog. By late evening a full gale was blowing with gusts to 66 knots and almost 11 hours with mean speeds in excess of gale force. This was accompanied [fortunately] by rain, not snow, though anxiety now began to mount with the prospect of flooding if the thaw was rapid in view of the immense volume of snow around.

Rain and fresh to strong winds continued until the 24th with well over 15 hours of gale force winds blowing. The rain ate into the lying snow and a change in the wind direction to a westerly quarter heralded much higher temperatures. By the 22nd these were peaking at 11.1C to be followed on the 28th and 29th with maxima of 12.2C, though 13 mm of rain fell on the 29th. Almost all of the main volume of lying snow had gone by the 21st aided by warm days, frost-free nights and ample rain. The last air frost occurred on the 15th and on the 16th over grass.

However it was exceptionally wet, 36.3mm of rain falling over the final 10 days of the month. This, and the water resulting from the melting snow, caused widespread flooding along the river valleys, a fact mentioned regularly during the floods occurring the autumn before last. The inhabitants of Bewdley] would have been horrified to find that the river Severn floodwater reached the garage forecourt near the railway bridge over the A456 Birmingham-Bewdley road. The resulting flooding along the Severn and most other rivers was so severe that is set records which still stand today in many places.

The 1947 winter was now well and truly over and March had added to the mass of statistics thrown up by this spell of quite amazing weather. The month saw it's warmest day on the 29th with a maximum of 12.2C, the coldest night being the 3rd with a minimum of –8.3C. The coldest day was the 5th with a maximum no higher than –1.7C whilst the warmest night saw a temperature of 8.9C on the 29th. The month ended with a mean maximum of 6.3C, a mean minimum of 0.7C and a mean daily of 3.5C.

Snow or sleet fell on 13 days and snow lay on 19 days to a maximum depth of 42cm on the 6th. Frost occurred in the air on 15 occasions, and on the "ground" on 16, the lowest of the latter to –16.1C on the 7th. Rain totalled 151.7mm [a March total not exceeded to this day] with precipitation on 24days, 11 of which were "wetter" days [>=5mm]. Hail occurred on 3 days with fog at 09hr on 8 days. There was 1 gale though gale force gusts occurred on 9 days. Sunshine totalled 70.1 hours, the best day March 9th seeing 8.4 hours of sunshine. Sub-zero temperatures occurred in the air for a period around 48 hours, considerably down on the totals for January and February. Winds were in a westerly and easterly quarter on 14 days each. Freezing rain leading to glaze occurred twice.

THE SUMMARY.

The three months of January to March 1947 [a period of 90 days] represented one of the most severe spells of weather encountered in this country for very many years, possibly since the 17th century. Not only was there searing cold, but also exceptionally heavy falls of snow. Totalling the "fresh" falls over the three months gives a total fall of 210cm, or around 6 feet! Awesome falls indeed for the U.K. The deepest "level" snow on any day amounted to 42cm on the 6th March, just prior to the thaw, though in such places as road and rail cuttings, and on high ground, drifts extended up to, and in cases over, 16 feet. Over the period the heaviest single fall amounted to 17cm on 12th March during a final blizzard accompanied by glazed ice.

In all snow lay on 60 days, which, compared with the 1971 to 200 "winter" means shows an anomaly of +50.6. To enable comparisons I will give the 1971-2000 winter means in square brackets [--] in the remainder of this article. Falls of snow or sleet occurred on 48 days [+33.6] and hail on 12 [+9.4} whilst the period produced 55 frosts in the air [+24.2] the worst to –10.0C [-2.5C] on the 25th February. On the ground there were 68 frosts [+16.9] falling as low as –20.0C also on the 25th February [-8.4C]. Sub-zero temperatures occurred over 32 days to a total time in excess of 768 hours of frost, the longest spell of continuous frost being from the 11th February to the 23rd February, a total in excess of 320 hours

Over the three months the maximum temperature in the air reached a high of 12.8C on the 29th March [-0.8C], the coldest day being the 25th February when the temperature in the air climbed no higher than –5.6C [-5.2C]. For the entire spell the mean maximum ended at 3.2C [-3.8C], the mean minimum at –1.5C [-2.8C] and the mean daily at 0.9C [-3.2C], low values indeed! However, the earth temperatures fared better with the mean 30cm standing at 4.2C [-0.6C] and the mean 100cm 6.2C [-0.5C], both figures held up by the insulating properties of the deep layer of snow.

Total precipitation amounted to 277.4mm [+81.3mm} with a maximum daily fall of 18.1mm on the 5th March [-4.4mm]. Mean sea level pressure peaked at 1044.4mb on the 28th January with the lowest of 992.2mb on the 2nd February, the period averaging to 1016.1mb [+1.7mb}. Precipitation occurred on 67 days [+17.4] of which 47 were "wet" {>=1mm} [+11.5} and 18 "wetter" {>=5mm} [+4.2]. Fog at 09 hr occurred on 12 days [+2.5} though it was very prevalent during daytime as no smokeless zones had then been declared.

One gale blew on the 16th March with gusts to 66 knots and gusts to gale force were noted on 21 days, these figures well illustrating the problems which were encountered both with severe wind-chill and blowing snow re-filling all freshly cleared roads and railways. Sunshine over this period amounted to 131.3 hours [-29hr] with 47 totally sunless days [+11.9], the sunniest day being the 9th March with 8.4 hours of bright sunshine [+0.2hr].

The entire severe spell had lasted 57 days, 60 if we include the initial short spell at the start of January. Since I have highlighted many of the major problems experienced by the population during this spell of severe weather in the accounts of the individual months, it would be invidious to repeat them again here.

Well, that ends this rather detailed look at the winter of 1947 seen entirely through my own eyes with comments made where it thought likely to enhance the data being quoted. I do hope that this has proved of some interest, especially to those who were not born at the time, or were too young to "appreciate" the conditions