Thundery start to Summer

Although there were some good sunny days in June, the month was most notable for the thunderstorms that affected most areas at one time or another. During the first half of the month the weather was generally cool and unsettled with mostly westerly winds. Around the middle of the month high pressure developed to the east of the country and the weather systems affecting us tended to come from the continent. This caused temperatures to rise but also brought quite an amount of thunderstorm activity, particularly in the last ten days of the month. These thunderstorms caused widespread damage and destruction, particularly on Friday 27th and Saturday 28th. In Dublin about a dozen houses were struck by lightning and at least one was gutted by the resulting fire. Power supplies, transport and communications were disrupted and computers, cable television and other electrical and electronic equipment knocked out.

Outbreaks of thundery rain

A series of thundery troughs moved northwards across the country, mainly during the second half of the month. These brought some quite heavy outbreaks of rain to most areas. Amounts for the month were well above normal everywhere except in Kerry and the northeast (see map across). Birr was the wettest station with 101mm during the month, the highest June total since 1966. Roches Point in Co. Cork had just over 100mm which is more than twice its June average. Balmullet in Co. Mayo had the wettest day of June on the last day of the month when 35.2mm - almost an inch and a half of rain - was recorded. This is the greatest daily rainfall amount recorded there during the month of June in more than 30 years. The 10th was the wettest day in Dublin; in most southern areas it was the weekend of the 20th and 21st while in the midlands and west it was the last day of the month, the 30th. Belfast was the driest place in the country with only 35mm of rain. Meath had was also very dry in June; only 42.1mm of rain fell, the lowest June total in more than 14 years.

Temperatures near normal

Temperatures were normal or a bit above in most areas. The south coast was the exception. Roches Point was almost half a degree below average whereas Clonea was 0.9°C above. Shannon Airport had

(Continued on back page)
June 1986 - Totals, Means and Extremes

Distribution of Daily Values

- Rainfall
- Sunshine
- Temperature

Cork:

Dublin:

Clones:

Kilmany:

Main Head:

RAINFALL:

- Total
- Mean
- Max
- Min

AIR TEMPERATURE:

- Total
- Mean
- Max
- Min

SUNSHINE:

- Total
- Mean
- Max
- Min
the highest mean temperatures of the month with
14·4°C, while Malin Head came bottom of the list at
12·5°C. The highest temperature of the month
25·6°C was recorded at Clonas on Saturday the 28th.
The night of the 10th/11th was the coldest with
widespread ground frost and air temperatures falling
to 1·0°C at Kilkenny.

Sunshine

The north and east got most sun during
the month. Dublin averaged almost 6 hours a day
whereas Claremorris in Co. Mayo got just over half
that amount. Rosslare had 15·6 hours of sunshine on
the 11th making it the sunniest day of the month.
The 11th was the sunniest day in most eastern
areas; in the west it was the 15th. Generally
however, sunshine amounts were below average
everywhere, ranging from a high of 72% at Dublin
Airport to a low of 50% at Cork. Nonetheless most
areas had a few good sunny days during the month,
most notably Wednesday 11th, the weekend of Friday
13th to Sunday 15th, Wednesday 25th, Thursday
26th, and in the west, Saturday 26th.

Thunderstorm Dates

Malin Head, the extreme northern tip of
the country, was the only station to escape the
widespread thunderstorms that occurred during June.
Most places had between 4 and 6 days with thunder
which is way above the June average, although it
must be said that the incidence of thunder can vary
quite a bit from year to year. The dates of most
marked thundery activity were the 16th, the 18th
of the 16th/17th in Dublin, the 21st and the period
from the 26th to the 30th.

7-DAY FORECAST
[from 2nd to 9th July]

The week ahead will be
unsettled with no sign of a long dry
spell as yet. Sunny spells and scattered
showers on Wednesday, with some of
the showers being heavy in the
northern half of the country. Larger
falls of rain spreading from the west
on Thursday and continuing at times on
Friday.

Temperatures will remain
close to normal until the weekend with
highest values 18 to 20°C.
Northwesterly breezes will bring cooler
shower weather at the weekend with
good drying conditions. A westerly
airflow over Ireland for the first half
of next week will bring further
rainbelts with temperatures returning
to normal.

THUNDERSTORMS

Thunderstorms are without doubt the most
dramatic weather phenomenon experienced in Ireland.
They occur in the unstable atmospheric conditions
favourable for the development of heavy showers,
but their unique and spectacular features are of
course thunder and lightning.

Lightning is simply an enormous electrical
spark, caused by the discharge of static electricity
either from one cloud to another, within a cloud, or
between a cloud and the ground. The often heard
distinction between forked and sheet lightning is not
a real difference: lightning is always forked, but if
clouds or heavy rain are blocking your view you only
see a diffuse flash. The lightning stroke causes a
sudden and intense heating of the air along its path
which in turn causes an explosive expansion producing
the loud noise known as thunder. Because a lightning
stroke can be up to 2kms long, the sound from
different parts of the flash reaches you at slightly
different times which, together with echoes,
accounts for the characteristic rumbling sounds of
thunder. While the light from the flash reaches you
almost instantaneously, the sound from the thunder
travels through the air much more slowly, at about
1km every 3 seconds. Thunder can often be heard up
to 15kms away.

The amount of energy involved in a
thunderstorm is enormous. The potential difference
just before a lightning stroke occurs is estimated at
between 100 million and 1000 million volts, and during
its most active phase a thunderstorm will produce
about one stroke every 20 seconds. A small
thunderstorm of about 1km radius is equivalent in
terms of energy to ten nuclear bombs of the type
dropped on Hiroshima.

There are about 2,000 thunderstorms
occurring at any one time around the world. They are
most frequent in equatorial regions; the island of
Java in Indonesia is probably the most thundery place
in the world with an average of 220 days with
thunder each year. By contrast, thunder is virtually
unknown in polar regions. In Ireland there are
between 3 and 7 days with thunder each year, on
average.