DEPARTMENT OF SCIENCE
AND THE ENVIRONMENT

BUREAU OF METEOROLOGY.

MONTHLY WEATHER REVIEW

NEW SOUTH WALES

MAY 1980

WEATHER REVIEW

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INTRODUCTION

Heavy rains in the first ten days and during the last week of the month resulted in above to very much above average rainfall for May over most of the northeast quarter of the state, in the Central Western Plains and adjacent sections of surrounding districts, Metropolitan, most of Illawarra and scattered small sections of southern districts. These rains significantly eased the drought situation which had existed during past six months.

Rainfall was much below average in parts of the Western and Eastern Riverina Districts and average over the rest of the State.

District averages were the highest on record for May, since records commenced in 1913, in the Upper North Coast (previous highest 1921) and Northern Tablelands (East) (previous highest 1963) and among the highest ten per cent on record in Northern Tablelands (West), Lower North Coast, Manning and Central Western Plains.

Brief moderate to major flooding in coastal rivers north from the Hastings.

Cool days with about average temperatures, mild nights with much above average minimum temperatures.

SYNOPTIC CIRCULATION

The widespread relief rains in New South Wales resulted from complex low pressure developments 6th to 12th and 26th to 31st.

During the first period a small low developed off the south Queensland coast 6th/7th, persisted there until 9th then moved southwestward across New South Wales to the Adelaide region 10th/11th, the complex system which formed there then moved eastward across southern New South Wales during 11th/12th - flood rainfalls were received along the north coast and nearby tablelands, heavy falls along remainder coast and nearby tablelands and over much of the western plains and slopes, variable falls occurred elsewhere.

In the latter period, following the passage of an upper trough, a surface low moved northeast from Adelaide

region to central New South Wales during 27th thence southeastward into Tasman Sea, low pressure persisted over southern districts for the next few days. From 26th to 31st extensive cloud bands moved eastwards across the state. Rainfalls during these days were moderate to heavy in most inland districts and light to moderate on the coast.

Other low pressure developments during May were southern troughs and associated cold fronts, which moved across the state 16th/17th and during 20th. With the second trough moderate snow fell on the Snowy Mountains otherwise with these changes there were only light showers in southern inland areas and along parts of the coast and tablelands.

During the rest of the month New South Wales was under the influence of slow moving highs, which at eastern Australian longitudes followed a more south than normal May eastward path until the last week when centres were located at Queensland latitudes. Apart from seaboard showers mainly settled weather was associated with the highs, however upper level developments led to thunderstorms in the central east and heavy rains on north coast during 1st and rain in the northern border regions during 22nd when also a cloud mass over Queensland dipped into New South Wales.

During the first half of the month winds were chiefly north to easterly and in second half southerly.

RAINFALL

Highest rainfalls for the month,300 to 600 millimetres, were recorded along the coast north from Nambucca Heads, around Comboyne in the Manning District and on the eastern half of the northern tablelands and were 3 to 5 times higher than the May average. Over the rest of the northeast quarter rainfalls varied from 50 to 200 millimetres while in the northwest they generally decreased westward from 50 to less than 10 millimetres in the Tibooburra and Wilcannia areas.

Along the central coastal fringe and in the Blue Mountains region of Central Tablelands District most totals were in 100 to 200 millimetre range with highest 361 millimetres at Robertson (Illawarra), on south coast totals were generally 50 to 100 millimetres. In central and southern districts from

tablelands westward rainfalls varied considerably with highest recordings 100 to 200 millimetres in the central western plains region - Trundle - Wyalong - Gubbata and in southwestern slopes area from Cootamundra south to border and on the nearby Snowy Mountains and lowest falls less than 10 millimetres at Ivanhoe (Southwestern Plains District) and in the Jerilderie - Urana region of the Riverina district.

At the following centres rainfalls for this month are the highest on record for May :-

Upper North Coast District	-	Byron Bay	426 millimetres
		Casino	377 "
		Kyogle	417 "
		Lismore	428 "
		Murwillumbah	543 "
		Tweed Heads	509 "
Lower North Coast	-	Meldrum	558 "
Manning District	-	Comboyne	559 "
Northern Tablelands (East)	-	Bonalbo	314 "
		Drake	328 "
		Tabulam	375 "
Northern Tablelands (West)	-	Tenterfield	186 "
Central Western Plains	-	Coonamble	230 "

Highest total at Telegraphic Recording Station was 636 millimetres at Mullumbimby (Upper North Coast).

Further details of the month's rainfall are shown in Tables 1 and 2 and on Maps 1 and 2.

TEMPERATURES

Temperatures were generally below average in the third week, variable during last few days and above average for the remainder of the month.

As a result of the cloudy wet spells average maxima for the month were mostly near average and average minima much above average.

Average maxima were 1 to 2 degrees above average in far western border regions and over much of the southeast, average minimum temperatures were about average in the small areas in the

N.S.W.

Riverina and Western Districts where rainfall was much below average.

Reported extremes were 32°C. at Casino on 12th and minus 8°C. at Perisher Valley on 18th.

See also Table 4 and Maps 3 and 4.

PHENOMENA

Thunderstorms. A few storms were reported; in coast and/or tablelands and western slopes districts -- in the northern half 1st, 10th, 14th, 28th and in the southern half 5th, 11th, 27th and 28th, in the northwestern plains area 4th and in several regions in the western half of the state 27th and 28th.

Waterspouts were reported off Coffs Harbour on 14th.

Hail was reported in the Snowy Mountains area on 4th, at Coffs Harbour on 10th, at Cabramurra (Southwestern Slopes) on 11th and at Broken Hill (L. West) and Nyngan (C.W. Plains) on 28th.

Snow. On the Snowy Mountains there were light snow showers overnight 11th/12th and moderate snowfalls 19th/20th, at 9 a.m. 20th Thredbo reported 10 centimetres snow and at 9 a.m. 21st Perisher Valley 12 centimetres.

Fogs were reported on most days in coastal and/or highland areas, they were widespread 16th and 27th but otherwise well scattered to isolated. On 16th they caused traffic delays in the Metropolitan District whilst in the first and last weeks of the month some areas of fogs in tablelands districts persisted into afternoon hours.

Fogs were reported in the Riverina District on 1st, southern and central western regions 12th, 13th and 31st and in most western districts 28th, 29th and 30th.

Frost level minimum temperatures were recorded on the Snowy Mountains daily 1st to 8th, 12th to 14th and 31st, they were more widespread on the southern highlands 15th to 17th and reported in most highland areas frequently extending into western districts and occasionally into coastal plains areas 18th to 26th.

Dust)
Tornadic squalls) Nil occurrences reported.

Strong winds and gales. During 6th/7th strong winds developed in north coastal waters and on 7th gales in northwestern Tasman Sea. These conditions gradually eased from the north as they spread southwards to the south coastal and southern New South Wales ocean waters in the next four days, by 12th conditions had moderated in all areas. During this period, as well as strong winds, there were periods of gales in coastal waters.

There were further periods of strong winds in coastal waters 15th/16th, 19th to 21st and 28th to 31st and gales in southern ocean waters 28th to 30th, gales also occurred in the Snowy Mountains region 19th/20th.

BUSHFIRES AND FLOODS

Bushfires No occurrences.

Flooding The very heavy rains early in the month caused moderate to major flooding in Tweed, Richmond and Clarence Rivers 8th to 10th and moderate flooding in Bellinger, Nambucca and Macleay and Hastings Rivers 8th to 10th.

Apart from traffic disruptions and some household evacuations reported damage appeared to be minimal.

NORMAL CONDITIONS FOR JUNE IN N.S.W.

Although for most purposes the commencement of winter occurs in June, climatologically by this time the season is already well advanced. The west to east path of high pressure systems usually reach their most northern limits during June, when they pass over northern N.S.W. and southern Queensland.

Concommitantly southern depression systems affect most of the State, giving a predominantly westerly air circulation over N.S.W. This air being relatively dry gives little or no rain, except where orographical uplift occurs, or when intense frontal systems associated

with southern depressions, affect the more southern inland districts. Under these conditions areas in the lee of ranges and mountains such as coastal districts show a continued falling off in average rainfall.

While in general average rainfall still decreases from 75 millimetres to 150 millimetres along the coast to 25 millimetres or less in the interior of the State, the effect is to a large extent masked by higher rainfalls on the western slopes and the tablelands. This is particularly noticeable in the South West Slopes and Southern Highlands, which now become the highest rainfall areas in the State. Average falls of 200 millimetres are received on the southern highland sections and 100 millimetres on the Central Tablelands, tapering off to 25 millimetres in central and far western sections and 50 millimetres on the eastern part of the Tablelands.

Cyclones are not unusual in June in coastal regions of N.S.W. but are rare inland. In years when these are experienced, heavy rains and floods occur, and monthly totals of 500 millimetres or more recorded, in coastal sections. Totals of nearly 1400 millimetres have been received in one month and daily totals of over 600 millimetres at isolated places in coastal areas on a few occasions. In consequence flooding of coastal streams is occasionally experienced, but in inland both floods and cyclonic storms are very rare. However, on occasions when rain cyclones move to the southern highlands, the melting of snow by heavy rain, can result in disastrous floods in the Murray and Murrumbidgee River system.

While average daytime temperatures range from 4°C. on the Southern Highlands to 10°C. on the Central and 13°C. on the Northern Tablelands, readings between 13°C. and 18°C. are normally experienced elsewhere and sometimes reach 21°C. on the North Coast.

Night temperatures usually vary between -1°C. and 2°C. on the Tablelands and Highlands and from 2°C. to 6°C. elsewhere. However the influence of the Tasman Sea is noticed in seaboard sections where readings below 4°C. to 7°C. are rare.