

E.R.

URGENT



DEPARTMENT OF HOME AFFAIRS.

METEOROLOGICAL BUREAU,
CENTRAL OFFICE,

IN YOUR REPLY
PLEASE QUOTE THIS NUMBER.

M e l b o u r n e, 22nd. June 1909.

J.

S i r,

In reply to your telephone message for remarks on the climate of Northern Territory, I have the honour to furnish, herewith, the desired information.

I have the honour to be,

Sir,

Your obedient servant,

H. G. Hunt

Commonwealth Meteorologist.

*The Secretary
Department of Internal Affairs
Referred
David Miller*

SECRETARY DEPT. OF HOME AFFAIRS

22. 6. 09
22 JUN 1909

The Secretary.

Dept. of Home Affairs.



The Northern Territory, by reason in Northern parts of its continental and marine relations, its vast territory, and great range of latitude, has a variety of climate.

At Port Darwin, which town generally represents the northern areas, the mean maximum temperatures range from nearly ninety-five degrees, Fah., in November to eighty-seven degrees in July, and the mean minimum from sixty-seven in July to about seventy-seven degrees in all the summer months of the year. The mean variations it will be observed are fairly equable, varying in the means in the hottest and to the coldest months by only 28 degrees, but penetrating southwards towards the interior, the differences of temperature experienced between the hottest and coldest months progress with increasing ratio. Taking Daly Waters as typical of climatic conditions in Central parts of the Territory, the mean maximum temperature reaches 102.7 degrees Fah. in November, and the mean minimum drops to 52.5 in July. Again going still farther southwards to Alice Springs which fairly represents conditions in southern parts and the elevated portions of the centre of the Continent, the mean summer maximum attains a height of 98 degrees in January and December, and the mean minimum falls below 40 degrees in July, the middle of the winter.

During the six months (summer), the conditions are moist and humid, and for the most part, trying owing to the persistent indraft of monsoonal winds from the equatorial seas. During the remainder of the year, the conditions are more endurable, for although temperatures are warm, the dry prevailing S.E. trade winds from the interior and Western Queensland, render life enjoyable, and at times possibly exhilarating

North of latitude 15 S., the rainfall varies from

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60 inches on the sea coast to 40 inches, the annual mean amount recorded at Katherine. From this latitude southwards, the annual totals gradually decline to 11 inches at Alice Springs.

In the Northern areas, the rainy season lasts from December to April, during which months the major portion of the annual rain falls, the quantities recorded in June, July, and August, being negligible.

In the Central areas, the distribution follows the same characteristics, the wettest months being November to March, inclusive. Little or no rain falls during the remainder of the year.

In the Southern zone, the monthly distribution is more even, for although January, February, and December, are the wettest months, yet the mean departures do not vary to any great extent from the quantities recorded in the remaining nine months of the year.

This comparative uniformity of distribution is explained by the fact that the antarctic lows benefit, to some extent, the central parts of Australia, while the Northern areas of the Northern Territory are dependent almost entirely upon Monsoonal visitations for rain.

Evaporation results have not been obtained from the vast northern parts of the Territory, but it must be very considerable, for Alice Springs, with lower temperatures, shows an annual loss of eight feet in exposed water, which important fact must be seriously contended with in any projects for water storage and conservation.

The attached table gives a comparison between the climatic conditions of Northern Australia with those at Colombo and Singapore. It will be noticed, by reference to the figures, that while temperatures are hotter in Australia during the summer months, yet the annual range is considerably in excess of that of more equatorial latitude, and consequently

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from this point of view, is more endurable for the permanent white settlement, year in and year out, than is either Ceylon or the Malay Peninsula. The humidity and wet bulb results give also a like verdict. Tropical heat, when associated with high relative humidity is muggy and oppressive, has an enervating effect, physical and mental action is considerably reduced or becomes even impossible; these conditions undoubtedly exist in the Northern parts of the Territory for nearly six months of the year, the winter months in this area, however, enjoy a climate which should render mental and physical effort distinctly possible, if not enjoyable, by reason of the dryness and comparatively cool nights. Notwithstanding the high temperature, the general dryness of the interior should cause the expenditure of energy to be possible all the year round, and the climate should not have a deteriorating effect upon a white population.

This fact has been demonstrated in Western Queensland, South Australia, the northern parts of Victoria, and the western districts of New South Wales, where temperature records in excess of those experienced in Central Australia have been registered by many degrees.

H. A. Hunt
Geographical Meteorologist
32-6-9

PLACE	Height above M.S.L.	ANNUAL RAINFALL			TEMPERATURE						HUMIDITY			
		Average	Highest	Lowest	Mean Summer (Dec, Jan, Feb)	Mean Winter (Jun, Jly, Aug)	Highest on Record	Lowest on Record	Mean max in hot month	Mean min in cold month	Mean 9 am Summer months	Corresponding Wet Bulb	Mean 9 am Winter months	Corresponding Wet Bulb
Port Darwin	97	61.55	81.72	40.58	84.3	78.5	104.9	55.8	94.0	66.8	73	78.5	59	67.5
Daily Waters	700	27.07	45.95	8.99	86.9	70.3	116.1	30.2	102.7	52.5	51	73.0	46	56.5
Alice Springs	1926	10.97	27.21	5.39	83.1	55.0	117.0	23.0	98.4	38.2	32	66.0	54	47.0
Wyndham	23	27.50	53.25	14.40	88.4	77.6	111.8	50.0	98.2	66.1	64	79.5	45	64.0
Townsville	40	50.73	97.73	14.45	82.1	67.5	99.3	44.0	82.4	66.8	68	77.0	67	62.0
Brisbane	137	48.36	88.26	16.17	76.7	66.1	108.9	36.1	85.4	47.7	65	70.7	72	52.8
Singapore	-	96.01	118.38	81.25	81.6	80.2	- -	- -	89.9	72.3	77	78.4	78	76.3
Colombo*	40	86.65			80.8	79.5	95.8	65.0			79	76.5	75	74.1

Approximate Area of Territory with Average Annual Rainfall over 40 inches 86500 sq. miles
 " " " " " " " from 20 to 40 inches 217390 sq. miles
 " " " " " " " under 20 inches 219730 sq. miles

o Singapore The average rainfall (96.01) is the mean for 10 years of 8 stations in District. Temperature and Humidity are for 1 year only (1907)

* Colombo Extreme Range of mean temperature for the year is only 3°.5 Humidity for 1 year only (1907) and taken from observations in morning and afternoon.

Handwritten: 22-18-9

	Summer mean	Winter mean	Top max	Lowest min	Mean max hottest month	Mean min coldest month	
Darwin <1909	29.1	25.8	40.5	13.2	34.4	19.3	<1909
Darwin 14015	28.4	25.4	38.9	10.4	33.3	19.3	1941-2013
Darwin 14015	28.7	25.2			34.0	19.1	2004-2013
Daly Waters <1909	30.5	21.3	46.7	-1.0	39.3	11.4	<1909
Daly Waters 14626	29.9	21.1	44.5	1.3	38.1	12.1	1940-2013
Daly Waters 14626	30.5	20.9			38.5	11.5	2004-2013
Alice Springs <1909	28.4	12.8	47.2	-5.0	36.9	3.4	<1909
Alice Springs 15590	28.2	12.9	45.2	-7.5	36.4	4.0	1942-2013
Alice Springs 15590	28.8	13.0			35.7	4.1	2004-2013
Wyndham <1909	31.3	25.3	44.3	10.0	36.8	18.9	<1909
Wyndham 1013	31.7	24.8	46.0	8.3	39.4	16.9	1969-2013
Wyndham 1013	31.5	24.1			39.1	16.3	2004-2013
Townsville <1909	27.8	19.7	37.4	6.7	28.0	19.3	<1909
Townsville 32040	27.7	19.9	44.3	1.1	31.5	13.7	1941-2013
Townsville 32040	28.2	20.2			31.8	14.4	2004-2013
Brisbane <1909	24.8	18.9	42.7	2.3	29.7	8.7	<1909
Brisbane 40913	25.4	16.6	41.7	2.6	30.2	10.1	2000-2013
Brisbane 40913	25.5	16.6			30.1	10.6	2004-2013
All six <1909	28.7	20.6	43.1	4.4	34.2	13.5	
All six long-term	28.5	20.1	43.4	2.7	34.8	12.7	
All six 2004-2013	28.9	20.0			34.9	12.7	
	Mean summer/ winter	Mean hottest/ coldest month					
All six <1909	24.7	23.9					
All six long-term	24.3	23.7					
All six 2004-2013	24.5	23.8					