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UNION OF SOUTH AFRICA.
DEPARTMENT OF IRRIGATION.

MONTHLY WEATHER REPORT.
OF THE
METEOROLOGICAL OFFICE.

VOL. XVIII | JANUARY 1937 | NO.1

A MILD AND FAIRLY WET MONTH.

GENERAL:

Mean pressure lower than usual in the west and centre and slightly above normal in the east of the Union; mean temperature practically the same as usual, with days cooler and nights warmer than the average; precipitation higher than usual in the Transvaal, eastern Orange Free State, north Natal, northern borders and centre Cape: subnormal elsewhere; frequent thunderstorms; some heavy falls of rain in Zoutpansberg district: these were the outstanding features of the weather of January 1937.

ATMOSPHERIC PRESSURE:

As shown in the accompanying map (Chart I) the mean atmospheric pressure for the month was below normal in the centre and the west of the Union by amounts varying from 2 to 5 hundredths of an inch, whilst over the eastern parts it was on the average about 1 to 2 hundredths higher than usual. The equatorial low pressure was prominent throughout the month, surging frequently to the south, southeast or east coasts. During the first half of the month there was almost an absence of well-defined high pressure areas; highs were only present on the 8th and 12th. During the last ten days, however, anticyclones were in evidence from the south to southeast and east coasts on the 21st to 24th and again on the 28th to 29th when copious rains fell over the summer rainfall area.

TEMPERATURE:

As gathered from a number of representative stations, the mean temperature over the Union as a whole was 72.5°F. or 0.1° above normal. Regarding the provinces separately as units, the mean temperature was above normal over the Cape Province by 0.5° and over Natal by 0.2°, whilst it was below normal over the Transvaal by 0.5° and over the Free State by 0.3°. The distribution of departures from the normal temperatures (see Chart II) showed negative values over Bechuanaland, the Central Karroo, the northern Transkei, the Free State, the northern interior of Natal and over the southern half of Transvaal. Over the remainder of the Union the departures were above normal.

The mean maxima (or day temperatures) were below normal except over the N.E. Tvl. western, southwestern and southern Cape Province, and over the southwestern Free State and the adjoining districts of the Cape Province. Positive departures from the normal were largest (up to 5°) in parts of the southwestern Cape Province, whilst negative departures of 5° to 6° occurred in Basutoland. Considering the Provinces as units, mean maxima were below normal over the Cape Province by 0.2°, over the Transvaal by 1.6°, over Natal by 1.1° and over the Free State by 1.1°, giving for the Union as a whole a general mean maximum of 83.5°F, which is 0.8° below the normal for this month. Temperatures of 100°F. was a fairly general occurrence in the Cape. The highest maxima registered in the different provinces were 111.0° at Clanwilliam (C.P.) on the 25th; 105.0° at Komatipoort (Tvl.) on the 20th; 105.0° at Otobotini (Natal) on the 20th, and 98.8° at Bethulie (O.F.S.) on the 18th.

Mean minima were above normal over the whole Union, excepting a few small

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by 1.4°, and over the Free State by 0.5°, giving for the Union as a whole a general mean minimum of 61.5°F, which is 1.1° above the normal for this month. The lowest minima recorded were 42.0° at Sutherland (C.P.) on the 21st; 42.0° at Belfast (Tvl.) on the 12th; 53.0° at Dundee (Natal) on the 9th and 47.0° at Harrismith (O.F.S.) on the 9th.

FROST:

No frost was reported during this month.

RAINFALL:

The rainfall for January (see Chart III) was above normal except over (a) the southern half of the Cape Province (excluding in the southwest an area including Cape Town, Groot Drakenstein and Worcester; in the western interior an area including Sutherland and Fraserburg; and in the Central Cape Province an area including Graaff Reinet, Steytlerville and Victoria West: over which areas the rainfall was above normal); (b) the western and northwestern districts of the Free State; (c) the southern half of Natal; (d) the northeastern Transvaal, and (e) an area including Nylstroom and Pretoria and an area around Zeerust.

Separately all four provinces showed surplusses amounting for the Transvaal to 30%, for the Free State to 42%, for Natal to 15%, and for the Cape Province to 1% of their respective normals, giving for the Union as a whole a surplus of 21%. As regards the Cape Province, the summer rainfall area had a deficit of 1% whilst the winter rainfall area had a surplus of 29%.

Except for a period of three days during the beginning of the second week and another minor dry spell the summer rainfall area had fairly general rains throughout the month. Heavy rains fell over the three northern provinces at fairly regular intervals during the month whilst over the eastern Cape Province such rains were mostly confined to the last week of the month.

THUNDERSTORMS AND HAIL:

Thunderstorms were fairly frequent during rainy spells over the summer rainfall area, but in most cases they were not very severe. Hail was mainly confined to the southeastern Transvaal, the central and eastern Free State and northern Natal, and caused considerable damage in the districts of Ermelo in the Transvaal; Reitz, Winburg, Ladybrand and Wepener in the Free State: Utrecht (Natal) and in the district of Xalanga in the eastern Cape Province.

GALES:

Gales occurred at Meyershoek (Natal) on the 2nd, and at Cambria in the district of Ladybrand (O.F.S.) on the 19th.

THE SEASONAL PRECIPITATION:

For the period 1st July 1936 to 31st January 1937 (see Chart IV) the seasonal precipitation was above normal except over the following areas : (1) In the Transvaal an area in the west including Zeerust, Rustenburg, Pretoria, Nylstroom and Rooiberg, and two small isolated areas, one around Bloemhof in the southwest, and the other around Standerton. (2) In Natal the southern districts, Maritzburg, Durban and Weenen and towards the north the district of Melmoth. (3) In the Cape Province an area in the southwest including Cape Town, Groot Drakenstein and Piquetberg; an area including Hanover, Philipstown and Prieska: in the southeast an area including Sydney's Hope, Kingwilliamstown and East London; in the east an area including Kokstad and Maclear; and in the central Cape a small area around Beaufort West. Separately the four provinces all showed surplusses, amounting to 18% for the Cape Province, 35% for the Free State, 7% for Natal and 10% for the Transvaal, giving a surplus of 15% for the Union as a whole.

D I E U N I E V A N S U I D-A F R I K A.
DEPARTEMENT VAN BESPROEIING.
M A A N D E L I K S E W E E R V E R S L A G
VAN DIE
METEOROLOGIESE KANTOOR

VOL. XVIII JANUARIE 1937 NO.1

'N MILDE EN TAAMLIKE NAT MAAND.

ALGEMEEN:

Gemiddelde lugdruk laer as gewoonlik in westelike en sentrale en effens bo normaal in die oostelike gedeeltes van die Unie; gemiddelde temperature naasteby dieselfde as gewoonlik, met die dae koeler en die nagte warmer as die gemiddelde; neerslag hoër as gewoonlik in die Transvaal, die oostelike Vrystaat, noordelike Natal en die senter en noordelike grens distrikte van die Kaapprovinsie; onder normaal oor die ander streke; baie donderstorms; etlike swaar neerslae in die distrik van Zoutpansberg: Sulke was die uitstaande kenmerke van die weer vir Januarie 1937.

LUGDRUK:

Soos aangetoon op die bygaande kaart (Kaart I) was die gemiddelde lugdruk vir die maand onder normaal in die middel en die weste van die Unie met bedrae wat varieer van 2 tot 5 honderdstes van 'n duim, terwyl dit oor die oostelike gedeeltes gemiddeld omtrent 1 tot 2 honderdstes hoër as gewoonlik was. Die ekwatoriale lugdrukgebied was prominent gedurende die hele maand, terwyl dit dikwels tot aan die suidelike, suidoostelike of oostelike kus gereik het. Gedurende die eerste helfte van die maand was daar byna 'n afwesigheid van goedgevormde hoë-lugdrukgebiede; hoë-lugdruk sisteme was daar slegs op die 8ste en 12de. Gedurende die laaste tien dae, egter,het antisiklones aan die suid tot die suidoos en ooskuste virby getrek op die 21ste tot die 24de, en weer van die 28ste tot die 29ste, toe oorvloedige reens oor die somer reenvalstreek geval het.

TEMPERATUUR:

Soos uit die gegewens van 'n aantal verteenwoordigende stasies afgelei, was die gemiddelde temperatuur, oor die Unie as 'n geheel, 72.5°F. of 0.1° bo normaal. Vir die provinsies, afsonderlik as eenhede beskou, was die gemiddelde temperatuur oor die Kaapprovinsie 0.5° bo normaal en oor Natal 0.2°, terwyl dit 0.5° onder normaal in Transvaal en 0.3° in die Vrystaat was. Die distribusie van afwykings van die normale temperature (sien Kaart II) het negatiewe waardes aangetoon oor Bechuanaland, die Middel Karroo, die noordelike Transkei, die Vrystaat, die noordelike binnelands van Natal en oor die suidelike helfte van Transvaal. Oor die res van die Unie was die afwykings bo normaal.

Die gemiddelde maxima (of dagtemperature) was onder normaal behalwe oor die noordoostelike Transvaal, oor die westelike, suidwestelike en suidelike Kaapprovinsie, en oor die suidwestelike Vrystaat saam met die aangrensende distrikte van die Kaapprovinsie. Positiewe afwykings van die normaal was die grootste (tot 5°) in gedeeltes van die suidwestelike Kaap, terwyl negatiewe afwykings van 5° tot 6° in Basoetoeland voorgekom het. Vir die provinsies apart was die gemiddelde maxima onder normaal oor die Kaapprovinsie met 0.2°, oor die Transvaal met 1.6° oor Natal met 1.1° en oor die Vrystaat met 1.1°, wat vir die Unie as 'n geheel 'n algemene gemiddelde maximum gee van 83.5° of 0.8° onder die normaal vir hierdie maand. Temperature van 100°F. is vrywel algemeen oor Kaapland waargeneem. Die hoogste geregistreerde maxima in die verskillende provinsies was 111.0° te Clanwilliam (K.P.) op die 25ste; 105.0° te Komatipoort (Tvl.) op die 20ste: 105.0° te Otobotini (Natal) op die 20ste, en 98.8° te Bethulie (O.V.S.) op die 18de.

Gemiddelde minima was bo normaal oor die hele Unie, behalwe oor 'n paar klein geisoleerde streke waar dit effens onder normaal was. Vir die provinsies was die gemiddelde

minima bo normaal en wel met 1.3°, 0.8°, 1.4°, 0.5° oor die Kaapprovinsie, Transvaal, Natal en die Vrystaat respektiewelik, wat vir die Unie as 'n geheel 'n algemene gemiddelde minimum van 61.5°F. gee of 1.1° bo die normaal vir hierdie maand. Die laagste minima was 42.0° te Sutherland (K.P.) op die 21ste; 42.0° te Belfast (Tvl.) op die 12de, 53.0° te Dundee (Natal) [illegible] 47.0° te Harrismith (O.V.S.) op die 9de.

RYP:

Geen ryp is gedurende hierdie maand gerapporteer nie.

REENVAL:

Die reenval vir Januarie (sien Kaart III) was bo normaal behalwe oor (a) die suidelike helfte van die Kaapprovinsie (met uitsondering van 'n streek wat Kaapstad, Groot Drakenstein en Worcester insluit; in die westelike binneland 'n streek wat Sutherland en Fraserburg insluit, en in die sentrale Kaapprovinsie 'n streek wat Graaff Reinet, Steytlerville en Victoria West insluit; oor hierdie streke was die reenval bo normaal); (b) die westelike en noordwestelike distrikte van die Vrystaat; (c) die suidelike helfte van Natal; (d) die noordoostelike Transvaal en (e) 'n streek wat Nylstroom en Pretoria insluit en 'n streek om Zeerust.

Afsonderlik het al vier die provinsies surplusse aangetoon wat vir die Transvaal 30%, vir die Vrystaat 42%, vir Natal 15% en vir die Kaapprovinsie 1% van hulle respektiewelike normale bedra, en wat vir die Unie as 'n geheel 'n surplus van 21% beteken het. Wat die Kaapprovinsie betref, het die somerreenval-streek 'n tekort van 1% aangetoon terwyl die winterreenval-streek 'n surplus van 29% gehad het.

Behalwe vir 'n tydperk van drie dae gedurende die begin van die tweede week en 'n tweede droe tydperk van mindere omvang, het die somerreenval-streek taamlik algemene reens dwarsdeur die maand gehad. Swaar reens het geval oor die drie noordelike provinsies met taamlik ewerdige tussenposes gedurende die maand, terwyl sulke reens in die Kaapprovinsie beperk was tot die laaste week van die maand.

DONDERSTORMS EN HAEL:

Donderstorms het taamlik dikwels voorgekom tydens die reens oor die somerreenval-streek, maar in die meeste gevalle was hulle nie bisonder swaar nie. Hael was hoofsaaklik beperk tot die suidoostelike Transvaal, die sentrale en oostelike Vrystaat, en noordelike Natal, en het aansienlike skade veroorsaak in die distrikte van Ermelo in die Transvaal, Reitz, Winburg, Ladybrand en Wepener in die Vrystaat Utrecht in Natal, en in die distrik van Xalanga in die oostelike Kaapprovinsie.

STORMWINDE: het voorgekom by Meyershoek (Natal) op die 2de en by Cambria in die distrik van Ladybrand (O.V.S.) op die 19de.

DIE SEISOEN-NEERSLAG:

Die seisoen-neerslag vir die tydperk 1 Julie 1936 tot 31 Januarie 1937 (sien Kaart IV) was bo normaal behalwe oor die volgende streke :- (1) In die Transvaal 'n streek in die weste wat Zeerust, Rustenburg, Pretoria, Nylstroom en Rooiberg insluit, en twee klein geisoleerde streke in die omgewing van Bloemhof en Standerton. (2) In Natal die suidelike distrikte, Maritzburg, Durban en Weenen en na die noorde die distrik van Melmoth. (3) In die Kaapprovinsie streke behelsende Kaapstad, Groot Drakenstein en Piquetberg in die suidweste; Hanover, Philipstown en Prieska in die senter; Sydney's Hope, Kingwilliamstown en Oos-Londen in die suidooste; Kokstad en Maclear in die ooste en in die sentrale Kaapprovinsie 'n klein strekie rondom Beaufort Wes. Afsonderlik het al vier die provinsies surplusse aangetoon wat 18% vir die Kaapprovinsie, 35% vir die Vrystaat, 7% vir Natal en 10% vir die Transvaal beloop het en wat vir die Unie as 'n geheel 'n surplus van 15% beteken het.

OBSERVERS' NOTES FOR JANUARY 1937.
AANTEKENINGE VAN WAARNEMERS VIR JANUARIE 1937.

SOLOMONDALE (ZOUTPANSBERG): There has been no run-off from any of the rains this month on this farm. Veld and crops are the best I have seen in the seven years I have been here. Weeds very bad. 5.34 inches on 7 days. J. H. Wright.

MATIEBASKRAAL (ZOUTPANSBERG): This return completes records over a period of 21 years and easily constitutes a record of rainfall during any one month. 8.86 inches on 9 days. J. Kleinenberg.

BOSHOEK (MAFEKING): No general rain has yet fallen. We have been lucky to be in the patch but all round and in the neighbourhood no rain has as yet fallen. 3.35 inches on 4 days. M. Nel.

WILGEBOOM (POTCHEFSTROOM): A good month with mealies growing strongly - weed under control - cattle and veld very good. 2.93 inches on 8 days. F. van der Merwe.

OLIFANTSPOORT (WATERBERG): Mealies first planted are in tassel. Cattle looking well. Olifants River full - running strong. 4.11 inches on 12 days. D. Wright.

CAROLINA: Third - severe electric storm - killed cows and horses - damaged trees. Eighth - severe lightning throughout night doing considerable damage to electric system. 10.84 inches on 16 days. C. Noaks.

OVERTON (ERMELO): This month's rainfall constitutes a record. Highest previous measurements in any one month. January 1918 11.57 - January 1922 11.27 - January 1937 16.58. 16.58 inches on 21 days. P. Knight.

BUSBY (ERMELO): 2nd at 4.50 p.m. a bad thunderstorm with wind and hail from south did much damage. Mealies blown and torn to pieces, that were, like beans, potatoes and teff, looking lovely. Storm lasted an hour. 2.95 inches fell. G. Lunt.

KAMHLABANE (BARBERTON): 6th 6.70 inches in one and three quarter hours. Culvert washed away and roads damaged. Two storms from S. E. and W. met practically overhead. 25.27 inches on 20 days. A. Barrington.

CARNARVON: Warm and dry during first half of month. Soft soaking rains towards end. Clifford

KENHARDT: On 25th (rain 1.24 inches) local floods do much damage to irrigation on Hartebeestriver. W.A. Burger.

QUEENSTOWN: A hot month with nice showers distributed through the month. Everitt.

ERMELO: In some parts of district farmers could not get into lands to hoe mealies, so they are smothered in weeds. R.N. Marrillier.

KOPJE ALLEEN: Another good month for farmers. The rain, though somewhat below the average, fell when it was most wanted and the few really hot days brought on the crops - and the weeds - well. The veld is in first class condition, consequently cattle are in splendid fettle. J.L. Soutter.

MIDDELBURG (TVL.): Veld excellent - crops promising. V.P. Rose.

POTCHEFSTROOM: The rainfall was highly effective. Ideal conditions of plant growth. B. D. Saayman.

ESTCOURT: January has been an exceptionally hot month, with hot nights. E. Dixon.

LADYSMITH: It promises to be a record season for the farmers. A. Knott.

PORT SHEPSTONE: The weather during the month has been wet, dull and gloomy -- temperatures close and muggy. The Lightkeeper.

DIKGATLONG: Heat has been great. Paul Jousse.

LERIBE: Hail damaged crops at foot of Maluti Mountains. Good harvest expected. Cyclone and hail occurred in Peka District and damaged native huts, uprooted trees, no casualties. Assistant Commissioner.

SEKUKUNI (LYDENBURG): Roads in very bad state. Some native lands are now bare as result of storm water. S. van Rensburg.

BERGVLIET (PILGRIMS REST): Rainfall on 4th 4.50 inches. Rainfall on 6th 4.50 inches Total rainfall for month 17.40 inches on 16 days H Beukes.

CHAMPAGNE:(PILGRIMS REST): Weather has reflected adversely on most fruit and vegetables -- much being ruined owing to excessive moisture. E.C. Boyce.

VROONSTAD (SOMERGEWAS PROEFSTASIE): Die maand was oor die algemeen baie warm en droog. S.J. van der Berg.

ZAMORA (LINDLEY): Very unsettled weather during the whole month. The handling of the grain crops was very difficult. A. Kern.

PAULPIETERSBURG: Warm muggy weather with unusually warm nights. Dr. Lipscomb.

CALVINIA: Distrik goed reen gehad; al die riviere loop. Die hele maand besonder bedompig. S.H. Kuhn.

GROOT DRIEFONTEIN (MURRAYSBURG): Veld is dry. K.N Watermeyer.

BALFOUR (CAPE) (FORT BEAUFORT): Very hot and dry. E.W. Hulse.

PADDOCK (PORT SHEPSTONE): The continual wet has been very bad for farm work. A.B.Garrett.

GLENT (PAARL): Month very dry and as no soaking rains for some months, water supplies and vegetation showing the effect. R Short.

HERMITAGE (UITENHAGE): The nights have been unusually warm and depressing. Dixie.

PIETERSVILLE (BOSHOF): Op die 24ste 3.70 dm. reent. oorstroming -- gedeelte van droe lande weggespoel water loop op gelykte twee voet dik. 6.48 duim op 9 dae. S. Jacobs.

SCHIMPERSVLEI (WINBURG): Op die 6de Hael doen heelwat skade aan koring. 5.09 duim op 6 dae. A. Seimons.

LADYSDALE (WEPENER): 14th - severe hail damaged 600 bags rye in twenty minutes. 10.10 inches on 15 days. M.J. Carter.

CAMBRIA (LADYBRAND): 19th -- devastating hail and wind -- cyclone -- trees uprooted. 9.78 inches on 17 days. A.F. Bornhill.

HOOGGELEGEN (REITZ): 13 de -- Hael -- skade aan koring, mielies en vrugte. 7.06 duim op 11 dae. S.J. van Rensburg.

MEYERSHOEK (NATAL): 2nd -- Cyclone and thunderstorm. Damage to crops and gardens. 14.72 ins. on 22 days. F.L. Botha.

VAALBANK (UTRECHT): 3de -- Donderweer buie met fyn hael. Het baie skade aan landerye vrugte en groentes gedoen. 12.05 duim op 18 dae. A.J. Bierman.

VOORTREKKER (UTRECHT): 23ste -- Wolkbreuk waarin 4.00 duim geval het. 8.47 duim op 13 dae. H. de Jager.

SUMMERHILL (PHILIPPOLIS): 21st -- 4 inches fell in 1 hour at neighbours. Number of dams broke and fences flattened. 1.94 inches on 5 days. W. Alexander.

GRENSFONTEIN (BETHULIE): 21st -- 2.80 ins. fell in 65 minutes. 6.05 ins. on 5 days.A.F.Gr[illegible]w.

GARRYOWEN (XALANGA): 5th -- Terrific hailstorm. Wheat damaged and window panes broken. 6.[illegible]

AIR TEMPERATURES : JANUARY 1937.

LUG TEMPERATURE : JANUARIE 1937.

STATION STASIE	MAXIMUM			MINIMUM			MONTHLY MEAN MAAND. GEM.			ABS. MAX.	DATE DATUM	ABS. MIN.	DATE DATUM
	Mean Gem.	Norm.	Diff. Versk.	Mean Gem.	Norm.	Diff. Versk.	Mean Gem.	Norm.	Diff. Versk.				
CAPE PROVINCE:													
ALIWAL NORTH	85.2	85.6	-0.4	59.0	56.6	+2.4	72.1	71.1	+1.0	97.0	18	48.0	9
BRITSTOWN	91.5	91.9	-0.4	64.9	61.4	+3.5	78.2	76.7	+1.5	101.0	18	57.0	21
CAPE L'AGULHAS	73.9	73.1	+0.8	63.2	62.1	+1.1	68.6	67.6	+1.0	77.0	31	54.0	30
CAPE TOWN	79.4	79.7	-0.3	62.7	60.4	+2.3	71.1	70.1	+1.0	90.2	26	55.8	30
CALA	78.7	81.0	-2.3	58.3	56.8	+1.5	68.5	68.9	-0.4	94.0	18	51.0	10
CARNARVON	-	90.0	-	-	58.5	-	-	74.3	-	-	-	-	-
CERES	90.6	85.6	+5.0	58.7	55.7	+3.0	74.7	70.7	+4.0	104.0	24	47.0	30
CRADOCK	86.1	87.9	-1.8	59.1	57.3	+1.8	72.6	72.6	+0.0	102.0	19	49.0	9
CLANWILLIAM	97.4	92.0	+5.4	61.8	59.1	+2.7	79.6	75.6	+4.0	111.0	25	52.0	30
DEEPWALLS	76.0	74.7	+1.3	57.2	56.2	+1.0	66.6	65.5	+1.1	88.5	18	50.5	29
EAST LONDON	77.0	76.2	+0.8	64.2	64.2	+0.0	70.6	70.2	+0.4	85.0	27	59.0	9
GOODHOUSE	-	102.1	-	-	70.6	-	-	86.4	-	-	-	-	-
GRAAFF REINET	89.3	89.0	+0.3	58.0	59.6	-1.6	73.7	74.3	-0.6	103.6	18	47.2	29
GRAHAMSTOWN	78.6	79.6	-1.0	58.1	56.0	+2.1	68.4	67.8	+0.6	94.5	18	45.0	2
GROOT DRAKENSTEIN	86.7	84.9	+1.8	61.8	59.7	+2.1	74.3	72.3	+2.0	100.0	25	47.5	30
GROOTFONTEIN	84.5	87.3	-2.8	54.6	54.6	+0.0	69.6	71.0	-1.4	95.3	1	45.9	30
HOPETOWN	90.4	86.8	+3.6	64.9	62.7	+2.2	77.7	74.8	+2.9	102.0	18	58.0	21
IDUTYWA	-	77.6	-	-	56.7	-	-	67.2	-	-	-	-	-
KENHARDT	95.1	96.5	-1.4	68.8	65.0	+3.8	82.0	80.8	+1.2	105.0	1	53.0	29
KIMBERLEY	88.1	91.4	-3.3	64.0	63.4	+0.6	76.1	77.4	-1.3	98.9	18	58.7	21
KINGWILLIAMSTOWN	83.3	83.5	-0.2	63.2	60.7	+2.5	73.3	72.1	+1.2	95.0	18	54.0	29
KLAVER	89.4	90.7	-1.3	60.6	60.8	-0.2	75.0	75.8	-0.8	105.8	24	55.0	30
KOKSTAD	76.9	78.1	-1.2	53.9	55.2	-1.3	65.4	66.7	-1.3	93.8	19	47.2	21
KURUMAN	87.2	89.6	-2.4	60.9	59.7	+1.2	74.1	74.7	-0.6	97.5	3	50.0	31
MAFEKING	84.3	86.8	-2.5	62.6	62.4	+0.2	73.5	74.6	-1.1	95.0	20	56.0	8
MOSSEL BAY	76.7	75.4	+1.3	65.2	63.3	+1.9	71.0	69.4	+1.6	83.0	27	59.0	29
NELSPOORT	85.6	88.4	-2.8	59.2	58.5	+0.7	72.4	73.5	-1.1	103.5	18	52.0	13
O'OKIEP	86.9	86.2	+0.7	61.3	59.0	+2.3	74.1	72.6	+1.5	96.8	10	46.0	29
OUDTSHOORN	89.7	89.6	+0.1	59.6	58.6	+1.0	74.7	74.1	+0.6	103.0	25	51.0	30
PORT ELIZABETH	77.3	75.7	+1.6	64.1	63.5	+0.6	70.7	69.6	+1.1	89.0	27	58.0	21
PORT NOLLOTH	-	66.9	-	-	53.4	-	-	60.2	-	-	-	-	-
PORT ST. JOHNS	76.8	79.3	-2.5	66.9	66.3	+0.6	71.9	72.8	-0.9	89.0	15	62.0	22
POSTMASBURG	87.4	87.8	-0.4	65.0	63.5	+1.5	76.2	75.7	+0.5	97.2	18	55.7	29
PRIESKA	92.2	95.8	-3.6	67.3	67.0	+0.3	79.8	81.4	-1.6	104.0	18	57.0	23
QUEENSTOWN	84.8	84.7	+0.1	59.5	58.2	+1.3	72.2	71.5	+0.7	103.0	18	52.0	21
RIETPOORT	87.8	86.3	+1.5	58.9	57.7	+1.2	73.4	72.0	+1.4	104.0	25	49.0	30
SOMERSET EAST	85.6	83.6	+2.0	58.3	57.4	+0.9	72.0	70.5	+1.5	105.2	18	49.8	9
SUTHERLAND	81.8	83.7	-1.9	52.5	50.7	+1.8	67.2	67.2	+0.0	90.0	1	42.0	21
SYDNEYS HOPE	79.8	78.7	+1.1	59.5	58.1	+1.4	69.7	68.4	+1.3	97.0	18	51.0	21
UITENHAGE	-	83.5	-	-	60.6	-	-	72.1	-	-	-	-	-
UMTATA	81.7	80.5	+1.2	62.1	60.1	+2.0	71.9	70.3	+1.6	97.0	11	55.8	8
UPINGTON	94.4	96.7	-2.3	69.1	68.6	+0.5	81.8	82.7	-0.9	104.6	1	54.0	29
VAN WYKSVLEI	92.6	93.5	-0.9	65.9	63.2	+2.7	79.3	78.4	+0.9	103.0	18	58.0	29
VICTORIA WEST	88.9	87.8	+1.1	-	55.0	-	-	71.4	-	101.0	18	-	-
VRYBURG	88.6	91.0	-2.4	62.9	63.2	-0.3	75.8	77.1	-1.3	103.0	2	57.0	7
WILLOWMORE	87.0	86.7	+0.3	57.0	56.1	+0.9	72.0	71.4	+0.6	103.4	18	50.4	10
TRANSVAAL.													
BARBERTON	81.2	83.4	-2.2	64.6	64.1	+0.5	72.9	73.8	-0.9	96.0	20	59.0	11
BELFAST	70.8	73.9	-3.1	51.4	51.4	+0.0	61.1	62.7	-1.6	82.0	20	42.0	12
CHRISTIANA	89.4	90.5	-1.1	62.8	61.8	+1.0	76.1	76.2	-0.1	98.0	10	58.0	28
ERMELO	75.4	78.0	-2.6	54.2	54.6	-0.4	64.8	66.3	-1.5	90.0	20	47.0	31
HEIDELBERG	80.2	81.9	-1.7	57.7	57.5	+0.2	68.9	69.7	-0.8	92.3	20	50.3	12
JOHANNESBURG	75.7	76.9	-1.2	56.6	56.4	+0.2	66.2	66.7	-0.5	86.2	20	49.8	9
KLERKSDORP	84.1	85.7	-1.6	61.9	61.1	+0.8	73.0	73.4	-0.4	94.8	2	56.5	9
KOMATIPOORT	89.3	91.7	-2.4	69.1	69.7	-0.6	79.2	80.7	-1.5	105.0	20	63.0	31
KOPJE ALLEEN	83.5	86.3	-2.8	62.1	62.5	-0.4	72.8	74.4	-1.6	97.3	20	55.0	12
LOUIS TRICHARDT	81.7	81.5	+0.2	63.7	61.4	+2.3	72.7	71.5	+1.2	98.0	20	59.0	31
MARKEN	83.6	85.0	-1.4	65.1	63.4	+1.7	74.4	74.2	+0.2	96.0	19	57.9	11
MESSINA	91.0	89.8	+1.2	71.7	69.1	+2.6	81.4	79.5	+1.9	100.0	17	65.9	11
MIDDELBURG	-	81.6	-	-	57.1	-	-	69.4	-	-	-	-	-

AIR TEMPERATURES : JANUARY 1937 (CONTINUED)
LUG TEMPERATURE : JANUARIE 1937 (VERVOLG)

STATION STASIE	MAXIMUM. Mean Gem.	Norm.	Diff. Versk.	MINIMUM. Mean Gem.	Norm.	Diff. Versk.	MONTHLY MEAN MAAND. GEM. Mean Gem.	Norm.	Diff. Versk.	ABS. MAX.	DATE DATUM	ABS. MIN.	DATE DATUM
TRANSVAAL (Continued)													
YLSTROOM	83.4	84.2	-0.8	60.8	61.4	-0.6	72.1	72.8	-0.7	96.0	20	53.0	11
'IETERSBURG	79.2	82.4	-3.2	61.1	60.4	+0.7	70.2	71.4	-1.2	91.9	20	54.0	10
'IET RETIEF	76.6	78.3	-1.7	59.5	58.9	+0.6	68.1	68.6	-0 5	92.1	20	53.2	31
'ILGRIMS REST	78.5	78.0	+0.5	58.4	58.1	+0.3	68.5	68.1	+0.4	88.5	20	48.0	12
'OTCHEFSTROOM	82.5	86.0	-3.5	61.1	59.5	+1.6	71.8	72.8	-1.0	91.1	20	56.0	12
RETORIA	82.5	83.4	-0.9	61.8	61.4	+0.4	72.2	72.4	-0.2	94.0	20	56.3	12
USTENBURG	85.0	86.9	-1.9	63.8	61.9	+1.9	74.4	74.4	+0.0	96.0	20	57.0	12
'ANDERTON	79.4	81.8	-2.4	57.2	55.0	+2.2	68.3	68.4	-0.1	91.0	20	50.0	31
AKKERSTROOM	73.6	75.7	-2.1	53.8	53.1	+0.7	63.7	64.4	-0.7	84.3	19	46.9	5
EERUST	85.6	86.4	-0 8	62.5	62.3	+0 2	74.1	74.4	-0.3	95.3	19	54.9	8
ATAL.													
UNDEE	79.8	81.9	-2.1	59.6	57.7	+1.9	69.7	69.8	-0.1	94.0	20	53.0	9
URBAN POINT	81.6	81.6	+0.0	70.8	69.5	+1.3	76.2	75.6	+0.6	88.0	19	64.6	22
MPANGENI	84.2	85.3	-1.1	70 1	67.1	+3.0	77.2	76.2	+1.0	97.0	19	61.0	10
SHOWE	80.5	79.3	+1.2	65.4	64.0	+1.4	73.0	71.7	+1.3	98.8	19	60.1	22
STCOURT	79.8	81.8	-2.0	60.6	59.7	+0.9	70 2	70 8	-0.6	95.0	20	56.0	22
ADYSMITH	85.5	88.1	-2.6	62.5	61.6	+0.9	74.0	74.9	-0.9	98.0	18	58.0	9
IETERMARITZBURG	81.8	81.0	+0.8	63.3	62.5	+0.8	72.6	71.8	+0.8	96.4	19	57.3	10
TOBOTINI	86.5	88.2	-1.7	70.3	69.6	+0.7	78.4	78.9	-0.5	105.0	20	64.0	10
ORT SHEPSTONE	79.1	79.5	-0.4	68.9	67.4	+1.5	74.0	73.5	+0.5	85.0	19	63.0	21
TANGER	-	83.9	-	-	66.7	-	-	75.3	-	-	-	-	-
RYHEID	80.6	81.0	-0.4	58.7	58.3	+0.4	69.7	69.7	+0 0	92.0	?	54.0	30
EENEN	86.5	89.9	-3.4	63.7	61.1	+2.6	75.1	75.5	-0.4	100.0	20	57.0	24
. F. S. - O. V. S.													
ETHULIE	86.9	88.2	-1.3	59.3	59.8	-0.5	73.1	74.0	-0.9	98.8	18	52.0	9
LOEMFONTEIN	83.1	86.6	-3.5	58.8	60.0	-1.2	71.0	73.3	-2.3	95.1	18	52.0	9
AURESMITH	86.8	85.2	+1.6	60.5	58.7	+1.8	73.7	72.0	+1.7	98.6	18	54.2	21
ARRISMITH	73.1	74.9	-1.8	52.9	52.8	+0.1	63.0	63.9	-0.9	85.0	3	47.0	9
ROONSTAD	85.4	85.4	+0.0	59.6	59.8	-0.2	72.5	72.6	-0.1	97.0	11	50.0	9
ADYBRAND	82.4	81.5	+0.9	56.3	56.3	+0.0	69.4	68.9	+0.5	87.0	18	52.0	4
INDLEY	79.7	82.6	-2.9	-	57.3	-	-	70.0	-	91.0	3	-	-
EPPENER	81.6	85.1	-3.5	60.5	57.1	+3.4	71.1	71.1	+0.0	94.2	18	53.5	7
ASUTOLAND:													
UTHE BUTHE	78.4	85.2	-6.8	55.5	54.7	+0.8	67.0	70.0	-3.0	87.0	4	49.0	10
AFETENG	77.9	81.5	-3.6	57.5	57.0	+0.5	67.7	69.3	-1.6	88.0	2.17	51.0	31
OHALES HOEK	79.4	84.5	-5.1	55.4	56.0	-0.6	67.4	70.3	-2.9	89.0	19	50.0	14
OKHOTLONG	74.6	73.9	+0.7	49.0	49.2	-0.2	61.8	61.6	+0.2	83.0	2	44.0	26
ACHASNEK	72.6	75.3	-2.7	52.8	49.6	+3.2	62.7	62.5	+0.2	83.0	18	47.0	9
ECHUANALAND:													
IKGATLONG	90.1	90.4	-0.3	66.9	67.0	-0.1	78.5	78.7	-0.2	103.0	20	58.0	12
ABERONES	88.4	90.3	-1.9	63.9	63.3	+0.6	76.2	76.8	-0.6	100.0	3	56.0	12
AHALAPYE	-	89.8	-	-	65.8	-	-	77.8	-	-	-	-	-
WAZILAND:													
BABANE	75.2	81.0	-5.8	59.0	63.4	-4.4	67.1	72.2	-5.1	88.0	20	51.0	11
TEGI	79.8	80.8	-1.0	60.1	62.2	-2.1	70.0	71.5	-1.5	85.0	1,25	55.0	13

RAINFALL : JANUARY 1937.
NEERSLAG : JANUARIE 1937.

STATION STASIE.	JAN. 1937.	NORM.	DIFF. VERSK.	%	FROM 1.7.36 VANAF	NORM.	DIFF. VERSK.	SEASONAL % SEISOEN.
CAPE PROVINCE - SUMMER RAINFALL AREA.								
KAAP PROVINSIE - SOMER REËNVAL STREEK.								
ALIWAL NORTH	3.23	2.65	+0.58	122	14.92	10.04	+4.88	149
BEAUFORT WEST	0.36	0.98	-0.62	37	4.12	4.43	-0.31	92
BEDFORD	1.37	3.22	-1.85	43	16.78	15.31	+1.47	110
BRITSTOWN	1.72	1.03	+0.69	167	4.43	4.24	+0.19	104
CARNARVON	0.90	0.91	-0.01	99	4.24	3.20	+1.04	133
EAST LONDON	1.26	2.97	-1.71	42	17.11	19.15	-2.04	89
FRASERBURG	0.74	0.69	+0.05	107	3.46	2.65	+0.81	130
GEORGE	2.28	2.97	-0.69	77	25.03	19.97	+5.06	125
GRAAFF REINET	3.04	1.31	+1.73	232	13.63	7.43	+6.20	183
GRAHAMSTOWN	0.82	1.58	-0.76	52	16.61	12.27	+4.34	135
GRIQUATOWN	2.90	1.69	+1.21	171	5.56	5.53	+0.03	101
GROOTFONTEIN	1.08	1.58	-0.50	68	8.38	6.73	+1.65	125
HANOVER	0.70	1.71	-1.01	41	3.00	6.25	-3.25	48
HOPETOWN	1.05	1.68	-0.63	62	6.29	5.70	+0.59	110
KENHARDT	2.72	0.55	+2.17	495	4.10	2.13	+1.97	192
KIMBERLEY	2.94	2.20	+0.74	134	13.02	7.83	+5.19	166
KINGWILLIAMSTOWN	0.82	2.46	-1.64	33	12.51	14.23	-1.72	88
KOKSTAD	5.08	4.94	+0.14	103	16.18	18.68	-2.50	87
MATJESFONTEIN	0.00	0.31	-0.31	0	6.69	3.13	+3.56	214
MACLEAR	5.09	5.85	-0.76	87	19.02	20.22	-1.20	94
MAFEKING	6.68	3.62	+3.06	185	16.81	12.52	+4.29	134
MOSSEL BAY	1.20	1.10	+0.10	109	11.79	9.74	+2.05	121
PHILIPSTOWN	1.72	1.54	+0.18	112	5.25	5.77	-0.52	91
PORT ELIZABETH	0.50	1.17	-0.67	43	14.09	13.60	+0.49	104
PORT ST. JOHNS	3.35	5.05	-1.70	66	30.09	28.38	+1.71	106
PRIESKA	1.68	1.15	+0.53	146	2.83	3.70	-0.87	77
QUEENSTOWN	2.60	3.22	-0.62	81	16.06	12.24	+3.82	131
SOMERSET EAST	0.87	2.70	-1.83	32	16.31	12.68	+3.63	129
STEYNSBURG	2.37	1.97	+0.40	120	11.27	7.44	+3.83	152
STEYTLERVILLE	1.02	0.77	+0.25	132	6.36	4.80	+1.56	133
SWELLENDAM	1.63	2.24	-0.61	73	25.99	17.54	+8.45	148
SYDNEYS HOPE	0.72	1.96	-1.24	37	13.97	13.32	-0.25	98
UITENHAGE	0.83	1.17	-0.34	71	13.69	10.91	+2.18	120
VENTA	4.17	3.58	+0.59	116	18.11	14.88	+3.23	122
UNIONDALE	0.20	0.68	-0.48	29	7.86	7.02	+0.84	112
UPINGTON	1.71	0.79	+0.92	216	3.65	2.67	+0.98	137
VICTORIA WEST	1.39	1.08	+0.31	129	5.25	4.59	+0.66	114
VRYBURG	5.59	3.78	+1.81	148	12.88	9.80	+3.08	131
CAPE PROVINCE - WINTER RAINFALL AREA.								
KAAP PROVINSIE - WINTER REËNVAL STREEK.								
CALEDON	0.55	0.86	-0.31	64	13.07	12.15	+0.92	107
CALVINIA	0.30	0.31	-0.01	97	8.60	3.78	+4.82	228
CAPE TOWN ROYAL OBS.	1.15	0.66	+0.49	174	11.56	13.31	-1.75	87
CERES	0.33	0.97	-0.64	34	26.66	22.94	+3.72	116
CLANWILLIAM	0.00	0.19	-0.19	0	6.35	4.45	+1.90	143
DARLING	0.19	0.12	+0.07	158	5.28	2.70	+2.58	196
GROOT DRAKENSTEIN	1.41	1.02	+0.39	138	17.09	19.29	-2.20	88
HOOKBP	0.51	0.17	+0.34	300	4.03	3.24	+0.79	124
PIQUETBERG	0.00	0.56	-0.56	0	9.02	11.36	-2.34	79
SUTHERLAND	2.18	0.48	+1.70	454	9.23	4.29	+4.94	215
WORCESTER	0.61	0.28	+0.33	218	10.46	6.58	+3.88	159
O. V. S. - O. V. S.								
BETHULIE	2.84	2.60	+0.24	109	15.05	8.97	+6.08	168
BLOEMFONTEIN	5.92	3.55	+2.37	167	15.19	11.03	+4.16	138
BOSHOF	1.79	2.87	-1.08	62	10.72	9.69	+1.03	111
FAURESMITH	2.26	2.16	+0.10	105	12.17	8.68	+3.49	140
HARRISMITH	7.36	4.63	+2.73	159	22.03	18.93	+3.10	116
KROONSTAD	2.85	4.04	-1.19	71	16.43	14.82	+1.61	111
L'DYBRAND	6.56	4.32	+2.24	152	22.44	16.41	+6.03	137
LINDLEY	6.48	4.17	+2.31	155	22.17	15.25	+6.92	145
WINBURG	9.58	3.77	+5.81	254	21.20	12.74	+8.46	167

RAINFALL : JANUARY 1937 (CONTINUED)
NEERSLAG : JANUARIE 1937 (VERVOLG)

STATION STASIE	JAN. 1937.	NORM.	DIFF. VERSK.	%	FROM 1.7.36 VANAF.	NORM.	DIFF. VERSK.	SEASONAL % SEISOEN.
TRANSVAAL:								
BARBERTON	9.59	5.70	+3.89	168	23.90	19.19	+4.71	125
BELFAST	12.18	5.41	+6.77	227	25.72	20.52	+5.20	125
BETHAL	7.79	4.96	+2.83	157	23.52	19.47	+4.05	121
BLOEMHOF	3.52	3.22	+0.30	109	8.47	9.81	-1.34	86
ELIM HOSPITAL	4.90	6.66	-1.76	74	13.99	17.77	-3.78	79
ERMELO	9.47	4.97	+4.50	191	23.51	20.58	+2.93	114
HAENERTSBURG	7.11	8.15	-1.04	87	26.64	21.87	+4.77	122
HEIDELBERG	5.85	4.64	+1.21	126	18.72	18.08	+0.64	104
JOHANNESBURG OBS.	8.45	5.46	+2.99	155	18.87	19.01	-0.14	99
JOUBERT PARK	10.48	6.17	+4.31	170	23.93	20.70	+3.23	116
KLERKSDORP	5.08	4.24	+0.84	120	16.56	13.76	+2.80	120
KOMATIPOORT	6.32	4.83	+1.49	131	25.24	14.00	+11.24	180
LICHTENBURG	5.78	4.54	+1.24	127	15.13	14.03	+1.10	108
MESSINA	2.32	3.28	-0.96	71	9.89	9.51	+0.38	104
MIDDELBURG	5.74	5.20	+0.54	110	22.27	19.09	+3.18	117
NYLSTROOM	3.45	5.09	-1.64	68	12.49	15.27	-2.78	82
PIETERSBURG	8.60	3.88	+4.72	222	17.54	13.14	+4.40	134
PIET RETIEF	10.14	5.95	+4.19	170	28.69	23.91	+4.78	120
PILGRIMS REST	11.85	7.81	+4.04	152	30.67	22.06	+8.61	139
POTCHEFSTROOM	4.46	4.24	+0.22	105	16.66	14.65	+2.01	114
PRETORIA	4.52	5.43	-0.91	83	16.11	18.51	-2.40	87
ROOIBERG	5.58	4.88	+0.70	114	12.77	15.13	-2.36	84
RUSTENBURG	5.90	4.91	+0.99	120	15.65	15.93	-0.28	98
STANDERTON	4.50	4,81	-0.31	94	16.97	19.37	-2.40	88
VILLA NORA	7.59	3.57	+4.02	213	13.66	10.98	+2.68	124
WAKKERSTROOM	11.91	5.17	+6.74	231	23.25	20.61	+2.64	113
WOODBUSH	16.87	14.88	+1.99	114	50.46	40.35	+10.11	125
ZEERUST	3.95	4.18	-0.23	95	12.25	13.73	-1.48	89
SWAZILAND:								
MBABANE	13.88	9.86	+4.02	141	37.97	34.12	+3.85	111
NATAL:								
DUNDEE	8.39	5.43	+2.96	154	23.82	20.41	+3.41	117
DURBAN	3.28	4.59	-1.31	71	24.93	25.77	-0.84	97
EMPANGENI	6.64	5.15	+1.49	129	27.02	24.45	+2.57	111
ESTCOURT	5.24	5.37	-0.13	98	18.79	18.14	+0.65	103
LADYSMITH	7.14	5.29	+1.85	135	23.12	18.74	+4.38	123
MELMOTH	4.56	4.60	-0.04	99	17.41	19.47	-3.06	89
OTOBOTINI	6.69	2.81	+3.88	238	21.19	12.73	+8.46	167
PIETERMARITZBURG	4.12	5.56	-1.44	74	20.73	22.39	-1.66	93
VRYHEID	9.12	6.10	+3.02	149	24.65	22.84	+1.81	108
WEENEN	2.06	5.08	-3.02	41	14.68	17.09	-2.41	86
BASUTOLAND:								
MAFETENG	7.63	4.90	+2.73	156	22.96	16.53	+6.43	139

WEERKAART —— WEATHER MAP

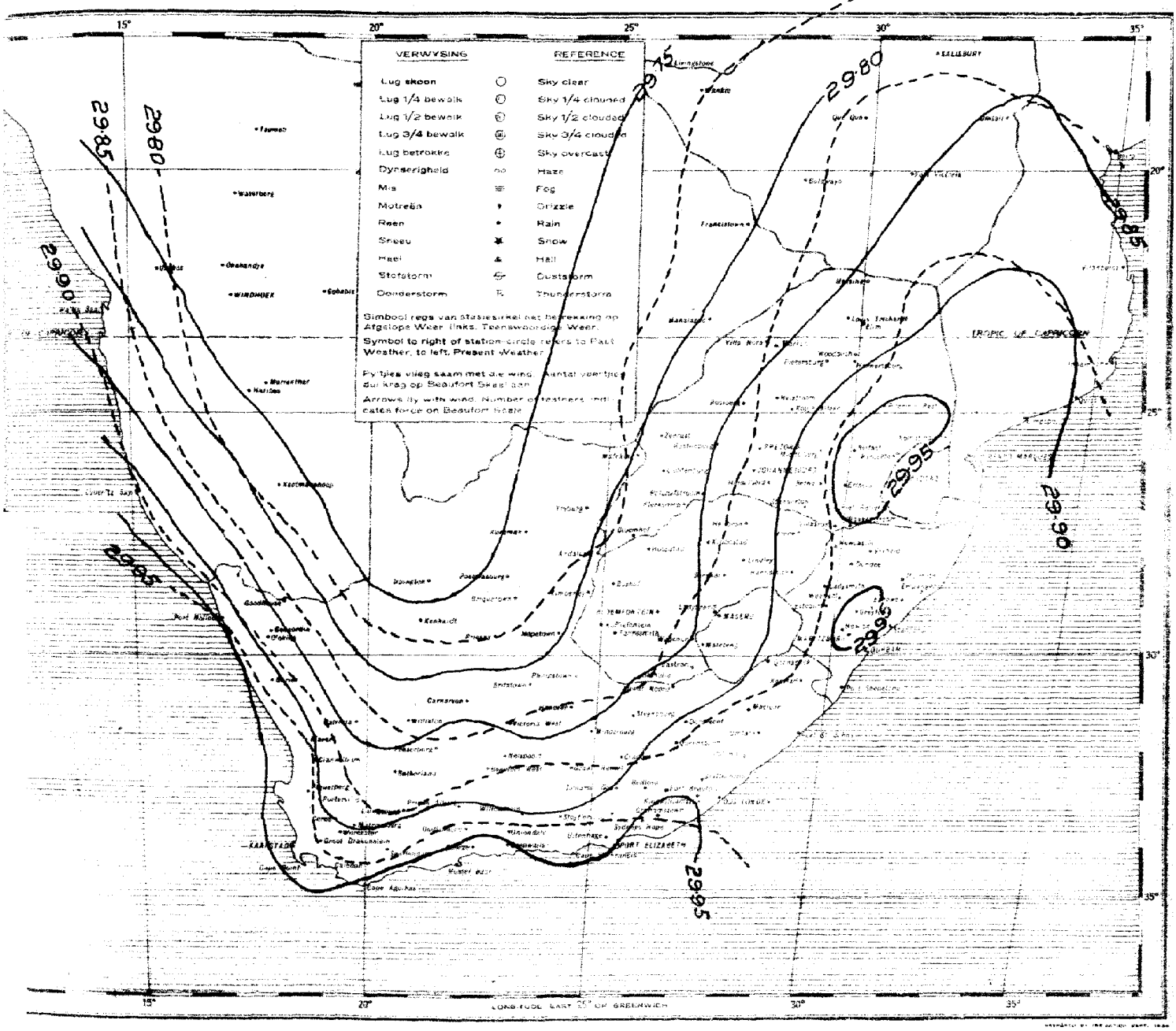


CHART I.

JANUARY 1937 : MEAN ATMOSPHERIC PRESSURE AT 8.30 a.m.

The broken lines indicate the normal distribution in January.

KAART I.

JANUARIE 1937 : GEMIDDELDE LUGDRUK OM 8.30 v.m.

Die gebroke lyne dui die normale distribusie vir Januarie aan.

WEERKAART —— WEATHER MAP

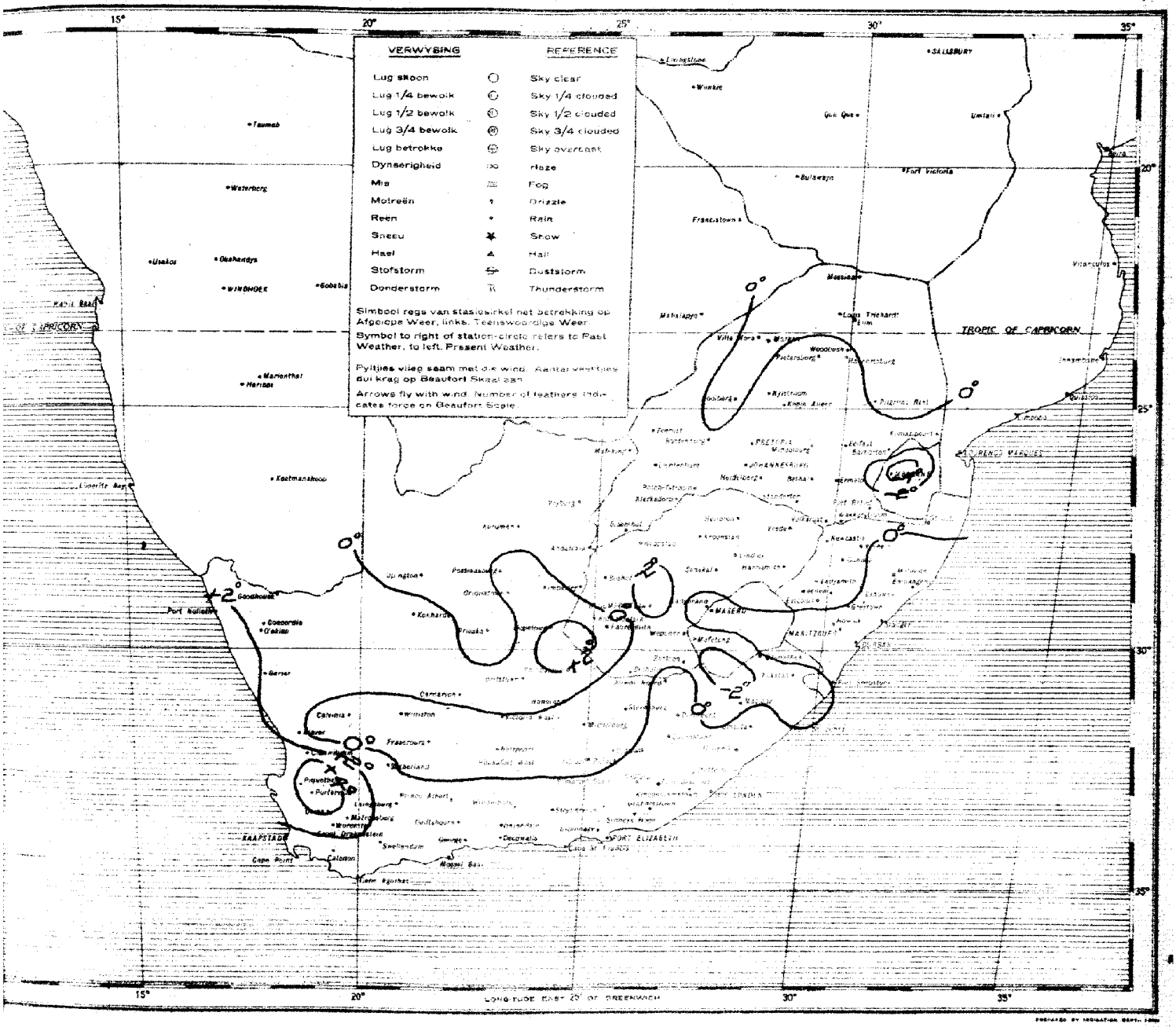


CHART II.

JANUARY 1937 - DEVIATION (in °F) OF MEAN TEMPERATURE FROM NORMAL.

KAART II.

JANUARIE 1937 – GEMIDDELDE TEMPERATUUR AFWYKINGS (in °F). VAN DIE NORMAAL.

WEERKAART —— WEATHER MAP

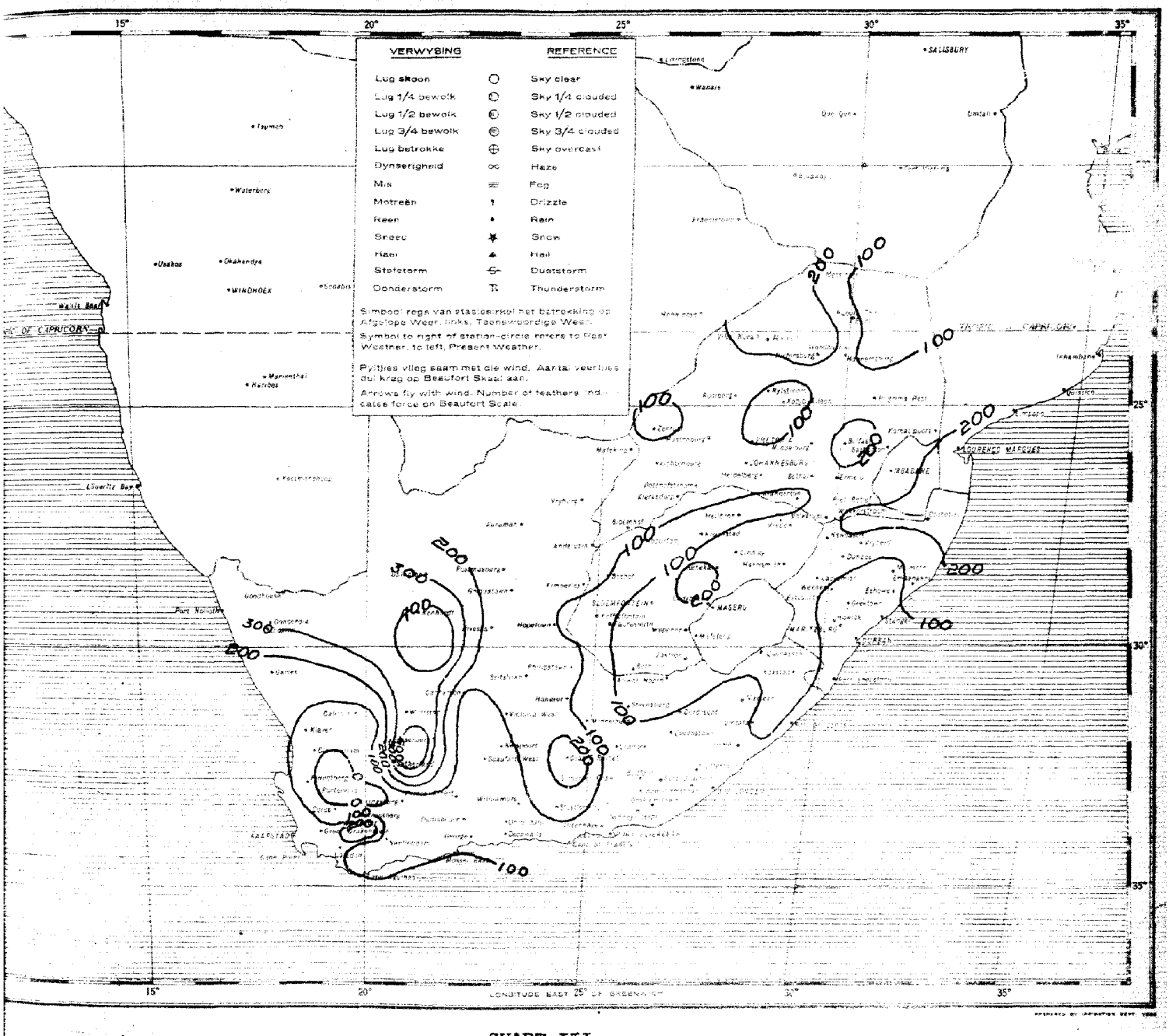


CHART III.

JANUARY 1937 - RAINFALL SHEWN AS PERCENTAGE OF NORMAL.

KAART III.

JANUARIE 1937 - REËNVAL AANGEGEE AS PERSENTASIE VAN DIE NORMAAL.

WEERKAART —— WEATHER MAP

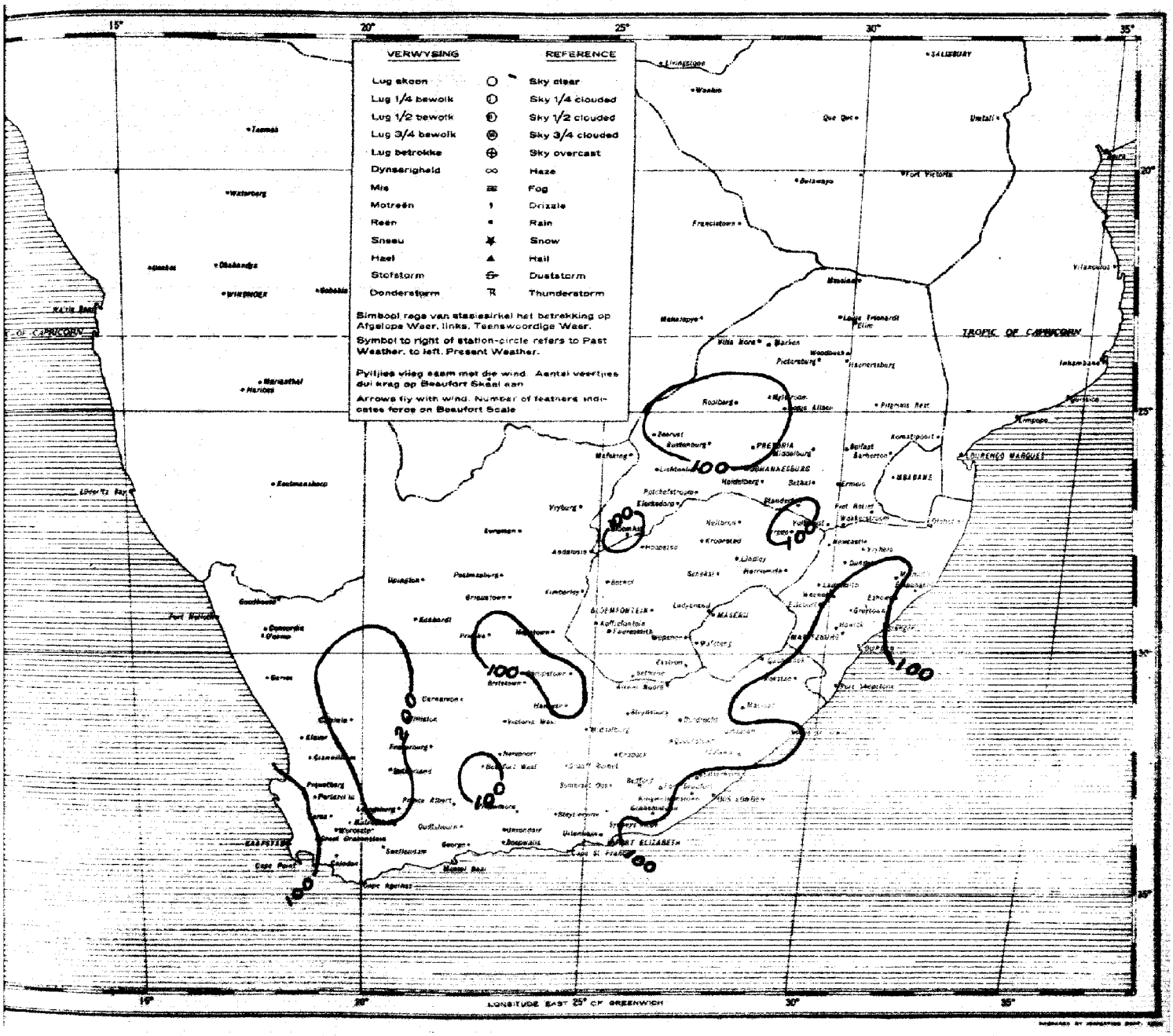


CHART IV.

JANUARY 1937 - Seasonal Precipitation (1st July to 31st January) shown as percentage of the normal.

KAART IV.

JANUARIE 1937 - Seisoen-neerslag (1 Julie tot 31 Januarie) as persentasie van die normaal.

D I E U N I E V A N S U I D - A F R I K A.
DEPARTEMENT VAN BESPROEIING
M A A N D E L I K S E W E E R V E R S L A G
VAN DIE
METEOROLOGIESE KANTOOR

DEEL XVIV | FEBRUARIE 1937 | NO.2

WARM IN KAAPLAND EN BAIE NAT OOR DIE OOSTELIKE GEDEELTES VAN DIE UNIE.

ALGEMEEN:

Gemiddelde lugdruk onder normaal in die westelike en sentrale dele van die Unie en effens bo normaal in die ooste en suidooste; temperature omtrent een graad hoër dan gewoonlik met beide die dae en die nagte warmer as gewoonlik behalwe in Transvaal en die Vrystaat waar die dae koeler was; warm weer in die begin en gedurende die vierde week, met koue weer tussenin gedurende die tweede en derde week van die maand; herhaalde donderstorms en vernielende haelstorms in die distrik van Fraserburg, Sutherland, Laingsburg en Swellendam; 'n aansienlike oormaat van reënval oor die somer reënvalstreek terwyl min of geen reën oor die winterreënvalstreek geval het nie; 'n aantal baie swaar neerslae gedurende die eerste helfte van die maand, waardeur op verskillende plekke in die oostelike en noordelike Transvaal rekords vir Februarie opgestel is; geweldige vloede in die riviere van die oostelike en noordelike Transvaal, Swasieland en in Zululand waardeur baie skade aan damme, paaie en brugge veroorsaak is; hierdie was die vernaamste kenmerke van die weer gedurende die maand Februarie 1937 wat 'n aansienlike verbetering van landbou vooruitsigte meegebring het.

LUGDRUK:

Die gemiddelde barometriese druk vir die maand, soos blyk uit die bygaande kaart (Kaart 1) was omtrent twee tot vier honderdstes van 'n duim laer in die westelike en sentrale en effens hoër dan die normaal oor die oostelike en suidoostelike dele van die Unie. Die ekwatoriale laag was sterk uitgebeeld gedurende die hele maand. 'n Reeks depressies het hulle verskyning langs die kus gemaak op 15 dae, naamlik op die 1ste, 3de 4de, 6de tot die 8ste, 17de tot die 19de, 21ste tot die 24ste en die 27ste tot die 28ste. Hoë lugdrukgebiede het langs die kus voorgekom op die 5de, die 12de tot die 14de, die 17de, 20ste en die 25ste tot die 27ste.

TEMPERATUUR:

Soos uit die gegewens van 'n aantal verteenwoordigende stasies afgelei, was die gemiddelde temperatuur, oor die Unie as 'n geheel, 72,8°F, of 1,0° bo normaal. Vir die provinsies afsonderlik was die gemiddelde temperatuur bo normaal oor die Kaapprovinsie, Natal en die Vrystaat met 1,6°, 1,5° en 0,3° respektiewelik terwyl dit oor Transvaal net normaal was. Soos aangedui op Kaart II was die gemiddelde temperature bo normaal oor die grootste gedeelte van die Unie terwyl positiewe afwykings van 2° en meer vry algemeen voorgekom het oor suid en oos Kaapland en oor die oostelike helfte van Natal. Gemiddelde temperature was onder normaal oor die westelike helfte van Transvaal, oor die suidoostelike Vrystaat, Betsjoeanaland en ook nog oor 'n paar geïsoleerde streke in Oos Transvaal en langs die noordelike gedeelte van die weskus. Die negatiewe afwykings oor hierdie streke was egter oor die algemeen minder as 1,0°F.

Die gemiddelde maxima (of dag temperature) was bo normaal behalwe oor Transvaal, die Vrystaat, die hooglande van Natal, Betsjoeanaland, 'n smal strook langs die weskus en oor die distrikte van die Kaapprovinsie wat aan die suidelike Vrystaat grens

Betsjoeanaland en oor wes en oos Transvaal. Vir die provinsies, apart beskou, was die gemiddelde maxima bo normaal oor die Kaap met 1.3° en oor Natal met 0.4°, terwyl dit onder normaal was oor Transvaal met 1.6° en oor die Vrystaat met 0.8°, wat vir die Unie as 'n geheel 'n algemene gemiddelde maximum beteken het van 83.6°, of 0.2° bo normaal vir hierdie maand. Temperature van 100° F en hoër het nogal dikwels in die westelike, suidelike en sentrale distrikte van die Kaapprovinsie voorgekom. Die hoogste maxima in die verskillende provinsies geregistreer, was 112.0° by Goodhouse (K.P.) op die 3de, 99.0° by Komatipoort (Tvl.) op die 4de; 100.0° by Stanger (Natal) op die 9de en 93.8° by Bethulie (O.V.S.) op die 3de.

Gemiddelde minima was bo normaal oor die hele Unie. Oor groot gedeeltes van Natal en die Kaap was die gemiddelde minima van 2° tot 4° bo normaal. Vir die provinsies was die gemiddelde minima bo normaal oor die Kaap, Transvaal, Natal en die Vrystaat, met 1.9°, 1.5°, 2.6° en 1.3° respektiewelik, wat vir die Unie as 'n geheel 'n algemene gemiddelde minimum van 61.9° beteken het, d.w.s. 1.9° bo die normaal vir hierdie maand. Die laagste minima wat in die verskillende provinsies geregistreer is, was 45.0° te Ceres (K.P.) en 41.0° te Belfast (Tvl) op die 24ste; 50.0° te Vryheid (Natal) op die 21ste en 49.0° te Lindley (O.V.S.) op die 22ste.

RYP:

Geen ryp is gedurende hierdie maand waargeneem nie.

REENVAL:

Die reënval gedurende Februarie was bo normaal oor die sentrale Kaap, die Transkei en ook oor die drie noordelike provinsies met uitsondering van die suidwestelike Transvaal en 'n paar klein geïsoleerde streke in Natal en in die Vrystaat. Die reënval was besonder hoog oor oos en noordoos Transvaal, Swasiland en Zululand waar dit van twee tot vyfmaal die normaal vir hierdie maand beloop het, hoofsaaklik as gevolg van geweldige neerslae oor hierdie streke van die 9de tot die 11de. Op plekke was die neerslag meer dan 10 duim gedurende 24 uur. So bv. is gedurende die etmaal, 8.30 v.m. op die 11de tot 8.30 v.m. op die 12de op Komatipoort 14.30 duim geregistreer, op Letubi 11.28 duim en op Riverside 10.41 duim. 'n Volledige beskrywing van hierdie neerslae en die vloede deur hulle veroorsaak, word in die bylae hieronder gegee. Die grootste gedeelte van die winterreënvalstreek het geen of baie min reen gehad.

Afsonderlik het al vier provinsies surplusse aangetoon, wat vir die Kaapprovinsie, die Vrystaat, Natal en Transvaal 9%, 48%, 62% en 68% van hulle respektiewe normale bedra het. Wat Kaapland betref, het die somerreënvalstreek 'n surplus van 14% en die winterreënvalstreek 'n tekort van 66% ondervind. Die Unie as 'n geheel het 'n surplus van 47% gehad.

Vanaf die 3de tot die 19de het die oostelike helfte van die Unie pragtige reëns gehad, slegs nou en dan deur tydelike opklarings onderbreek wat egter alleen in die Vrystaat van enige noemenswaardige duur was.

Die reënval oor die noordwestelike en sentrale Kaap, en oor die noordelike grensdistrikte van hierdie provinsie, was byna uitsluitelik beperk tot die laaste gedeelte van die maand, vanaf die 18de tot die 26ste, ofskoon die sentrale Kaapprovinsie en die noordelike grensdistrikte ook op die 4de en 5de goeie reens gehad het.

DONDERSTORMS EN HAEL:

Donderstroms het weer taamlik dikwels voorgekom oor die binnelande van

Hael is ook gerapporteer van de Aar op die 17de, van Middelburg (Tvl.) op die 1ste, en van Leribe (Basoetoeland).

DIE SEISOEN NEERSLAG.

Die seisoen neerslag vir die tydperk 1 Julie 1936 tot 28 Februarie 1937 (sien Kaart IV) was bo normaal oor die hele Unie, behalwe oor 'n paar klein geisoleerde streke in die suidwestelike en sentrale Kaapprovinsie, Natal en westelike Transvaal. Afsonderlik het al vier provinsies surplusse aangetoon wat vir die Kaap 15%, vir die Vrystaat 38%, vir Natal 15% en vir Transvaal 23% van hulle respektiewe normale beloop het, en wat vir die Unie as 'n geheel 'n surplus van 20% beteken het.

Vir die tydperk Januarie 1937 tot 28 Februarie 1937, was die neerslag bo normaal behalwe oor die westelike, suidwestelike, suidelike en suidoostelike Kaapprovinsie en oor 'n paar klein geisoleerde streke in suidelike Natal, westelike en sentrale Transvaal. Ook vir hierdie periode het al vier die provinsies surplusse aangetoon wat vir die Kaap, die Vrystaat, Natal en Transvaal respektiewelik 4%, 45%, 32% en 48% van die normale reënval vir hierdie periode beloop het, en vir die Unie as 'n geheel 'n surplus van 32% beteken het.

UNION OF SOUTH AFRICA
DEPARTMENT OF IRRIGATION
MONTHLY WEATHER REPORT
OF THE
METEOROLOGICAL OFFICE

VOL. XVIV FEBRUARY 1937 NO.2

WARM IN CAPE AND VERY WET OVER THE EASTERN PARTS OF THE UNION.

GENERAL:

Mean pressure below normal in the west and centre of the Union and slightly above normal in the east and southeast, temperatures about one degree higher than usual, with both days and nights warmer than the average except in the Transvaal and Orange Free State where the days were cooler, warm spells in the beginning and during the fourth week, with cool weather intervening in the second and third weeks of the month; frequent thunderstorms and destructive hailstorms in the Fraserburg, Sutherland, Laingsburg and Swellendam districts; a considerable excess of precipitation in the summer rainfall area, whilst little or no rain fell in the winter rainfall area, some very heavy falls of rain during the first half of the month, constituting at several places in the east and north Transvaal a record for February; severe floods in the rivers in the east and north Transvaal, Swaziland and in Zululand doing much damage to dams, roads and bridges, these were the principal features of the weather during the month of February 1937, causing a considerable improvement in agricultural prospects.

PRESSURE:

Mean barometric pressure for the month, as may be seen from accompanying map (Chart I) was about two to four hundredths of an inch lower in the west and centre, and slightly higher than the normal over the east and southeast of the Union. The equatorial tongue of low pressure was strongly in evidence throughout the month. A series of depressions affected the coast on 15 days, viz on the 1st, 3rd, 4th, 6th to 8th, 17th to 19th, 21st to 24th and 27th to 28th. High pressure areas appeared on the coast on the 5th, 12th to 14th, 17th, 20th and 25th to 27th.

TEMPERATURE:

As gathered from the reports of a number of representative stations, the mean temperature over the Union as a whole, was 72.8°F or 1.0° above normal. For the provinces considered separately, the mean temperature was above normal over the Cape Province, Natal and the Free State by 1.6°, 1.5° and 0.3° respectively, whilst it was just normal over the Transvaal. As shown on Chart II, the mean temperatures were above normal over the greater part of the Union, whilst positive departures of 2° and more were fairly general over the southern and eastern Cape and over the eastern half of Natal. Mean temperatures were below normal over the western half of the Transvaal, over the southeastern Free State, Bechuanaland and also over a few isolated areas in the eastern Transvaal and along the northern part of the west coast. The negative departures over these areas, however, were as a rule less than 1.0°F.

The mean maxima (or day temperatures) were above normal except over the Transvaal, the Free State, the highlands of Natal, Bechuanaland, a narrow belt along the

Positive departures from the normal were largest (3° to 5°) over the southern and south-eastern Cape Province, whilst negative departures of 2° and over occurred mostly over Bechuanaland and over the western and eastern Transvaal. For the provinces considered separately, the mean maxima were above normal over the Cape Province by 1.3° and over Natal by 0.4°, whilst they were below normal over the Transvaal by 1.6° and over the Free State by 0.8°, which gave for the Union as a whole a general mean maximum of 83.6° or 0.2° above normal for this month. Temperatures of 100.0°F and higher were experienced fairly frequently in the western, southern and central districts of the Cape Province. The highest maxima registered in the different provinces were 112.0° at Goodhouse (C.P.) on the 3rd; 99.0° at Komatipoort (Tvl.) on the 4th; 100.0° at Stanger (Natal) on the 9th and 93.8° at Bethulie (O.F.S.) on the 3rd.

Mean minima were above normal over the whole Union. Over large areas in Natal and the Cape Province mean minima were from 2° to 4° above normal. For the provinces the mean minima were above normal over the Cape Province, the Transvaal, Natal and the Free State by 1.9°, 1.5°, 2.6° and 1.3° respectively, resulting for the Union as a whole in a general mean minimum of 61.9°, which is 1.9° above the normal for this month. The lowest minima registered in the different provinces were 45.0° at Ceres (C.P.) and 41.0° at Belfast (Tvl.) on the 24th; 50.0° at Vryheid (Natal) on the 21st and 49.0° at Lindley (O.F.S.) on the 22nd.

FROST:

No frost was observed during this month.

RAINFALL:

The rainfall during February was above normal over the central Cape, the Transkei and also over the three northern provinces with the exception of the southwestern Transvaal and a few small isolated areas in Natal and in the Free State. The rainfall was exceptionally high over the eastern and northeastern Transvaal, Swaziland and Zululand, where it amounted to from two to five times the normal for this month, mainly as a result of heavy downpours over these parts from the 9th to the 11th. At places the rainfall was more than 10 inches during 24 hours. During the 24 hours from 8.30 a.m. on the 11th to 8.30 a.m. on the 12th for instance, 14.30 inches were registered at Komatipoort, 11.28 inches at Letubi and 10.41 inches at Riverside. A more detailed description of these downpours is given in an appendix to this report. The greater part of the winter rainfall area had very little or no rain.

Separately all four the provinces showed surplusses which for the Cape Province, the Free State, Natal and Transvaal amounted to 9%, 48%, 62% and 68% of their respective normals. As regards the Cape Province, the summer rainfall area experienced a surplus of 14% and the winter rainfall area a deficit of 66%. The Union as a whole had a surplus of 47%.

From the 3rd to the 19th the eastern half of the Union had good rains, only occasionally interrupted by temporary clearances which, however, were of no duration worth mentioning, except in the Free State.

The rainfall over the northwestern and central Cape Province and over the northern borders were nearly exclusively limited to the latter part of the month, from the 18th to the 26th, although the central districts and the northern borders had good rains also on the 4th and 5th.

THUNDERSTORMS AND HAIL:

Thunderstorms again were fairly frequent over the interior of the Union

whilst hailstorms did much damage on the 26th to gardens and orchards in the Cape Province over an area including Fraserburg, Sutherland, Laingsburg and Swellendam. Hail was also reported from de Aar on the 17th, from Middelburg (Tvl.) on the 1st and from Leribe (Basutoland).

THE SEASONAL PRECIPITATION for the period 1st July 1936 to 28th February 1937 (See Chart IV) was above normal over the whole Union, except over a few small isolated areas in the south western and central Cape Province, Natal and western Transvaal. Separately all four Provinces showed surplusses amounting for the Cape Province to 15% for the Free State to 38%, for Natal to 15% and for the Transvaal to 23% of their respective normals and giving for the Union as a whole a surplus of 20%

For the period 1st January 1937 to the end of February 1937, the precipitation was above normal except over the western, southwestern, southern and southeastern Cape Provinces and over a few small isolated areas in southern Natal, western and central Transvaal. Also for this period all four the provinces showed surplusses which amounted for the Cape Province, the Free State, Natal and Transvaal to 4%, 45%, 32% and 48% of the respective normals for this period, giving for the Union as a whole a surplus of 32%.

AANTEKENINGE VAN WAARNEMERS VIR FEBRUARIE 1937
OBSERVERS' NOTES FOR FEBRUARY 1937.

BRAKPAN (WOLMARANSSTAD). Veld and crops good. 2.74 inches on 7 days. J.C.Lombard.

KLIPRIVER (WATERBERG). Thunderstorms during the month. Houses and native huts struck. 2.41 inches on 8 days. P.F.vanSchalkwyk.

OLIFANTSPOORT (WATERBERG). Olifants River in full flood twice, broke fences. Plenty of grass and cattle looking well, mealies good. 8.05 inches on 13 days. D. Wright.

GROENFONTEIN TIN MINE (WATERBERG). 10th dam in the valley swept away, roads converted into lagoons. 7th to 12th (8.29 inches) the damage to dams, roads, buildings and crops here is estimated at about £600. Great difficulty in getting the post from Potgietersrust. The R.M.S. has entirely stopped for three weeks and is still not running. 13.83 inches on 14 days. T.S. Haldane.

MOOIGELEGEN (WATERBERG). Very dry atmosphere, crops wilting. Grass plentiful, cattle in good condition. 4.75 inches on 5 days. A. Maddocks.

HEMLOCK (BARBERTON). Ploughing lands sodden with water. Large percentage of mealies rotting. 9.18 inches on 16 days. W. Siems.

BUSBY (ERMELO). The Umpitusi is a wonderful sight roaring over its waterfalls and especially the 100 ft. drop in potholes bored into the solid granite. (4th to 13th 5.60 inches). 6.40 inches on 17 days. G. Lunt.

LOUIVILLE (BARBERTON). Running water in all formerly dry dongas. Louws Creek impassable since 10th. (4th to 18th 14.90 inches). 15.18 inches on 17 days. L. Gaye.

KAMHLABANE (BARBERTON). About £100 damage done to roads and bridges. (4th to 18th 23.26 inches) 24.57 inches on 18 days. A. Barrington.

LA COTTE (ZOUTPANSBERG): 12th Letaba River had risen 42 ft. at least and was at its highest flow between 12 and 5 p.m. The Sandspruit was 300 to 400 yards across in places and at road level 100 yards wide. (6th to 17th 13.62 inches) (10.72 inches in 16 hours). 13.62 inches on 12 days. T. Andrews.

RESTON (MIDDELBURG): Conditions dry. Stock in good condition. 1.72 inches on 4 days. A.G. Puves.

VLAKPLAATS (DIST. WARMBATHS TVL.): All pans and dams overflowing. Harry Koll.

LOSKOP DAM (DIST. MIDDELBURG TVL.): Copious rains fell during first half of month. (6.59 inches on 9 days) C. Blaeser.

CHAMPAGNE (DIST. LEYDSDORP TVL.): This has been a very wet month. 11.0 inches of rain in 19 days making this the second wettest February for the past 25 years. Much damage to road surfaces. E.C. Boyce.

BOULDERS (DIST. BARBERTON TVL.): There was much erosion, damage to farmers and many paw-paw trees died out. A.E. Cordes.

KROONSTAD (SOMERGEWAS STASIE O.V.S.): Februarie was oor die algemeen taamlik droog en alhoewel die lug baie bewolk was het ons nie die gewenste reënval gekry nie. D.J. van der Berg.

MISTLEY (NATAL): A month of high temperatures and occasional storms. H. Fisher.

KRUIDFONTEIN (DIST. PRINCE ALBERT C.P.) Weather hot, oppressive culminating in thunder conditions. H. Friedlander.

BALFOUR CAPE (DIST. FORT BEAUFORT C.P.): Very hot days and nights and high humidity. E.W. Hulse

SLENT (DIST. WELLINGTON C.P.): Exceptionally dry. Rainfall 0.06 inches on 3 days R. W. Short.

MIDDELBURG (TVL): Latter half of month was extremely dry and hot. V.P. Rose.

QUEENSTOWN (C.P.): A very hot dry month. 2.12 inches on 11 days. W. Everitt.

CALVINIA (K.P.) Teen die end van die maand het 'n groot deel van die distrik goed reënt gehad. G.H. Kuhn.

CARNARVON (K.P.): Klimaat drukkend warm. A. Crafford.

DIKGATLONG (BECHUANALAND): Month has been a dry one in comparison with rainfall of other districts. The grass is very good. 2.69 inches on 7 days. P. Jousse.

DUNDEE (NATAL): A little too much rain from 6th to 21st. 7.53 inches on 12 days. I. K. Tharrold.

DURBAN (AERO. STATION): Exceptionally hot and muggy during days and warm nights experienced through the whole month. S.A. Engelbrecht.

FAURESMITH (O.F.S.): Humidity was high and weather rather oppressive. P.E. Putter.

KOPJE ALLEEN (TVL.): The rainfall is a record for February (6.80 inches on 10 days) Most of the rain fell during the first 14 days as only a further 0.49 inches fell on the 20th. J.L. Soutter.

LADYSMITH (NATAL): In the mornings there is a distinctive nip in the air - apparently winter is making an early start this year. Rain has been scarce lately. 5.53 inches on 8 days. A.J. Knott.

DIE MEUL (LAINGSBURG): 27ste - hewige donderbui vergesel deur reekwinde en hael. Verspoelings rig skade aan. 2.58 duim op 4 dae. J.J. Victor.

FRASERBURG GAOL: 26th Hail damage to fruit gardens. 1.99 inches on 5 days. M. Pansegrouw.

VISGAT (FRASERBURG): 26ste - 'n Hael storm. Dit het begin om half ses en ses uur was die storm oor. Dit het baie skade gedoen aan groente, vrugte en die plaas geboue. 1.55 duim op 4 dae. G. le Roux.

BURGERVILLE (DE AAR): 17th - Hail damage to veld and gardens. 3.26 inches on 6 days. G. van Niekerk.

SWELLENDAM: 26th Severe thunder and hail storm damaging gardens and smashing many window panes 1.58 inches on 3 days. J. le Roux.

LUG TEMPERATURE : FEBRUARIE 1937.
AIR TEMPERATURES : FEBRUARY 1937.

STATION STASIE	MAXIMUM Gem. Mean	Norm.	Versk. Diff.	MINIMUM Gem. Mean	Norm.	Diff. Versk.	MAAND. GEM. MONTHLY MEAN Gem. Mean	Norm.	Versk. Diff.	ABS. MAX.	DATE DATUM	ABS MIN	DATE DATUM
KAAP PROVINSIE CAPE PROVINCE													
ALIWAL NORTH	83.0	83.7	-0.7	58.1	56.1	+2.0	70.6	69.9	+0.7	92.0	3,4	51.0	21
BRITSTOWN	89.5	90.4	-0.9	62.9	59.6	+3.3	76.2	75.0	+1.2	97.0	3	54.0	20
CAPE L'AGULHAS	75.5	73.2	+2.3	64.0	62.8	+1.2	69.8	68.0	+1.8	82.0	27	57.0	11
CAPE TOWN	82.9	80.5	+2.4	61.7	60.8	+0.9	72.3	70.7	+1.6	98.0	17	51.4	11
CALA	81.1	80.4	+0.7	59.7	57.0	+2.7	70.4	68.7	+1.7	97.5	3	51.5	20
CARNARVON	89.8	87.8	+2.0	60.5	58.9	+1.6	75.2	73.4	+1.8	96.0	4,5	52.0	20
CERES	89.2	86.3	+2.9	56.3	55.9	+0.4	72.8	71.1	+1.7	99.0	17	45.0	24
CRADOCK	88.1	87.2	+0.9	61.0	57.8	+3.2	74.6	72.5	+2.1	101.0	4	53.0	13,21
CLANWILLIAM	98.5	92.8	+5.7	62.5	59.7	+2.8	80.5	76.3	+4.2	111.0	17	53.0	10
DEEPWALLS	79.4	74.8	+4.6	59.2	57.0	+2.2	69.3	65.9	+3.4	100.0	18	52.3	12
EAST LONDON	79.2	76.0	+3.2	66.2	64.4	+1.8	72.7	70.2	+2.5	87.8	6	61.0	17,20
GOODHOUSE	102.9	100.6	+2.3	73.3	70.7	+2.6	88.1	85.7	+2.4	112.0	3	63.0	12
GRAAFF REINET	90.6	88.2	+2.4		60.3			74.3		103.9	3		
GRAHAMSTOWN	82.7	80.1	+2.6	59.0	57.2	+1.8	70.9	68.7	+2.2	97.0	28	50.4	10
GT DRAKENSTEIN	88.0	86.2	+1.8	59.7	60.8	-1.7	73.6	73.5	+0.1	101.8	27	48.0	11
GROOTFONTEIN	84.4	85.3	-0.9	55.8	54.2	+1.6	70.1	69.8	+0.3	92.9	3	48.2	21
HOPETOWN	89.1	85.4	+3.7	63.5	62.1	+1.4	76.3	73.8	+2.5	98.0	3	55.0	20
IDUTYWA		78.1			56.8			67.5					
KENHARDT	94.1	94.6	-0.5	67.5	64.7	+2.8	80.8	79.7	+1.1	100.6	3	58.3	12
KIMBERLEY	85.9	88.5	-2.6	63.1	62.2	+0.9	74.5	75.4	-0.9	93.1	3	57.0	20
KINGWILLIAMSTOWN	85.5	83.9	+1.6	64.4	61.4	+3.0	75.0	72.7	+2.3	99.0	18,28	53.0	21
KLAVER	90.8	89.2	+1.6	61.7	61.5	+0.2	76.3	75.4	+0.9	102.6	17	53.0	13
KOKSTAD	77.8	77.7	+0.1	57.0	54.7	+2.3	67.4	66.2	+1.2	90.8	3	47.5	21
KURUMAN	84.4	86.7	-2.3	61.2	60.1	+1.1	72.8	73.4	-0.6	91.0	2	55.0	1,2
MAFEKING	82.7	85.4	-2.7	61.6	60.6	+1.0	72.2	73.0	-0.8	91.6	20	52.0	1
MOSSEL BAY	79.1	75.3	+3.8	66.7	63.9	+2.8	72.9	69.6	+3.3	84.0	6	60.0	12
NELSPOORT	86.0	87.1	-1.1	59.6	58.2	+1.4	72.8	72.7	+0.1	95.0	3	49.2	20
NOOITGEDACHT	89.1	86.2	+2.9	63.2	60.2	+3.0	76.2	73.2	+3.0	97.0	17	50.6	11
OUDTSHOORN	91.8	88.2	+3.6	60.3	58.1	+2.2	76.1	73.2	+2.9	104.0	18	52.0	13
PORT ELIZABETH	80.7	76.0	+4.7	67.1	64.0	+3.1	73.9	70.0	+3.9	89.0	28	58.0	21
PORT NOLLOTH	65.9	67.3	-1.4	52.9	53.8	-0.9	59.4	60.6	-1.2	69.0	1,9	47.0	20
PORT ST. JOHNS	80.3	79.5	+0.8	70.2	66.5	+3.7	75.3	73.0	+2.3	84.0	2,3	62.0	20,21
POSTMASBURG	85.3	86.9	-1.6	64.0	61.9	+2.1	74.7	74.4	+0.3	92.1	14	58.4	20
RIVIERSKA	94.2	92.6	+1.6	66.2	65.5	+0.7	80.2	79.1	+1.1	102.0	14,15	55.0	20
QUEENSTOWN	87.1	83.6	+3.5	61.5	58.4	+3.1	74.3	71.0	+3.3	100.0	3	52.0	21
RUSTENBURG	86.8	87.1	-0.3	60.1	58.2	+1.9	73.5	72.7	+0.8	104.0	26	52.5	13
SOMERSET EAST	86.5	83.1	+3.4	62.0	58.3	+3.7	74.3	70.7	+3.6	102.5	3	51.9	21
SUTHERLAND	82.5	82.0	+0.5	52.6	51.5	+1.1	67.6	66.8	+0.8	89.0	18	47.0	20
SYDNEYS HOPE	82.0	80.0	+2.0	62.4	59.1	+3.3	72.2	69.6	+2.6	100.0	18	54.0	20
VLEENHAGE		84.2			61.5			72.9					
UMTATA	84.1	81.4	+2.7	63.5	60.5	+3.0	73.8	71.0	+2.8	99.0	3	54.0	22
VENTERSTAD	93.8	94.0	-0.2	68.7	66.8	+1.9	81.3	80.4	+0.9	100.9	3	60.4	12
VAN WYKSVLEI	92.4	91.4	+1.0	63.5	61.2	+2.3	78.0	76.3	+1.7	99.0	3	58.0	20
VICTORIA WEST		86.2			55.0			70.6					
VRYBURG	84.8	88.1	-3.3	62.5	61.5	+1.0	73.7	74.8	-1.1	92.0	2	56.0	2
WILLOWMORE	90.9	85.6	+5.3	60.0	56.7	+3.3	75.5	71.2	+4.3	98.1	27	50.5	?
TRANSVAAL													
BARBERTON	82.5	83.5	-0.8	65.5	63.5	+2.0	74.0	73.4	+0.6	92.0	4	61.0	21
BELFAST	70.8	73.1	-2.3	53.0	51.1	+1.9	61.9	62.1	-0.2	79.0	7	41.0	24
CHRISTIANA	86.2	88.7	-2.5	59.9	60.5	-0.6	73.1	74.6	-1.5	94.0	3,7	51.0	1
ERMELO	75.0	77.5	-2.5	55.1	53.3	+1.8	65.1	65.4	-0.3	82.0	2	49.0	21
HEIDELBERG	79.2	80.5	-1.3		56.3			68.4		86.2	3		
JOHANNESBURG	75.1	75.6	-0.5	57.0	55.8	+1.2	66.1	65.7	+0.4	80.4	1	50.8	21
KLERKSDORP	82.6	84.8	-2.2	61.8	59.9	+1.9	72.2	72.4	-0.2	89.9	1	56.5	1,22
KOMATIPOORT	87.2	90.0	-2.8	70.7	68.9	+1.8	79.0	79.5	-0.5	99.0	4	66.0	21
KOPJE ALLEEN	82.5	85.7	-3.2	61.7	61.1	+0.6	72.1	73.4	-1.3	88.2	7	54.2	24
LOUIS TRICHARDT		79.8			60.7			70.3					
MARKEN	82.0	84.8	-2.8	64.0	62.8	+1.2	73.0	73.8	-0.8	89.0	4	58.3	24
MESSINA	86.6	88.9	-2.3	69.9	68.5	+1.4	78.3	78.7	-0.4	98.7	4	65.8	21

LUG TEMPERATURE : FEBRUARIE 1937 (VERVOLG).
AIR TEMPERATURES : FEBRUARY 1937 (CONTINUED).

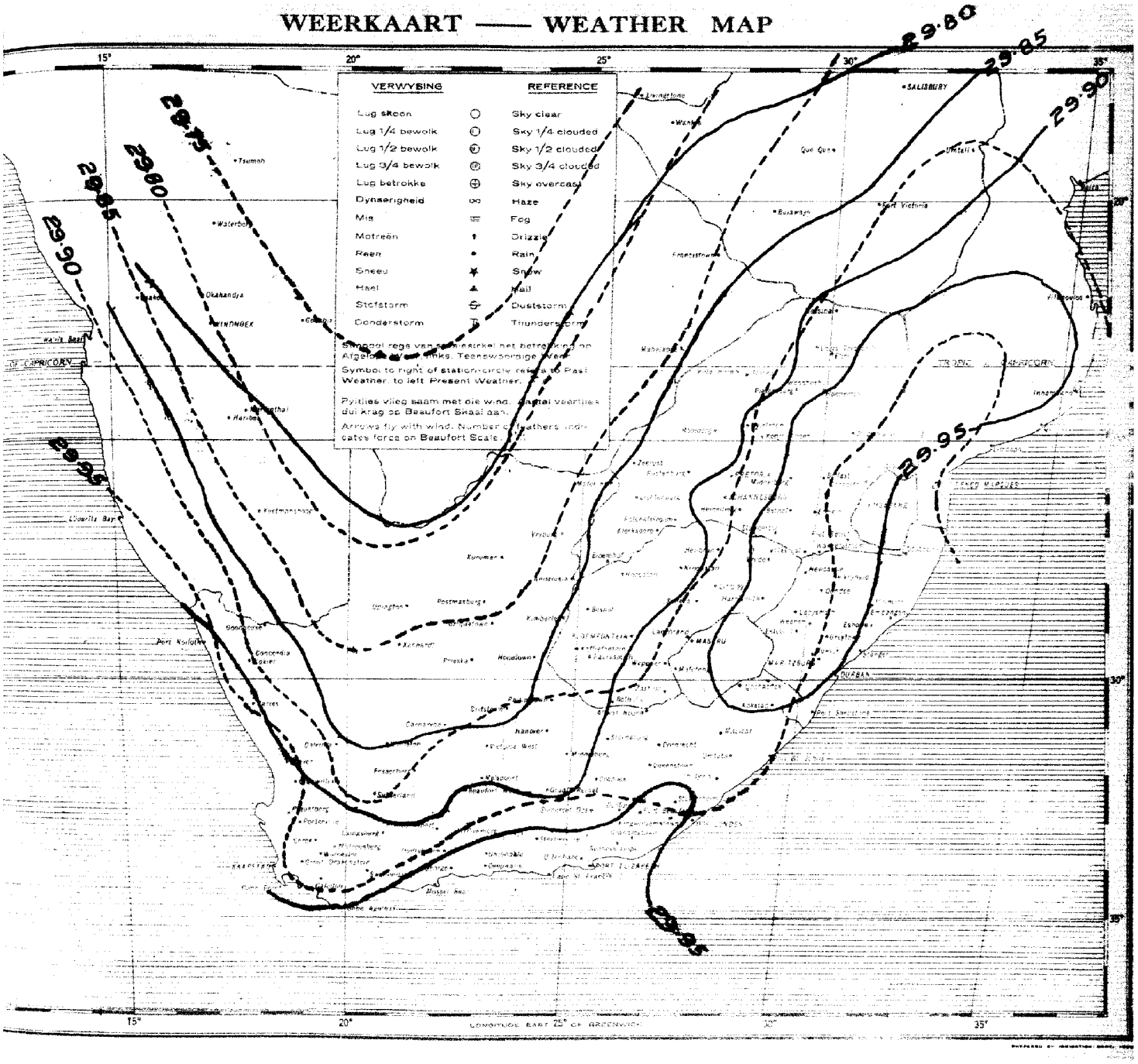
STASIE STATION	MAXIMUM Gem. Mean	Norm.	Versk. Diff.	MINIMUM Gem. Mean	Norm.	Versk. Diff.	MAAND. GEM. MONTHLY MEAN Gem. Mean	Norm.	Versk. Diff.	ABS. MAX.	DATUM DATE	ABS. MIN.	DATUM DATE
MIDDELBURG	81.0	80.9	+0.1	57.7	56.2	+1.5	69.4	68.6	+0.8	85.0	2,23	47.0	24
NYLSTROOM	82.2	83.2	-1.0	60.0	60.0	±0.0	71.1	71.6	-0.5	87.0	2,7	52.0	25
PIETERSBURG	77.3	81.5	-4.2	60.2	59.3	+0.9	68.8	70.4	-1.6	84.0	3	52.1	24
PIET RETIEF	77.3	77.4	-0.1	60.0	58.1	+1.9	68.7	67.8	+0.9	87.5	3	53.1	21
PILGRIMS REST	77.6	76.9	+0.7	58.7	57.5	+1.2	68.2	67.2	+1.0	88.0	3	49.0	24
POTCHEFSTROOM	80.7	84.4	-3.7	60.0	58.5	+1.5	70.4	71.5	-1.1	87.5	2	52.3	1
PRETORIA	82.2	82.2	+0.0	61.8	60.2	+1.6	72.0	71.2	+0.8	88.0	1	57.4	26
RUSTENBURG	83.4	85.3	-1.9	63.9	60.8	+3.1	73.7	73.1	+0.6	90.7	1	58.0	1
STANDERTON	79.3	79.7	-0.4	57.1	54.1	+3.0	68.2	66.9	+1.3	85.0	7,8	50.0	22
WAKKERSTROOM	74.7	74.8	-0.1	53.7	51.3	+2.4	64.2	63.1	+1.1	82.7	2	45.0	22
ZEERUST	82.8	84.5	-1.7	62.1	60.8	+1.3	72.5	72.7	-0.2	90.8	1	53.0	1
NATAL.													
DUNDEE	79.1	81.0	-1.9	60.0	57.0	+3.0	69.6	69.0	+0.6	88.0	3,7	51.0	21
DURBAN POINT	83.8	82.0	+1.8	72.5	69.8	+2.7	78.2	75.9	+2.3	90.0	25	65.4	21
EMPANGENI	85.7	84.8	+0.9	70.6	67.1	+3.5	78.2	76.0	+2.2	96.0	3	66.0	21
ESHOWE	82.2	79.7	+2.5	64.3	64.0	+0.3	73.3	71.9	+1.4	94.3	3	57.8	21
ESTCOURT	80.1	81.1	-1.0	60.4	59.0	+1.4	70.3	70.1	+0.2	89.0	3	52.0	18
LADYSMITH	86.1	86.7	-0.6	62.8	61.2	+1.6	74.5	74.0	+0.5	95.0	2	57.0	21
MARITZBURG	83.7	81.0	+2.7	64.0	62.2	+1.8	73.9	71.6	+2.3	99.4	3	55.6	21
OTOBOTINI	86.6	89.0	-2.4	71.1	69.7	+1.4	78.9	79.4	-0.5	96.0	7	65.0	22
PORT SHEPSTONE	81.8	79.8	+2.0	71.0	67.7	+3.3	76.4	73.8	+2.6	87.0	3	62.0	21
STANGER	87.0	84.1	+3.9	69.8	66.8	+3.0	78.4	75.5	+2.9	100.0	9	63.0	21
VRYHEID	81.2	80.7	+0.5	60.4	54.8	+5.6	70.8	67.8	+3.0	91.7	7	50.0	21
WEENEN	86.5	88.8	-2.3	63.8	60.1	+3.7	75.2	74.5	+0.7	98.0	3	56.0	27
O.V.S. O.F.S.													
BETHULIE	84.4	85.6	-1.2	59.7	58.7	+1.0	72.1	72.2	-0.1	93.8	3	49.4	20
BLOEMFONTEIN	79.9	-	-	57.7	-	-	68.8	-	-	86.8	8	51.1	1
FAURESMITH	83.2	83.3	-0.1	59.5	58.1	+1.4	71.4	70.7	+0.7	93.6	3	51.0	20
FRANKSMITH	73.4	73.4	+0.0	53.8	52.0	+1.8	63.6	62.7	+0.9	80.0	8	50.0	21
KROONSTAD	82.9	83.3	-0.4	59.7	58.3	+1.4	71.3	70.8	+0.5	92.0	2	53.0	3,22
LADYBRAND	77.8	79.4	-1.6	55.8	55.1	+0.7	66.8	67.3	-0.5	84.0	2	50.0	21
LINDLEY	81.2	80.9	+0.3	57.8	56.2	+1.6	69.5	68.6	+0.9	85.0	3	49.0	22
WEPENER	81.0	83.4	-2.4	57.5	56.1	+1.4	69.3	69.8	-0.5	89.0	3	50.0	1
BASOETOELAND - BASUTOLAND.													
BUTHA BUTHE	79.0	82.3	-3.3	55.1	53.4	+1.7	67.1	67.9	-0.8	84.0	3,25	50.0	1
MAPETENG	77.0	78.8	-1.8	56.9	55.4	+1.5	67.0	67.1	-0.1	85.0	3	51.0	17
MOHALES HOEK	79.9	83.4	-3.5	55.3	54.7	+0.6	67.6	69.1	-1.5	86.0	3	50.0	17
MOKHOTLONG	75.9	73.5	+2.4	48.4	48.0	+0.4	62.2	60.8	+1.4	83.0	7	43.0	21
QACHASNEK	74.0	74.1	-0.1	53.0	50.3	+2.7	63.5	62.2	+1.3	82.0	3	46.0	21
BETSJOEANALAND - BECHUANALAND.													
LOBATSE	86.8	89.8	-3.0	65.4	60.1	+5.3	76.1	75.0	+1.1	97.0	1	55.0	26
GABERONES	85.3	89.4	-4.1	64.1	61.5	+2.6	74.7	75.5	-0.8	94.0	2	56.0	26
MAHALAPYE	84.0	88.3	-4.3	64.5	64.1	+0.4	74.3	76.2	-1.9	94.0	1	57.0	24,25
SWASIELAND - SWAZILAND.													
MBABANE	75.1	81.1	-6.0	59.5	62.5	-3.0	67.3	71.8	-4.5	85.0	3,4	51.0	1
STEGI	80.8	80.6	+0.2	63.6	62.1	+1.5	72.2	71.4	+0.8	88.0	9	57.0	23

NEERSLAG : FEBRUARIE 1937.
RAINFALL : FEBRUARY 1937.

STASIE STATION	FEB. 1937.	NORM.	VERSK. DIFF.	%	VANAF 1/1/37 FROM	NORM.	VERSK. DIFF.	VANAF 1.7.36 FROM	NORM.	VERSK. DIFF.	SEISOEN % SEASONAL
KAAP PROVINSIE SOMER REENVAL STREEK.											
CAPE PROVINCE SUMMER RAINFALL AREA.											
ALIWAL NORTH	2.74	2.45	+0.29	112	5.97	5.10	+0.87	17.66	12.49	+5.17	141
BEAUFORT WEST	1.22	1.28	-0.06	95	1.58	2.26	-0.68	5.34	5.71	-0.37	93
BEDFORD	2.93	3.49	-0.56	84	4.30	6.71	-2.41	19.71	18.80	+0.91	105
BRITSTOWN	3.65	1.72	+1.93	212	5.37	2.75	+2.62	8.08	5.96	+2.12	136
CARNARVON	1.73	1.25	+0.48	139	2.63	2.16	+0.47	5.97	4.45	+1.52	134
EAST LONDON	2.72	3.15	-0.43	86	3.98	6.12	-2.14	19.83	22.30	-2.47	89
FRASERBURG	1.99	0.99	+1.00	201	2.73	1.68	+1.05	5.45	3.64	+1.81	150
GEORGE	3.29	3.37	-0.08	98	5.57	6.34	-0.77	28.32	23.34	+4.98	121
GRAAFF REINET	4.42	1.68	+2.74	263	7.46	2.99	+4.47	18.05	9.11	+8.94	198
GRAHAMSTOWN	1.84	1.63	+0.21	113	2.66	3.21	-0.55	18.45	13.90	+4.55	133
GRIQUATOWN	1.44	2.02	-0.58	71	4.34	3.71	+0.63	7.00	7.55	-0.55	93
GROOTFONTEIN	1.87	1.85	+0.02	101	2.95	3.43	-0.48	10.25	8.58	+1.67	120
HANOVER	0.84	2.16	-1.32	39	1.54	3.87	-2.33	3.84	8.41	-4.57	46
HOPETOWN	3.72	1.76	+1.96	211	4.77	3.44	+1.33	10.01	7.46	+2.55	134
IDUTYWA	-	-	-	-	-	-	-	-	-	-	-
KENHARDT	0.67	1.12	-0.45	60	3.39	1.67	+1.72	4.77	3.25	+1.52	147
KIMBERLEY	3.46	2.43	+1.03	142	6.40	4.63	+1.77	16.48	10.26	+6.22	161
KINGWILLIAMSTOWN	2.25	3.03	-0.78	74	3.07	5.49	-2.42	14.76	17.26	-2.50	86
KOKSTAD	8.35	4.28	+4.07	195	13.43	9.22	+4.21	24.53	22.96	+1.57	107
MATJESFONTEIN	0.42	0.39	+0.03	108	0.42	0.70	-0.28	7.11	3.52	+3.59	202
MACLEAR	6.72	4.88	+1.84	138	11.81	10.73	+1.08	25.74	25.10	+0.64	103
MAFEKING	2.26	3.16	-0.90	71	8.94	6.78	+2.16	19.07	15.68	+3.39	122
MOSSEL BAY	0.43	1.40	-0.97	31	1.63	2.50	-0.87	12.22	11.14	+1.08	110
PHILIPSTOWN	2.35	2.00	+0.35	117	4.07	3.54	+0.53	7.60	7.77	-0.17	98
PORT ELIZABETH	0.55	1.29	-0.74	43	1.05	2.46	-1.41	14.64	14.89	-0.25	98
PORT ST. JOHNS	9.68	5.26	+4.42	184	13.03	10.31	+2.72	39.77	33.64	+6.13	118
PRIESKA	1.25	1.49	-0.24	84	2.93	2.64	+0.29	4.08	5.19	-1.11	79
PRINCE ALBERT RD	-	-	-	-	-	-	-	-	-	-	-
QUEENSTOWN	2.12	3.61	-1.49	59	4.72	6.83	-2.11	18.18	15.85	+2.33	115
SOMERSET EAST	1.69	2.67	-0.98	63	2.56	5.37	-2.81	18.00	15.35	+2.65	117
STEYNSBURG	1.95	2.13	-0.18	91	4.32	4.10	+0.22	13.22	9.57	+3.65	138
STEYTLERVILLE	0.64	1.07	-0.43	60	1.66	1.84	-0.18	7.00	5.87	+1.13	119
SWELLENDAM	1.58	2.72	-1.14	58	3.21	4.96	-1.75	27.57	20.26	+7.31	136
SYDNEYS HOPE	1.37	1.94	-0.57	71	2.09	3.90	-1.81	14.34	15.16	-0.82	95
UITENHAGE	-	-	-	-	-	-	-	-	-	-	-
UMTATA	4.81	3.38	+1.43	142	8.98	6.96	+2.02	22.92	18.26	+4.66	126
UNIONDALE	0.50	1.01	-0.51	50	0.70	1.69	-0.99	8.36	8.03	+0.33	104
UPINGTON	0.54	1.13	-0.59	48	2.25	1.92	+0.33	4.19	3.80	+0.39	110
VICTORIA WEST	-	-	-	-	-	-	-	-	-	-	-
VRYBURG	6.22	3.44	+2.78	181	11.81	7.22	+4.59	19.10	13.24	+5.86	144
KAAP PROVINSIE WINTER REENVAL STREEK.											
CAPE PROVINCE WINTER RAINFALL AREA.											
CALEDON	0.30	0.81	-0.51	37	0.85	1.67	-0.82	13.37	12.96	+0.41	103
CALVINIA	0.08	0.52	-0.44	15	0.38	0.83	-0.45	8.68	4.30	+4.38	202
CAPE TOWN ROYAL OBS	0.28	0.60	-0.32	47	1.43	1.26	+0.17	11.84	13.91	-2.07	85
CERES	0.12	0.77	-0.65	16	0.45	1.74	-1.29	26.78	23.71	+3.07	113
CLANWILLIAM	0.00	0.27	-0.27	0	0.00	0.46	-0.46	6.35	4.72	+1.63	135
CARIES	0.00	0.17	-0.17	0	0.19	0.29	-0.10	5.28	2.87	+2.41	184
GT DRAKENSTEIN	0.16	0.74	-0.58	22	1.57	1.76	-0.19	17.25	20.03	-2.78	86
O OKIEP	0.00	0.33	-0.33	0	0.51	0.50	+0.01	4.03	3.57	+0.46	113
PIQUETBERG	0.00	0.49	-0.49	0	0.00	1.05	-1.05	9.02	11.85	-2.83	76
PORT NOLLOTH	0.06	0.05	+0.01	120	-	-	-	-	-	-	-
SUTHERLAND	1.01	0.71	+0.30	142	3.19	1.19	+2.00	10.24	5.00	+5.24	205
WORCESTER	0.00	0.39	-0.39	0	0.61	0.67	-0.06	10.46	6.97	+3.49	150
O. V. S. - O. F. S.											
BETHULIE	2.13	2.86	-0.73	74	4.97	5.46	-0.49	17.18	11.83	+5.35	145
BLOEMFONTEIN	4.08	3.13	+0.95	131	10.00	6.68	+3.32	19.27	14.16	+5.11	136
BOSHOF	7.87	2.61	+5.26	302	9.66	5.48	+4.18	18.59	12.30	+6.29	151
FAURESMITH	4.64	1.27	+3.37	357	6.80	3.43	+3.37	16.71	9.95	+6.76	168

NEERSLAG : FEBRUARIE 1937 (VERVOLG)
RAINFALL : FEBRUARY 1937 (CONTINUED)

STASIE STATION	FEB. 1937.	NORM.	VERSK. DIFF.	%	VANAF 1.1.37 FROM	NORM.	VERSK. DIFF.	VANAF 1.7.36 FROM	NORM.	VERSK. DIFF.	SEISOEN % SEASONAL
O. V. S. (VERVOLG)											
O. F. S. (CONTINUED):											
KROONSTAD	4.39	2.90	+1.49	151	7.24	6.94	+0.30	20.82	17.72	+3.10	118
LADYBRAND	6.16	3.74	+2.42	165	12.72	8.06	+4.66	28.66	20.15	+8.45	142
LINDLEY	3.89	3.58	+0.31	109	10.37	7.75	+2.62	26.06	18.83	+7.23	138
VREDE	-	-	-	-	-	-	-	-	-	-	-
WINBURG	3.20	3.30	-0.10	97	12.78	7.07	+5.71	24.40	16.04	+8.36	152
NATAL:											
DUNDEE	7.53	4.82	+2.71	156	15.92	10.25	+5.67	31.35	25.23	+6.12	124
DURBAN	6.32	5.27	+1.05	120	9.60	9.86	-0.26	31.25	31.04	+0.21	101
EMPANGENI	7.45	4.52	+2.93	165	14.09	9.67	+4.42	34.47	28.97	+5.50	119
ESTCOURT	4.30	4.38	-0.08	98	9.54	9.75	-0.21	23.09	22.52	+0.57	102
LADYSMITH	5.53	4.71	+0.82	117	12.67	10.00	+2.67	28.65	23.45	+5.20	122
MELMOTH	7.31	4.22	+3.09	173	11.87	8.82	+3.05	24.72	23.69	+1.03	104
OTOBOTINI	10.97	3.41	+7.56	322	17.66	6.22	+11.44	32.16	16.14	+16.02	199
MARITZBURG	4.64	4.91	-0.27	94	8.76	10.47	-1.71	25.37	27.30	-1.93	93
STANGER	8.27	4.19	+4.08	197	9.95	9.35	+0.60	33.11	30.04	+3.07	110
UMBOMBO	12.73	4.68	+8.05	272	18.41	10.17	+8.24	33.03	27.17	+5.86	122
VRYHEID	8.10	4.59	+3.51	177	17.22	10.69	+6.53	32.75	27.43	+5.32	119
WEENEN	3.37	3.89	-0.52	87	5.43	8.97	-3.54	18.05	20.98	-2.93	86
BASOETOELAND - BASUTOLAND:											
MAFETENG	7.26	4.36	+2.90	167	14.89	9.26	+5.63	30.22	20.89	+9.33	145
SWASIELAND - SWAZILAND:											
MBABANE	23.85	7.64	+16.21	312	37.73	17.50	+20.23	61.82	41.76	+20.06	148
TRANSVAAL:											
BARBERTON	11.50	4.21	+7.29	273	21.09	9.91	+11.18	35.40	23.40	+12.00	151
BELFAST	4.27	4.00	+0.27	107	16.45	9.41	+7.04	29.99	24.52	+5.47	122
BETHAL		3.74				8.70			23.21		
BLOEMHOF	3.16	3.23	-0.07	98	6.68	6.45	+0.23	11.63	13.04	-1.41	89
ELIM HOSPITAL	11.24	5.79	+5.45	194	16.14	12.45	+3.69	25.23	23.56	+1.67	107
ERMELO		3.25				8.22			23.83		
HAENERTSBURG	17.05	6.06	+10.99	281	24.16	14.21	+9.95	43.69	27.93	+15.76	157
HEIDELBERG	4.21	4.40	-0.19	96	10.06	9.04	+1.02	22.93	22.48	+0.45	102
JOHANNESBURG OBS	5.85	4.25	+1.60	138	14.30	9.71	+4.59	24.72	23.26	+1.46	106
JOUBERT PARK	6.68	4.90	+1.78	136	17.16	11.07	+6.09	30.61	25.60	+5.01	120
KLERKSDORP	4.28	3.57	+0.71	120	9.36	7.81	+1.55	20.84	17.33	+3.51	120
KOMATIPOORT	23.09	4.61	+18.48	501	29.41	9.44	+19.97	48.33	18.61	+29.72	259
LICHTENBURG	3.05	3.47	-0.42	88	8.83	8.01	+0.82	18.18	17.50	+0.68	104
MESSINA	4.06	2.34	+1.72	173	6.38	5.62	+0.76	13.95	11.85	+2.10	118
MIDDELBURG	2.81	4.09	-1.28	68	8.55	9.29	-0.74	25.08	23.18	+1.90	109
NYLSTROOM	6.35	3.63	+2.72	175	9.80	8.72	+1.08	18.84	18.90	-0.06	100
PIETERSBURG	3.59	3.13	+0.46	115	12.19	7.01	+5.18	21.13	16.27	+4.86	130
PIET RETIEF	6.78	4.77	+2.01	142	16.92	10.72	+6.20	35.47	28.68	+6.79	124
PILGRIMS REST	10.54	7.09	+3.45	149	22.39	14.90	+7.49	41.21	29.15	+12.06	141
POTCHEFSTROOM	3.17	3.70	-0.53	86	7.63	7.94	-0.31	19.83	18.35	+1.48	108
PRETORIA	9.58	4.21	+5.37	228	14.10	9.64	+4.46	25.69	22.72	+2.97	113
ROODEBERG	4.44	3.33	+1.11	133	10.02	8.21	+1.81	17.21	18.46	-1.25	93
RUSTENBURG	2.86	3.98	-1.12	72	8.76	8.89	-0.13	18.51	19.91	-1.40	93
STANDERTON	6.05	4.56	+1.49	133	10.55	9.37	+1.18	23.02	23.93	-0.91	96
VILLA NORA	5.71	2.37	+3.34	241	13.30	5.94	+7.36	19.37	13.35	+6.02	145
WAKKERSTROOM	5.15	4.44	+0.71	116	17.06	9.61	+7.45	28.40	25.05	+3.35	113
WOODBUSH	25.15	11.35	+13.80	222	42.02	26.23	+15.79	75.61	51.70	+23.91	146
ZEERUST	3.23	3.78	-0.55	85	7.17	7.96	-0.79	15.47	17.51	-2.04	88



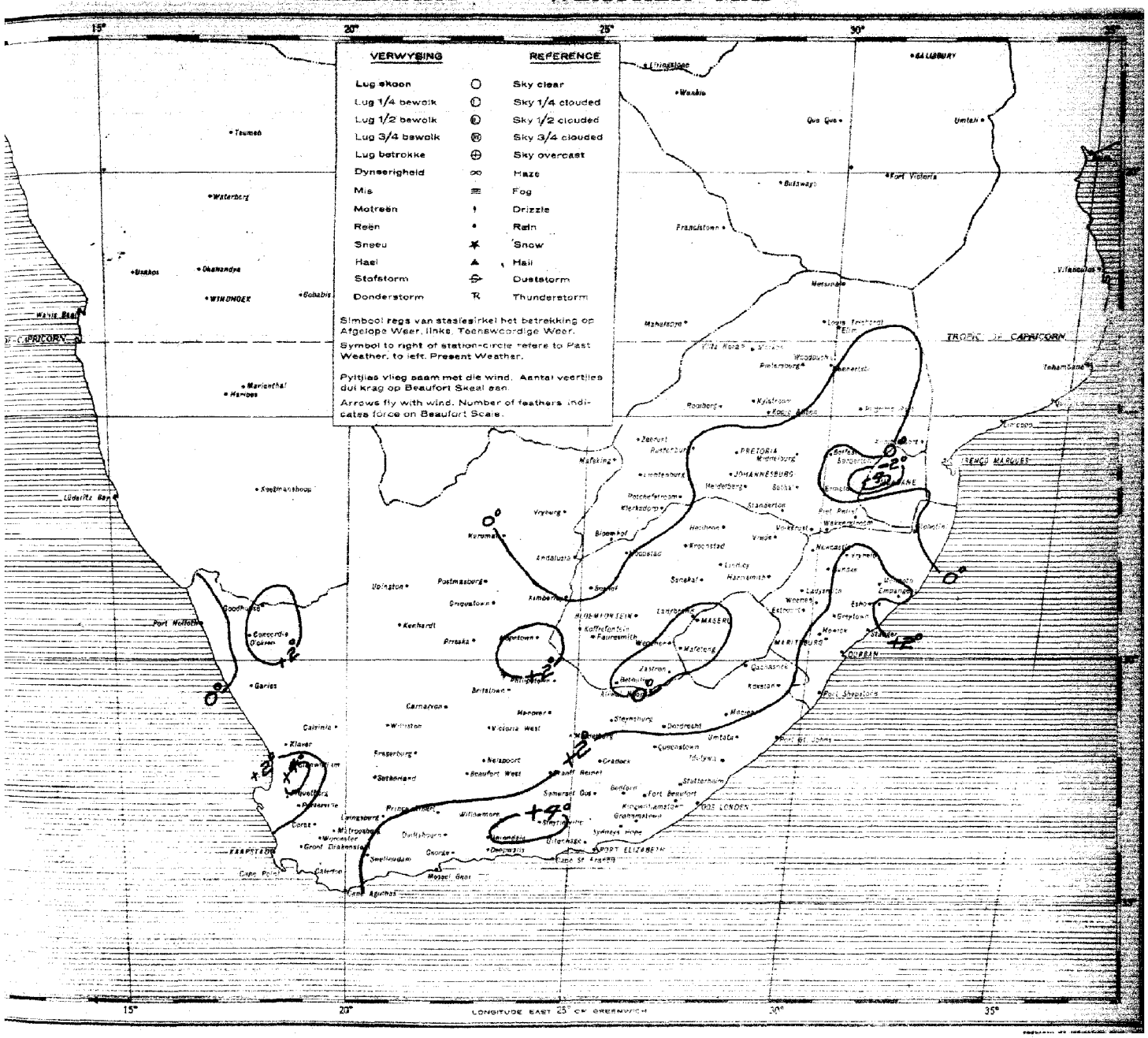
KAART I.

FEBRUARIE 1937 – GEMIDDELDE LUGDRUK OM 8.30 v.m. – Die gebroke lyne dui die normale distribusie vir Februarie aan.

CHART I.

FEBRUARY 1937 – MEAN ATMOSPHERIC PRESSURE AT 8.30 a.m. – The broken lines indicate the normal distribution in February.

WEERKAART —— WEATHER MAP



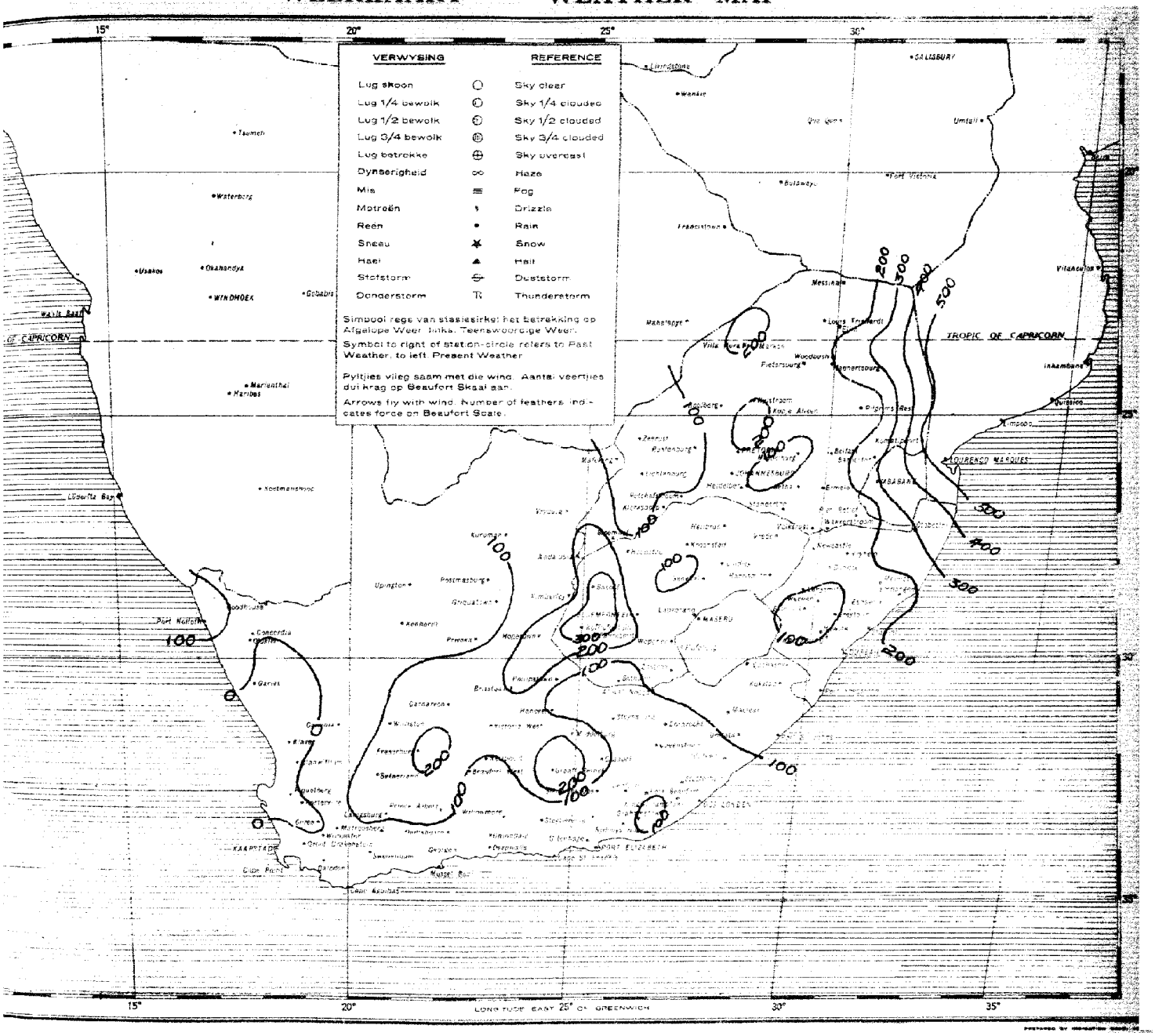
KAART II.

FEBRUARIE 1937 :- GEMIDDELDE TEMPERATUUR - afwyking van die normaal in °

CHART II.

FEBRUARY 1937 :- MEAN TEMPERATURE - deviation from normal in °F.

WEERKAART —— WEATHER MAP



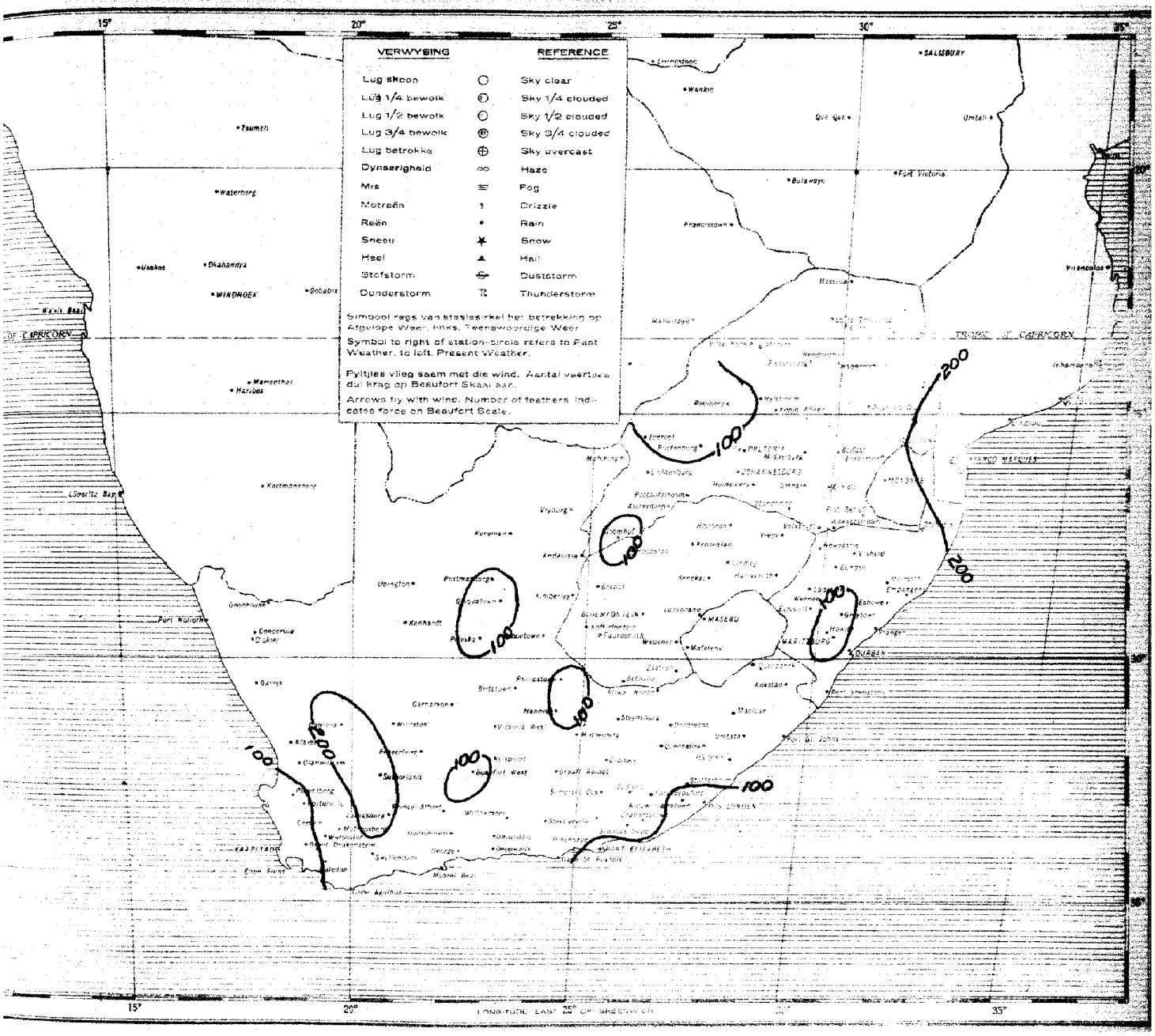
KAART III.

FEBRUARIE 1937 :- REËNVAL AANGEGEE AS PERSENTASIE VAN DIE NORMAAL.

CHART III.

FEBRUARY 1937 :- RAINFALL SHEWN AS PERCENTAGE OF NORMAL.

WEERKAART —— WEATHER MAP



KAART IV.

FEBRUARIE 1937 :- SEISOEN-NEERSLAG (1 JUL. TOT 28 FEB.) AS PERSENTASIE VAN DIE NORMAAL.

CHART IV.

FEBRUARY 1937 :- SEASONAL PRECIPITATION (1st JUL. TO 28th FEB.) SHEWN AS PERCENTAGE OF THE NORMAL.

B Y L A E.

Gedurende die tydperk 8 tot 11 Februarie het daar 'n buitengewoon swaar reën val oor die oostelike Transvaal plaasgevind. Veral ten ooste van die Drakensberg was die neerslag besonder groot. Die gevolg van die aanhoudende swaar reëns was oorstromings langs die riviere wat in die omgewing van Lourenco Marques uitmond. Die spoorweg en paaie is verspoel, groot skade is aangerig, en die oorstromings het met aansienlike verlies van lewe onder die naturelle gepaard gegaan.

Die reënval was van so'n buitengewone omvang dat die weerkundige toestand wat daartoe aanleiding gegee het, besondere aandag verdien.

Bygaande tabel I bevat die aangetekende neerslae gedurende die vier dae 8 tot 11 Februarie vir 'n aantal stasies wat binne die getroffe gebied val. Dit spreek byna vanself dat die suidelike gedeelte van Mozambique ook baie swaar reëns ondervind het, maar die gegewens ontbreek nog en word daardie gebied dus nie hier ingesluit nie.

By Letubi is die hoogste totale reënval waargeneem, nl. 21,13 duim waarvan 9,50 op die 10de en 11,28 duim op die 11de Februarie aangeteken is. Die normale Februarie reënval by Letubi is 4,77 duim, sodat die reënval gedurende hierdie twee dae sowat 435% van die gemiddelde Februarie reënval bedra. Uit hierdie syfers kan enigsins 'n idee gevorm word van hoe abnormaal hoog die neerslag was.

In bygaande tabel word die gemiddelde Februarie reënval vir al die stasies aangegee, wat as maatstaf van die hewigheid van die neerslag kan dien.

Die drie weerkaarte vir die 9de, 10de en 11de Februarie is bygevoeg, en daarop kan die wind en toestand van barometriese druk in genoemde tydperk bestudeer word.

In die eerste plek staan die bekende ekwatoriale laag wat oor die Kalahari suidwaarts uitstrek, baie prominent op al drie kaarte uit. In die loop van die drie dae word die laag nog meer intens. Trouens, daar is 'n min of meer algemene daling van lugdruk oor die grootste gedeelte van die Unie.

Die aanwesigheid van die ekwatoriale laag, hoewel dit gunstige toestande skep vir die invoer van vogtige lug uit die Indiese Oseaan, is egter nie 'n buitengewoons in die somermaande nie. Die regtig uitstaande kenmerk van die drie kaarte is die langwerpige geslote gebied van hoë lugdruk oor Natal en oostelike Transvaal. Hierdie eiegnaardig gevormde antisikloon, as dit so genoem mag word, het vir 'n paar dae aaneen wonderlik stabiel gebly en het sy middelpunt slegs 'n klein endjie uit oostelike Transvaal na Natal verskuif.

Hierdie drukverdeling skep blykbaar buitengewone gunstige toestande vir die inwoning en kondensasie van vog veral aan die noordekant van die antisikloon. Daar immers word ons 'n samevloeiing van betreklik koue suidelike winde en vog beladde noord-oostelike wind wat deur die koue lug stroom opwaarts gedwing word met gevolglike kondensasie en neerslag.

Indien hierdie drukverdeling op agtereen volgende dae voorkom, gebeur dit sonder uitsondering dat daar swaar neerslae in die omgewing van die geslote hoogdruk gebied uitsak, soos in die onderhawige geval dan ook gebeur het.

APPENDIX.

During the period 8th to 11th February, exceptionally heavy rains occurred over eastern Transvaal. The precipitation was specially heavy east of the Drakensberg. The continuous heavy rains resulted in floods along the rivers which terminate in the vicinity of Lourenco Marques. Railways and roads were washed away, extensive damage was recorded and the floods caused considerable loss of life amongst the native population.

The precipitation was of such exceptional severity that the meteorological conditions which gave rise to it deserve special notice.

The accompanying table I contains the rainfalls recorded during the four days 8th to 11th February, for a number of stations falling within the stricken area. It must be quite evident that the southern part of Mozambique also experienced very heavy rains, but the data are not yet available, and therefore this area is not included in the table.

The highest rainfall was recorded at Letubi viz. 21.13 inches, of which amount 9.50 was measured on the 10th and 11.28 inches on the 11th of February. The normal February rainfall at Letubi is 4.77 inches, which means that the rainfall on these two days amounted to about 435% of the average rainfall for the month. From these figures some idea may be formed of how abnormally high the rainfall actually was.

In the table one column contains the normal February rainfalls for all stations and these figures may serve as a measure of the intensity of precipitation.

The three synoptic charts for the 9th, 10th and 11th of February are also reproduced, and on these the conditions as to wind and barometric pressure may be studied.

In the first place the wellknown equatorial low, which extends southwards over the Kalahari forms a prominent feature on all three maps. In the course of the three days this equatorial low is intensified. In fact, there is a more or less general falling of pressure over the greater part of the Union.

However, the pressure of the equatorial low, although it creates favourable conditions for the importation of moisture from the Indian Ocean, is nothing exceptional during the summer months. The really outstanding characteristic of the three charts is the elongated closed region of high barometric pressure over Natal and eastern Transvaal. This curiously shaped anticyclone, if it may be called such, remained remarkably stable during the three days, its centre shifting only a relatively small distance from the eastern Transvaal to Natal.

This distribution of pressure evidently creates exceptionally favourable conditions for the importation and condensation of moisture, especially on the northern side of the anticyclone, for in that region we find the relatively cold southerly winds undercutting the moisture-laden north-easterly winds and forcing them upwards, with resulting condensation and precipitation.

Whenever this pressure distribution persists for several successive days, heavy precipitation invariably takes place in the region of the closed high pressure area, as indeed occurred in the case under discussion.

TABEL I.
TABLE I.

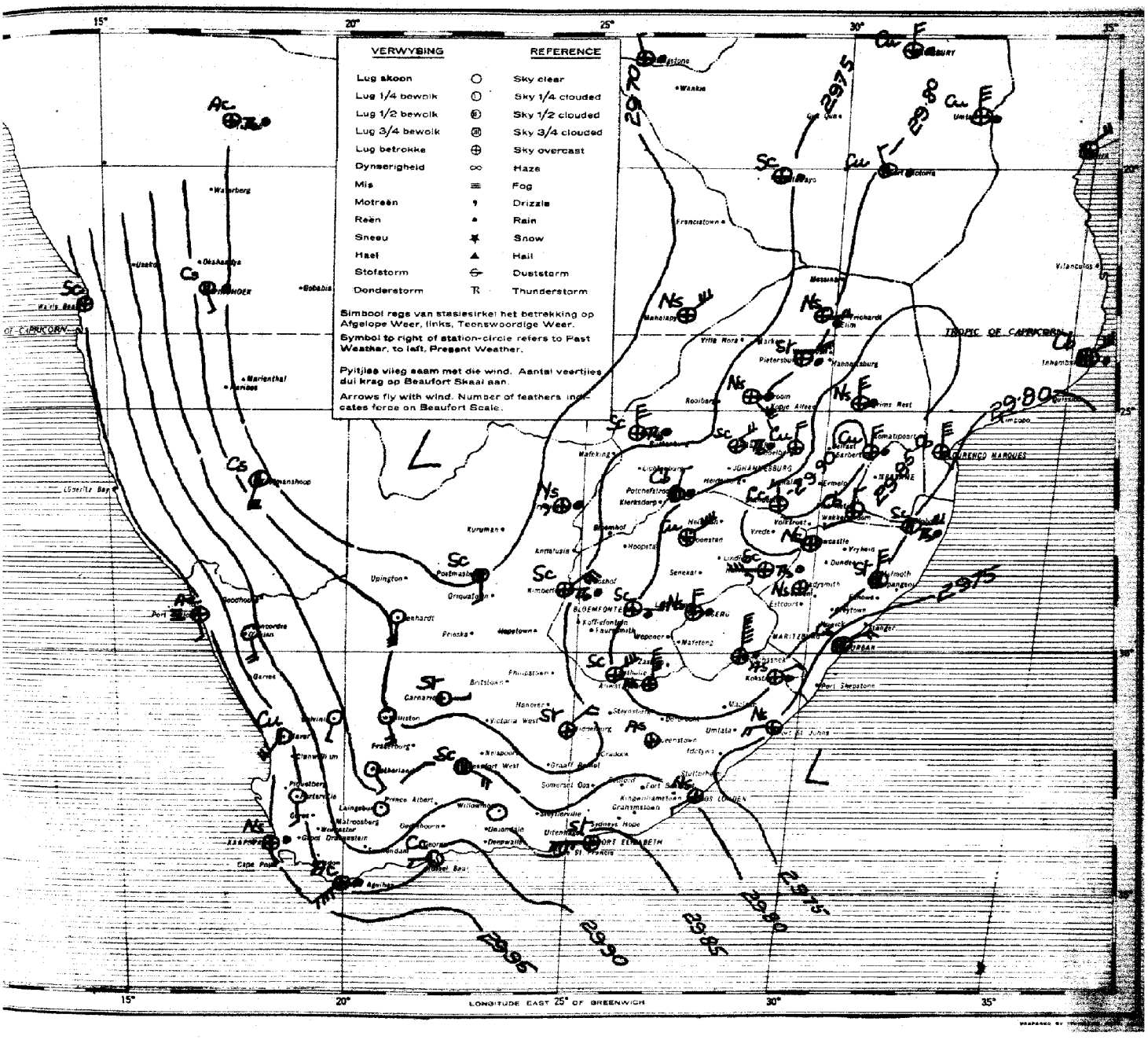
VLOEDE IN OOS EN NOORD TRANSVAAL
FLOODS IN EAST AND NORTH TRANSVAAL

TABELLARIESE OPGAAF VAN REENVAL FEBRUARIE 8 TOT 11, 1937.
TABULAR STATEMENT OF RAINFALL FEBRUARY 8th to 11th, 1937.

STASIE STATION	BREEDTE LAT.	LENGTE LONG.	DATUM DATE 8	9	10	11	TOTAAL TOTAL	% VAN/OF FEB. NORM.	FEB. NORM.	TOTAAL TOTAL FEB. 1937.
KOENAP	23°44	28°26	0.23	3.22	1.72	0.89	6.06	250	2.42	10.67
STERKSTROOM	22 55	29 35	1.53	7.73	0.73	0.15	10.14	495	2.05	12.89
BUFFELSPOORT	23 02	29 35	0.39	3.17	0.91	1.04	5.51	269	2.05	7.48
CAPESTHORN	23 02	29 41	0.00	4.91	0.73	0.19	5.83	256	2.28	11.52
MIDDELKOP	23 56	29 44	2.89	2.38	7.85	2.72	15.84	214	7.41	20.51
L'ORANGE	22 59	29 53	1.37	2.68	0.41	5.31	9.77	195	5.00	15.71
DRIEFONTEIN	23 43	29 55	1.02	4.38	3.08	0.27	8.75	255	3.43	12.15
HAENERTSBURG	23 56	29 56	3.80	2.53	6.88	0.69	13.90	229	6.06	17.05
BROEDERSTROOM	23 48	29 59	8.73	2.50	2.75	1.21	15.19	101	15.07	31.64
DE HOEK	23 49	30 01	4.19	2.80	4.50	2.00	13.49	164	8.23	22.72
VERGELEGEN	23 51	30 04	3.70	2.31	8.78	3.29	18.08	312	5.78	23.22
DIGGERSREST	23 55	30 05	0.28	2.15	2.12	7.92	12.47	198	6.30	19.44
PIGEONHOLE	23 56	30 07	1.81	1.85	5.95	1.77	11.38	141	8.08	18.83
TZANEEN	23 50	30 09	0.75	2.40	4.55	2.90	10.60	246	4.31	16.49
TIMBADOLA	23 02	30 10	2.95	1.72	0.40	2.20	7.27	123	5.94	20.72
MANDALA	22 56	30 15	2.70	7.23	1.29	2.32	13.54	153	8.85	28.66
MATIWA	22 59	30 17	5.24	7.44	1.17	1.45	15.30	140	10.96	31.23
LA COTTE	23 44	30 36	0.45	0.70	6.65	4.07	11.87	428	2.77	13.62
HEIGHTS	24 07	30 10	3.29	3.25	3.05	0.65	10.24	231	4.44	15.49
KILLARNEY	25 23	30 46	0.42	2.38	3.19	1.51	7.50	174	4.30	12.75
KAAPSCHE HOOP	25 35	30 46	0.76	3.10	4.43	3.87	12.16	140	8.70	22.70
CARTHAGE	24 13	30 47	0.00	0.82	6.10	3.80	10.72	422	2.54	15.06
INYOKO	24 09	30 50	0.00	0.08	6.90	4.06	11.04	584	1.89	16.28
SPITZKOP	25 09	30 50	0.56	3.63	3.26	1.41	8.86	193	4.60	11.54
HEBRON	25 08	30 54	2.61	5.58	3.91	1.41	13.51	188	7.20	17.36
CAIRN	25 27	30 54	0.69	3.92	3.26	2.96	10.83	204	5.32	14.19
GLEN LYDEN	24 33	30 55	1.12	3.60	4.24	1.04	10.00	155	6.45	13.80
MADRID	24 30	30 56	0.00	0.82	3.14	4.60	8.56	170	5.03	9.42
LOCHABER	25 17	30 56	0.70	3.50	4.61	4.54	13.35	260	5.14	18.62
MAGGIESDALE	25 30	30 57	0.58	2.16	5.01	2.31	10.06	216	4.67	13.27
SWARTFONTEIN	25 11	30 58	1.91	7.37	4.97	3.02	17.27	306	5.63	22.48
BULTFONTEIN	25 15	30 58	1.06	7.21	3.98	1.52	13.77	288	4.79	17.20
WITWATER	25 10	31 00	0.80	6.65	3.72	2.01	13.18	251	5.25	20.51
FLEUR DE LYS	24 33	31 02	0.49	2.20	6.62*	0.91	10.22	237	4.31	12.88
CHERWELL	25 19	31 05	0.00	2.10	1.36	4.50	7.96	177	4.50	14.76
THE KNOLL	25 23	31 05	1.28	1.24	4.55	1.95	9.02	295	3.06	11.45
GUERNSEY	24 29	31 06	0.16	1.35	0.00	10.30	11.81	423	2.80	15.79
KARINO	25.27	31 06	0.18	1.10	4.60	3.50	9.38	243	3.86	12.21
SANDFORD ORLEIGH	25 00	31 07	0.30	1.42	0.75	7.80	10.27	264	3.89	21.01
M'TIMBA	25 09	31 08	0.42	2.55	8.50	6.63	18.10	548	3.30	22.26
MBABANE	26 19	31 09	0.09	1.39	7.21	3.87	12.56	164	7.64	23.85
EZULWINI	26 24	31 10	0.15	0.57	2.75	5.76	9.23	163	5.66	16.55
McCREEDY TINS	26 29	31 10	0.01	0.44	4.65	7.79	12.89	246	5.27	20.92
ISLINGTON	24 38	31 15	0.51	0.30	8.71	1.99	11.51	448	2.57	15.18
KAMHLABANE	25 43	31 25	0.21	2.40	5.20	6.48	14.29	148	9.66	24.57
MALELANE	25 31	31 00	1.10	0.18	6.53	8.43	16.24	393	4.13	20.45
LETUBI	25 25	31 34	0.35	0.00	9.50	11.28	21.13	443	4.77	26.37
RIVERSIDE	25 36	31 35	0.87	0.20	3.86	10.41	15.34	535	2.87	16.99
MLIBA	26 10	31 35	0.90	1.64	4.60	3.22	10.36	314	3.30	24.97
SKUKUZA	24 59	31 36	0.28	1.10	3.94	6.15	11.47	346	3.31	15.27
LOMATI	25 40	31 36	0.47	0.45	4.86	7.14	12.92	267	4.84	14.60
HECTORSPRUIT	25 25	31 39	0.25	0.21	3.14	8.12	11.72	266	4.41	17.29
RANCHES LTD.	26.06	31.46	0.15	0.00	4.11	4.21	8.47	215	3.94	13.02
FIG TREE	25 49	31 50	0.00	0.00	6.00	2.83	8.83	232	3.80	11.76
SQUAMANS POST	25 36	31 52	0.00	0.00	5.00	7.25	12.25	381	3.21	15.61
KOMATIPOORT	25 26	31 56	0.02	0.37	2.22	14.30	16.91	367	4.61	23.09
GWALIWENI	27 19	32 00	5.15*	1.83	1.90	2.15	11.03	397	2.78	19.75
INGWAVUMA	27 08	32 02	0.39	3.11	2.04	0.59	6.13	141	4.34	13.03
OTOBOTINI	27 25	32 06	0.02	2.70	0.75	0.25	3.72	109	3.41	10.97

* 11de en 12de +10de 6.00" in 8 uur * 5.15" in 2½ uur

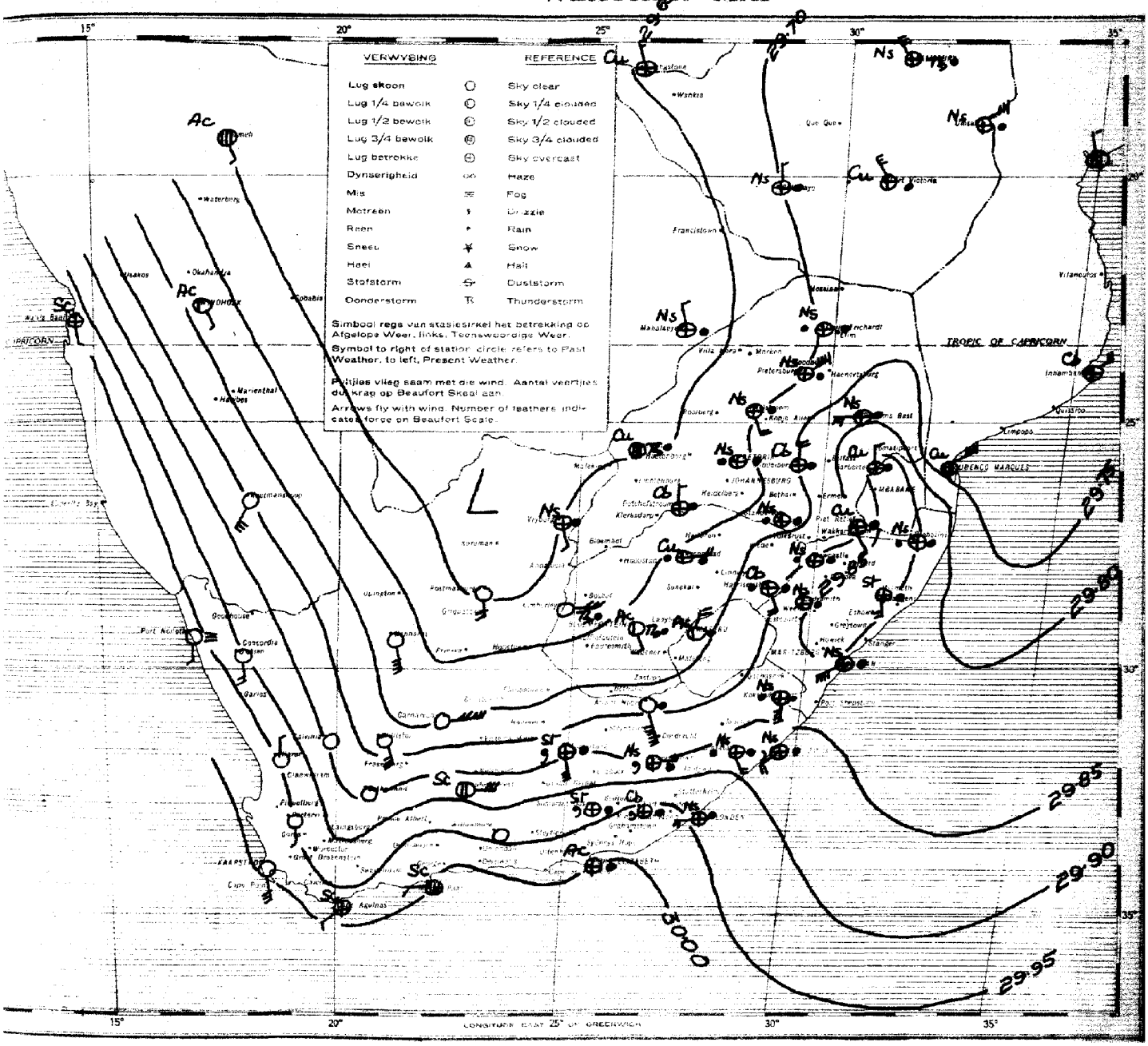
WEERKAART —— WEATHER MAP



9.2.1937.

PROBABILITIES 11 a.m. for 24 hours :- Cloudy over eastern half of the Union, southwest and south Cape with scattered showers and thunderstorms heavy at places in eastern Cape, Natal, northeast Free State and eventually in eastern half of Transvaal, clearing later in southwest Cape. Fine over rest of Union with local fogs and some cloud at first on west coast. Light to moderate southwesterly to southeasterly winds but northeasterly to northeasterly at first over eastern half of Union. Mild to cool but warm and muggy at first in Natal, eastern Cape and east Transvaal and warming later in the west Cape.

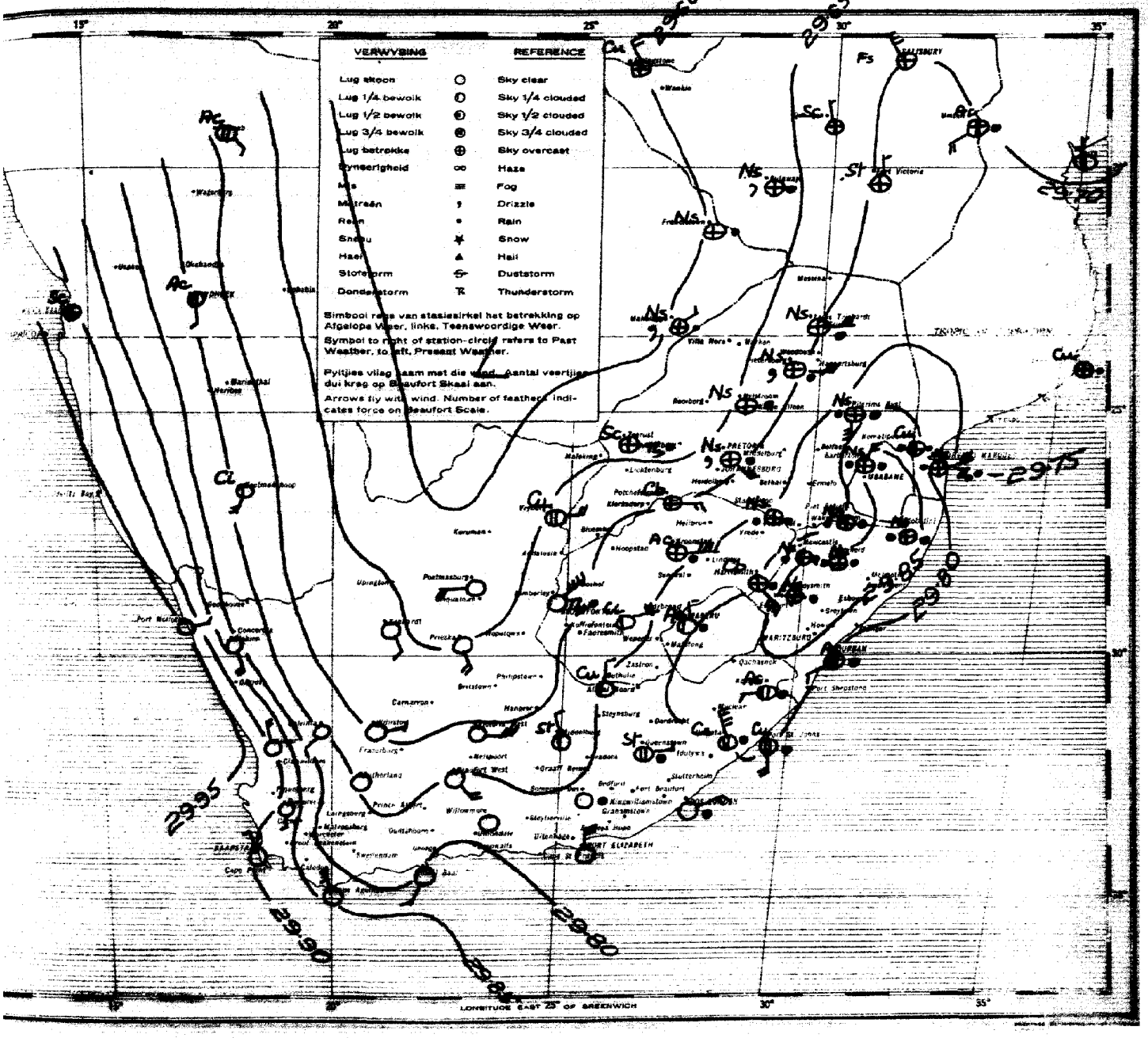
WEERKAART —— WEATHER MAP



10.2.1937.

PROBABILITIES 11 a.m. for 24 hours :- Cloudy over eastern half of Union with rain heavy at places in Natal and eastern half of Transvaal. Fine over western half of Union with some cloud and local drizzle at first on south coast. Light to moderate southwesterly to southeasterly winds going easterly to northerly later in west and centre of Union. Mild to cool.

WEERKAART —— WEATHER MAP



11.2.1937.

PROBABILITIES 11 a.m. for 24 hours :- Cloudy over Natal and Transvaal with rain heavy at places in Zululand and east Transvaal. Fine over rest of Union with thunder conditions prevailing in Free State, east Cape and eastern portion of West Griqualand where isolated showers this afternoon; some cloud later on southwest, south and southeast coasts where becoming rather unsettled. Light to moderate northeasterly to northwesterly winds but southeasterly to easterly at first in Natal and Transvaal. Mild to cool in three northern Provinces, hot in eastern Cape and mild to warm over remainder of Cape.

U N I O N O F S O U T H A F R I C A.

DEPARTMENT OF IRRIGATION.

M O N T H L Y W E A T H E R R E P O R T.

OF THE

METEOROLOGICAL OFFICE.

VOL XVIII M A R C H 1937 NO.3

EXCEPTIONALLY WARM AND DRY MONTH.

GENERAL:

Mean pressure well below normal; mean temperature 0.7 degree above the average; the days being considerably warmer and the nights slightly cooler than usual; excessively high temperatures, particularly during the first half of the month and light frosts on the highveld during the last day of the month; rainfall occurring mostly in local showers and thunderstorms, causing a general deficit over practically the whole of the summer rainfall area whilst the winter rainfall area received about double its normal share; a total absence of precipitation in the Hanover, Britstown, Matjesfontein and Beaufort West divisions of the Cape; a few destructive hailstorms over the eastern interior and some snow towards the end of the month on the mountains in the eastern Cape - these were the leading features of the weather of March 1937.

PRESSURE:

As will be seen from the accompanying Map (Chart I) the mean pressure for March was generally below normal. Over almost the whole of the Union the deficit amounted to one-twentieth of an inch whilst over the South and Southeast Cape the barometric readings were from 5 to 9 hundredths of an inch lower than usual. The equatorial low pressure area throughout the month was practically as strongly developed as during February. "Lows" passed along the coast from the South to East on the 3rd to 5th, 13th to 14th, 27th to 30th, and lay on the West coast on the 9th and on the Southeast coasts on the 10th, 15th, 18th, 22nd to 23rd. High pressure areas moved from the Southwest to Southeast coast on the 5th to 8th, 13th to 14th, and 23rd to 25th, and lay in the East on the 9th, 11th and 12th, and on the South coast on the 19th.

TEMPERATURE:

As gathered from the records of a number of representative stations, the mean temperature over the Union as a whole was 69.5°F, or 0.7° above normal. For the provinces, considered as separate units, the mean temperature was above normal over the Cape Province by 0.5° over the Transvaal by 0.8°, over Natal by 1.1° and over the Free State by 0.7°. As shown on Chart II, the departures from the normal temperatures were positive except over the western Cape Province, Basutoland, and over a few small areas in the central Transvaal.

Mean maxima (or day temperatures) were well above normal, except over the western Cape Province where they were below. Positive departures ranging from 2° to 4° were general over the eastern interior of the Union. Considering the provinces as units, mean maxima were above normal over the Cape Province by 1.1°, over the Transvaal by 2.3°, over Natal by 1.9° and over the Free State by 3.1°, giving for the Union as a whole a general mean maximum of 81.9°F, which is 1.7° above the normal for this month. Temperatures of 100.0°F and over occurred frequently in the Northwestern, Western and Southern Cape Province. The highest maxima registered in the different provinces were 108.0° at Goodhouse (C.P.) on the 1st and 3rd; 98.7°

at Messina (Tvl.) on the 19th; 95.0° at Weenen (Natal) on the 13th, and 92.3° at Bethulie (O.F.S.) on the 3rd.

Mean minima were below normal except over the central, Southern and Eastern Cape Province, the Eastern half of Natal and the Eastern and Northern Transvaal, where they were above normal. Considering the provinces as units, mean minima were below normal over the Transvaal by 0.8° and over the Free State by 1.7°, and above normal over Natal by 0.2° whilst the mean minimum for the Cape Province was just normal, giving for the Union as a whole a general mean minimum of 57.0°F, which is 0.3° below the normal for this month. The lowest minima in the separate provinces were all registered on the 31st and were 35.0° at Sutherland (C.P.) 31.0° at Belfast (Tvl.), 44.0° at Dundee (Natal) and 31.0° at Lindley (O.F.S.).

FROST:

On the last day of the month frost was reported from several stations in the Free State and on the Transvaal Highveld.

RAINFALL:

The rainfall for March (see Chart III) was well below normal over the summer rainfall area, excepting a few small isolated areas which showed slight surplusses, viz. (a) in the Eastern Cape Province an area around Bedford, one around East London and another including Kokstad and Maclear; (b) in Griqualand West an area around Griquatown; (c) in the Western Free State an area including Boshof and Fauresmith, and (d) in Natal an area around Dundee. In the central Cape Province some districts had little or no rain during this month.

Over the winter rainfall area, on the other hand, the rainfall was well above normal, and at most stations amounted to two or three times the normal for this month, except at Port Nolloth and Sutherland where it was below normal.

Separately all four provinces showed deficits amounting for the Cape Province, the Transvaal, the Free State and Natal, to 15%, 41%, 31% and 40% of their respective normals, resulting for the Union as a whole in a deficit of 30%. As regards the Cape Province the summer rainfall area had a deficit of 23% whilst the winter rainfall area had a surplus of 91%.

The weather for March was very unusual for this time of the year. During the first half of the month it was very dry over nearly the whole of the summer rainfall area, whilst the rains that fell during the latter half of the month were mostly of the thunderstorm variety and frequently accompanied by hail. There were no spells of the steady, soaking rains usually associated with March weather.

THUNDERSTORMS AND HAIL:

The rains of March were almost exclusively associated with thunderstorms whilst damaging hail storms affected many stations in the Eastern Cape Province, the central and Northern Free State, Basutoland, Northern Natal and the Eastern Transvaal.

SNOW:

Snow on mountains was reported from the Eastern Cape Province during the cold snap towards the end of the month.

STRONG WINDS AND GALES:

Strong winds, mainly from southwesterly to southeasterly were fairly frequent along the Southwest, South and Southeast coasts, sometimes also affecting the eastern interior of the Cape Province and often reaching gale force along the coast.

THE SEASONAL PRECIPITATION:

The seasonal precipitation for the period 1st July 1936 to 31st March 1937 (see Chart IV) was above normal, except over the Southwestern Transvaal, the Southern half of Natal, Griqualand West, along the Southwest and South coasts and over the central districts of the Cape Province, where it was below normal. Separately all four provinces showed surplusses amounting for the Cape Province to 10%, for the Transvaal to 13%, for the Free State to 25% and for Natal to 6% of their respective normals and giving for the Union as a whole a surplus of 12%.

The rainfall for the period 1st January 1937 to 31st March 1937 was above normal over the Eastern and Northern Transvaal, Northern Natal, the central district of the Free State, the Northern borders of the Cape Province, the Northwestern and Southwestern Cape and over Kaffraria. Over the remainder of the Union it was below normal. The Transvaal, the Free State and Natal showed surplusses of 21%, 19% and 9% respectively, whilst the Cape Province had a deficit of 4%, resulting for the Union as a whole in a surplus of 11%.

D I E U N I E V A N S U I D - A F R I K A.

DEPARTEMENT VAN BESPROEIING

M A A N D E L I K S E W E E R V E R S L A G

VAN DIE

METEOROLOGIESE KANTOOR.

DEEL XVIII M A A R T 1937 NO.3

BUITENGEWOON WARM EN DROOG

ALGEMEEN:

Gemiddelde lugdruk heelwat onder normaal, gemiddelde temperatuur 0.7 grade bo die gewone, met die dae heelwat warmer en die nagte effens koeler as gewoonlik; besonder hoë temperature viral gedurende die eerste helfte van die maand, en ligte vyp op die hoëveld gedurende die laaste dag van die maand; reënval meesal in die vorm van lokale buie en donderstorms, wat 'n algemene tekort oor so te sê die hele somerreënvalstreek veroorsaak het, terwyl die winterreënvalstreek omtrent dubbel die normale reënval ontvang het; 'n totale afwesigheid van neerslag in die Hanover Britstown, Matjiesfontein en Beaufort Wes gedeeltes van die Kaapprovinsie, 'n paar vernielende haelstorms oor die oostelike binneland en sneeu teen die end van die maand op die berge in die oostelike Kaapprovinsie - hierdie was die hoof kenmerke van die weer gedurende Maart 1937.

LUGDRUK:

Soos gesien kan word op die bygaande kaart (Kaart I) was die gemiddelde lugdruk vir Maart oor die algemeen onder normaal. Byna oor die hele Unie het die tekort omtrent een twintigste van 'n duim bedra, terwyl die barometriese lesings oor die suidelike en suidoostelike Kaap van 5 tot 9 honderdstes van 'n duim laer as gewoonlik was. Die ekwatoriale laagdruk gebied was bykans dwarsdeur die maand net so sterk ontwikkel soos gedurende Februarie. Gebiede van lae lugdruk het van suid na oos langs die kus verbygetrek op die 3de tot die 5de, die 13de tot die 14de, en op die 27ste tot die 30ste, en het aan die weskus gelê op die 9de en aan die suidoos kus op die 10de, 15de, 18de, en op die 22ste tot die 23ste. Hoë lugdruk

gebiede het van die suidweste na die suidooste kus beweeg op die 5de tot die 8ste, 13de tot 14de en op die 23ste tot die 25ste, en het aan die ooskus gelê op die 9de, 11de en 12de en aan die suidkus op die 19de.

TEMPERATUUR:

Soos uit die gegewens van 'n aantal verteenwoordigende stasies afgelei was die gemiddelde temperatuur oor die Unie as 'n geheel 69.5°F, of 0.7° bo normaal. Vir die provinsies, beskou as afsonderlike eenhede, was die gemiddelde temperatuur oor die Kaap-provinsie met 0.5°, oor Transvaal met 0.8°, oor Natal met 1.1° en oor die Vrystaat met 0.7° bo normaal. Soos aangetoon op Kaart II, was die afwykings van die normale temperatuur positief behalwe oor die westelike Kaapprovinsie, Basoetoeland, en oor 'n paar klein streke in die sentrale Transvaal.

Gemiddelde maxima (of dag-temperature) was taamlik bo normaal, behalwe oor die westelike Kaapprovinsie waar hulle onder normaal was. Positiewe afwykings van 2° tot 4° was algemeen oor die oostelike binnelande van die Unie. Vir die provinsies afsonderlik was die gemiddelde maxima bo normaal oor die Kaap met 1.1°, oor Transvaal met 2.3°, oor Natal met 1.9° en oor die Vrystaat met 3.1°, wat vir die Unie as 'n geheel 'n algemene gemiddelde maximum beteken van 81.9°, wat 1.7° bo die normaal vir hierdie maand is. Temperature van 100.0°F en hoër het dikwels voorgekom in die noordwestelike, westelike en suidelike Kaap-provinsie. Die hoogste maxima geregistreer in die afsonderlike provinsies, was 108.0° te Goodhouse (K.P.) op die 1ste en 3de; 98.7° te Messina (Tvl.) op die 19de; 95.0° te Weenen (Natal) op die 13de en 92.3° te Bethulie (O.V.S.) op die 3de.

Gemiddelde minima was onder normaal, behalwe oor die sentrale, suidelike en oostelike Kaapprovinsie, die oostelike helfte van Natal en die oostelike en noordelike Transvaal waar hulle bo normaal was. Vir die provinsies apart beskou, was die gemiddelde minima onder normaal oor die Transvaal met 0.8° en oor die Vrystaat met 1.7°, en bo normaal oor Natal met 0.2°, terwyl die gemiddelde minimum vir die Kaapprovinsie net normaal was, sodat die algemene gemiddelde minimum vir die Unie as geheel 57.0°F was of 0.3° onder die normaal vir hierdie maand. Die laagste minima vir die verskillende provinsies is almal ge-registreer op die 31ste en was 35.0° te Sutherland (K.P.), 31.0° te Belfast (Tvl.), 44.0° te Dundee (Natal) en 31.0° te Lindley (O.V.S.)

RYP:

Op die laaste dag van die maand is ryp gerapporteer van verskeie stasies in die Vrystaat en op die Transvaalse hoëveld.

REËNVAL:

Die reënval vir Maart (sien Kaart III) was baie onder normaal oor die somerreënvalstreek, met uitsluiting van 'n paar klein geïsoleerde streke wat klein surplusse aangetoon het, n.l. (a) in die oostelike Kaapprovinsie een streek om Bedford, een om Oos Londen en 'n ander streek wat Kokstad en Maclear insluit; (b) in Griekwalandwes 'n streek om Griekwa-stad; (c) in die westelike Vrystaat 'n streek insluitende Boshof en Fauresmith, en (d) in Natal 'n streek om Dundee. In die sentrale Kaapprovinsie het sommige distrikte min of geen reën gehad nie.

Oor die winterreënvalstreek, aan die anderkant, was die reënval goed bo normaal en het vir die meeste stasies van twee tot driemaal die normaal vir hierdie maand beloop, behalwe by Port Nolloth en Sutherland waar dit onder normaal was.

Afsonderlik het al vier die provinsies te kort aangetoon wat vir die Kaapprovinsie, Transvaal, die Vrystaat en Natal, 16%, 41%, 31% en 40% van hulle respektiewe

normale beloop het, en wat vir die Unie as geheel 'n tekort van 30% beteken het. Wat betref die Kaapprovinsie, het die somerreënvalstreek 'n tekort van 23% terwyl die winterreënvalstreek 'n surplus van 91% gehad het.

Die weer gedurende Maart was baie buitegewoon vir hierdie tyd van die jaar. Gedurende die eerste helfte van die maand was dit baie droog oor byna die hele somerreënvalstreek, terwyl die reëns wat gedurende die laaste helfte van die maand geval het meestal van die donderstorm tiepe en dikwels van haelstorm vergesel was. Daar was geen aanhoudende, sagte, deurdringende reëns wat gewoonlik gedurende Maart verwag kan word.

DONDERSTORMS EN HAEL:

Die Maart reëns was byna sonder uitsondering vergesel van donderweer terwyl baie stasies in die oostelike Kaapprovinsie, die sentrale en noordelike Vrystaat, Basoetoeland, noordelike Natal en in oostelike Transvaal haelstorms ondervind het.

SNEEU:

Uit die oostelike Kaapprovinsie is daar teen die end van die maand sneeu op die berge gerapporteer.

STERK WINDE EN STORMWINDE:

Sterk winde, meestal van suidwes na suidoos het taamlik dikwels voorgekom langs die suidwes, suid en suidoos-kus, en het partykeer ook tot die oostelike binnelande van die Kaapprovinsie deurgedring, terwyl stormwinde dikwels langs die kus voorgekom het.

DIE SEISOEN-NEERSLAG:

Die seisoen-neerslag vir die periode 1 Julie 1936 tot 31 Maart 1937 (sien Kaart IV) was bo normaal, behalwe oor die suidwestelike Transvaal, die suidelike helfte van Natal, Grikwaland-wes, langs die suidwestelike en die suidelike kus en oor die sentrale distrikte van die Kaapprovinsie waar dit onder normaal was. Apart beskou, het al vier provinsies surplusse gehad, wat vir die Kaapprovinsie 10%, vir Transvaal 13%, vir die Vrystaat 25% en vir Natal 6% van hulle respektiewe normale bedra het en wat vir die Unie as geheel 'n surplus van 12% beteken.

Die reënval vir die periode 1 Januarie 1937 tot 31 Maart 1937 was bo normaal oor die oostelike en noordelike Transvaal, noordelike Natal, die sentrale distrikte van die Vrystaat, die noordelike grensdistrikte van die Kaapprovinsie, oor die noordwestelike en die suidwestelike Kaapprovinsie en oor Kaffraria. Oor die res van die Unie was dit onder normaal. Transvaal, Vrystaat en Natal het surplusse aangetoon van 21%, 19% en 9% respektiewelik terwyl die Kaapprovinsie 'n tekort gehad het van 4%, sodat die Unie as geheel 'n surplus van 11% gehad het.

OBSERVERS' NOTES FOR MARCH 1937.
AANTEKENINGE VAN WAARNEMERS VIR MAART 1937.

PRETORIA WEST: Hailstorm on the afternoon of the 20th (precipitation 0.65), small hail fell generally about the size of peas, although quite a number of stones measured 3/4" in diameter. Slight damage to garden. W. Foster.

CHAMPAGNE (LEYDSDORP): A very close and humid month. On 23rd violent wind storm accompanied by rain registering 1.25 inches in 45 minutes. Hail did considerable damage on this day to standing crops in surrounding district. E.C. Boyce.

KROONSTAD (SOMERGEWAS PROEFSTASIE): Maart was baie droog uitgesonderd die laaste week van die maand. Die droogte het die produksie van graan baie benadeel. D.J.van der Berg.

FELIXTON (DURBAN): A severe storm passed over us on the night of the 22nd. (Precipitation 1.35" from 10 p.m. to 11 p.m.) C. Andrews.

SLENT (PAARL): Fog prevalent in valleys and low-lying ground. R. Short.

CALVINIA: Die neerslag op 29 Maart het die boere in staat gestel om te begin ploeg. Reënval 1.09" op 1 dag. G.H. Kuhn.

CRADOCK: On 4th Hurricane from the north lasting from 4.30 p.m. to 5 p.m. Considerable damage done to trees in town and district. Van Heerden.

DUNDEE: Some very bad hailstorms in district; considerable damage to mealie crops. I.K. Tharrold.

DURBAN: (AEROLOGICAL STATION): A severe thunderstorm passed over this station at 9 p.m. on 20th. 2.40 inches fell in one hour. S.A. Engelbrecht.

FAURESMITH: Veld rather dry, but food abundant. P.E. Potter.

LERIBE (BASUTOLAND): Hail is reported to have damaged crops along the mountain ranges. District Commissioner.

MASERU (BASUTOLAND): On 27th moderate hail. No damage done. Record crops expected throughout territory. E. Heering.

MODDERPOORT (O.F.S.): First frost of the season registered on 31st. Eddolls.

VAN WYKSVLEI (CARNARVON): Veld getting dry farmers trekking due to drought. 0.44 inch on 2 days.

RHODES. 30th - snow on mountains. S. w.d. Merwe.

VZERFONTEIN (PRETORIA): Vroeë mielies is deur, maar jong mielies wat gedurende die maand in die saad gekom het is verdroog. 0.91 duim op 2 das. J. Brits.

OLIFANTSPOORT (WATERBERG): Plenty of water in Olifants. Grazing good cattle lookin well. Mealies drying out. 2.04 inches on 8 days. D. Wright.

MOOIGELEGEN (WATERBERG): Nuts damaged, having ripened during dry spell. 2.29 inches on 9 days. A. Maddocks.

RESTON (MIDDELBURG): A dry month. Stock in good condition. Horse sickness rife. Crops fa Slight frost 30th and 31st. 1.73 inches on 7 days. A. G. Purves.

CARDACE (CAROLINA): 19th Hail 2 inches deep - much damage to bean crop and gardens. 3.69 inches on 9 days. L.M. Adderley.

RUSTPLAATS (LYDENBURG): Haelstorm op 21 Maart. Stene tot 1 duim in deursny. Baie skade aangedaan. 2.14 duim op 11 dae. A. Mansveld.

SOLOMONDALE (ZOUTPANSBERG): Drought from 9th February to 17th March - killed all the sugar beans and seriously affected late maize. The rains from then onwards just succeeded nicely in damaging the monkey-nut crop. It's a great life. 1.35 inch on 3 days. J. H. Wright.

KLIPDRIFT (LICHTENBURG): Die maand was droog; teen die einde het ooral baie reën geval. Tamelike skade is deur die droogte veroorsaak. 0.70 duim op 4 dae. R. Schutte.

KLIPFONTEIN (WOLMARANSSTAD): Dit is die droogste maand vir jare. Baie skade veroorsaak aan die graan. 0.64 duim op 2 dae. S. van Heerden.

ELEAZAR (KLERKSDORP): The month was hot and dry, consequently all dry land crops suffered. Cattle died from gall sickness and blue tongue is prevalent among sheep, causing death in many cases. 0.50 inch on 3 days. W.J. Jooste.

WILGEBOOM (POTCHEFSTROOM): Disastrous month; crops suffered heavily; grazing wilted and bad. First frost on 29.3.37, heavier frost on 30th idem. 0.74 inch on 3 days. F.W.Merwe.

RIETFONTEIN (RUSTENBURG): Tamelik droog gedurende maand met een sagte reën teen einde gevolg deur koue suide wind. 2.41 duim op 5 dae. M. Barnard.

ELANDSFONTEIN (POTCHEFSTROOM): Die mielie oes is goed hoewel die jong mielies deur die droogte benadeel is. 'n Goeie reën vir die winter sal baie welkom wees; vir ploeg asook vir 'n vroeë somer. 2.33 duim op 7 dae. P. Davidts.

ROOIPAN (KIMBERLEY): 26 Maart - Haelstorm; groot skade aan tuine en veld. 2.79 duim op 4 dae. M. Scholtz.

BRIAR LEA (HIMEVILLE): 20th March - Hail damage done. 8.11 inches on 16 days. A.W.Foubister

UBIQUE (STOCKENSTROOM): 28th March - Hailstorm destroyed tobacco and mealies. 7.47 inches on 13 days. A.H. Willmer.

BAZIYA (UMTATA): 4th March - Terrific hailstorm damaged trees and crops. 7.89 inches on 15 days. The Forester.

SMITSDALE (BARKLY EAST): 29 Maart - Baie koud met 'n weinig sneeu op toppe van die berge. 2.34 duim op 5 dae. S. Smit.

GLASS NEVIN (BARKLY EAST): 29 Maart - Taamlik sneeu het op die berge geval. 2.17 duim op 6 dae. H.G. Steyn.

GLEN HOPE (ELLIOT): 29th March - Snow on mountains. 3.26 inches on 11 days. I.C. Rogers.

AIR TEMPERATURES : MARCH 1937.
LUG TEMPERATURE : MAART 1937.

STATION STASIE	MAXIMUM. Mean Gem.	Norm.	Diff. Verak.	MINIMUM. Mean Gem.	Norm.	Diff. Verak.	MONTHLY MEAN MAAND. GEM. Mean Gem.	Norm.	Diff. Verak.	ABS. MAX.	DATE DATUM	ABS. MIN.	DATE DATUM
CAPE PROVINCE: KAAP PROVINSIE:													
ALIWAL NORTH	82.2	78.9	+3.3	52.4	52.1	+0.3	67.3	65.5	+1.8	91.0	3,4	37.0	31
BRITSTOWN	87.7	83.7	+4.0	58.8	57.4	+1.4	73.3	70.6	+2.7	94.0	3	50.0	6,29
CAPE L'AGULHAS	72.0	70.8	+1.2	61.9	61.0	+0.9	66.9	65.9	+1.0	78.0	12	53.0	29
CAPE TOWN	78.4	78.4	+0.0	60.0	58.8	+1.2	69.2	68.6	+0.6	93.9	8	52.3	8
CALA	79.6	76.8	+2.8	54.6	51.3	+3.3	67.1	64.1	+3.0	93.0	13	44.0	8
CARNARVON	84.7	82.2	+2.5	55.5	55.7	-0.2	70.1	69.0	+1.1	94.0	12	39.0	30,
CERES	81.6	82.4	-0.8	52.1	52.5	-0.4	66.9	67.5	-0.6	95.0	8,9	45.0	6
CRADOCK	84.5	82.3	+2.2	56.3	54.5	+1.8	70.4	68.4	+2.0	98.0	3,13	40.0	8
CLANWILLIAM	91.3	90.3	+1.0	59.1	56.9	+2.2	75.2	73.6	+1.6	107.0	9	50.0	31
DEEPWALLS	71.9	72.8	-0.9	56.5	56.1	+0.4	64.2	64.5	-0.3	94.0	1	48.5	30
EAST LONDON	75.4	74.6	+0.8	62.1	62.5	-0.4	68.8	68.6	+0.2	80.5	3	53.0	31
GOODHOUSE	97.0	96.9	+0.1	56.8	58.7	-1.9	81.9	82.8	-0.9	108.0	1,3	52.0	30
GRAAFF REINET	85.9	82.7	+3.2	54.0	57.6	-3.6	70.0	70.2	-0.2	101.2	12	42.0	30
GRAHAMSTOWN	78.0	76.6	+1.4	56.5	55.9	+0.6	67.3	66.3	+1.0	102.4	12	42.0	8
GROOT DRAKENSTEIN	83.0	83.2	-0.2	55.6	58.6	-3.0	69.3	70.9	-1.6	96.8	9	44.8	6
GROOTFONTEIN	81.2	79.5	+1.7	51.1	51.7	-0.6	66.2	65.6	+0.6	91.3	12	37.2	31
HOPETOWN	86.9	85.4	+1.5	56.2	54.2	+2.0	71.6	69.8	+1.8	98.0	20	42.0	30
IDUTYWA		75.9			55.4			65.7					
KENHARDT	89.2	89.7	-0.5	60.4	61.2	-0.8	74.8	75.5	-0.7	99.1	12	41.0	29
KIMBERLEY	85.1	82.9	+2.2	58.1	58.9	-0.8	71.6	70.9	+0.7	92.8	12	41.7	30
KINGWILLIAMSTOWN	80.9	80.8	+0.1	60.2	58.6	+1.6	70.6	69.7	+0.9	100.0	12	49.0	31
KLAVER	86.0	88.6	-2.6	58.1	59.9	-1.8	72.1	74.3	-2.2	103.1	9	51.0	27
KOKSTAD	76.3	74.6	+1.7	51.4	51.8	-0.4	63.9	63.2	+0.7	86.7	4	39.0	31
KURUMAN	85.2	83.1	+2.1	52.7	55.5	-2.8	69.0	69.3	-0.3	90.0	11	42.0	31
MAFEKING	85.9	81.6	+4.3	55.4	58.1	-2.7	70.7	69.9	+0.8	90.4	19	41.3	31
MOSSEL BAY	74.0	73.5	+0.5	62.8	61.5	+1.3	68.4	67.5	+0.9	83.0	3	57.0	30
NELSPOORT	80.0	82.0	-2.0	56.6	55.5	+1.1	68.3	68.8	-0.5	94.2	11	43.0	31
O OKIEP	83.3	84.0	-0.7	57.1	58.6	-1.5	70.2	71.3	-1.1	96.0	1	44.4	30
OUDTSHOORN	83.9	83.9	+0.0	57.1	56.2	+0.9	70.5	70.1	+0.4	103.0	9	47.0	27
PORT ELIZABETH	75.3	74.1	+1.2	62.8	61.7	+1.1	69.1	67.9	+1.2	87.0	2	56.0	8
PORT NOLLOTH	65.5	67.2	-1.7	51.9	52.5	-0.6	58.7	59.9	-1.2	70.1	30	46.0	25
PORT ST. JOHNS	76.6	78.2	-1.6	65.9	64.9	+1.0	71.3	71.6	-0.3	86.0	28	60.0	31
POSTMASBURG	84.3	81.6	+2.7	59.5	59.4	+0.1	71.9	70.5	+1.4	91.7	11	42.5	30
PRIESKA	88.2	87.2	+1.0	59.7	61.5	-1.8	74.0	74.4	-0.4	101.0	12	43.0	30
QUEENSTOWN	83.9	79.1	+4.8	56.6	55.1	+1.5	70.3	67.1	+3.2	99.0	12	45.0	31
RIETPOORT	85.0	84.5	+0.5	55.5	56.9	-1.4	70.3	70.7	-0.4	104.0	9	43.0	28
SOMERSET EAST	81.8	79.1	+2.7	58.0	56.0	+2.0	69.9	67.6	+2.3	100.9	1	45.5	8
SUTHERLAND	76.5	77.6	-1.1	47.1	47.9	-0.8	61.8	62.8	-1.0	88.0	2,3	35.0	31
SYDNEY S HOPE	77.0	76.9	+0.1	58.4	57.5	+0.9	67.7	67.2	+0.5	101.0	12	49.0	30
UITENHAGE	81.7	81.2	+0.5	59.5	58.6	+0.9	70.6	69.9	+0.7	102.0	12	49.8	8
UMTATA	83.3	78.8	+4.5	58.3	57.9	+0.4	70.8	68.4	+2.4	97.0	12	46.0	31
UPINGTON	90.2	89.5	+0.7	62.6	64.6	-2.0	76.4	77.1	-0.7	100.0	12	48.8	30
VAN WYKSVLEI	84.5	86.4	-1.9	58.3	57.2	+1.1	71.4	71.8	-0.4	96.0	12	41.0	30
VICTORIA WEST	83.3	80.5	+2.8	51.7	49.9	+1.8	67.5	65.2	+2.3	94.0	13	36.0	6
VRYBURG	87.3	83.0	+4.3	54.1	57.5	-3.4	70.7	70.3	+0.4	93.0	25	41.0	31
WILLOWMORE	82.7	81.1	+1.6	55.4	53.7	+1.7	69.1	67.4	+1.7	97.0	1,2	45.0	30
TRANSVAAL:													
BARBERTON	81.7	81.3	+0.4	63.7	61.7	+2.0	72.7	71.5	+1.2	89.0	27	60.0	9,11
BELFAST	71.8	71.4	+0.4	47.5	48.3	-0.8	59.7	59.9	-0.2	77.0	24	31.0	31
CHRISTIANA	83.3	79.1	+4.2	53.0	54.1	-1.1	68.2	66.6	+1.6	89.0	7,9	40.0	31
CARMELO	77.0	74.8	+2.2	50.2	50.8	-0.6	63.6	62.8	+0.8	83.0	24	38.0	31
HEIDELBERG	81.0	77.7	+3.3	50.3	53.1	-2.8	65.7	65.4	+0.3	87.3	13	35.5	31
JOHANNESBURG	75.8	72.6	+3.2	53.6	53.9	-0.3	64.7	63.3	+1.4	82.1	13	41.1	30
KLERKSDORP	84.4	82.0	+2.4	55.7	56.3	-0.6	70.1	69.2	+0.9	89.0	2	42.5	30

AIR TEMPERATURES : MARCH 1937 (CONTINUED).
LUG TEMPERATURE : MAART 1937 (VERVOLG).

STATION STASIE	MAXIMUM. Mean. Gem.	Norm.	Diff. Verak.	MINIMUM. Mean Gem.	Norm.	Diff. Verak.	MONTHLY MEAN MAAND. GEM. Mean Gem.	Norm.	Diff. Verak.	ABS. MAX.	DATE DATUM	ABS. MIN.	DATE DATUM
TRANSVAAL (CONT.) TRANSVAAL (VERVOLG).													
KOMATIPOORT	88.8	88.1	+0.7	67.6	67.0	+0.6	78.2	77.6	+0.6	95.0	27	62.0	10
KOPJE ALLEEN	84.7	81.7	+3.0	56.7	58.7	-2.0	70.7	70.2	+0.5	92.8	19	46.8	31
LOUIS TRICHARDT	79.7	78.0	+1.7	61.2	59.3	+1.9	70.5	68.7	+1.8	88.0	19	55.0	10
MARKEN	82.8	83.0	-0.2	60.3	60.4	-0.1	71.6	71.7	-0.1	89.0	5,19	54.0	12
MESSINA	88.7	86.6	+2.1	68.0	66.8	+1.2	78.4	76.7	+1.7	98.7	19	60.3	10
MIDDELBURG	80.4	78.7	+1.7	50.9	52.9	-2.0	65.7	65.8	-0.1	86.0	10	39.0	31
NYLSTROOM	84.9	80.6	+4.3	55.0	57.2	-2.2	70.0	68.9	+1.1	90.8	19	45.0	31
PIETERSBURG	79.6	79.3	+0.3	55.5	56.8	-1.3	67.6	68.1	-0.5	85.7	19	46.3	12
PIET RETIEF	77.8	75.7	+2.1	56.1	56.2	-0.1	67.0	66.0	+1.0	87.0	13	43.0	31
PILGRIMS REST	77.1	75.2	+1.9	55.6	55.2	+0.4	66.4	65.2	+1.2	84.0	13	49.0	21
POTCHEFSTROOM	83.3	80.9	+2.4	53.6	55.2	-1.6	68.5	68.1	+0.4	88.1	24	37.9	31
PRETORIA	82.4	78.6	+3.8	57.1	57.7	-0.6	69.8	68.2	+1.6	87.5	10	45.5	31
RUSTENBURG	85.3	82.1	+3.2	57.3	58.0	-0.7	71.3	70.1	+1.2	90.0	24	44.0	31
STANDERTON	80.8	77.4	+3.4	50.3	51.7	-1.4	65.6	64.6	+1.0	85.0	10	36.0	31
VAKKERSTROOM	75.5	72.3	+3.2	46.1	49.2	-3.1	60.8	60.8	+0.0	83.3	13	32.9	31
ZEERUST	85.1	81.5	+3.6	54.7	57.6	-2.9	69.9	69.6	+0.3	91.6	19	42.0	31
NATAL:													
DUNDEE	78.9	77.8	+1.1	54.6	55.4	-0.8	66.8	66.6	+0.2	89.0	13	44.0	31
DURBAN POINT	83.0	80.4	+2.6	70.5	68.6	+1.9	76.8	74.5	+2.3	88.4	18	65.8	25
EMPANGENI	83.6	82.7	+0.9	66.2	65.5	+0.7	74.9	74.1	+0.8	92.0	28	59.0	31
ESHOWE	81.6	77.9	+3.7	63.4	63.2	+0.2	72.5	70.6	+1.9	91.3	28	58.2	31
ESTCOURT	79.4	78.3	+1.1	55.8	57.0	-1.2	67.6	67.7	-0.1	90.0	13	46.0	31
LADYSMITH	86.4	82.4	+4.0	57.5	59.0	-1.5	72.0	70.7	+1.3	91.0	13	47.0	31
PIETERMARITZBURG	81.3	78.8	+2.5	60.8	60.4	+0.4	71.1	69.6	+1.5	90.2	15	54.4	31
UTCBOTINI	85.8	86.5	-0.7	69.3	68.6	+0.7	77.6	77.6	+0.0	93.0	28	64.0	18
PORT SHEPSTONE	79.0	78.0	+1.0	67.3	66.4	+0.9	73.2	72.2	+1.0	84.5	28	62.0	31
STANGER	85.3	83.0	+2.3	66.6	66.2	+0.4	76.0	74.6	+1.4	91.0	13	63.0	11
VRYHEID	82.2	78.0	+4.2	56.6	57.1	-0.5	69.4	67.6	+1.8	94.0	13	48.0	31
WEENEN	85.8	85.3	+0.5	58.3	58.3	+0.0	72.1	71.8	+0.3	95.0	13	49.0	11
O. F. S. : O. V. S.													
BETHULIE	83.5	80.6	+2.9	53.5	54.6	-1.1	68.5	67.6	+0.9	92.3	3	38.7	31
BLOEMFONTEIN *	80.5	79.7		51.3	55.3		65.9	67.5		87.7	13	36.6	31
FAURESMITH	82.6	80.2	+2.1	51.8	53.2	-1.4	67.1	66.7	+0.4	90.9	11	37.0	31
KROONSTAD	83.2	79.9	+3.3	52.0	54.9	-2.9	67.6	67.4	+0.2	90.0	4	39.0	31
LADYBRAND	78.0	74.9	+3.1	49.5	52.2	-2.7	63.8	63.6	+0.2	85.0	12	39.0	30
LINDLEY	79.8	78.0	+1.8	50.9	52.7	-1.8	65.4	66.4	+0.0	86.0	4	34.0	31
REITZ	80.2	77.5	+2.2	50.1	53.3	-3.2	65.4	65.4	+0.0	88.0	11	36.8	31
WINBURG	74.2	69.8	+5.1	51.0	50.1	+0.9	62.9	59.9	+3.0	78.0	12	41.0	30
BASUTOLAND : BASOETOELAND:													
BUTHA BUTHE	77.9	77.8	+0.1	49.2	50.8	-1.6	63.6	64.3	-0.7	86.0	13	36.0	31
LERIBING	77.2	74.1	+3.1	52.1	53.0	-0.9	64.7	63.6	+1.1	85.0	12	39.0	30
MOHALES HOEK	80.1	78.8	+1.3	49.9	52.2	-2.3	65.0	65.5	-0.5	85.0	4	39.0	31
MOKHOTLONG	70.5	70.7	+0.1	42.4	44.9	-2.5	56.6	57.8	-1.2	83.0	4	31.0	31
QACHASNEK	71.8	72.4	-0.6	49.1	47.5	+1.6	60.5	60.0	+0.5	80.0	12	41.0	31
BECHUANALAND : BETSJOEANALAND:													
FRANCISTOWN	88.9	86.4	+2.5	60.7	57.9	+2.8	74.8	72.2	+2.6	99.0	5	53.0	10
GABERONES	89.3	85.5	+3.8	56.0	59.2	-3.2	72.7	72.4	+0.3	94.0	19	46.0	31
KANYE	86.8	85.4	+1.4	59.5	61.5	-2.0	73.2	73.5	-0.3	95.0	19	52.0	10
SWAZILAND : SWASIELAND:													
BABANE	74.2	78.8	-4.6	57.5	61.5	-4.0	65.9	70.2	-4.3	82.0	27	48.0	31
MBABANE	78.7	78.2	+0.5	63.1	61.5	+1.6	70.9	69.9	+1.0	82.0	5	58.0	31

* The normal temperatures are the values obtained by observations at Bloemfontein Zoo

RAINFALL : MARCH 1937.
NEERSLAG : MAART 1937.

STATION STASIE	MAR. 1937.	NORM.	DIFF. VERSK.	%	FROM 1.1.37 VANAF.	NORM.	VERSK. DIFF.	FROM 1.7.36 VANAF.	NORM.	DIFF. VERSK.	SEASONAL % SEISOEN.
TRANSVAAL:											
BARBERTON	2.89	3.94	-1.05	73	23.98	13.85	+10.13	38.29	27.34	+10.95	140
BELFAST	2.71	4.02	-1.31	68	19.16	13.43	+ 5.73	32.70	28.54	+4.16	115
BETHAL	2.09	3.42	-1.33	61	14.09	12.12	+1.97	29.82	26.63	+3.19	112
BLOEMHOF	1.30	3.30	-2.00	39	7.98	9.75	-1.77	12.93	16.34	-3.41	79
ELIM HOSPITAL	3.09	5.30	-2.21	58	19.23	17.75	+1.48	28.32	28.86	-0.54	98
ERMELO	3.07	3.34	-0.27	92	17.76	11.56	+6.20	31.80	27.17	+4.63	117
HAENERTSBURG	.	6.01				20.22			33.94		
HEIDELBERG	1.99	3.63	-1.64	55	12.05	12.67	-0.62	24.92	26.11	-1.19	95
JOHANNESBURG	2.63	3.83	-1.20	69	16.93	13.54	+3.39	27.35	27.09	+0.26	101
JOUBERT PARK	3.81	4.32	-0.51	88	20.97	15.39	+5.58	34.42	29.92	+4.50	115
KLERKSDORP	2.47	3.24	-0.77	76	11.83	11.05	+0.78	23.31	20.57	+2.74	113
KOMATIPOORT	1.36	4.54	-3.18	30	30.77	13.98	+16.79	49.69	23.15	+26.54	215
LICHTENBURG	1.92	3.73	-1.81	51	10.75	11.74	-0.99	20.10	21.23	-1.13	95
MESSINA	0.49	1.42	-0.93	35	6.87	7.04	-0.17	14.44	13.27	+1.17	109
MIDDELBURG	1.98	3.44	-1.46	58	10.53	12.73	-2.20	27.06	26.62	+0.44	102
NYLSTROOM	2.27	3.43	-1.16	66	12.07	12.15	-0.08	21.11	22.33	-1.22	95
PIETERSBURG	2.21	2.80	-0.59	79	14.40	9.81	+4.59	23.34	19.07	+4.27	122
PIET RETIEF	2.85	4.21	-1.36	68	19.77	14.93	+4.84	38.32	32.89	+5.43	116
PILGRIMS REST	5.28	6.26	-0.98	84	27.67	21.16	+6.51	46.49	35.41	+11.08	131
POTCHEFSTROOM	1.16	3.20	-2.04	36	8.79	11.14	-2.35	20.99	21.55	-0.56	97
PRETORIA	1.79	3.63	-1.84	49	15.89	13.27	+2.62	27.48	26.35	+1.13	104
ROODEBERG		3.07				11.28			21.53		
RUSTENBURG	2.48	3.82	-1.34	65	11.24	12.71	-1.47	20.99	23.73	-2.74	88
STANDERTON	0.89	3.48	-2.59	26	11.44	12.85	-1.41	23.91	27.41	-3.50	87
VILLA NORA	0.60	2.87	-2.27	21	13.90	8.81	+5.09	19.97	16.22	+3.75	123
WAKKERSTROOM	1.40	3.52	-2.12	40	18.46	13.13	+5.33	29.80	28.57	+1.23	104
WOODBUSH	7.87	10.87	-3.00	72	49.89	37.10	+12.79	83.48	62.57	+20.91	133
ZEERUST	1.15	3.43	-2.28	34	8.32	11.39	-3.07	16.62	20.94	-4.32	79
SWAZILAND - SWASIELAND:											
MBABANE	6.98	7.85	-0.87	89	44.71	25.35	+19.36	68.80	49.61	+19.19	139
CAPE PROVINCE - SUMMER RAINFALL AREA.											
KAAP PROVINSIE - SOMER REENVAL STREEK.											
ALIWAL NORTH	1.56	3.75	-2.19	42	7.53	8.85	-1.32	19.22	16.24	+2.98	118
BEAUFORT WEST	0.06	1.75	-1.69	3	1.64	4.01	-2.37	5.40	7.46	-2.06	72
BEDFORD	4.92	3.97	+0.95	124	9.22	10.68	-1.46	24.63	22.77	+1.86	108
BRITSTOWN	0.02	2.46	-2.44	1	5.39	5.21	+0.18	8.10	8.42	-0.32	96
CARNARVON	0.41	1.54	-1.13	27	3.04	3.70	-0.66	6.38	5.99	+0.39	106
EAST LONDON	7.03	3.78	+3.25	186	11.01	9.90	+1.11	26.86	26.08	+0.78	103
FRASERBURG	0.32	1.18	-0.86	27	3.06	2.86	+0.19	5.77	4.82	+0.95	120
GEORGE	6.44	3.54	+2.90	182	12.01	9.88	+2.13	34.76	26.88	+7.88	129
GRAAFF REINET	1.88	2.27	-0.39	83	9.34	5.26	+4.08	19.93	11.38	+8.55	175
GRAHAMSTOWN	1.78	3.35	-1.57	53	4.44	6.56	-2.12	20.23	17.25	+2.98	117
GRIQUATOWN	2.72	2.58	+0.14	105	7.06	6.29	+0.77	9.72	10.13	-0.41	96
GROOTFONTEIN	1.09	2.96	-1.87	37	4.04	6.39	-2.35	11.34	11.54	-0.20	98
HANOVER	0.00	2.68	-2.68	0	1.54	6.55	-5.01	3.84	11.09	-7.25	35
HOPETOWN	1.65	2.58	-0.93	64	6.42	6.02	+0.40	11.66	10.04	+1.62	116
IDUTYWA		3.56				8.93			21.66		
KENHARDT	0.36	1.21	-0.85	30	3.75	2.88	+0.87	5.13	4.46	+0.67	115
KIMBERLEY	2.75	3.10	-0.35	89	9.15	7.73	+1.42	19.23	13.36	+5.87	144
KINGWILLIAMSTOWN	3.09	3.36	-0.27	92	6.16	8.85	-2.69	17.85	20.62	-2.77	87
KOKSTAD	4.31	3.91	+0.40	110	17.74	13.13	+4.61	28.84	26.87	+1.97	107
MATJESFONTEIN	0.00	0.65	-0.65	0	0.42	1.35	-0.93	7.11	4.17	+2.94	170
MACLEAR	5.78	4.87	+0.91	119	17.59	15.60	+1.99	31.52	29.97	+1.55	105
MAFEKING	0.71	3.16	-2.45	22	9.65	9.94	-0.29	19.78	18.84	+0.94	105
MOSSEL BAY	2.55	1.47	+1.08	174	4.18	3.97	+0.21	14.77	12.61	+2.16	117
PHILIPSTOWN	0.52	2.77	-2.25	19	4.59	6.31	-1.72	8.12	10.54	-2.42	77
PORT ELIZABETH	1.60	1.90	-0.30	84	2.65	4.36	-1.71	16.24	16.79	-0.55	97
PORT ST. JOHNS	5.94	5.98	-0.04	99	18.97	16.29	+2.68	45.71	39.62	+6.09	115
PRIESKA	0.71	2.08	-1.37	34	3.64	4.72	-1.08	4.79	7.27	-2.48	66

RAINFALL : MARCH 1937. (CONTINUED)
NEERSLAG : MAART 1937. (VERVOLG)

STATION / STASIE	MARCH 1937. MAART	NORM.	DIFF. VERSK.	%	FROM 1.1.37 VANAF.	NORM.	DIFF. FROM VERSK.	1.7.36 VANAF	NORM.	DIFF. VERSK.	SEASONAL % SEISOEN
CAPE PROVINCE - SUMMER RAINFALL AREA (CONTD.)											
KAAP PROVINSIE - SOMER REENVAL STREEK (VERVOLG)											
PRINCE ALBERT ROAD		0.62				1.39			3.11		
QUEENSTOWN	1.41	3.47	-2.06	41	6.13	10.30	4.17	19.59	19.32	+0.27	101
SOMERSET EAST	2.46	2.96	-0.50	83	5.02	8.33	-3.31	20.46	18.31	+2.15	112
STEYNSBURG	1.06	2.69	-1.63	39	5.38	6.79	-1.41	14.28	12.26	+2.02	116
STEYTLERVILLE	0.88	1.53	-0.65	58	2.54	3.37	-0.83	7.88	7.40	+0.48	106
SWELLENDAM	5.87	3.13	+2.74	187	9.08	8.09	+0.99	33.44	23.39	+10.05	143
SYDNEYS HOPE	1.82	2.51	-0.69	73	3.91	6.41	-2.50	16.16	17.67	-1.51	91
UITENHAGE	1.61	2.39	-0.78	67	3.19	5.22	-2.03	15.45	14.96	+0.49	103
UMTATA	2.63	3.85	-1.22	68	11.61	10.81	+0.80	25.55	22.11	+3.44	116
UNIONDALE	0.48	1.42	-0.94	34	1.18	3.11	-1.93	8.84	9.45	-0.61	94
UPINGTON	0.47	1.94	-1.47	24	2.72	3.86	-1.14	4.66	5.74	-1.08	81
VICTORIA WEST	0.17	1.22	-1.05	14	2.92	3.93	-1.01	6.78	7.32	-0.54	93
VRYBURG	2.40	3.41	-1.01	70	14.21	10.63	+3.58	21.50	16.65	+4.85	129
CAPE PROVINCE - WINTER RAINFALL AREA.											
KAAP PROVINSIE - WINTER REENVAL STREEK.											
CALEDON	1.60	1.29	+0.31	124	2.45	2.96	-0.51	14.97	14.25	+0.72	105
CALVINIA	0.99	0.76	+0.23	130	1.37	1.59	-0.22	9.67	5.06	+4.61	191
CAPE TOWN	1.85	0.85	+1.00	218	3.28	2.11	+1.17	13.69	14.76	-1.07	93
CERES	3.74	0.99	+2.75	378	4.19	2.73	+1.46	30.52	24.70	+5.82	123
CLANWILLIAM	0.66	0.27	+0.39	244	0.66	0.73	-0.07	7.01	4.99	+2.02	140
DARIES	0.40	0.17	+0.23	235	0.59	0.46	+0.13	5.68	3.04	+2.64	187
GROOT DRAKENSTEIN	2.29	1.08	+1.21	212	3.86	2.84	+1.02	19.54	21.11	-1.57	93
HOPEFIELD	0.70	0.42	+0.28	166	1.21	0.92	+0.29	4.73	3.99	+0.74	119
PIQUETBERG	0.86	0.54	+0.32	159	0.86	1.59	-0.73	9.88	12.39	-2.51	80
PORT NOLLOTH	0.11	0.16	-0.05	69	0.28	0.27	+0.01	1.45	1.39	+0.06	104
SUTHERLAND	0.69	0.93	-0.24	74	3.88	2.12	+1.76	10.93	5.93	+5.00	184
WORCESTER	1.37	0.53	+0.84	258	1.98	1.20	+0.78	11.83	7.50	+4.33	158
BECHUANALAND - BETSJOEANALAND:											
MAHALAPYE	2.08	2.51	-0.43	83	11.08	8.99	+2.09	20.70	15.78	+4.92	131
DIKGATLONG	3.55	2.83	+0.72	125	9.13	8.42	+0.71	15.07	15.29	-0.22	99
GABERONES	3.35	3.27	+0.08	103	13.22	9.58	+3.64	20.12	17.67	+2.45	114
O.F.S. O.V.S.											
BETHULIE	0.73	3.08	-2.35	24	5.70	8.54	-2.84	17.91	14.91	+3.00	120
BLOEMFONTEIN	2.49	3.50	-1.01	71	12.49	10.18	+2.31	21.76	17.56	+4.10	123
BOSHOF	4.13	3.54	+0.59	117	13.79	9.02	+4.77	22.72	16.84	+6.88	143
FAURESMITH	2.66	2.48	+0.18	107	9.46	5.91	+3.55	19.37	12.43	+6.94	156
HARRISMITH	1.02	3.85	-2.83	26	12.99	12.72	+0.27	27.66	27.02	+0.64	102
KROONSTAD	2.30	3.22	-0.92	71	9.54	10.16	-0.62	23.12	20.94	+2.18	110
LADYBRAND	3.27	3.97	-0.70	82	15.99	12.03	+3.96	31.87	24.12	+7.75	132
LINDLEY	1.89	3.12	-1.23	61	12.26	10.87	+1.39	27.95	21.95	+6.00	127
VREDE		3.32				11.61			25.17		
WINBURG	2.47	3.46	-0.99	71	15.25	10.53	+4.72	26.87	19.50	+7.37	138
WEPENER	2.81	4.15	-1.34	68	14.01	12.06	+1.95	26.12	22.56	+3.56	116
NATAL											
DUNDEE	4.49	4.10	+0.39	110	20.41	14.35	+6.06	35.84	29.33	+6.51	122
DURBAN	1.99	6.03	-4.04	33	11.59	15.89	-4.30	33.24	37.07	-3.83	90
EMPANGENI	4.83	5.78	-0.95	84	18.92	15.45	+3.47	39.30	34.75	+4.55	113
ESTCOURT	0.70	3.93	-3.23	18	10.24	13.68	-3.44	23.79	26.45	-2.66	90
LADYSMITH	4.02	4.22	-0.20	95	16.69	14.22	+2.47	32.67	27.67	+5.00	118
MELMOTH	1.04	4.30	-3.26	24	12.91	13.12	-0.21	25.76	27.99	-2.23	92
UTOMOTINI	1.53	4.68	-3.15	33	19.19	10.90	+8.29	33.69	20.82	+12.87	162
PIETERMARITZBURG	3.65	5.30	-1.65	69	12.41	15.77	-3.36	29.02	32.60	-3.58	89
STANGER	1.19	5.40	-4.21	22	11.14	14.75	-3.61	34.30	35.44	-1.14	97
UBOMBO	4.38	4.49	-0.11	98	22.79	14.66	+8.13	37.41	31.66	+5.75	118
VRYHEID	2.84	4.16	-1.32	68	20.06	14.85	+5.21	35.59	31.59	+4.00	113
WEENEN	2.73	3.08	-0.35	89	8.16	12.05	-3.89	20.78	24.06	-3.28	86
BASUTOLAND - BASOETOELAND.											
MAFETENG	3.64	4.50	-0.86	81	18.53	13.76	+4.77	33.86	25.39	+8.47	133

WEERKAART —— WEATHER MAP

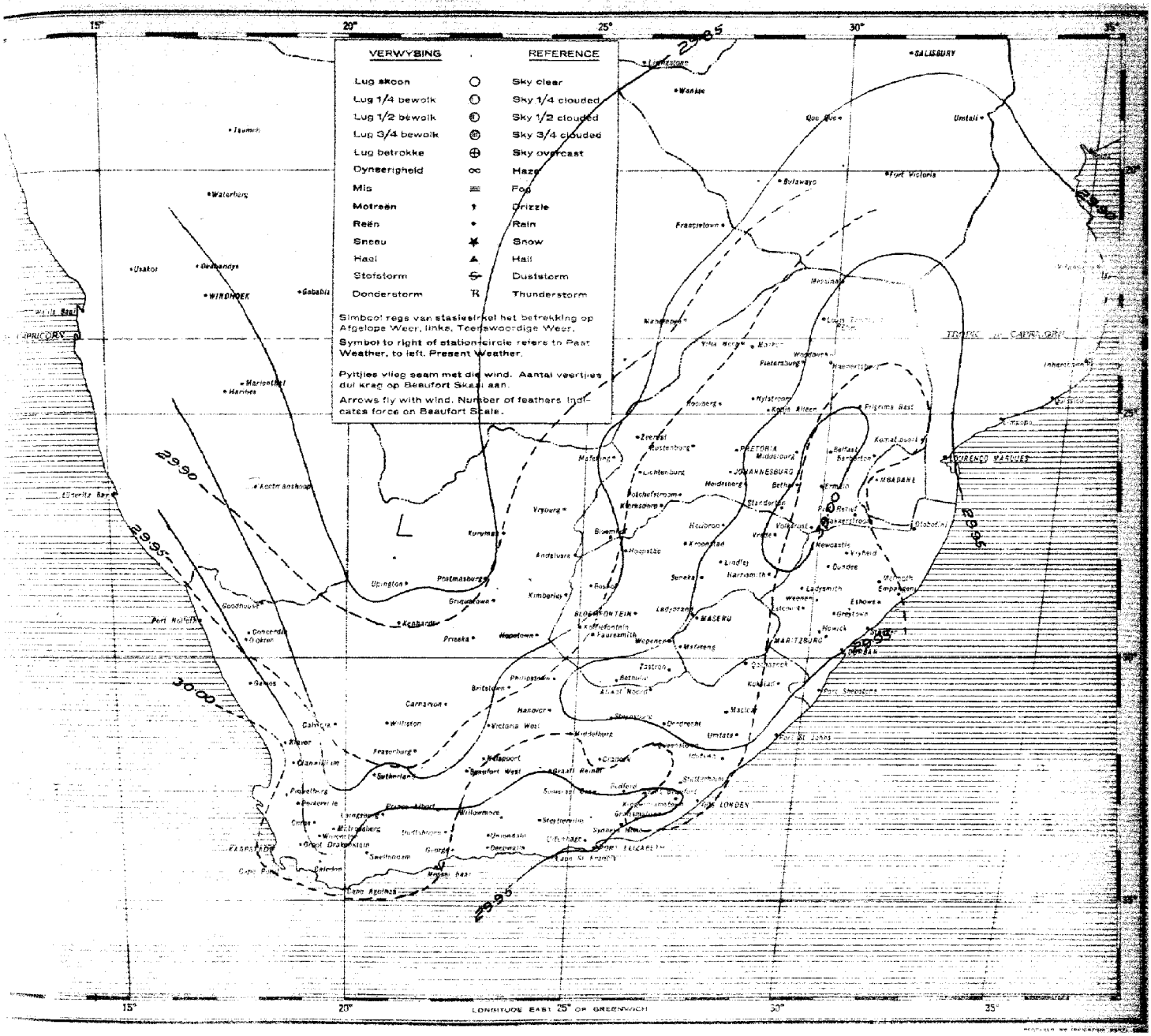


CHART I.

MARCH 1937 :- MEAN ATMOSPHERIC PRESSURE AT 8.30 a.m.

The broken lines indicate the normal distribution for March.

KAART I.

MAART 1937 :- GEMIDDELDE LUGDRUK OM 8.30 v.m.

Die gebroke lyne dui die normale distribusie vir Maart aan.

WEERKAART —— WEATHER MAP

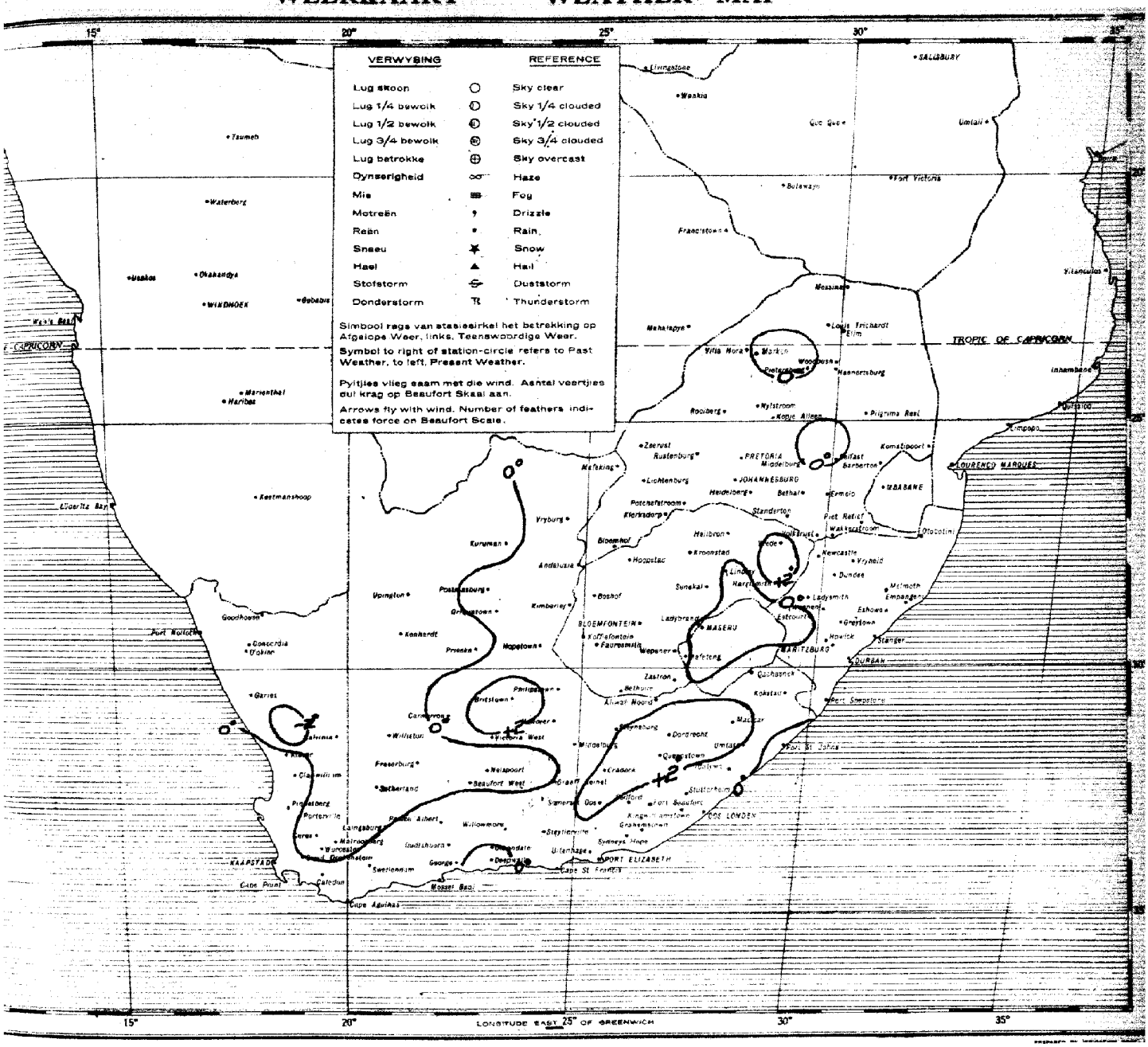


CHART II.

MAART 1937 :- MEAN TEMPERATURE - deviation from normal in °F.

KAART II.

MAART 1937 :- GEMIDDELDE TEMPERATUUR - afwyking van die normaal in °F.

WEERKAART —— WEATHER MAP

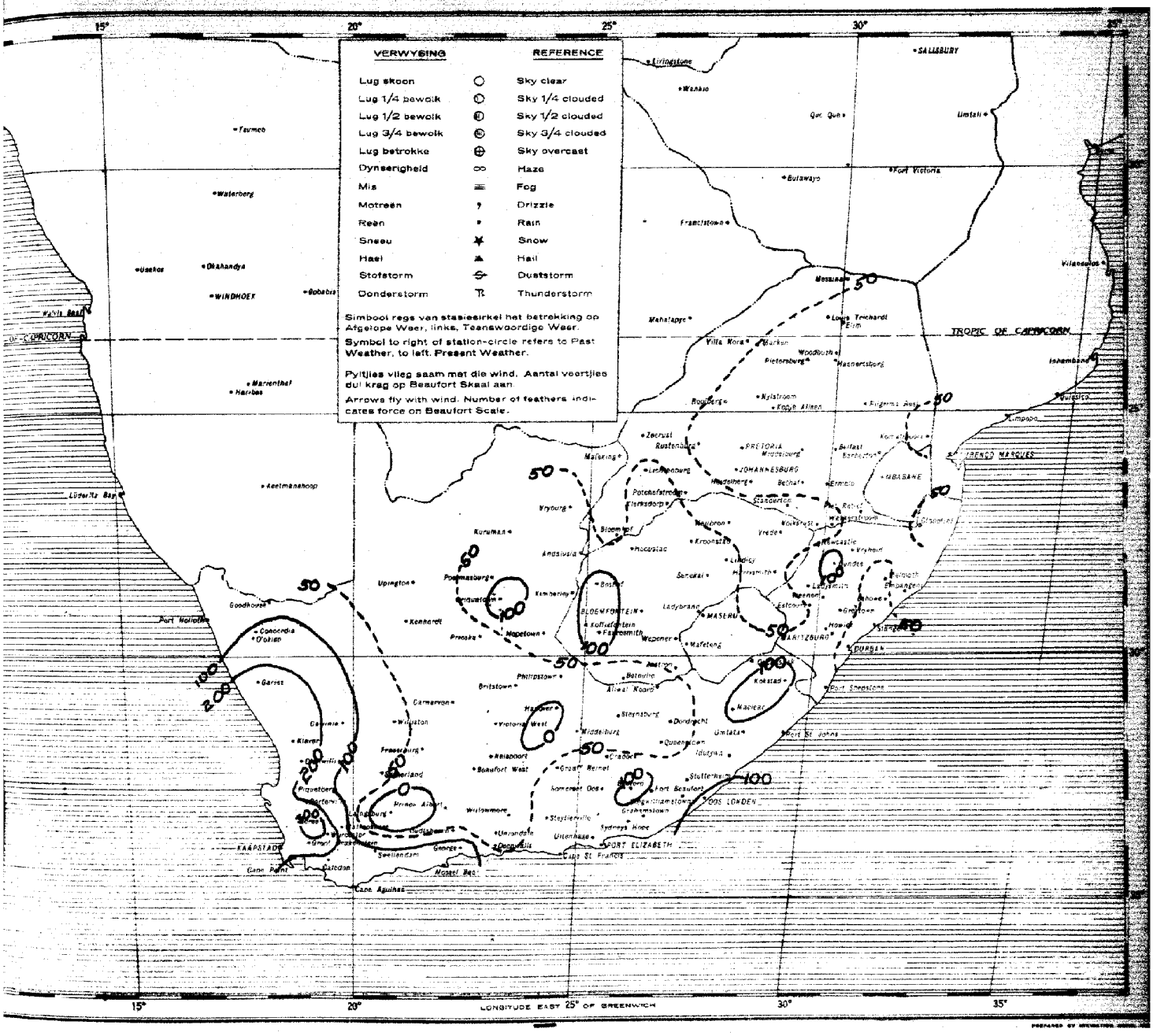


CHART III.

MARCH 1937 :— **RAINFALL SHOWN AS PERCENTAGE OF NORMAL.**

KAART III.

MAART 1937 :— **REENVAL AANGEGEE AS PERSENTASIE VAN DIE NORMAAL.**

WEERKAART —— WEATHER MAP

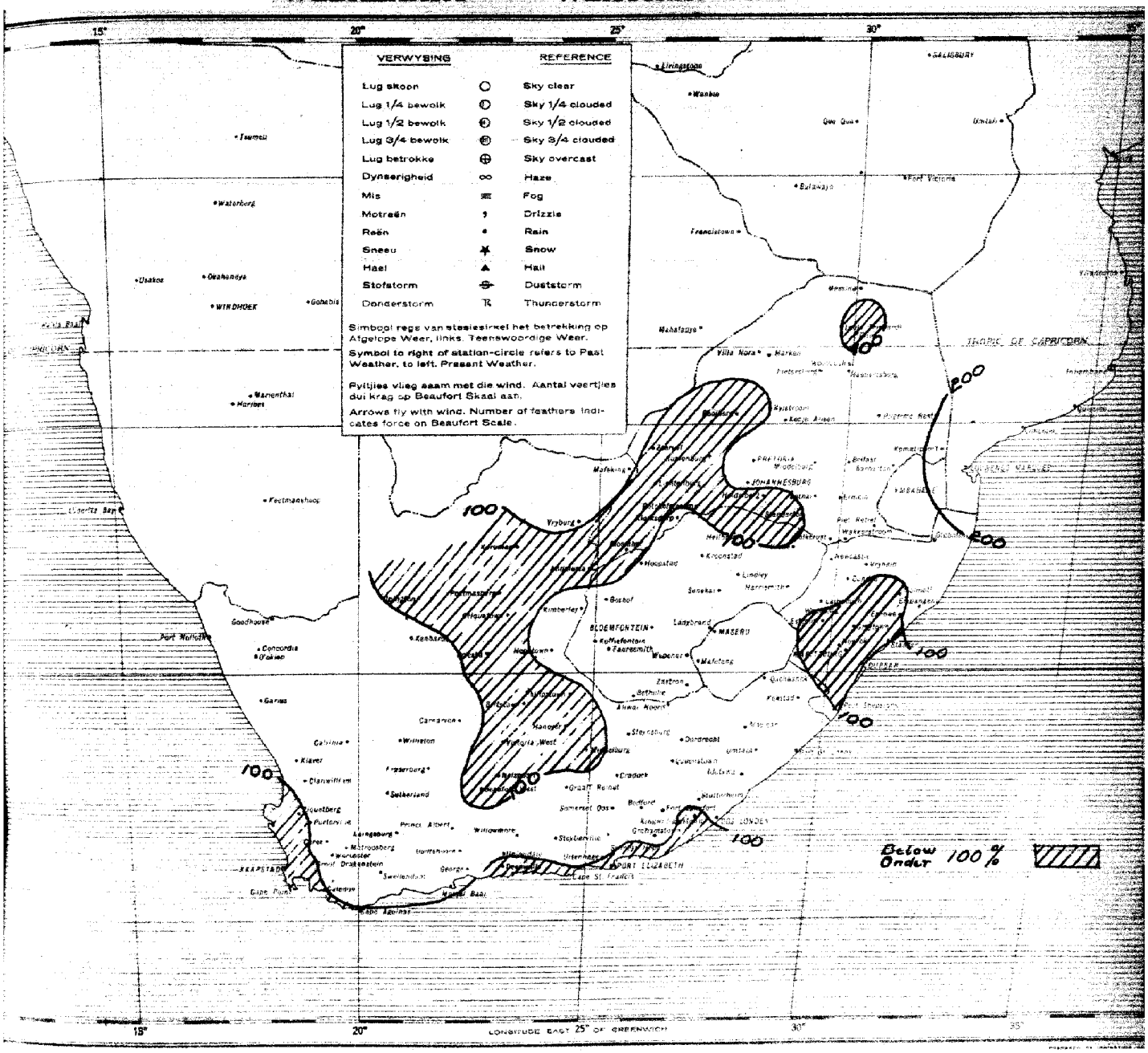


CHART IV.

SEASONAL PRECIPITATION (1st July 1936 to 31st March 1937) shewn as percentage of normal.

KAART IV.

SEISOEN-NEERSLAG (1 Julie 1936 tot 31 Maart 1937) aangedui as persentasie van die normaal

D I E U N I E V A N S U I D-A F R I K A.

DEPARTEMENT VAN [illegible].

M A A N D E L I K S E W E E R V E R S L A G

VAN DIE

WEERKUNDIGE KANTOOR.

DEEL XVIII | APRIL 1937 | NO.4.

ALGEMEEN:

Gemiddelde lugdruk omtrent normaal; temperature omtrent 'n halwe graad laer dan die gemiddelde met die dae warmer in die Kaapprovinsie en die Vrystaat en kouer as gewoonlik in Transvaal en Natal, terwyl die nagte meer as een graad onder normaal was; 'n paar uitermate hoë temperature is geregistreer in die westelike, suidwestelike en suidelike Kaapprovinsie tydens die warm bergwinde op die 16de en die 17de en ryp het voorgekom op die plato vanaf die 21ste van die maand; reënval meestal in die vorm van lokale buie en donderstorms met 'n totale neerslag van minder dan gewoonlik behalwe oor 'n paar beperkte streke in die suidwestelike, sentrale en noordelike grensdistrikte van die Kaapprovinsie, sentrale Natal, sentrale en suidoostelike Transvaal; 'n algehele afwesigheid van neerslag in die Garies, Fraserburg, Beaufort Wes, Graaff Reinet en Steytlerville afdelings van die Kaapprovinsie; 'n paar verniellende haelstorms in die oostelike Vrystaat op die 20ste en 21ste en in Transvaal op die 22ste en 26ste met ligte sneeuvalle op die berge in die suidwestelike Kaapprovinsie op die 21ste, op die Drakensberg op die 27ste en op die berge in die oostelike Transvaal op die 29ste; - dit was die uitstaande kenmerke van die weer gedurende April 1937.

LUGDRUK:

Die gemiddelde lugdruk, soos gesien kan word op Kaart I, was so te sê normaal oor die hele Unie. Die ekwatoriale laagdruk gebied was die duidelikste uitgebeeld van die 1ste tot die 6de en weer van die 19de tot die 25ste. Hoë lugdrukgebiede met isobare van meer as 30.10 duim het voorgekom oor die oostelike gedeelte van die Unie op die 6de en 7de, 9de en 10de, 12de en 13de, 15de tot 18de en 27ste tot 30ste, van die suide na die suidooste op die 5de, 11de, 14de, 25ste tot 26ste en oor die westelike tot die suidelike kus op die 8ste en 10de. Laagdrukgebiede het langs die kus getrek van die suidooste na die ooste op die 1ste tot 3de, 22ste tot 24ste en van die suidwestelike na die suidoostelike en oostelike kuste op die 18de tot die 21ste.

TEMPERATUUR:

Soos uit die gegewens van 'n aantal verteenwoordigende stasies blyk, was die gemiddelde temperatuur oor die Unie as geheel 63.2°F, of 0.4° onder normaal. Wat die afsonderlike provinsies betref was die gemiddelde temperatuur onder normaal oor die Kaapprovinsie, Transvaal, Natal en Vrystaat met 0.1°, 0.6°, 0.6° en 1.8° respektiewelik. Soos aangetoon op Kaart II, was die afwykings van die normale temperature negatief behalwe oor die westelike en suidelike Kaapprovinsie, oor die noordoostelike Vrystaat en die noordoostelike Transvaal en oor Durban en omstreke.

Gemiddelde maxima (of dagtemperature) was bo normaal, behalwe oor die binnelande van die Kaapprovinsie, oor die suidelike Vrystaat, die oostelike Transvaal en oor Natal. Negatiewe afwykings van 2° en hoër het oor die sentrale Kaapprovinsie voorgekom terwyl positiewe afwykings van meer as 2° oor die suidelike Kaapprovinsie en oor die noordoostelike Vrystaat voorgekom het. Vir die provinsies afsonderlik was die gemiddelde maxima bo normaal oor die Kaapprovinsie met 0.5° en oor die Vrystaat met 0.4°, terwyl dit onder normaal was oor

Transvaal met 0.1° en oor Natal met 0.6°, sodat die algemene gemiddelde maximum vir die Unie as geheel 76.3°F, of 0.2° bo normaal, was. Die hoogste maxima geregistreer in die afsonderlike provinsies was 103.0° te Klaver (K.P.) op die 16de; 98.0° te Komatipoort (Tvl.) op die 21ste; 97.0° te Stanger (Natal) op die 10de, en 84.0° te Kroonstad (O.V.S.) op die 2de.

Gemiddelde minima was onder normaal behalwe oor die noordwestelike Transvaal, oor die noordwestelike distrikte van die Kaapprovinsie en langs die kus (met uitsluiting van die suidoostelike kusstreek). Negatiewe afwykings van 3° tot 5° en hoër het vry algemeen oor die hele Vrystaat voorgekom. Vir die provinsies afsonderlik was die gemiddelde minima onder normaal oor die Kaapprovinsie, Transvaal, Natal en die Vrystaat, met 0.6°, 1.2°, 0.6° en 4.2° respektiewelik, terwyl die algemene gemiddelde minimum vir die Unie as geheel 50.0° of 1.2° onder normaal was. Die laagste minima geregistreer in die afsonderlike provinsies was 26.1° te Grootfontein (K.P.) op die 27ste; 23.9° te Wakkerstroom (Tvl.) op die 28ste; 34.0° te Dundee (Natal) op die 29ste en 25.0° te Lindley (O.V.S.) op die 25ste.

RYP:

Die eerste kwaai ryp wat skadelik was oor 'n groot gedeelte van die Unie, is gerapporteer op die 21ste; sedert daardie datum het die sentrale Kaapprovinsie, die Vrystaat en die hoëveld van Transvaal gereëld ryp ondervind.

REËNVAL:

Die reënval vir April (sien Kaart III) was ver onder normaal oor byna die hele Unie. Die enigste streke wat surplusse aangetoon het, is (a) die sentrale distrikte van die suidwestelike Kaapprovinsie; (b) sentrale en suidoostelike Transvaal; (c) 'n smal strook wat van noord na suid deur Natal loop, en (d) 'n paar geïsoleerde streke, nl. om Mafeking, om Grikwastad, om Carnarvon en om Steynsburg. Die grootste gedeeltes van die Kaapprovinsie en die Vrystaat het minder dan een derde van die normale reënval vir April gehad, terwyl groot gedeeltes geen reën gehad het nie.

Afsonderlik het al vier die provinsies tekorte aangetoon, wat vir die Kaapprovinsie, Transvaal, die Vrystaat en Natal, 45%, 12%, 72% en 18% van hulle respektiewe normale beloop het, en wat vir die Unie as geheel 'n tekort van 36% beteken het. Wat die Kaapprovinsie betref het die somerreënvalstreek 'n tekort van 57% gehad terwyl die reënval oor die winterreënvalstreek net normaal was.

Gedurende die eerste helfte van die maand het verspreide buie, meestal baie lig en dikwels gepaard met donderweer, oor die somerreënvalstreek geval. Op die 20ste het die suidoostelike Kaapprovinsie, die noordelike Vrystaat en die westelike Transvaal weer buie gehad terwyl die oostelike en sentrale distrikte van Transvaal ook op die 26ste taamlik reënt gehad het. Die winterreënvalstreek het ook min reëndae ondervind gedurende April.

DONDERSTORMS EN HAEL:

Oor die somerreënvalstreek was die reëns dikwels vergesel van matige donderweer. Skade is deur hael veroorsaak op Allandale (Winburg) op die 21ste; op Gooldville (Pietersburg) op die 22ste; en op Bon Accord (Pretoria) op die 26ste, terwyl hael ook deur die volgende plekke ondervind is - nl., Piet Retief op die 5de; Victoria West op die 6de; Leribe op die 19de; Ficksburg en Maseru op die 20ste; en Pretoria op die 26ste.

SNEEU:

Met die suidwestelike Kaap is sneeu op die berge gerapporteer op die 8ste; op die Drakensberge op die 27ste en op die berge in oos Transvaal op die 29ste.

STERK WINDE EN STORMWINDE:

Van die 19de tot die 24ste het sterk westelike winde geheers oor die suidelike en suidoostelike Kaapprovinsie.

DIE SEISOEN-NEERSLAG:

Die seisoen-neerslag vir die periode 1 Julie 1936 tot 30 April 1937 (sien Kaart IV) was bo normaal behalwe oor westelike Transvaal; die heel noordelike Vrystaat, suidelike Natal, die sentrale Kaapprovinsie en langs die suidwestelike en suidoostelike kus, waar dit onder normaal was. Apart beskou, het al vier die provinsies surplusse gehad, wat vir die Kaapprovinsie 6%, vir Transvaal 11%, vir die Vrystaat 17% en vir Natal 5% van hulle respektiewe normale bedra het, en wat vir die Unie as geheel 'n surplus van 9% beteken het.

Die reënval vir die periode 1 Januarie tot 30 April 1937 was onder normaal oor die grootste gedeelte van die Kaapprovinsie, suidelike Natal, die noordelike Vrystaat en westelike Transvaal, en bo normaal oor die res van die Unie. Transvaal, die Vrystaat en Natal het surplusse aangetoon van 19%, 6% en 5% respektiewelik, en die Kaapprovinsie 'n tekort van 8% sodat die Unie as geheel 'n surplus van 5% gehad het.

U N I O N O F S O U T H A F R I C A.
DEPARTMENT OF IRRIGATION.
M O N T H L Y W E A T H E R R E P O R T
OF THE
METEOROLOGICAL OFFICE.

VOL. XVIII APRIL 1937. NO.4

GENERAL:

Mean pressure about normal; temperatures about half a degree lower than the average; the days being warmer in the Cape Province and Orange Free State and colder than usual in Transvaal and Natal, whilst the nights were more than one degree below the average; a few excessively high temperatures were registered in the west, southwest and south Cape during the bergwind spells on the 16th and 17th and frosts occurred on the plateau from the 21st of the month; rainfall occurring mostly in local showers and thunderstorms resulting in a total precipitation less than usual except over a few restricted areas in the southwest, centre and northern borders of the Cape, central Natal, centre and southeast Transvaal; a total absence of precipitation in the Caries, Fraserburg, Beaufort West, Graaff Reinet and Steytlerville divisions of the Cape; a few destructive hailstorms in the eastern Free State on the 20th and 21st and in the Transvaal on the 22nd and 26th with light falls of snow on the mountains in the southwest Cape on the 21st, on the Drakensberg on the 27th and on the mountains in the eastern Transvaal on the 29th; such were the more prominent features of the weather during the month of April 1937.

PRESSURE:

Mean pressure as may be seen from Chart I was practically normal over the whole Union. The equatorial low pressure area was most prominent from the 1st

to 6th and again from the 19th to 25th. High pressure areas with isobars of over 30.10 inches were present over the east on the 6th and 7th, 9th and 10th, 12th and 13th, 15th to 18th and 27th to 30th, from the south to southeast on the 5th, 11th, 14th, 25th to 26th, and over the west to south coast on the 8th and 10th. Low pressure areas passed along the coast from the southeast to east on the 1st to 3rd and 22nd to 24th, and from the southwest to southeast and east coasts on the 18th to 21st.

TEMPERATURE:

As gathered from the records of a number of representative stations, the mean temperature over the Union as a whole was 63.2°F, or 0.4° below normal. As regards the separate provinces, the mean temperature was below normal over the Cape Province, Transvaal, Natal and the Free State by 0.1°, 0.6°, 0.6° and 1.8° respectively. As shown on Chart II, the departures from the normal temperatures were negative except over the western and southern Cape Province, over the northeastern Free State and the northeastern Transvaal and over Durban and its environments.

Mean maxima (or day temperatures) were above normal, except over the interior of the Cape Province, over the northern Free State, the eastern Transvaal and over Natal. Negative departures of 2° and over were experienced over the central Cape Province, whilst positive departures of over 2° were experienced over the southern Cape Province and the northeastern Free State. For the provinces, taken separately, the mean maxima were above normal over the Cape Province by 0.5° and over the Free State by 0.4°, whilst they were below normal over the Transvaal by 0.1° and over Natal by 0.6°, so that the general mean maximum for the Union as a whole was 76.3°F, or 0.2° above normal. The highest maxima registered in the separate provinces were 103.0° at Klaver (C.P.) on the 16th; 98.0° at Komatipoort (Tvl.) on the 21st; 97.0° at Stanger (Natal) on the 10th and 84.0° at Kroonstad (O.F.S.) on the 2nd.

Mean minima were below normal except over the northwestern Transvaal, the northwestern districts of the Cape Province and along the coast (excepting the southeastern coastal belt). Negative departures of from 3° to 5° and over were experienced fairly generally over the whole of the Free State. For the provinces considered separately, the mean minima were below normal over the Cape Province, Transvaal, Natal and the Free State by 0.6°, 1.2°, 0.6° and 4.2° respectively, whilst the general mean minimum for the Union as a whole was 50.0° or 1.2° below the normal. The lowest minima registered in the separate provinces were 26.1° at Grootfontein (C.P.) on the 27th; 23.9° at Wakkerstroom (Tvl.) on the 28th; 34.0° at Dundee (Natal) on the 29th and 25.0° at Lindley (O.F.S.) on the 25th.

FROST:

The first severe frost which affected a large part of the Union, was reported on the 21st; since then the central Cape Province, the Free State and the highveld of the Transvaal experienced frost regularly.

RAINFALL:

The rainfall for April (see Chart III) was much below normal over nearly the whole of the Union. The only regions which showed surplusses were (a) the central districts of the southwestern Cape Province; (b) central and southeastern Transvaal; (c) a narrow belt passing through Natal from north to south, and (d) a few isolated areas, viz. Mafeking, Griquatown, Carnarvon and Steynsburg. The greater part of the Cape Province and the Free State had less than one-third the normal precipitation for April, whilst large areas

had no rain at all.

Separately all four provinces showed deficits, amounting for the Cape Province, Transvaal, the Free State and Natal to 45%, 12%, 72% and 18% of their respective normals, giving for the Union as a whole a deficit of 36%. As regards the Cape Province, the summer rainfall area showed a deficit of 57% whilst the rainfall over the winter rainfall area was just normal.

During the first half of the month scattered showers, mostly light and frequently accompanied by thunder, fell over the summer rainfall area. On the 20th the southeastern Cape Province, the northern Free State and western Transvaal again had showers whilst the eastern and central districts of the Transvaal had fairly good rains on the 26th. The winter rainfall area also experienced only a few rainy days during April.

THUNDERSTORMS AND HAIL:

Over the summer rainfall area the rains were frequently accompanied by moderate thunderstorms. Hail caused considerable damage at Allandale (Winburg) on the 21st; at Gooldville (Pietersburg) on the 22nd; at Bon Accord (Pretoria) on the 26th; whilst hail was experienced also at the following stations - viz. Piet Retief on the 5th; Victoria West on the 6th, Leribe on the 19th, Ficksburg and Maseru on the 20th and Pretoria on the 26th.

SNOW:

Snow on mountains in the southwestern Cape Province was reported on the 21st, on the Drakensburg range on the 27th and on the mountains in the eastern Transvaal on the 29th.

STRONG WINDS AND GALES:

From the 19th to the 24th strong winds reigned over the southern and southeastern Cape Province.

SEASONAL PRECIPITATION:

The seasonal precipitation for the period 1st July 1936 to 30th April 1937 (see Chart IV) was above normal except over western Transvaal, the extreme northern Free State, southern Natal, the central Cape Province and along the southwestern and southeastern coasts, where it was below normal. Considered separately, all four provinces showed surplusses, amounting for the Cape Province to 6%, for Transvaal to 11%, for the Free State to 17% and for Natal to 5% of their respective normals, and resulting for the Union as a whole in a surplus of 9%.

The rainfall for the period 1st January to 30th April 1937, was below normal over the greater part of the Cape Province, southern Natal, the northern Free State and western Transvaal, and above normal over the rest of the Union. Transvaal, the Free State and Natal had surplusses of 19%, 6% and 5% respectively, whilst the Cape Province had a deficit of 8%, resulting for the Union as a whole in a surplus of 5%.

AANTEKENINGE VAN WAARNEMERS VIR APRIL 1937.
OBSERVERS' NOTES FOR APRIL 1937.

UITSKOT (LICHTENBURG): Weëns droogte is oes baie beskadig. 21ste het eerste ryp begin en hou nog elke nag aan. 0.43 duim op 3 dae. A.J. v.d. Walt.

ELANDSFONTEIN (POTCHEFSTROOM): Die maand was die reën maar skaars. Daarby kom nog dat ons vanaf die 24ste ryp gehad het. 1.10 duim op 3 dae. P.J. Davidtz.

BON ACCORD (PRETORIA): 26th April Hail 6" in places. General damage. 2.00 inches on 4 days. S.H. Gibson.

OLIFANTSPOORT (WATERBERG): Rivers still flowing. Grass getting dry. Mealies drying out. 1.16 inch on 3 days. D. Wright.

WITPOORT ESTATE (WATERBERG): No rain for crops; only early planted maize successful this season. 0.47 inch on 4 days. F.C. St. J. Eaton.

GOOLDVILLE (PIETERSBURG): Severest hailstorm for at least 10 years on the 22nd. Precipitation 0.68" from 4.50 p.m. to 5 p.m. Wind 50 miles per hour. E.I. Aitken.

BREMERSDORP (SWAZILAND): A haze prevailed practically every morning during this month. The Assistant Commissioner.

ESPERANZA (KURUMAN): Exceptionally early cold weather (slight frost on 21st). L. Wolff.

BARKLY WEST: Frost on 21st destroyed tomato crops. J. Smith Houghton.

KROONSTAD: (SOMERGEWAS PROEFSTASIE): Die maand was dit ook maar baie droog (0.32 duim op 4 dae). Die eerste ryp en ys op 21ste het baie jong plante beskadig. D.J.van den Berg.

SLENT (PAARL): Frequent fogs during the month. Fairly warm considering the rain that has fallen, consequently natural grass coming up fast. R.W. Short.

PARADYS (KNYSNA): A spell of cold southwest winds and a few berg wind spells. M.F. van Rooyen.

VRYBURG: Frost occurred from 21st of month continually, though crops have not been damaged thus far. J. van Reden.

MIDDELBURG: (TVL.) Veld dry and grass hard. Stock in fair condition. V.P. Rose.

SEODIN (KURUMAN): Slight frost on 22nd killing mealie crops and kaffir beans. D. A. Schoonees.

FAURESMITH: Typical early winter conditions; the minimum temperature of 28.0°F. on 22nd being the lowest yet recorded here for April. E. Potter.

MODDERPOORT: Frost on 25th killing most of the herbaceous plants in the gardens. J. W. Eddolls.

LERIBE (BASUTOLAND): Frost was experienced for the first time on the 20th, preceded by light hail on the previous day. District Commissioner.

BEAUFORT WEST: A very dusty month with moderately strong winds especially towards the end. S.P. Bosua.

GROOTFONTEIN (MIDDELBURG.C.P.): First frost on 25th. Maize, potatoes, beans, etc. completely killed by heavy frost on 27th. A. Mackenzie.

QUEENSTOWN: An unusually cold spell with strong northwest winds was experienced from the 20th to the 27th. W. Everitt.

MATROOSBERG: Snow revealed on summit on 21st. T.B. Hattle.

HENDRIK THERON (BOTHAVILLE): 21st April—ryp begin val en doen skade aan jong mielies. 1.18 duim op 4 dae. W. Odendaal.

ELBA (BLOEMFONTEIN): 21st April - Heavy frost; damage to gardens and late mealies. 0.09 inch on 1 day. R.F. Duminy.

ALLANDALE (WINBURG): 21st April - hailstorm; extensive damage to window panes. 0.70 inch on 2 days. H. Barnard.

GARTON (ESTCOURT): 27th April - little snow. 0.17 inch on 2 days. G.J. v.d. Westhuizen.

LUG TEMPERATURE : APRIL 1937.
AIR TEMPERATURES : APRIL 1937.

STASIE TATION	MAXIMUM Gem. Mean	Norm.	Verskil Diff.	MINIMUM Gem. Mean	Norm.	Verskil Diff.	MAAND. GEM. MONTHLY MEAN. Gem. Mean	Norm.	Verskil Diff.	ABS. MAX.	DATUM DATE	ABS. MIN.	DATUM DATE
KAAPPROVINSIE: CAPE PROVINCE:													
LIWAL NORTH	73.8	73.6	+0.2	40.5	44.0	-3.5	57.2	58.8	-1.6	82.0	9	30.0	30
RITSTOWN	76.3	75.5	+0.8	47.7	48.6	-0.9	62.0	62.1	-0.1	86.0	5	35.0	21
APE L'AGULHAS	69.0	67.6	+1.4	58.9	57.2	+1.7	64.0	62.4	+1.6	85.0	28	52.0	20
APE TOWN	73.3	72.5	+0.8	55.9	54.4	+1.5	64.6	63.5	+1.1	96.0	16	49.3	27
ALA	74.5	74.5	+0.0	47.8	49.1	-1.3	61.2	61.8	-0.6	85.5	17	38.5	28
ARNARVON	74.8	76.0	-1.2	47.1	47.8	-0.7	61.0	61.9	-0.9	84.0	16	35.0	22
ERES	74.6	74.2	+0.4	47.4	45.5	+1.9	61.0	59.9	+1.1	93.0	16	39.0	28
RADOCK	77.3	77.3	+0.0	46.5	47.3	-0.8	61.9	62.3	-0.4	88.0	17	35.0	25
LANWILLIAM	85.6	83.2	+2.4	52.5	51.1	+1.4	69.1	67.2	+1.9	102.5	16	46.0	30
EEPWALLS	73.4	70.9	+2.5	54.4	53.3	+1.1	63.9	62.1	+1.8	96.0	17	44.1	20
AST LONDON	74.5	73.3	+1.2	56.9	58.8	-1.9	65.7	66.1	-0.4	92.0	29	50.5	22
OODHOUSE		90.3			62.2			76.3					
RAAFF REINET	80.1	77.9	+2.2	47.4	52.0	-4.6	63.8	65.0	-1.2	94.2	17	33.0	26
RAHAMSTOWN	75.7	75.4	+0.3	48.0	50.8	-2.8	61.9	63.1	-1.2	93.2	17	39.2	27
ROOT DRAKENSTEIN	76.9	76.4	+0.5	51.4	52.2	-0.8	64.2	64.3	-0.1	96.8	16	42.4	26
ROOTFONTEIN	72.0	73.8	-1.8	41.7	44.6	-2.9	56.9	59.2	-2.3	80.6	17	26.1	27
OETOWN	77.5	78.2	-0.7	47.4	48.1	-0.7	62.5	63.2	-0.7	87.0	9	33.0	21
UTYWA	75.8	75.3	+0.5	50.5	52.1	-1.6	63.2	63.7	-0.5	92.0	18	40.0	22
ERHARDT	81.6	81.7	-0.1	53.2	52.3	+0.9	67.4	67.0	+0.4	92.4	9	39.5	22
IMBERLEY	76.6	77.8	-1.2	50.6	51.5	-0.9	63.6	64.7	-1.1	83.9	9	39.0	21
INGWILLIAMSTOWN	79.2	78.2	+1.0	52.5	53.2	-0.7	65.9	65.7	+0.2	97.0	17	42.0	27
LAVER	83.2	82.3	+0.9	56.9	55.8	+1.1	70.1	69.1	+1.0	103.0	16	48.5	30
OKSTAD	71.6	71.9	-0.3	44.7	45.1	-0.4	58.2	58.5	-0.3	81.6	19	33.3	29
REUMAN	77.4	77.7	-0.3	45.6	47.8	-2.2	61.5	62.8	-1.3	85.0	3	30.0	22
AFEKING	78.6	78.4	+0.2	48.8	49.9	-1.1	63.7	64.2	-0.5	86.8	4	37.0	30
OSSEL BAY	74.2	70.9	+3.3	59.6	57.5	+2.1	66.9	64.2	+2.7	86.0	29	53.0	20
ELSPOORT	73.1	76.8	-3.7	47.6	49.3	-1.7	60.4	63.1	-2.7	86.0	16	37.0	27
OKIEP	78.5	77.8	+0.7	54.3	54.6	-0.3	66.4	66.2	+0.2	89.0	16	39.3	21
UDTSHOORN	81.2	78.3	+2.9	48.4	49.6	-1.2	64.8	64.0	+0.8	98.0	16	41.0	27
ORT ELIZABETH	74.2	72.2	+2.0	59.5	57.8	+1.7	66.9	65.0	+1.9	92.0	17	53.5	23
ORT NOLLOTH	67.8	67.8	+0.0	49.7	50.2	-0.5	58.8	59.0	-0.2	93.0	17	43.0	21
ORT ST JOHNS	74.7	77.0	-2.3	62.7	61.4	+1.3	68.7	69.2	-0.5	82.0	17	57.0	28
OSTMASBURG	74.8	75.9	-1.1	53.0	52.3	+0.7	63.9	64.1	-0.2	83.8	1	38.9	21
RIDSKA	79.0	79.9	-0.9	49.0	51.9	-2.9	64.0	65.9	-1.9	94.0	14	37.0	27
UEENSTOWN	77.5	74.7	+2.8	47.7	48.4	-0.7	62.6	61.6	+1.0	88.0	17	34.0	5
IETPOORT		79.8			53.1			66.5					
OMERSET EAST	78.6	75.0	+3.6	50.8	51.1	-0.3	64.7	63.1	+1.6	92.9	17	38.5	25
UTHERLAND	68.3	71.0	-2.7	38.7	41.0	-2.3	53.5	56.0	-2.5	81.0	16	29.0	27
YDNEY HOPE	73.7	74.3	-0.6	54.7	54.7	+0.0	64.2	64.5	-0.3	94.0	17	49.0	25
IDDENHAGE	82.2	79.3	+2.9	52.8	52.8	+0.0	67.5	66.1	+1.4	102.2	17	43.6	26
MTATA	78.9	76.9	+2.0	50.0	51.8	-1.8	64.5	64.4	+0.1	93.0	18	39.0	27
PINGTON	81.8	82.6	-0.8	55.7	55.4	+0.3	68.8	69.0	-0.2	92.5	1	42.3	25
AN WYKS VLEI	80.2	79.8	+0.4	50.2	49.4	+0.8	65.2	64.6	+0.6	90.0	9	38.0	24
ICTORIA WEST		76.2			45.9			61.1					
YBURG	80.4	78.9	+2.5	46.0	48.4	-2.4	63.7	63.7	+0.0	91.0	5	33.0	26
ILLOWMORE	74.7	75.9	-1.2	46.8	48.1	-1.3	60.8	62.0	-1.2	90.0	18	37.0	28
RANSVAAL:													
ARBERTON	77.9	78.8	-0.9	58.8	57.1	+1.7	68.4	68.0	+0.4	88.0	2	48.0	30
ELFAST	66.9	68.7	-1.8	39.5	41.2	-1.7	53.2	55.0	-1.8	75.0	4,5	28.0	30
HRISTIANA	78.9	78.1	+0.8	43.5	49.7	-6.2	61.2	63.9	-2.7	89.0	12	31.0	22
RMELO	72.3	72.1	+0.2	44.2	44.6	-0.4	58.3	58.4	-0.1	83.0	4	30.0	29
IDELBERG	74.6	74.8	-0.2	42.4	45.2	-2.8	58.5	60.0	-1.5	81.6	4	27.4	25
OHANNESBURG	69.8	69.8	+0.0	50.1	50.2	-0.1	60.0	60.0	+0.0	78.2	4	37.8	28
ERKSDORP		78.1			48.6			63.4					
OMATIPOORT	86.4	86.0	+0.4	61.4	60.7	+0.7	73.9	73.4	+0.5	98.0	21	46.0	30
OPJE ALLEEN	79.9	78.7	+1.2	49.6	51.7	-2.1	64.8	65.2	-0.4	87.2	22	37.3	30
OUIS TRICHARDT	75.4	76.2	-0.8	55.7	53.8	+1.9	65.6	65.0	+0.6	88.0	3	41.0	30
ARKEN		80.0			54.2			67.1					

LUG TEMPERATURE : APRIL 1937 (VERVOLG).
AIR TEMPERATURES : APRIL 1937 (CONTD).

STASIE STATION	MAXIMUM Gem. Mean	Norm.	Versk Diff.	MINIMUM Gem. Mean	Norm.	Versk Diff.	MAAND. GEM. MONTHLY MEAN. Gem. Mean	Norm.	Versk Diff	ABS. MAX	DATUM DATE	ABS. MIN	DATUM DATE
TRANSVAAL (VERVOLG) (CONTD).													
MESSINA	85.4	84.1	+1.3	63.6	61.9	+1.7	74.5	73.0	+1.5	96.7	21	53.2	30
MIDDELBURG	74.4	75.8	-1.4	42.4	45.4	-3.0	58.4	60.6	-2.2	81.0	5	28.0	25
NYLSTROOM	79.1	78.2	+0.9	48.2	49.9	-1.7	63.7	64.1	-0.4	87.0	4	35.0	25
PIETERSBURG	75.0	77.0	-2.0	48.8	50.2	-1.4	61.9	63.6	-1.7	81.9	5	34.0	30
PIET RETIEF	74.0	73.7	+0.3	49.7	50.5	-0.8	61.9	62.1	-0.2	85.3	4	35.0	24
PILGRIMS REST	73.0	73.8	-0.8	48.1	49.0	-0.9	60.6	61.4	-0.8	81.5	2	34.5	30
POTCHEFSTROOM	76.3	78.0	-1.7	44.8	46.6	-1.8	60.6	62.3	-1.7	84.5	5	30.0	24
PRETORIA	77.0	76.9	+0.1	50.1	51.0	-0.9	63.6	64.0	-0.4	84.0	4	39.3	30
RUSTENBURG	79.3	79.4	-0.1	49.4	51.1	-1.7	64.4	65.3	-0.9	87.0	4	38.0	30
STANDERTON	76.8	74.0	+2.8	41.3	43.3	-2.0	59.1	58.7	+0.4	85.0	16	27.0	30
WAKKERSTROOM	71.2	70.0	+1.2	38.8	41.1	-2.3	55.0	55.6	-0.6	79.1	17	23.9	28
ZEERUST	78.3	78.9	-0.6	47.2	48.4	-1.2	62.8	63.7	-0.9	87.0	4	35.0	30
NATAL.													
DUNDEE	74.7	75.6	-0.9	47.9	48.2	-0.3	61.3	61.9	-0.6	83.0	1,2	34.0	29
DURBAN POINT	78.2	78.2	+0.0	65.9	64.8	+1.1	72.1	71.5	+0.6	86.4	10	55.8	30
EMPANGENI	78.5	80.8	-2.3	61.6	61.6	+0.0	70.1	71.2	-1.1	89.0	20	52.0	30
ESHOWE	76.2	76.3	-0.1	59.5	60.1	-0.6	67.9	68.2	0.3	92.9	10	51.3	29
ESTCOURT	75.1	75.5	-0.4	49.1	49.6	-0.5	62.1	62.6	-0.5	84.0	10	36.0	29
LADYSMITH	79.0	79.4	-0.4	48.3	51.4	-3.1	63.7	65.4	-1.7	90.0	2	35.0	29
PIETERMARITZBURG	78.2	76.7	+1.5	54.3	55.0	-0.7	66.3	65.9	+0.4	92.2	10	42.4	29
OTOBOTINI	82.4	82.8	-0.4	63.2	64.7	-1.5	72.8	73.8	-1.0	96.0	23	53.0	30
PORT SHEPSTONE	75.4	76.0	-0.6	62.2	62.4	-0.2	68.8	69.2	-0.4	87.0	10	54.0	29
STANGER	79.9	80.8	-0.9	62.4	62.4	+0.0	71.2	71.6	-0.4	97.0	10	55.0	30
VRYHEID	76.9	76.3	+0.6	51.4	51.5	-0.1	64.2	63.9	+0.3	89.0	2	40.6	30
WEENEN	79.7	82.5	-2.8	49.2	50.7	-1.5	64.5	66.6	-2.1	89.0	2	36.0	30
O.V.S. : O.F.S.													
BETHULIE	73.9	74.5	-0.6	41.6	46.6	-5.0	57.8	60.6	-2.8	83.5	9	29.0	25
BLOEMFONTEIN	73.4	74.2	-0.8	41.3	47.1	-5.8	57.4	60.7	-3.3	80.6	19	27.6	21
FAURESMITH	72.8	73.0	-0.2	41.5	47.0	-5.5	57.2	60.0	-2.8	80.7	9	28.0	22
HARRISMITH	73.0	67.6	+3.4	45.2	44.2	+1.0	58.1	55.9	+2.2	76.0	10	35.0	25
KROONSTAD	76.3	75.1	+1.2	42.1	45.8	-3.7	59.2	60.5	-1.3	84.0	2	28.0	25
LADYBRAND	70.0	70.6	-0.6	41.9	46.1	-4.2	56.0	58.4	-2.4	78.0	5	32.0	25
LINDLEY	74.5	73.9	+0.6	40.1	44.4	-4.3	57.3	59.2	-1.9	82.0	18	25.0	25
WEPENER	73.1	72.5	+0.6	38.8	43.8	-5.0	56.0	58.2	-2.2	80.4	16	26.0	25
BASOETOELAND : BASUTOLAND:													
BUTHA BUTHE	70.4	73.1	-2.7	41.6	42.7	-1.1	56.0	57.9	-1.9	78.0	8	29.0	25
MAFETENG	70.1	69.0	+1.1	45.9	45.9	+0.0	58.0	57.5	+0.5	77.0	17	33.0	21
MOHALES HOEK	70.6	72.9	-2.3	40.1	45.1	-5.0	55.4	59.0	-3.6	79.0	1,2	30.0	27
MOKHOTLONG		65.2		34.9	38.9	-4.0		52.1				25.0	29
QACHASNEK	65.8	64.9	+0.9	43.2	40.7	+2.5	54.5	52.8	+1.7	74.0	2	32.0	27
BETSJOEANALAND : BECHUANALAND:													
DIKGATLONG	83.4	83.2	+0.2	56.5	50.6	+2.9	68.5	66.9	+1.6	92.0	4	37.0	30
GAMERONES	80.8	81.8	-1.0	50.1	50.9	-0.8	65.5	66.4	-0.9	88.0	4	36.0	30
MAHALAPYE	82.5	82.4	+0.1	52.8	53.4	-0.6	67.7	67.9	-0.2	90.0	20	38.0	30
SWASILAND : SWAZILAND:													
MBABANE	71.6	76.7	-5.1	51.5	57.2	-5.7	61.6	67.0	-5.4	82.0	2,4	39.0	30
STEGI	75.4	76.5	-1.1	57.7	58.0	-0.3	66.6	67.3	-0.7	87.0	23	50.0	29

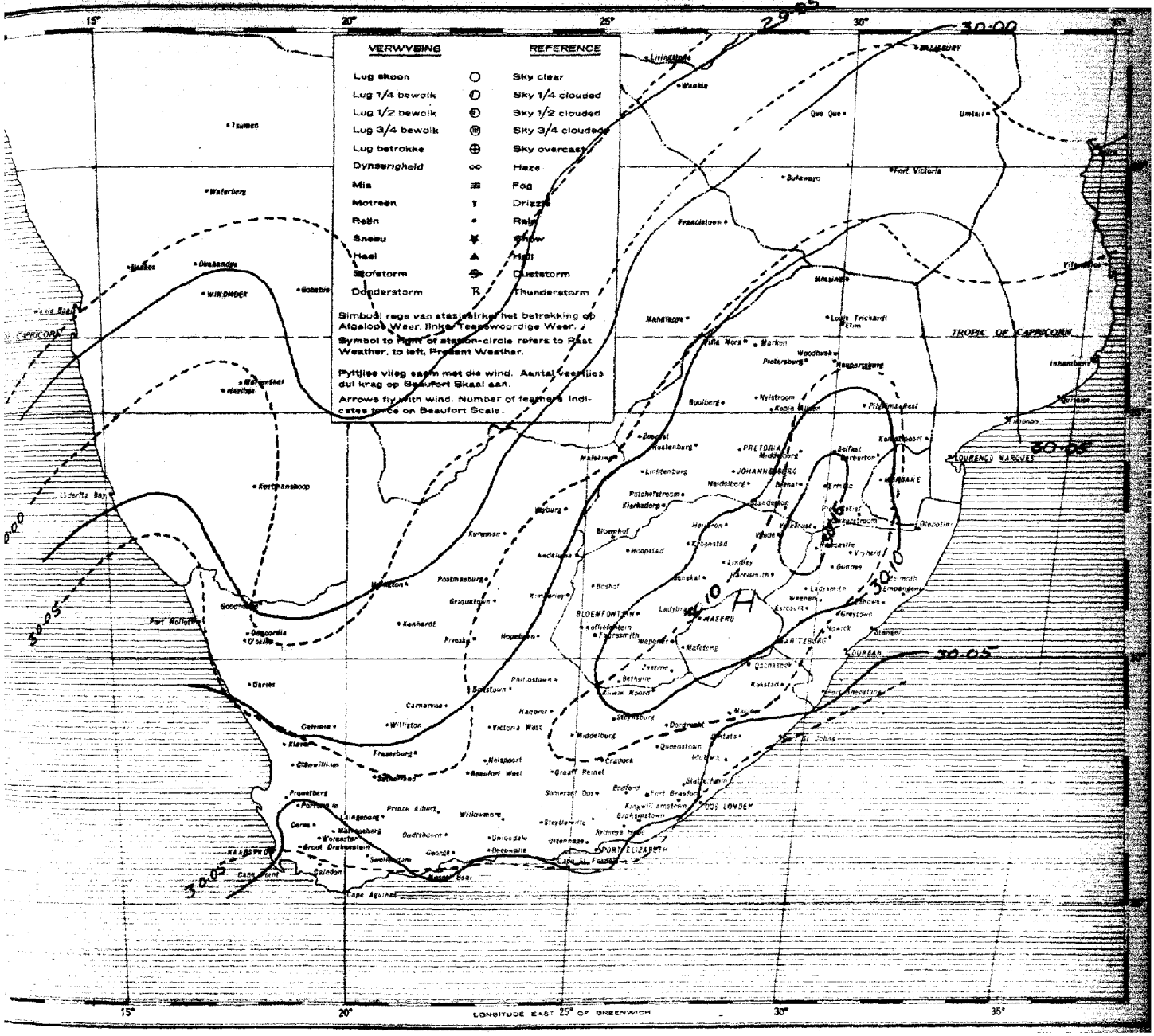
NEERSLAG : APRIL 1937.
RAINFALL : APRIL 1937.

STASIE STATION	APRIL 1937.	NORM.	VERSK. DIFF.	%	VANAF 1.1.37 FROM	NORM.	VERSK. DIFF.	VANAF 1.7.36 FROM.	NORM.	VERSK. DIFF.	SEISOEN % SEASONAL
KAAP PROVINSIE - SOMER REENVAL STREEK.											
CAPE PROVINCE - SUMMER RAINFALL AREA.											
ALIWAL NORTH	0.16	1.54	-1.38	10	18.69	10.39	+8.30	19.38	17.78	+1.60	109
BEAUFORT WEST	0.00	0.84	-0.84	0	1.64	4.85	-3.21	5.40	8.30	-2.90	65
BEDFORD	0.37	2.23	-1.86	17	9.59	12.91	-3.32	25.00	25.00	+0.00	100
BRITSTOWN	0.60	1.52	-0.92	39	5.99	6.73	-0.74	8.70	9.94	-1.24	87
CARNARVON	1.09	0.91	+0.18	120	4.13	4.61	-0.48	7.47	6.90	+0.57	108
EAST LONDON	1.34	2.62	-1.28	51	12.35	12.52	-0.17	28.20	28.70	-0.50	98
FRASERBURG	0.00	0.84	-0.84	0	3.05	3.70	-0.65	5.77	5.66	+0.11	102
GEORGE	0.64	2.60	-1.96	25	12.65	12.48	+0.17	35.40	29.48	+5.92	120
GRAAFF REINET	0.00	1.10	-1.10	0	9.34	6.36	+2.98	19.93	12.48	+7.45	160
GRAHAMSTOWN	0.35	1.46	-1.11	24	4.79	8.02	-3.23	20.58	18.71	+1.87	110
GRIQUATOWN	2.10	1.45	+0.65	145	9.16	7.74	+1.42	11.82	11.58	+0.24	102
GROOTFONTEIN	0.89	1.13	-0.24	79	4.93	7.52	-2.59	12.23	12.67	-0.44	96
HANOVER	1.44	1.49	-0.05	97	2.98	8.04	-5.06	5.28	12.58	-7.30	42
HOPE TOWN	0.08	1.11	-1.03	7	6.50	7.13	-0.63	11.74	11.15	+0.59	105
IDUTYWA	0.51	1.23	-0.72	41	9.45	10.16	-0.71	23.25	22.89	+0.36	102
KENHARDT	0.09	0.64	-0.55	14	3.84	3.52	+0.32	5.22	5.10	+0.12	102
KIMBERLEY	0.47	1.36	-0.89	35	9.62	9.09	+0.53	19.70	14.72	+4.98	134
KINGWILLIAMSTOWN	0.15	2.04	-1.89	7	6.31	10.89	-4.58	18.00	22.66	-4.66	79
KOKSTAD	0.36	1.64	-1.28	22	18.10	14.77	+3.33	29.20	28.51	+0.69	102
MATJESFONTEIN	0.23	0.68	-0.45	34	0.65	2.03	-1.38	7.34	4.85	+2.49	151
MACLEAR	0.57	1.80	-1.23	32	18.16	17.40	+0.76	32.09	31.77	+0.32	101
MAFEKING	1.83	1.05	+0.78	174	11.48	10.99	+0.49	21.61	19.89	+1.72	109
MOSSEL BAY	0.43	1.61	-1.18	27	4.61	5.58	-0.97	15.20	14.22	+0.98	107
PHILIPSTOWN	0.75	1.25	-0.50	60	5.34	7.56	-2.22	8.87	11.79	-2.92	75
PORT ELIZABETH	0.44	1.88	-1.44	23	3.09	6.24	-3.15	16.68	18.67	-1.99	89
PORT ST. JOHNS	2.41	3.37	-0.96	71	21.38	19.66	+1.72	48.12	42.99	+5.13	112
PRIESKA	0.00	1.27	-1.27	0	3.64	5.99	-2.35	4.79	8.54	-3.75	56
PRINCE ALBERT RD.		0.42				1.81			3.53		
QUEENSTOWN	0.91	1.57	-0.66	58	7.04	11.87	-4.83	20.50	20.89	-0.39	98
SOMERSET EAST	0.21	1.94	-1.73	11	5.23	10.27	-5.04	20.67	20.25	+0.42	102
STEYNSBURG	1.55	1.26	+0.29	123	6.93	8.05	-1.12	15.83	13.52	+2.31	117
STEYTLERVILLE	0.00	0.87	-0.87	0	2.54	4.24	-1.70	7.88	8.27	-0.39	95
SWELLENDAM	0.97	2.63	-1.66	37	10.05	10.72	-0.67	34.41	26.02	+8.39	132
SYDNEYS HOPE	0.64	1.99	-1.35	32	4.55	8.40	-3.85	16.80	19.66	-2.86	85
UITENHAGE	0.13	1.70	-1.57	8	3.32	6.92	-3.60	15.58	16.66	-1.08	93
UMTATA	0.66	1.60	-0.94	41	12.27	12.41	-0.14	26.21	23.71	+2.50	111
UNIONDALE	0.25	1.16	-0.91	22	1.43	4.27	-2.84	9.09	10.61	-1.52	86
UPINGTON	0.78	0.84	-0.06	93	3.50	4.70	-1.20	5.44	6.58	-1.14	83
VICTORIA WEST		0.70				4.63			8.02		
VRYBURG	1.37	1.49	-0.12	92	15.58	12.12	+3.46	22.87	18.14	+4.73	126
KAAP PROVINSIE - WINTER REENVAL STREEK.											
CAPE PROVINCE - WINTER RAINFALL AREA.											
CALEDON	0.84	1.71	-0.87	49	3.29	4.67	-1.38	15.81	15.96	-0.15	99
CALVINIA	0.08	0.84	-0.76	10	1.45	2.43	-0.98	9.75	5.90	+3.85	165
CAPE TOWN ROYAL OBS	1.75	1.86	-0.11	94	5.03	3.97	+1.06	15.44	16.62	-1.18	93
CERES	5.52	2.65	+2.87	208	9.71	5.38	+4.33	36.04	27.35	+8.69	132
CLANWILLIAM	0.24	0.67	-0.43	36	0.90	1.40	-0.50	7.25	5.66	+1.59	128
GARIES	0.00	0.46	-0.46	0	0.59	0.92	-0.33	5.68	3.50	+2.18	162
GT. DRAKENSTEIN	3.84	2.62	+1.22	147	7.70	5.46	+2.24	23.38	23.73	-0.35	99
OORTEP	0.07	0.61	-0.54	11	1.28	1.53	-0.25	4.80	4.60	+0.20	104
PIQUETBERG	1.92	1.54	+0.48	125	2.78	3.13	-0.35	11.80	12.93	-1.13	91
PORT NOLLOTH	0.06	0.22	-0.16	27	0.34	0.49	-0.15	1.51	1.61	-0.10	94
SUTHERLAND	0.00	0.88	-0.88	0	3.88	3.00	+0.88	10.93	6.81	+4.12	161
WORCESTER	0.80	1.01	-0.31	79	1.98	2.21	-0.23	12.63	8.51	+4.12	148
O. V. S. : O. F. S.											
BETHULIE	0.34	2.42	-2.08	14	6.04	10.96	-4.92	18.25	17.33	+0.92	105
BLOEMFONTEIN	0.13	1.76	-1.63	7	12.62	11.94	+0.68	21.89	19.42	+2.47	113
BOSHOF	0.21	1.50	-1.29	14	14.00	10.52	+3.48	22.93	17.34	+5.59	132
FAURESMITH	0.21	1.40	-1.19	15	9.67	7.31	+2.36	19.58	13.83	+5.75	141

NEERSLAG : APRIL 1937 (VERVOLG).
RAINFALL : APRIL 1937 (CONTD.)

STASIE STATION	APRIL 1937.	NORM.	VERSK. DIFF.	%	VANAF 1.1.37 FROM	NORM.	VERSK. DIFF.	VANAF 1.7.36 FROM.	NORM.	VERSK. DIFF.	SEISOEN % SEASONAL
O.V.S. : O.F.S. (VERVOLG : CONTD:)											
KROONSTAD	0.58	1.26	-0.68	46	10.12	11.42	-1.30	23.70	22.20	+1.50	107
LADYBRAND	1.12	1.87	-0.75	60	17.11	13.90	+3.21	32.99	25.99	+7.00	127
LINDLEY	0.56	1.61	-1.05	35	12.82	12.48	+0.34	28.51	23.56	+4.95	121
VREDE		1.24				12.85			26.41		
WINBURG	1.05	1.52	-0.47	65	16.30	12.05	+4.25	27.92	21.02	+6.90	133
WEPENER	0.08	1.84	-1.76	4	14.09	13.90	+0.19	26.20	24.40	+1.80	107
NATAL:											
DUNDEE	0.94	1.72	-0.78	55	21.35	16.07	+5.28	36.78	31.05	+5.73	118
DURBAN	3.78	3.60	+0.18	105	15.37	19.49	-4.12	37.02	40.67	-3.65	91
EMPANGENI	2.62	3.11	-0.49	84	21.54	18.56	+2.98	41.92	37.86	+4.06	111
ESTCOURT	0.84	1.50	-0.66	56	11.08	15.18	-4.10	24.63	27.95	-3.32	88
LADYSMITH	0.37	1.26	-0.89	29	17.06	15.48	+1.58	33.04	28.93	+4.11	114
MELMOTH	1.16	1.82	-0.66	64	14.07	14.94	-0.87	26.92	29.81	-2.89	90
OTOBOTINI	0.86	1.18	-0.32	73	20.05	12.08	+7.97	34.55	22.00	+12.55	157
PIETERMARITZBURG	0.63	1.93	-1.30	33	13.04	17.70	-4.66	29.65	34.53	-4.88	86
STANGER	4.27	2.61	+1.66	164	15.41	17.36	-1.95	38.57	38.05	+0.52	101
UBOMBO	0.40	1.85	-1.45	22	23.19	16.51	+6.68	37.81	35.51	+4.30	113
VRYHEID	1.57	1.55	+0.02	101	21.63	16.40	+5.23	37.16	33.14	+4.02	112
WEENEN	2.02	1.52	+0.50	133	10.18	13.57	-3.39	22.80	25.58	-2.78	89
BASOETOELAND : BASUTOLAND:											
MAFETENG	0.07	2.53	-2.46	3	18.60	16.29	+2.31	33.93	27.92	+6.01	122
BETSJOEANALAND : BECHUANALAND:											
MAHALAPYE	0.17	0.67	-0.50	25	11.25	9.66	+1.59	20.87	16.45	+4.42	127
DIKGATLONG	0.12	1.06	-0.94	11	9.25	9.48	-0.23	15.19	16.35	-1.16	93
GABERONES	0.84	1.45	-0.61	58	14.06	11.03	+3.03	20.96	19.12	+1.84	110
SWASIELAND : SWAZILAND:											
MBABANE	1.87	2.56	-0.69	73	46.58	27.91	+18.67	70.67	52.17	+18.50	135
TRANSVAAL:											
BARBERTON	2.88	1.69	+1.19	170	26.85	15.54	+11.32	41.17	29.03	+12.14	142
BELFAST	1.89	1.63	+0.26	116	21.05	15.06	+5.99	34.59	30.17	+4.42	115
BETHAL	0.22	1.30	-1.08	17	14.31	13.42	+0.89	30.04	27.93	+2.11	108
BLOEMHOF	0.64	1.28	-0.64	50	8.62	11.03	-2.41	13.57	17.62	-4.05	77
ELIM HOSPITAL	0.33	1.40	-1.07	24	19.56	19.15	+0.41	28.65	30.26	-1.61	95
ERMELO	0.79	1.12	-0.33	71	18.55	12.68	+5.87	32.59	28.29	+4.30	115
HARTEBEESTHOEK		1.63				21.85			35.57		
HEIDELBERG	1.29	1.20	+0.09	107	13.34	13.87	-0.53	26.21	27.31	-1.10	96
JOHANNESBURG OBS.	1.75	1.47	+0.28	119	18.68	15.01	+3.67	29.10	28.56	+0.54	102
JOUBERT PARK	2.19	1.73	+0.46	126	23.16	17.12	+6.04	36.61	31.65	+4.96	116
KLERKSDORP		1.51				12.56			22.08		
KOMATIPOORT	0.55	1.65	-1.10	33	31.32	15.63	+15.69	50.24	24.80	+25.44	203
LICHTENBURG	1.38	1.47	-0.09	94	12.13	13.21	-1.08	21.48	22.70	-1.22	95
MESSINA	0.14	0.51	-0.37	27	7.01	7.55	-0.54	14.58	13.78	+0.80	106
MIDDELBURG	1.40	1.46	-0.06	96	11.93	14.19	-2.26	28.46	28.08	+0.38	101
NYLSTROOM	1.62	1.45	+0.17	112	13.69	13.60	+0.09	22.73	23.78	-1.05	96
PIETERSBURG	0.54	0.99	-0.45	55	14.94	10.80	+4.14	23.88	20.06	+3.82	119
PIET RETIEF	3.03	1.71	+1.32	177	22.80	16.64	+6.16	41.35	34.60	+6.75	120
PILGRIMS REST	2.37	2.09	+0.28	113	30.04	23.25	+6.79	48.86	37.50	+11.36	130
POTCHEFSTROOM	0.61	1.33	-0.72	46	9.40	12.47	-3.07	21.60	22.88	-1.28	94
PRETORIA	1.04	1.21	-0.17	86	16.93	14.48	+2.45	28.52	27.56	+0.96	103
RUSTENBURG	1.15	1.00	+0.15	115	12.39	13.71	-1.32	22.14	24.73	-2.59	90
STANDERTON	0.49	1.27	-0.78	39	11.93	14.12	-2.19	24.40	28.68	-4.28	85
VILLA NORA	0.00	0.77	-0.77	0	13.80	9.58	+4.22	19.97	16.99	+2.98	115
WAKKERSTROOM	0.68	1.35	-0.67	50	19.14	14.48	+4.66	30.48	29.92	+0.56	102
WOODBUSH	2.79	3.16	-0.37	88	52.68	40.26	+12.42	86.27	65.73	+20.54	131
ZEERUST	0.90	1.43	-0.53	63	9.22	12.82	-3.60	17.52	22.37	-4.85	78

WEERKAART —— WEATHER MAP



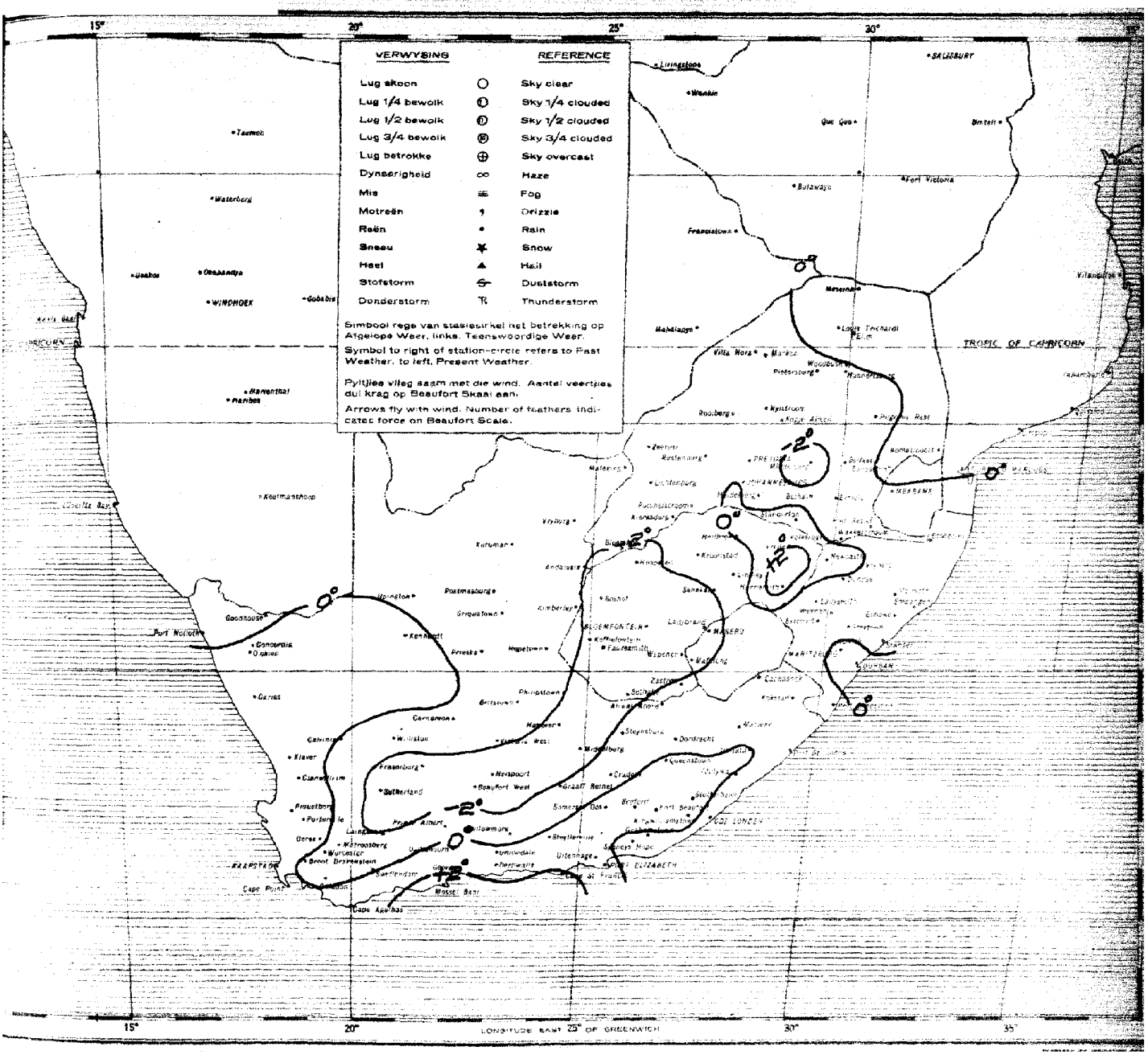
KAART I.

APRIL 1937 - GEMIDDELDE LUGDRUK (by seespieel) OM 8.30 v.m. Die gebroke lyne dui die normale distribusie vir April aan.

CHART I.

APRIL 1937 - MEAN ATMOSPHERIC PRESSURE (at M.S.L.) AT 8.30 a.m. The broken lines indicate the normal distribution for April.

WEERKAART —— WEATHER MAP



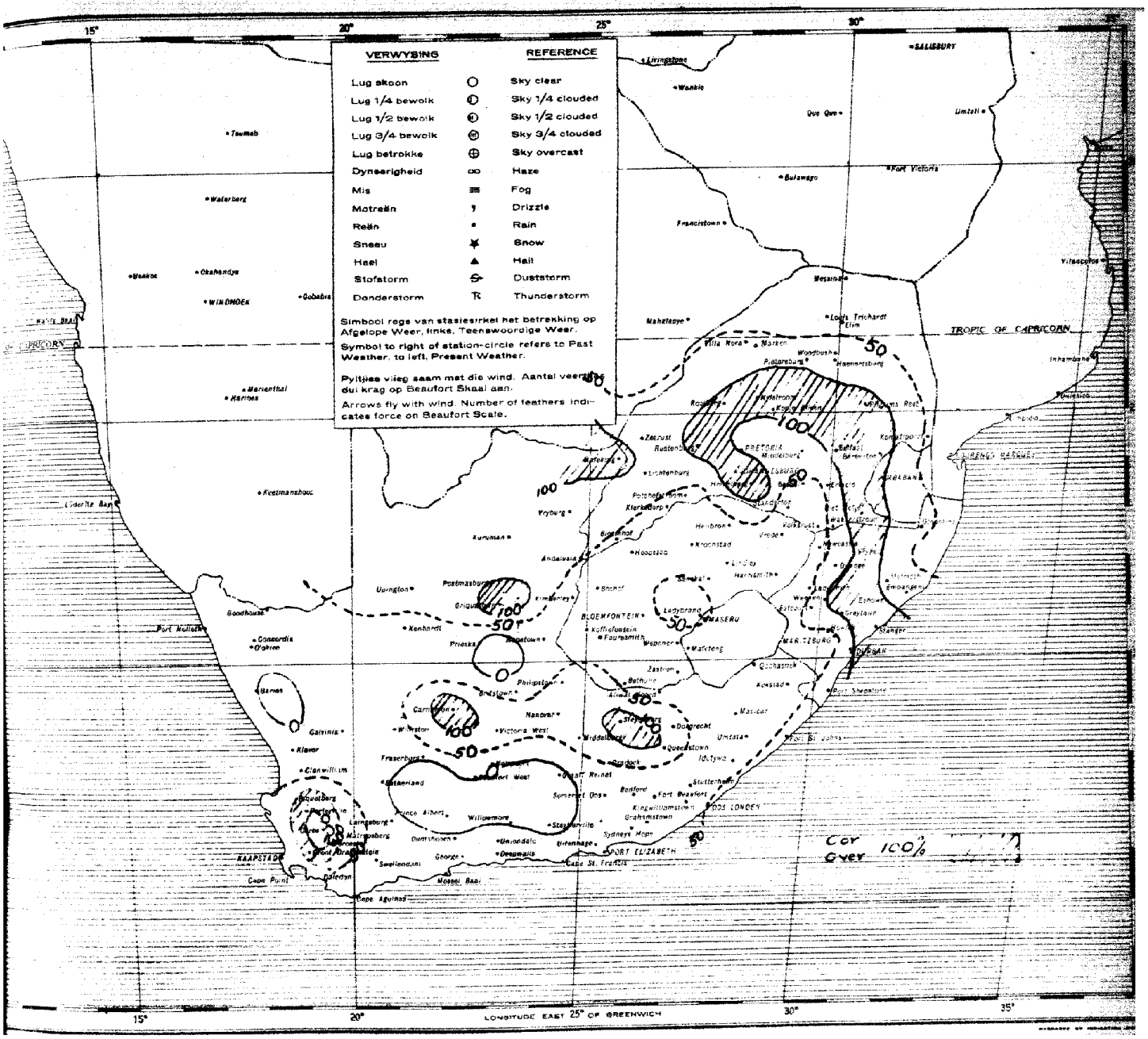
KAART II.

APRIL 1937 — GEMIDDELDE TEMPERATUUR — afwyking van die normaal in °F.

CHART II.

APRIL 1937 — MEAN TEMPERATURE — deviation from normal in °F.

WEERKAART —— WEATHER MAP



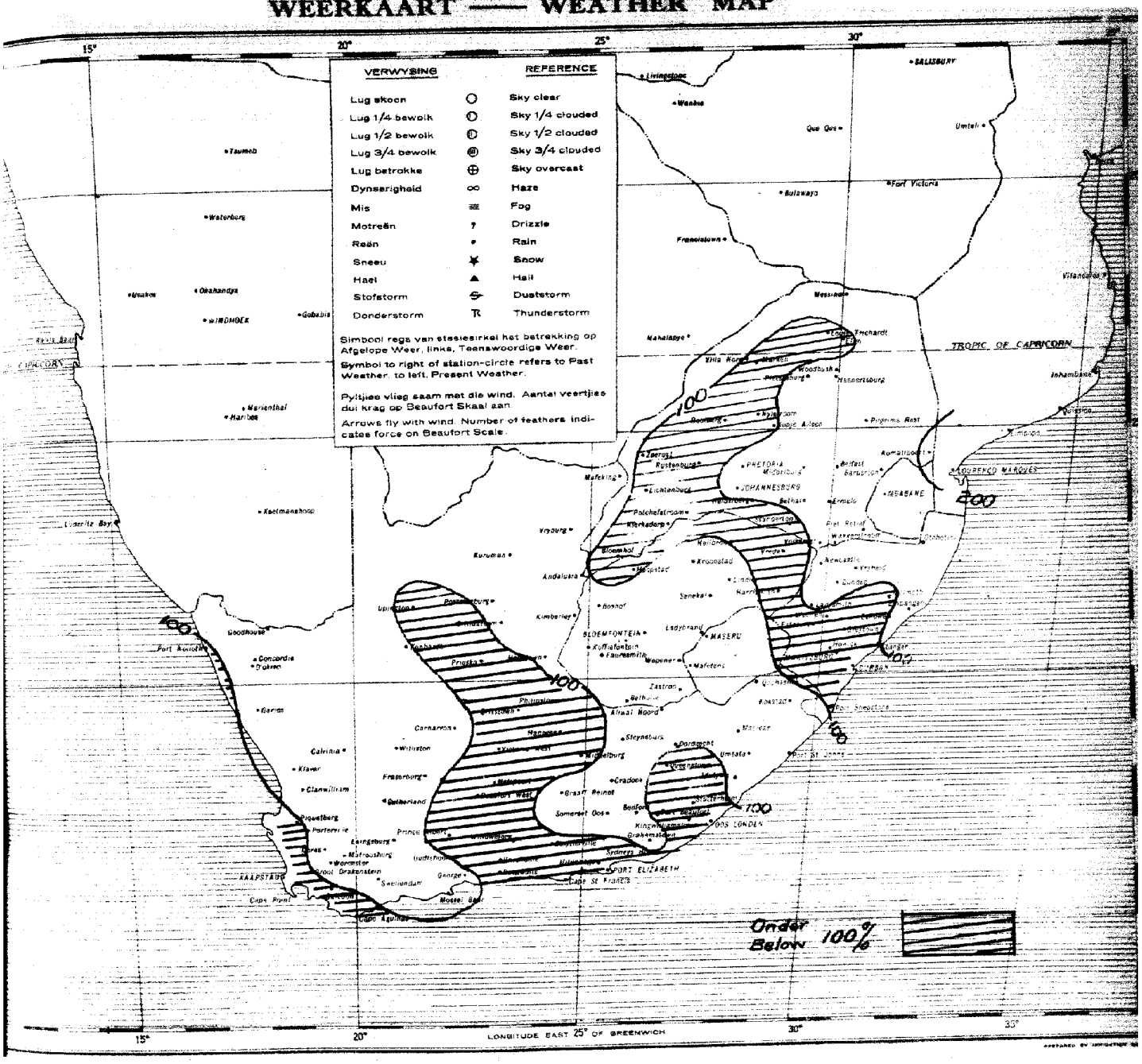
KAART III.

APRIL 1937 . REËNVAL AANGEGEE AS PERSENTASIE VAN DIE NORMAAL

CHART III.

APRIL 1937 :— RAINFALL SHEWN AS PERCENTAGE OF NORMAL.

WEERKAART —— WEATHER MAP



KAART IV.

SEISOEN-NEERSLAG (1 Julie 1936 tot 30 April 1937) aangedui as persentasie van die normaal.

CHART IV.

SEASONAL PRECIPITATION (1st July 1936 to 30th April 1937) shewn as percentage of normal.

UNION OF SOUTH AFRICA.

DEPARTMENT OF IRRIGATION.

MONTHLY WEATHER REPORT

OF THE

METEOROLOGICAL OFFICE.

VOL. XVIII | MAY 1937 | NO.5.

GENERAL:

Mean pressure above normal over interior and slightly below along coast: unsettled conditions with showers mainly over Cape, Free State and Natal from the 8th to 14th. Mean temperatures as a rule above normal especially over the eastern Union. Frost was common almost throughout the month over the interior plateau. Westerly gales were experienced mainly along the southwest, south and southeast coasts on about five occasions.

PRESSURE:

Mean pressure (see Chart I) was about .05 ins. higher than usual over the eastern interior, whereas on the south coast it was lower by approximately the same amount. The mean pressure gradient from interior towards the coast was thus somewhat steeper than is usual in May. During the first half of the month pressure conditions were rather disturbed, e.g. well-defined low pressure systems passed along the coast from southwest to east on the 4th, 10th and 14th; these were usually followed by high pressure systems or anticyclones passing eastwards over the sea. During the latter half of the month a permanent anticyclone, which is a characteristic feature of our winter weather, was well established over the interior.

TEMPERATURE:

The general mean temperature over the Union as a whole was 58.7°F or 1.4° above the normal. This super normal temperature was common to all provinces, the Transvaal having a mean temperature 1.5°, the Free State 1.3°, Natal 1.8° and the Cape Province 1.2° above the normal.

On examining the distribution of departures from the normal monthly temperatures over the Union (Chart II), it at once becomes apparent that the largest positive departures, sometimes exceeding 4°F, occurred in the more eastern districts, viz: the southeast Cape, Natal and the southeastern Transvaal. Over the west and southwest Cape, parts of the centre Cape and the western Free State, as well as over a few isolated areas in the Transvaal, temperature was slightly subnormal.

Mean maxima (or day-temperatures) show very much the same distribution, viz: below normal over west and southwest Cape, and above normal (except for a few isolated areas) over the remainder of the Union. Here again the largest positive departures (from 4 to 9 F.) were confined to the southeast Cape, Natal and the southeastern Transvaal. The general mean maximum over the Transvaal was 3.7°, over the Free State 3.4°, over Natal 3.0°, and over the Cape 2.5°F. above the normal. For the Union as a whole the general mean maximum was 73.6° or 2.9° above normal. Some of the highest maxima registered during this month were : 95° at Kingwilliamstown (C.P.) on the 10th; 84° at Kroonstad (O.F.S.) on the 12th; 92° at Empangeni (Natal) on the 2nd, and 95.2° at Messina (Tvl.) on the 12th.

Minimum (or night) temperatures were above normal over the south and southeast Cape, Natal and southeastern Transvaal, but mainly below normal over the remainder of the Union. Negative departures from normal minima were largest (about 3°) in the Free State. Taking the provinces as units, the general mean minima over the Cape Province, Transvaal and Free State were below normal by 0.1°, 0.7° and 0.8° respectively, whilst Natal showed a mean minimum 0.6° above normal. Over the Union as a whole the general mean minimum was 43.7°F. or 0.2° below normal. The lowest individual temperatures registered in each province were : 22° at Standerton (Tvl.) on the 19th; 30° at Ladysmith (Natal) on the 8th; 21° at Lindley (O.F.S.) on the 19th, and 23.7° at Grootfontein (C.P.) on the 16th.

FROST:

Frost was common almost throughout the month over the interior high plateau.

PRECIPITATION:

During May, precipitation was below normal over the greater part of the Union. Areas where no rain fell comprise : (a) the northern, centre, and parts of the eastern Transvaal; (b) interior Natal and the extreme eastern Free State; (c) small areas around Hanover, Kenhardt and Garies in the northwestern Cape. Over the remainder of the Union, precipitation amounted to less than half the normal, except over the southern and western Free State, parts of the south and southeast Cape and over the southwestern Cape where certain areas (as may be seen from Chart III) received more than the normal amounts for this month.

Considering the provinces as units, the Transvaal, Free State, Natal and Cape provinces showed deficits amounting respectively to 84%, 35%, 89% and 42% of their mean normal rainfall. The Cape winter rainfall area (as a whole) showed a small deficit of 9%, whilst the summer rainfall area of the same province showed a deficit of 60%. Over the Union as a whole there was a deficit of 57%.

Precipitation occurred mainly from the 8th to the 14th of the month, affecting the Cape Province and Free State, and extending to Natal and parts of the Transvaal on the 13th. Over the southwest Cape, however, there were altogether about 12 days with precipitation.

THUNDERSTORMS:

A few isolated thunderstorms occurred over the centre, northern borders and southeastern interior of the Cape from the 8th to the 12th.

GALES.

Northwesterly to westerly gales occurred mainly along the Cape coastal regions on the 10th, 14th, 15th, 18th and 26th.

SEASONAL PRECIPITATION:

The seasonal rainfall for the period 1st July 1936 to 31st May 1937 (see Chart IV) was above normal except roughly over (a) the western Transvaal, extreme southern Transvaal and northern Free State; (b) the northern borders,

centre and parts of the south and southeast Cape and southern Natal. Over these subnormal areas, however, the seasonal rainfall (on the average) amounted to about 90% of the normal. Only a comparatively small area in the centre Cape around Britstown and Hanover was less favoured (less than 50% of the normal). Taking the provinces as units, the Transvaal, Natal, Free State and Cape provinces showed surplusses amounting respectively to 9%, 24%, 13% and 4% of their mean normal rainfall resulting in a surplus of 6% for the Union as a whole. For this same period the Cape summer rainfall area showed a surplus of 1% and the winter rainfall area a surplus of 13%.

THE CUMULATIVE PRECIPITATION since 1st January 1937 was above normal (1) over part of the winter rainfall area, (2) over the southern Free State, Bechuanaland, Basutoland and extreme northeast Cape province, (3) over northern Natal, eastern Transvaal and parts of centre and northern Transvaal. Over the remainder of the country, rainfall for this period was deficient. Considering the provinces as units the Transvaal, Free State and Natal showed surplusses amounting respectively to 15%, 1% and 13% of their mean normal rainfall, and the Cape Province a deficit of 15%, resulting in a surplus of 12% over the Union as a whole.

D I E U N I E V A N S U I D - A F R I K A.

DEPARTEMENT VAN BESPROEIING.

M A A N D E L I K S E W E E R — V E R S L A G

VAN DIE

WEERKUNDIGE KANTOOR.

DEEL XVIII **M E I** 193[illegible] NO.5.

ALGEMEEN:

Gemiddelde lugdruk oo normaal oor die binneland en iets onder normaal langs die kus: onbestendige weer met buie vanaf 8 tot 14 Mei meestal oor die Kaapprovinsie, Vrystaat en Natal: gemiddelde temperature in die reël oo normaal te naamlik oor die oostelike Unie Ryp het taamlik algemeen voorgekom oor die binneland dwarsdeur die maand. Westelike stormwinde het omtrent vyfmaal voorgekom langs die suidwestelike, suidelike en suidoostelike kusstreke.

LUGDRUK:

Gemiddelde lugdruk sien Kaart I was omtrent Op dieselfde as gewoonlik oor die oostelike binneland, terwyl dit langs die suidkus meer of minder dieselfde hoeveelheid laer was. Die gemiddelde drukgradient van die binneland na die kus was dus ietwat skerper dan gewoonlik. Gedurende die eerste helfte van die maand was die druktoestand taamlik onbestendig: op die 4de, 10de en 14de het daar b.v. goed uitgebeelde laagdruksisteme langs die kus van die suidweste na die ooste toe beweeg; hulle is gewoonlik opgevolg deur hoogdruksisteme of antisiklone wat

ooswaarts oor die land getrek het. Gedurende die laaste helfte van die maand het 'n bestendige antisikloon, wat 'n karakteristiek van ons winterweer is, oor die binneland gelê.

TEMPERATUUR:

Die algemene gemiddelde temperatuur oor die Unie as 'n geheel was 58.7°F of 1.4° bo normaal. Bo-normale temperature het ook oor al die provinsies afsonderlik voorgekom; so was oor die Transvaal die gemiddelde temperatuur 1.5°, oor die Vrystaat 1.3°, oor Natal 1.8° en oor die Kaapprovinsie 1.2° bo normaal.

As ons die distribusie van temperatuur-afwykings van die normale waardes beskou (Kaart II) is dit dadelik duidelik dat die grootste positiewe afwykings, soms meer as 4°, in die oostelike streke, nl. die suid-oostelike Kaap, Natal en die suidoostelike Transvaal, voorgekom het. Oor die westelike en suidwestelike Kaap, gedeeltes van die sentrale Kaap en westelike Vrystaat, sowel as oor 'n paar afgesonderde streke in die Transvaal was die temperature ietwat onder normaal.

Gemiddelde maxima (of dagtemperature) toon min of meer dieselfde distribusie aan, nl. onder normaal oor die westelike en suidwestelike Kaap, en bo-normaal (behalwe vir 'n paar afgesonderde streke) oor die res van die Unie. Soos tevore was die grootste positiewe afwykings van die normale maxima (van 4 tot 9°) te vind in die suidoostelike Kaap, Natal en die suidoostelike Transvaal. Die algemene gemiddelde maximum oor die Transvaal was 3.7°, oor die Vrystaat 3.4°, oor Natal 3.0° en oor die Kaapprovinsie 2.5°F. bo die normaal. Vir die Unie as geheel was die gemiddelde maximum 73.6° of 2.9° bo normaal. Sommige van die hoogste maxima wat in elke provinsie gemeet is volg hier : 95° te King-williamstown (K.P.) op die 10de; 84° te Kroonstad (O.V.S.) op die 12de; 92° te Emmangeni (Natal) op die 2de, en 95.2° te Messina (Tvl.) op die 12de.

Minima (of nagtemperature), was bo normaal oor die suide li en suidoostelike Kaap, Natal en die suidoostelike Transvaal, en in die algemeen onder normaal oor die res van die Unie. Negatiewe afwykings van die normale minima was grootste (omtrent 3°F) in die Vrystaat. As ons die provinsies as eenhede beskou dan was die algemene gemiddelde minima oor die Kaapprovinsie, Transvaal en Vrystaat onder normaal met 0.1°, 0.7° en 0.8°F. respektiewelik, terwyl Natal 'n gemiddelde, wat 0.6° bo normaal was, aangetoon het. Oor die Unie as 'n geheel was die gemiddelde minimum 43.7° of 0.2° onder normaal. Die volgende is sommige van die laagste indiwiduele minimum temperature wat in elke provinsie gemeet is : 22° te Standerton (Tvl.) op die 19de; 30° te Ladysmith (Natal) op die 8ste; 21° te Lindley (O.V.S.) op die 19de, en 23.7° te Grootfontein (K.P.) op die 16de.

RYP:

Ryp het algemeen oor die binnelandse hooglande van die Unie voorgekom.

NEERSLAG:

Gedurende Mei was die neerslag onder normaal oor die grootste gedeelte van die Unie. Die volgende streke het heeltemaal geen reën

ontvang nie : (a) die noordelike, sentrale, en gedeeltes van die oostelike Transvaal; (b) die binneland van Natal en die mees oostelike Vrystaat; (c) kleiner streke rondom Hanover, Kenhardt en Garies in die noordwestelike Kaapland. Oor die res van die Unie het daar minder dan half die normale hoeveelhede geval, behalwe oor die suidelike en westelike Vrystaat, gedeeltes van die suidelike en suidoostelike Kaapland, en oor die suidwestelike Kaap, waar sekere streke (sien Kaart III) 'n bo-normale neerslag gehad het.

Beskou ons nou die provinsies as eenhede, dan het die Transvaal, Vrystaat, Natal en Kaapprovinsie tekorte aangetoon wat respektiewelik 84%, 35%, 89% en 42% van hulle normale reënval bedra. Die Kaapse winter reënvalstreek (as 'n geheel) het 'n klein tekort van 9%, terwyl die somer reënvalstreek van dieselfde provinsie 'n tekort van 60% aangetoon het. Oor die Unie as geheel was daar 'n tekort van 57%.

Gedurende hierdie maand het reën vernaamlik voorgekom vanaf die 8ste tot die 14de, en wel meestal oor die Kaapprovinsie en Vrystaat; op die 13de het reën kondiesies ook deurgedring tot Natal en gedeeltes van die Transvaal. Oor die suidwestelike Kaap egter, het dit op omtrent 12 dae van die maand gereën.

DONDERSTORMS:

Vanaf die 8ste tot die 12de het daar 'n paar verspreide donderstorms voorgekom in die sentrale, noordelike grensgebiede en suidoostelike binneland van die Kaapprovinsie.

STORMWINDE:

Op die 10de, 14de, 15de, 18de en 20ste het daar noordwestelike tot westelike stormwinde voorgekom langs die kusstreke van die Kaapprovinsie.

DIE SEISOEN-NEERSLAG:

Die seisoen-neerslag vir die tydperk 1 Julie 1936 tot 31 Mei 1937 (sien Kaart IV) was bo normaal behalwe oor (a) die westelike Transvaal, die uiterste suidelike Transvaal en noordelike Vrystaat; (b) die noordelike grensgebiede, die sentrale en gedeeltes van die suidelike en suidoostelike Kaap en suidelike Natal. Oor hierdie subnormale streke, egter, was die seisoen-neerslag gemiddeld omtrent 80% van die normaal. Net 'n betreklike klein streek in die sentrale Kaap, om en by Britstown en Hanover het minder dan 50% van die normale neerslag ontvang. Apart beskou het al vier die provinsies 'n surplus aangetoon, wat vir die Transvaal 9%, vir Natal 24%, vir die Vrystaat 13% en vir die Kaapprovinsie 4% van hulle respektiewe normale bedra het, en wat vir die Unie as 'n geheel 'n surplus van 6% beteken het. Vir dieselfde tydperk het die somer reënvalstreek van die Kaap 'n surplus van 4%, en die winter reënvalstreek 'n surplus van 13% gehad.

DIE VERSAMELDE REËNVAL IN DIE TYDPERK 1 Januarie 1937 tot 31 Mei 1937 was bo normaal (1) oor 'n gedeelte van die winter reenvalstreek; (2) oor die suidelike Vrystaat, Betsjoeanaland, Basoetoeland en die uiterste noordoostelike Kaapprovinsie, en (3) die noordelike Natal, die oostelike Transvaal en gedeeltes van die sentrale en noordelike Transvaal. Oor die res van ons land was daar vir hierdie tydperk 'n tekort aan reënval. As eenhede beskou, het die Transvaal, Vrystaat en Natal surplusse van respektiewelik 15%, 1% en 13% gehad, terwyl die Kaapprovinsie 'n tekort van 15% aangetoon het. Oor die Unie as 'n geheel was daar vir hierdie tydperk 'n surplus van 12%.

AIR TEMPERATURES : MAY 1937.
LUG TEMPERATURE : MEI 1937.

STATION STASIE	MAXIMUM Mean Gem.	Norm.	Diff. Versk.	MINIMUM Mean Gem.	Norm.	Diff. Versk.	MONTHLY MEAN Mean	Norm.	Diff.	ABS. MAX.	DATE DATUM	ABS. MIN.	DATE DATUM
CAPE PROVINCE:													
KAAP PROVINSIE:													
ALIWAL NORTH	68.5	66.9	+1.6	34.6	35.7	-1.1	51.6	51.3	+0.3	80.0	10	27.0	14
BRITSTOWN		70.4			43.6			57.0					
CAPE L'AGULHAS	64.7	64.8	-0.1	54.0	53.9	+0.1	59.4	59.4	+0.0	73.0	28	45.0	13
CAPE TOWN		67.4			51.0			59.2					
CALA	71.4	68.8	+2.6	45.9	42.9	+3.0	58.7	55.9	+2.8	82.5	10	34.0	22
CARNARVON	68.4	66.9	+1.5	37.4	38.3	-0.9	52.9	52.6	+0.3	79.0	2	30.0	13
CERES	66.5	66.9	-0.4	39.7	39.8	-0.1	53.1	53.4	-0.3	82.0	1	34.0	16
CRADOCK	74.1	69.8	+4.3	41.3	39.3	+2.0	57.7	54.6	+3.1	85.0	11	29.0	17
CLANWILLIAM	76.0	75.7	+0.3	43.6	45.9	-2.3	59.8	60.8	-1.0	94.0	2	38.0	25
DEEPWALLS	68.0	66.3	+1.7	50.7	50.6	+0.1	59.4	58.5	+0.9	87.7	1	35.0	13
EAST LONDON	73.2	71.5	+1.7	52.8	53.7	-0.9	63.0	62.6	+0.4	91.0	10	42.0	14
GOODHOUSE		80.4			52.2			66.3					
GRAAFF REINET	74.6	71.7	+2.9	44.1	46.3	-2.2	59.4	59.0	+0.4	88.0	1	31.8	18
GRAHAMSTOWN	72.4	69.5	+2.9	44.7	44.9	-0.2	58.6	57.2	+1.4	86.6	10	33.2	16
GT. DRAKENSTEIN	68.6	70.0	-1.4	44.1	47.0	-2.9	56.4	58.5	-2.1	85.2	3	36.5	16
GROOTFONTEIN	69.8	66.8	+3.0	38.9	37.6	+1.3	54.4	52.2	+2.2	78.6	10	23.7	16
HOPETOWN	74.2	71.0	+3.2	39.2	40.0	-0.8	56.7	55.5	+1.2	85.0	10	27.0	14
IDUTYWA	75.1	65.8	+9.3	47.8	47.5	+0.3	61.5	56.7	+4.8	90.0	10	36.5	21
KENHARDT	76.5	74.1	+2.4	42.8	42.5	+0.3	59.7	58.3	+1.4	85.5	9	31.8	14
KIMBERLEY	73.1	69.8	+3.3	44.8	42.0	+2.8	59.0	55.9	+3.1	85.9	10	33.4	14
KINGWILLIAMSTOWN	76.6	73.4	+3.2	47.3	46.5	+0.8	62.0	60.0	+2.0	95.0	10	36.0	16
KLAVER	75.5	76.7	-1.2	48.0	50.2	-2.2	61.8	63.5	-1.7	94.3	3	42.1	19
KOKSTAD	71.9	66.7	+5.2	40.0	37.8	+2.2	56.0	52.3	+3.7	82.0	10	30.4	24
KURUMAN	73.3	71.3	+2.0	38.3	39.6	-1.3	55.8	55.5	+0.3	84.0	10	31.0	19
MAFEKING	76.1	72.2	+3.9	41.1	41.1	+0.0	58.6	56.7	+1.9	86.3	10	31.0	15
MOSSEL BAY	71.8	68.4	+3.4	55.3	53.4	+1.9	63.6	60.9	+2.7	85.0	4	47.0	13
NELSPOORT	70.7	69.6	+1.1	44.0	43.8	+0.2	57.4	56.7	+0.7	81.0	3	30.5	16
O'OKIEP	72.7	70.0	+2.7	47.9	48.4	-0.5	60.3	59.2	+1.1	85.0	1	32.7	13
OUDTSHOORN	74.7	70.8	+3.9	40.9	44.3	-3.4	57.8	57.6	+0.2	89.0	1	32.0	17
PORT ELIZABETH	72.2	69.6	+2.6	55.2	53.7	+1.5	63.7	61.7	+2.0	94.0	1	47.0	24
PORT NOLLOTH	66.0	66.8	-0.8	46.7	48.0	-1.3	56.4	57.4	-1.0	87.5	23	40.0	21
PORT ST. JOHNS	74.8	74.3	+0.5	60.7	56.7	+4.0	67.8	65.5	+2.3	91.0	2	54.0	19
POSTMASBURG	72.0	69.6	+2.4	49.2	44.5	+4.7	60.6	57.1	+3.5	82.3	10	33.6	14
PRIESKA	72.0	71.4	+0.6	39.8	41.8	-2.0	55.9	56.6	-0.7	81.0	9	30.0	14
QUEENSTOWN	73.8	68.3	+5.5	43.5	40.8	+2.7	58.7	54.6	+4.1	85.0	10	30.0	24
RIETPOORT		74.1			49.3			61.7					
SOMERSET EAST	74.6	69.4	+5.2	48.4	45.4	+3.0	61.5	57.4	+4.1	89.2	10	35.0	16
SUTHERLAND	64.3	62.2	+2.1	34.9	35.6	-0.7	49.6	48.9	+0.7	75.0	2	24.0	19
ST. HELENA'S HOPE	71.8	68.3	+3.5	52.3	50.5	+1.8	62.1	59.4	+2.7	86.0	10	41.0	16
STELLENBAGE	76.1	74.4	+1.7	49.0	46.7	+2.3	62.6	60.6	+2.0	94.0	1	38.4	16
UMTATA	79.1	73.1	+6.0	42.5	43.2	-0.7	60.8	58.2	+2.6	93.0	10	33.0	19
WELLINGTON	78.0	75.5	+2.5	45.5	46.9	-1.4	61.8	61.2	+0.6	88.3	9	34.0	14
WILD-EN WYK'S VLEI	72.4	72.9	-0.5	39.8	46.5	-6.7	56.1	59.7	-3.6	83.0	3	30.0	15
VICTORIA WEST		66.3			37.3			51.8					
WYNBURG	76.4	71.9	+4.5	35.4	38.1	-2.7	55.9	55.0	+0.9	87.0	11	27.0	21
WILLOWMORE	70.6	67.3	+3.3	42.7	40.6	+2.1	56.7	54.0	+2.7	87.0	1	28.0	17
TRANSVAAL:													
BARBERTON	79.1	75.2	+3.9	55.4	51.7	+3.7	67.3	63.5	+3.8	84.2	7	49.4	24
BELFAST	67.3	64.2	+3.1	31.9	34.0	-2.1	49.6	49.1	+0.5	76.0	12	24.0	19
CHRISTIANA	70.4	72.3	-1.9	36.3	40.0	-3.7	53.4	56.2	-2.8	85.0	11	26.0	15
ERMELO	73.5	66.9	+6.6	39.3	37.7	+1.6	56.4	52.3	+4.1	83.0	11	27.0	15
HEIDELBERG	73.0	68.4	+4.6	33.1	36.0	-2.9	53.1	52.2	+0.9	83.1	11	26.4	19
JOHANNESBURG	682	64.0	+4.2	48.4	45.2	+3.2	58.3	54.6	+3.7	76.2	11	39.0	15
KLERKSDORP		72.4			39.7			56.1					
KOMATIPOORT	86.5	82.3	+4.2	52.1	53.5	-1.4	69.3	67.9	+1.4	94.0	9	42.0	3
KOPJE ALLEEN	78.0	74.4	+3.6	41.4	43.3	-1.9	59.7	58.9	+0.8	88.3	12	34.2	29

AIR TEMPERATURES : MAY 1937 (CONTD.)
LUG TEMPERATURE : MEI 1937 (VERVOLG).

STATION STASIE	MAXIMUM Mean Gem.	Norm.	Diff. Versk.	MINIMUM Mean Gem.	Norm.	Diff. Versk.	MONTHLY MEAN Mean Gem.	Norm.	Diff. Versk.	ABS. MAX.	DATE DATUM	ABS. MIN	DATE DATUM
TRANSVAAL (CONTD.) (VERVOLG)													
LOUIS TRICHARDT	76.5	73.3	+3.2	47.6	47.7	-0.1	62.1	60.5	+1.6	89.0	12	37.0	30
MARKEN	78.7	75.6	+3.1	43.3	45.1	-1.8	61.0	60.4	+0.6	88.0	12	33.1	30
MESSINA	84.0	79.5	+4.5	58.4	54.8	+3.6	71.2	67.2	+4.0	95.2	12	48.8	21
MIDDELBURG	72.8	70.5	+2.3	32.4	36.6	-4.2	52.6	53.6	-1.0	81.0	12	24.0	19
NYLSTROOM	75.9	73.7	+2.2	39.3	41.4	-2.1	57.6	57.6	+0.0	88.5	12	31.0	3
PIETERSBURG	74.5	72.4	+2.1	39.9	42.7	-2.8	57.2	57.5	-0.3	83.9	12	31.0	29
PIET RETIEF	75.4	69.7	+5.7	45.8	44.3	+1.5	60.6	57.0	+3.6	85.0	11	36.0	24
PILGRIMS REST	74.2	70.1	+4.1	40.0	41.8	-1.8	57.1	56.0	+1.1	83.0	12	30.0	29
POTCHEFSTROOM	73.5	71.6	+1.9	37.3	37.9	-0.6	55.4	54.8	+0.6	85.5	11	26.0	19
PRETORIA	75.6	71.7	+3.9	43.6	42.8	+0.8	59.6	57.3	+2.3	82.9	12	35.6	19
RUSTENBURG	77.4	73.8	+3.6	40.4	42.9	-2.5	58.9	58.4	+0.5	86.0	12	34.0	31
STANDERTON	74.5	68.7	+5.8	33.1	32.8	+0.3	53.8	50.8	+3.0	83.0	12	22.0	19
WAKKERSTROOM	71.0	64.7	+6.3	33.2	34.1	-0.9	52.1	49.4	+2.7	78.9	12	22.1	30
ZEERUST	77.6	72.6	+5.0	37.7	38.8	-1.1	57.7	55.7	+2.0	86.5	11	29.1	19
NATAL.													
DUNDEE	75.5	70.8	+4.7	41.5	40.2	+1.3	58.5	55.5	+3.0	85.0	11	34.0	19
DURBAN POINT	77.0	74.9	+2.1	62.3	59.2	+3.1	69.7	67.1	+2.6	91.6	2	55.8	19
EMPANGENI	79.9	76.4	+3.5	56.7	55.8	+0.9	68.3	66.1	+2.2	92.0	2	50.0	21
ESHOWE	77.3	72.6	+4.7	56.6	55.8	+0.8	67.0	64.2	+2.8	87.2	11	49.8	19
ESTCOURT		70.1			40.1			55.1					
LADYSMITH	70.1	73.4	-3.3	39.0	42.2	-3.2	54.6	57.8	-3.2	89.0	11	30.0	8
PIETERMAAITZBURG	79.5	72.8	+6.7	48.8	49.3	-0.5	64.2	61.1	+3.1	92.6	11	41.0	19
OTOBOTINI	81.5	80.5	+1.0	57.3	58.0	-0.7	69.4	69.3	+0.1	91.0	2	51.0	20
PORT SHEPSTONE	74.8	73.4	+1.4	58.0	57.5	+0.5	66.4	65.5	+0.9	93.0	2	49.0	20
STANGER	81.1	76.6	+4.5	59.8	57.7	+2.1	70.5	67.2	+3.3	94.0	2	54.0	23
VRYHEID	77.4	71.3	+6.1	47.8	45.3	+2.5	62.6	58.3	+4.3	84.5	29	40.0	19
WEENEN	78.0	76.1	+1.9	39.5	39.6	-0.1	58.8	57.9	+0.9	90.0	11	31.0	31
O.F.S. : O.V.S.													
BETHULIE	70.1	67.5	+2.6	39.2	38.2	+1.0	54.7	52.9	+1.8	77.9	3	28.4	18
BLOEMFONTEIN	69.3	66.9	+2.4	34.9	38.3	-3.4	52.1	52.6	-0.5	81.2	10	24.4	14
FAURESMITH	69.2	67.1	+2.1	35.4	38.9	-3.5	52.3	53.0	-0.7	81.0	10	25.5	14
HARRISMITH	67.0	61.4	+5.6	44.7	38.0	+6.7	55.9	49.7	+6.2	75.0	11	35.0	18
KROONSTAD	73.1	68.9	+4.2	33.2	36.3	-3.1	53.2	52.6	+0.6	84.0	12	24.0	19
LADYBRAND	67.1	63.6	+3.5	37.4	38.3	-0.9	52.3	51.0	+1.3	76.0	12	32.0	19
LINDLEY	72.1	67.8	+4.3	32.2	35.0	-2.8	52.2	51.4	+0.8	82.0	11	21.0	19
WEPENER	68.8	66.6	+2.2	35.0	35.4	-0.4	51.9	51.0	+0.9	78.2	10	25.0	19
BASUTOLAND - BASOETOELAND:													
BUTHA BUTHE	68.3	67.3	+1.0	35.2	34.4	+0.8	51.8	50.9	+0.9	77.0	11	29.0	23
MAFETENG	66.7	62.1	+4.6	45.3	39.1	+6.2	56.0	50.6	+5.4	76.0	11	31.0	6
MOHALES HOEK	64.4	66.9	-2.5	36.3	38.4	-2.1	50.4	52.7	-2.3	74.0	9	31.0	19
MOKHOTLONG		61.3		29.8	30.7	-0.9		46.0				23.0	24
QACHASNEK	64.7	60.7	+4.0	41.9	38.3	+3.6	53.3	49.5	+3.8	74.0	11	34.0	16
BECHUANALAND - BETSJOEANALAND:													
DIKGATLONG	82.4	78.9	+3.5	40.1	40.4	-0.3	61.3	59.7	+1.6	95.0	12	32.0	29
GABERONES	80.6	76.7	+3.9	37.6	41.3	-3.7	59.1	59.0	+0.1	92.0	13	29.0	19
MAHALAPYE	80.7	77.2	+3.5	42.0	44.4	-2.4	61.4	60.8	+0.6	91.0	11	33.0	19
SWAZILAND - SWASIELAND:													
MBABANE	73.3	73.9	-0.6	48.6	53.0	-4.4	61.0	63.5	-2.5	82.0	29	39.0	24
STEGI	76.0	72.0	+4.0	55.8	53.4	+2.4	65.9	62.7	+3.2	83.0	13	50.0	24

RAINFALL : MAY 1937.
NEERSLAG : MEI 1937.

STATION STASIE	MAY MEI 1937.	NORM.	DIFF. VERSK.	%	FROM 1.1.37 VANAF	NORM.	DIFF. VERSK.	FROM 1.7.36 VANAF	NORM.	DIFF. VERSK.	SEASONAL % SEISOEN
CAPE PROVINCE - SUMMER RAINFALL AREA.											
KAAPPROVINSIE - SOMER REENVAL STREEK.											
ALIWAL NORTH	0.98	0.77	+0.21	127	8.67	11.16	-2.49	20.36	18.55	+1.81	110
BEAUFORT WEST	0.01	0.61	-0.60	2	1.65	5.46	-3.81	5.41	8.91	-3.50	61
BEDFORD	0.58	1.50	-0.92	39	10.17	14.41	-4.24	25.58	26.50	-0.92	97
BRITSTOWN		0.64				7.37			10.58		
CARNARVON	0.57	0.60	-0.03	95	4.70	5.21	-0.51	8.04	7.50	+0.54	107
EAST LONDON	1.14	2.29	-1.15	50	13.50	14.81	-1.31	29.34	30.99	-1.65	95
FRASERBURG	0.22	0.58	-0.36	38	3.27	4.28	-1.01	5.99	6.24	-0.25	96
GEORGE	0.39	2.58	-2.19	15	13.04	15.06	-2.02	35.79	32.06	+3.73	111
GRAAFFREINET	0.72	1.01	-0.29	71	10.06	7.37	+2.69	20.65	13.49	+7.16	153
GRAHAMSTOWN	0.55	1.19	-0.64	46	5.34	9.21	-3.87	21.23	19.90	+1.33	106
GRIQUATOWN	0.00	0.73	-0.73	0	9.16	8.47	+0.69	11.82	12.31	-0.49	98
GROOTFONTEIN	0.22	0.56	-0.34	39	5.15	8.08	-2.93	12.45	13.23	-0.78	95
HANOVER	0.00	0.95	-0.95	0	2.98	8.99	-6.01	5.28	13.53	-8.25	39
HOPETOWN	0.08	0.75	-0.67	11	6.58	7.88	-1.30	11.82	11.90	-0.08	100
IDUTYWA	1.32	0.90	+0.42	147	10.77	11.06	-0.29	24.57	23.79	+0.78	103
KENHARDT	0.00	0.39	-0.39	0	3.84	3.91	-0.07	5.22	5.49	-0.27	95
KIMBERLEY	0.96	0.64	+0.32	150	10.58	9.73	+0.85	20.66	15.36	+5.30	135
KINGWILLIAMSTOWN	1.13	1.45	-0.32	78	7.44	12.34	-4.90	19.13	24.11	-4.98	79
KOKSTAD	0.13	1.01	-0.88	13	18.23	15.78	+2.45	29.33	29.52	-0.19	99
MATJESFONTEIN	0.13	0.77	-0.64	17	0.78	2.80	-2.02	7.47	5.62	+1.85	133
MACLEAR	0.17	0.89	-0.72	19	18.33	18.29	+0.04	32.26	32.66	-0.40	99
MAFEKING	0.12	0.46	-0.34	26	11.60	11.45	+0.15	21.73	20.35	+1.38	105
MOSSEL BAY	0.11	1.50	-1.39	7	4.72	7.08	-2.36	15.31	15.72	-0.41	103
PHILIPSTOWN		0.86				8.48			12.65		
PORT ELIZABETH	1.65	2.38	-0.73	69	4.74	8.62	-3.88	18.33	21.05	-2.72	87
PORT ST. JOHNS	0.45	2.75	-2.30	16	21.83	22.41	-0.58	48.57	45.74	+2.83	106
PRIESKA	0.09	0.59	-0.50	15	3.73	6.58	-2.85	4.88	9.13	-4.25	72
PRINCE ALBERT RD.	0.00	0.39	-0.39	0		2.20			3.92		
QUEENSTOWN	0.69	0.85	-0.16	78	7.73	12.72	-4.99	21.19	21.74	-0.55	97
SOMERSET EAST	0.44	1.20	-0.76	37	5.67	11.47	-5.80	21.11	21.45	-0.34	98
STEYNSBURG	0.24	0.80	-0.56	30	7.17	8.85	-1.68	16.07	14.32	+1.75	112
STEYTLERVILLE	0.75	0.59	+0.16	127	3.29	4.83	-1.54	8.63	8.86	-0.23	97
SWELLENDAM	0.08	2.78	-2.70	3	10.13	13.50	-3.37	34.49	28.80	+5.69	120
SYDNEYS HOPE	0.63	1.87	-1.24	34	5.18	10.27	-5.09	17.43	21.53	-4.10	81
UITENHAGE	0.94	1.28	-0.34	73	4.26	8.20	-3.94	16.52	17.94	-1.42	92
UMTATA	0.44	1.06	-0.62	42	12.71	13.47	-0.76	26.65	24.77	+1.88	107
UNIONDALE	0.10	1.46	-1.36	7	1.53	5.73	-4.20	9.19	12.07	-2.88	76
UPINGTON	0.07	0.52	-0.45	13	3.57	5.22	-1.65	5.51	7.10	-1.59	78
VICTORIA WEST	0.31	0.65	-0.34	48	3.70	5.28	-1.58	7.56	8.67	-1.11	87
VRYBURG	0.22	0.60	-0.38	37	15.80	12.72	+3.08	23.09	18.74	+4.35	123
CAPE PROVINCE - WINTER RAINFALL AREA:											
KAAPPROVINSIE - WINTER REENVAL STREEK:											
CALEDON		2.41				7.08			18.37		
CALVINIA	0.52	1.07	-0.55	49	1.97	3.50	-1.53	10.27	6.97	+3.30	147
CERES	6.70	5.67	+1.03	118	16.41	11.05	+5.36	42.74	33.02	+9.72	129
CLANWILLIAM	0.64	1.29	-0.65	50	1.54	2.69	-1.15	7.89	6.95	+0.94	114
CARIES	0.00	0.65	-0.65	0	0.59	1.57	-0.98	5.68	4.15	+1.53	137
GT. DRAKENSTEIN	6.32	4.98	+1.34	127	14.02	10.44	+3.58	29.70	28.71	+0.99	104
OOKIEP	0.30	0.91	-0.61	33	1.58	2.44	-0.86	5.10	5.51	-0.41	93
PIQUETBERG	1.99	2.75	-0.76	72	4.77	5.88	-1.11	13.79	16.68	-2.89	83
PORT NOLLOTH	0.40	0.38	+0.02	105	0.74	0.87	-0.13	1.91	1.99	-0.08	96
SUTHERLAND	0.45	1.11	-0.66	41	4.33	4.11	+0.22	11.38	7.92	+3.46	144
WORCESTER	1.10	1.50	-0.40	73	3.88	3.71	+0.17	13.73	10.01	+3.72	137
BECHUANALAND - BETSJOEANALAND:											
MAHALAPYE	0.00	0.42	-0.42	0	11.25	10.08	+1.17	20.87	16.87	+4.00	124
DIKGATLONG	0.00	0.57	-0.57	0	9.25	10.05	-0.80	15.19	16.92	-1.73	90
GABERONES	0.16	0.48	-0.32	33	14.22	11.51	+2.71	21.12	19.60	+1.52	108

RAINFALL : MAY 1937 (CONTD).
NEERSLAG : MEI 1937 (VERVOLG).

STATION STASIE	MAY 1937 MEI	NORM.	DIFF. VERSK.	%	FROM 1.1.37 VANAF	NORM.	DIFF. VERSK.	FROM 1.7.36 VANAF	NORM.	DIFF. VERSK.	SEASONAL % SEISOEN
O.F.S. : O.V.S.											
BETHULIE	0.93	0.75	+0.18	124	6.97	11.71	-4.74	19.18	18.08	+1.10	106
BLOEMFONTEIN	0.49	0.97	-0.48	51	13.11	12.91	+0.20	22.38	20.39	+1.99	110
BOSHOF	0.57	0.72	-0.15	79	14.57	11.24	+3.33	23.50	18.06	+5.44	130
FAURESMITH	0.92	0.52	+0.40	177	10.99	7.83	+2.76	20.50	14.35	+6.15	143
HARRISMITH	0.00	0.81	-0.81	0	13.34	14.78	-1.44	28.01	29.08	-1.07	97
KROONSTAD	0.15	0.75	-0.60	20	10.27	12.35	-2.08	23.85	23.04	+0.81	104
LADYBRAND	0.59	1.01	-0.42	58	17.70	14.91	+2.79	33.58	27.00	+6.58	124
LINDLEY	0.04	0.88	-0.84	5	12.86	13.36	-0.50	28.55	24.44	+4.11	117
VREDE		0.68				13.53			27.09		
WINBURG		0.65				12.70			21.67		
WITNEK	1.13	1.01	+0.12	112	15.22	14.91	+0.31	27.33	25.41	+1.92	107
NATAL.											
DUNDEE	0.00	0.72	-0.72	0	21.35	16.79	+4.56	36.78	31.77	+5.01	116
DURBAN	0.34	2.64	-2.30	13	15.71	22.13	-6.42	37.36	43.31	-5.95	87
EMPANGENI	0.31	2.70	-2.39	11	21.85	21.26	+0.59	42.23	40.56	+1.67	104
ESTCOURT		0.59				15.77			28.54		
LADYSMITH	0.00	0.63	-0.63	0	17.06	16.11	+0.95	33.04	29.56	+3.48	112
MELMOTH	0.05	1.06	-1.01	5	14.12	16.00	-1.88	26.97	30.87	-3.90	87
MOBOTINI	0.29	0.57	-0.28	51	20.34	12.65	+7.69	34.84	22.57	+12.27	155
PIETERMARITZBURG	0.14	1.04	-0.90	13	13.18	18.74	-5.56	29.79	35.57	-5.78	84
STANGER	0.26	1.88	-1.62	14	15.67	19.24	-3.57	38.83	39.93	-1.10	97
TROMBO	0.05	1.22	-1.17	4	23.24	17.73	+5.51	37.86	34.73	+3.13	109
VRYHEID	0.00	0.66	-0.66	0	21.63	17.06	+4.57	37.16	33.80	+3.36	110
WEENEN	0.00	0.55	-0.55	0	10.18	14.12	-3.94	22.80	26.13	-3.33	87
BASUTOLAND : BASOETOELAND:											
MAFETENG	1.00	1.34	-0.34	75	19.60	17.63	+1.97	34.93	29.26	+5.67	116
BUTHA BUTHE	0.18	0.92	-0.74	20	21.27	17.40	+3.87	36.18	31.82	+4.36	113
MOKHOTLONG	0.09	0.94	-0.85	10	11.82	11.03	+0.79	25.20	21.10	+4.10	119
MOHALESHOEK	1.15	1.46	-0.31	79	24.78	16.07	+8.71	40.12	27.32	+12.80	147
QACHASNEK	0.32	0.92	-0.60	35	21.52	19.56	+1.96	35.58	34.99	+0.59	102
SWAZILAND : SWASIELAND:											
MBABANE	0.41	1.32	-0.91	31	46.99	29.23	+17.76	71.08	53.49	+17.59	133
TRANSVAAL:											
BARBERTON	0.00	0.90	-0.90	0	26.86	16.44	+10.42	41.17	29.93	+11.24	138
BELFAST	0.00	0.74	-0.74	0	21.05	15.80	+5.25	34.59	30.91	+3.68	112
BETHAL	0.00	0.61	-0.61	0	14.31	14.03	+0.28	30.04	28.54	+1.50	105
BLOEMHOF	0.20	0.56	-0.36	36	8.82	11.59	-2.77	13.77	18.18	-4.41	76
BLIM HOSPITAL	0.07	0.79	-0.72	9	19.63	19.94	-0.31	28.72	31.05	-2.33	92
ERMELO	0.05	0.68	-0.63	7	18.60	13.36	+5.24	32.64	28.97	+3.67	113
HAENERTSBURG	0.00	1.31	-1.31	0	29.62	23.16	+6.46	49.15	36.88	+12.27	133
HEIDELBERG	0.21	0.58	-0.37	36	13.55	14.45	-0.90	26.42	27.89	-1.47	95
JOHANNESBURG OBS.	0.26	0.73	-0.47	36	18.94	15.74	+3.20	29.36	29.29	+0.07	100
JOUBERT PARK	0.22	0.77	-0.55	29	23.38	17.89	+5.49	36.83	32.42	+4.41	114
KOMATIPOORT	0.00	0.74	-0.74	0	31.32	16.37	+14.95	50.24	25.54	+24.70	197
LICHTENBURG	0.06	0.63	-0.57	10	12.19	13.84	-1.65	21.54	23.33	-1.79	92
MESSINA	0.00	0.44	-0.44	0	7.01	7.99	-0.98	14.58	14.22	+0.36	102
MIDDELBURG	0.00	0.63	-0.63	0	11.93	14.82	-2.89	28.46	28.71	-0.25	99
NYLSTROOM	0.00	0.52	-0.52	0	13.69	14.12	-0.43	22.73	24.30	-1.57	93
PIETERSBURG	0.01	0.41	-0.40	2	14.95	11.21	+3.74	23.89	20.47	+3.42	117
PIET RETIEF	0.69	0.71	-0.02	97	23.49	17.35	+6.14	42.04	35.31	+6.73	119
PILGRIMS REST	0.05	1.02	-0.97	5	30.09	24.27	+5.82	48.91	38.52	+10.39	127
POTCHEFSTROOM	0.15	0.64	-0.49	23	9.55	13.11	-3.56	21.75	23.52	-1.77	92
PRETORIA	0.00	0.64	-0.64	0	16.93	15.12	+1.81	28.52	28.20	+0.32	101
ROODBERG	0.00	0.57	-0.57	0	13.62	12.89	+0.73	20.81	23.14	-2.33	90
RUSTENBURG	0.21	0.63	-0.42	33	12.60	14.34	-1.74	22.35	25.36	-3.01	88
STANDERTON	0.12	0.66	-0.54	18	12.05	14.78	-2.73	24.52	29.34	-4.82	84
VILLA NORA	0.00	0.46	-0.46	0	13.90	10.04	+3.86	19.97	17.45	+2.52	14
WAKKERSTROOM	0.00	0.71	-0.71	0	19.14	15.19	+3.95	30.48	30.63	-0.15	99
WOODBUSH	0.29	1.79	-1.50	16	52.97	42.05	+10.92	86.56	67.52	+19.04	128
ZEERUST	0.05	0.73	-0.68	7	9.27	13.55	-4.28	17.57	23.10	-5.53	76

VEERKAART —— WEATHER MAP

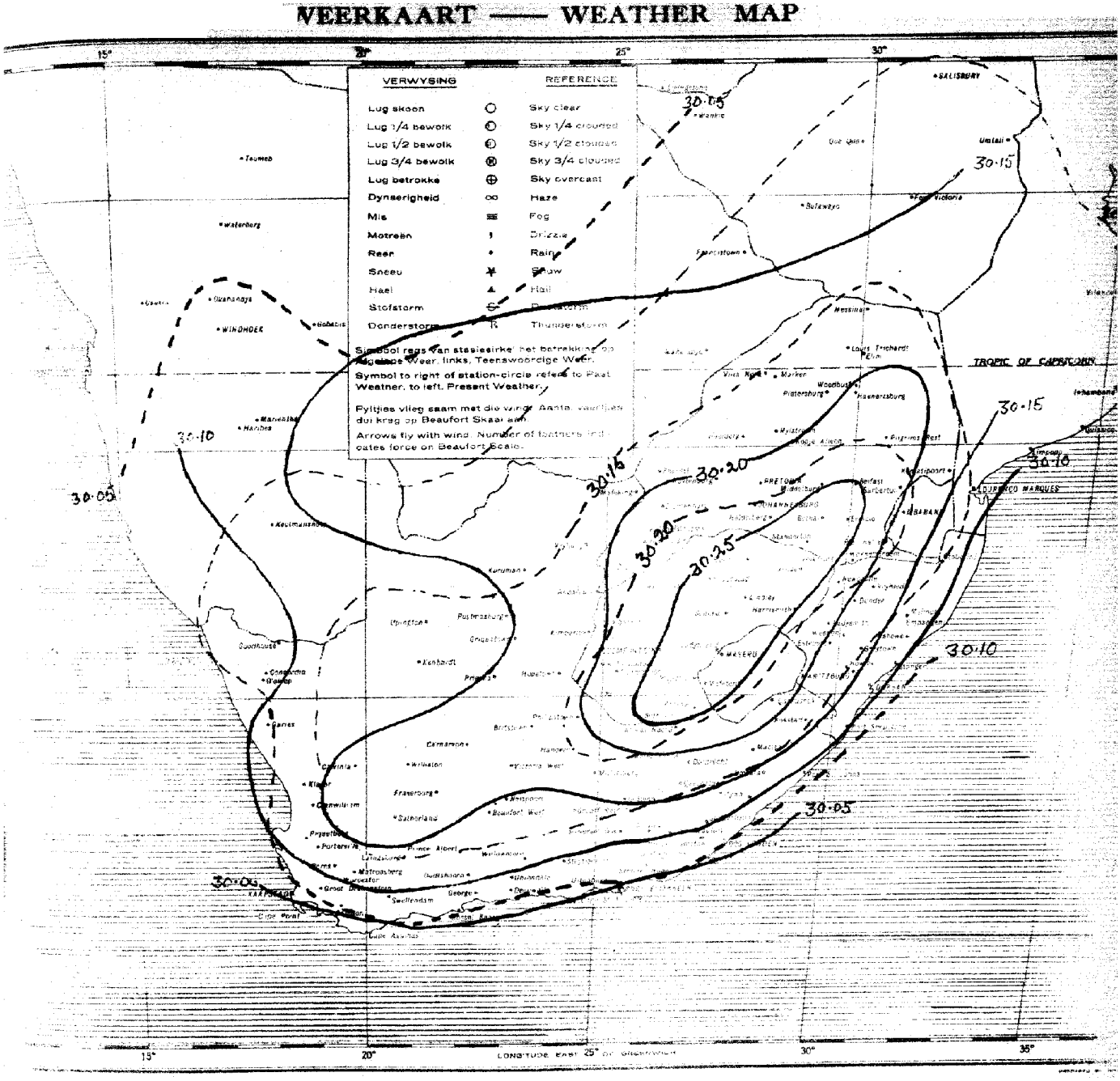


CHART I.

MAY 1937 - Mean Atmospheric Pressure (at M.S.L.) at 8.30 a.m. The broken lines indicate the normal distribution for May.

KAART I.

MEI 1937 - Gemiddelde Lugdruk (by seespieël) om 8.30 v.m. Die gebroke lyne dui die normale distribusie vir Mei aan.

WEERKAART —— WEATHER MAP

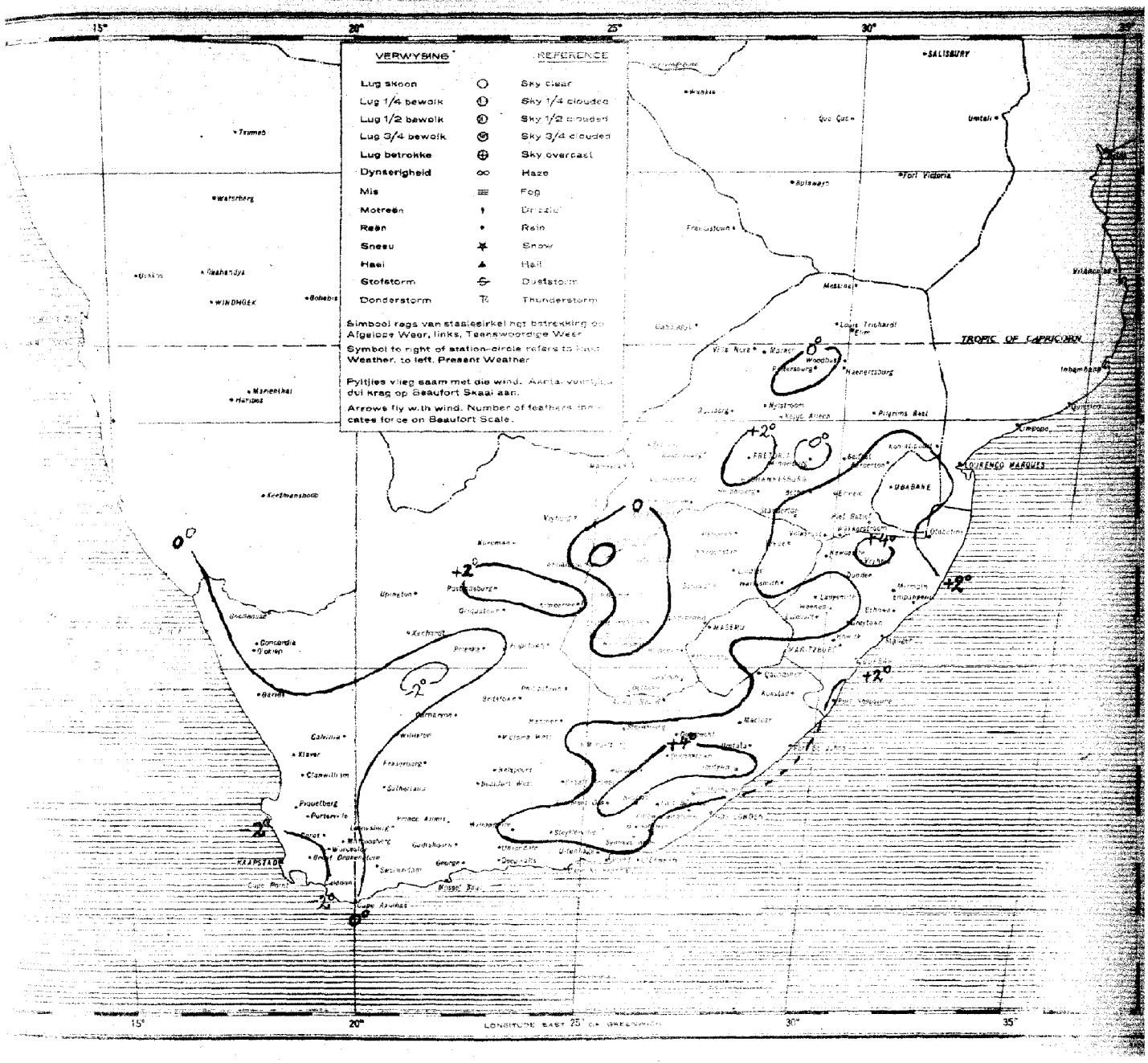


CHART II.

MAY 1937 - Mean Temperature - deviation from Normal in °F.

KAART II.

MEI 1937 - Gemiddelde Temperatuur - afwyking van die Normaal in °F

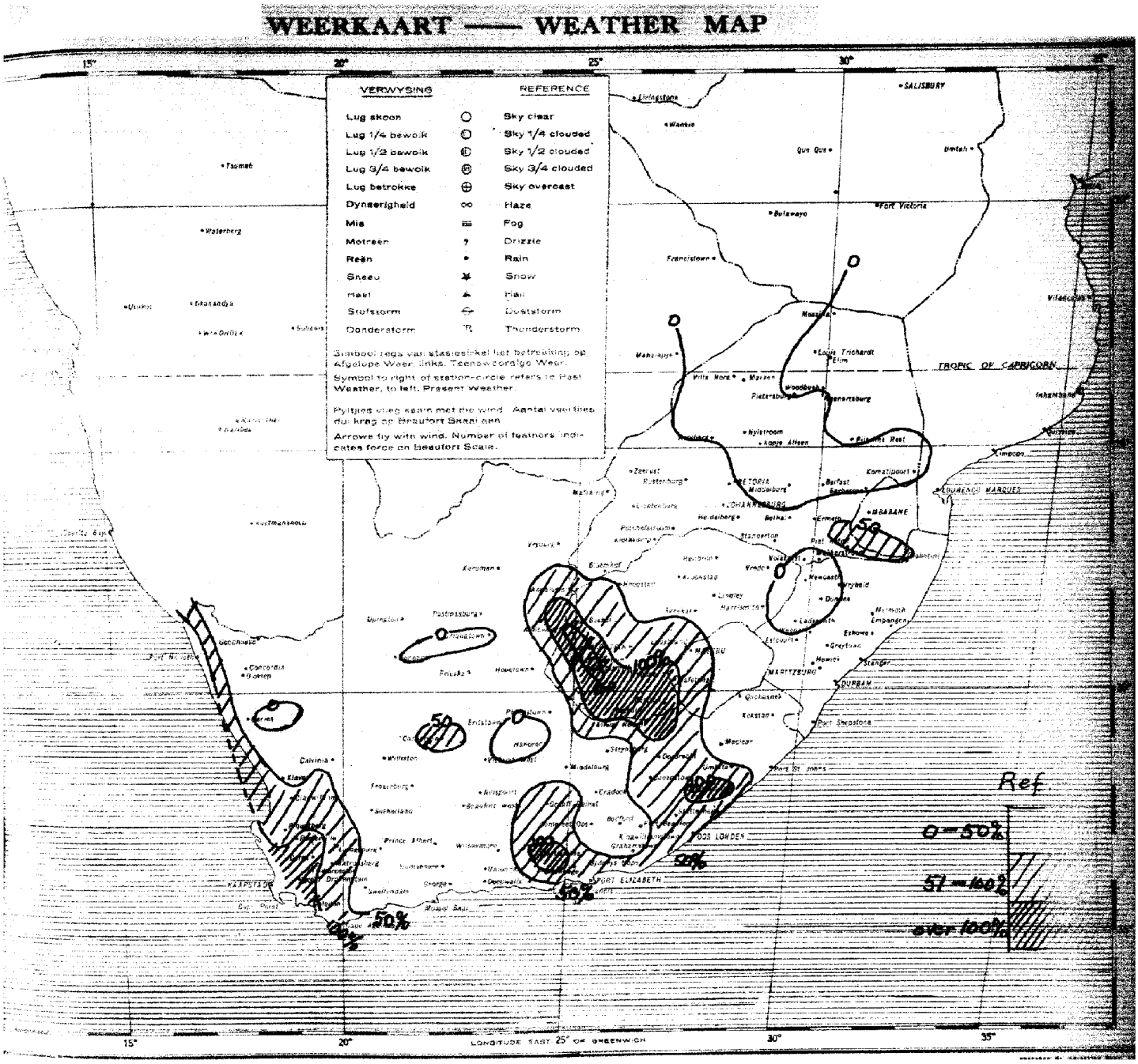


CHART III.

MAY 1937 - **Rainfall shown as percentage of the normal.**

KAART III.

MEI 1937 - **Reenval aangegee as persentasie van die normaal.**

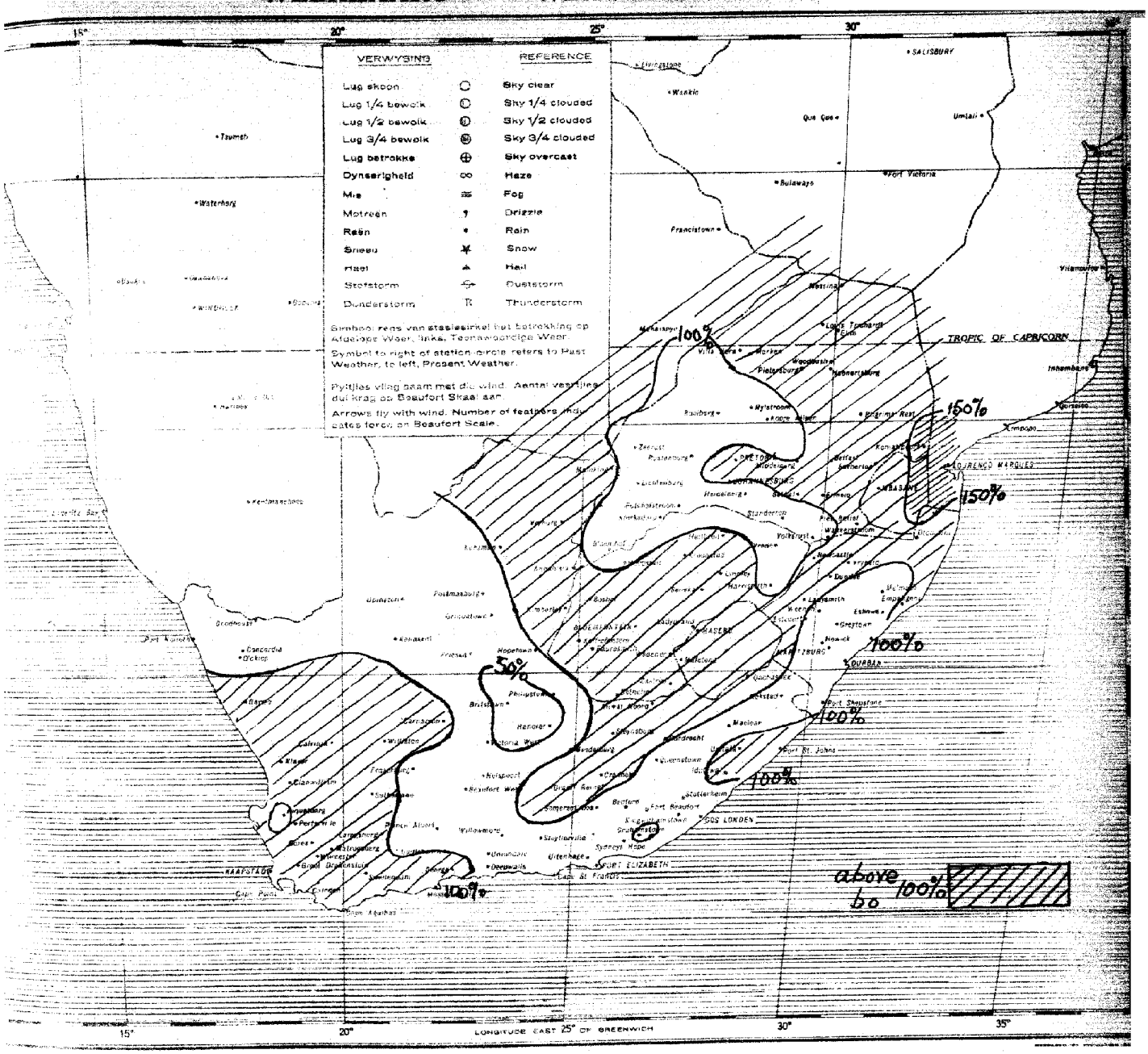


CHART IV.

SEASONAL PRECIPITATION - (1st July 1936 to 31st May 1937) shown as percentage of Normal.

KAART IV.

SEISOEN NEERSLAG - (1 Julie 1936 tot 31 Mei 1937) aangedui as persentasie van die Normaal.

DIE UNIE VAN SUID-AFRIKA

DEPARTEMENT VAN BESPROEIING.

MAANDELIKSE WEER VERSLAG

VAN DIE

WEERKUNDIGE KANTOOR.

DEEL XVIII JUNIE 1937. NO. 6

ALGEMEEN:

Gemiddelde lugdruk normaal oor die binneland en onder normaal langs die kus; meer winderig as gewoonlik met sterk winde en stormwinde in die Kaapprovinsie en Natal op omtrent 10 dae; gemiddelde temperature omtrent normaal met dae meesal warmer maar nagte kouer as gewoonlik; neerslag bo-normaal in die winter reënvalstreek en langs die Natalse kus; geen reën oor die grootste gedeelte van die binneland. Ryp byna elke nag oor die binnelandse hooglande.

LUGDRUK:

Die gemiddelde lugdrukdistribusie vir hierdie maand (sien Kaart I) dui die tipiese winterantisiklone oor die Unie aan, met die hoogste druk oor die Vrystaat. Die werklike gemiddelde drukwaardes oor die binneland was omtrent normaal, terwyl die lugdruk aan die suid-en oos kuste 0.05 duim onder normaal was, wat aandui dat die gemiddelde druk gradient vanaf die binneland na die kus skerper was dan gewoonlik. Gedurende die maand het dit ses keer voorgekom dat goed uitgebeelde laagdruksisteme langs die kus verbygetrek het.

STERK WINDE EN STORMWINDE:

As gevolg van die skerper druk gradient was die maand ietwat winderiger as gewoonlik, besonderlik in die Kaapprovinsie en Natal (vgl. ook aantekeninge van waarnemers). Baie sterk winde en stormwinde, gewoonlik van die weste of noordweste het veral in die suidelike en suidoostelike Kaapland voorgekom op die volgende datums 3 4 5 8 20, 21 23 25 26 en 27ste.

TEMPERATUUR:

Die gemiddelde temperatuur oor die Unie as 'n geheel soos uit die gegewens van 'n aantal verteenwoordigende stasies afgelei, was normaal gedurende hierdie maand nl. 52.3°F. Oor die Transvaal en Natal egter was die gemiddelde temperatuur respektiewelik 0.2° en 0.7° bo normaal, terwyl dit oor die Kaapprovinsie en die Vrystaat respektiewelik 0.3° en 0.5° onder normaal was.

Die distribusie van afwykings van die normaal (Kaart II) toon aan dat die gemiddelde maandelikse temperature bo normaal was oor die grootste gedeelte van die Transvaal, Natal, die suidoostelike en suidelike Kaap en gedeeltes van die suidwestelike Kaap, terwyl temperature meesal onder normaal was oor die res van die Unie. Die streke met die grootste positiewe afwykings (van 2° tot 3.5°) was gelee in die suidoostelike Kaap en die suidoostelike Transvaal. Daarteenoor het die laagste gemiddelde temperature om en by Prieska, Britstown en Carnarvon in die binneland van die Kaapprovinsie voorgekom.

Gemiddelde maxima (of dag-temperature) was bo-normaal behalwe oor die westelike en suidwestelike Kaap en die westelike binneland van die Kaapprovinsie. In teen stelling hiermee was gemiddelde minima (of nag-temperature), behalwe oor die kusstreke van die

Kaapprovinsie, gewoonlik onder normaal, en in biesonder (van 5 tot 6°) oor gedeeltes van die Vrystaat en die Kaapse binneland. Gedurende hierdie maand was dus die gemiddelde daelikse temperatuurspeling groter as gewoonlik, veral oor die Vrystaat.

Die hoogste indiwiduele maxima wat in elke provinsie gemeet was is as volg : 86° te Kingwilliamstown (K.P.) op die 20ste; 94° te Komatipoort (Tvl.) op die 2de; 90° te Otobotini (Natal) op die 2de, en 74° te Kroonstad (O.V.S.) op die 21ste.

Die volgende is die laagste indiwiduele minima in elke provinsie geregistreer : 15° te Mafeking (K.P.) op die 28ste; 12° beide te Standerton en Wakkerstroom (Tvl.) op die 18de en 28ste respektiewelik; 24° te Ladysmith (Natal) op die 18de, en 14° te Lindley (O.V.S.) op die 28ste.

RYP

Met uitsondering van 'n noue kusstreek en gedeeltes van die oostelike [illegible] het ryp oor die hele Unie voorgekom, en was op sy skerpste gedurende die laaste week van die maand. Oor die binnelandse hoogplatds het ryp elke nag voorgekom.

NEERSLAG:

Van Kaart III, wat die reënval-distribusie as persentasie van die normaal aangee, sien ons dat die neerslag vir hierdie maand bo normaal was (1) oor die westelike en suidwestelike Kaap, (2) aan die suid kus by Port Elizabeth, en (3) oor die Natalse kusstreek. Vanaf die kus na die binneland neem die reënval-hoeveelhede skerp af, en die hele Transvaal, Vrystaat, noordelike grens gebiede van die Kaapprovinsie en die oostelike binneland van die Kaap het, met onbeduidende uitsonderinge, geen reën gehad nie.

Van die provinsies as een hede beskou, het Natal 'n klein surplus van 6% aangetoon, terwyl die Transvaal, Vrystaat en Kaapprovinsie tekorte aangetoon het wat respektiewelik 96%, 96% en 11% van hulle normale reënval bedra het. Oor laasgenoemde provinsie egter het die winterreënvalstreek 'n surplus van 53% en die somerreënvalstreek 'n tekort van 69% gehad. Beskou ons die Unie as 'n geheel, dan was daar 'n tekort van 23% van die normale reënval.

Neerslag het oor die winterreënvalstreek met onreelmatige tussenposes voorgekom op omtrent 19 dae van die maand. Op 8 van hierdie dae het die reënkondisies deurgedring tot die suidelike Kaap, en op omtrent 5 dae na die suidoostelike Kaap en Natal, terwyl daar oor die sentrale Kaap en suidelike Vrystaat net tweemaal ligte buie geval het. 'n Paar swaar buie (oor 1 duim) het in die suidwestelike Kaap voorgekom op die 4de en 21ste; in die suidelike Kaap (naby Port Elizabeth) op die 2de en 26ste, en by Durban op die 12de.

SNEEU:

Sneeu was opgemerk op die berge van die suidwestelike Kaapse binneland op die 7de, en in die bergagtige streke van die oostelike Kaap en Basoetoeland op die 2de en 3de.

DIE SEISOEN-NEERSLAG vir die tydperk 1 Julie 1936 tot 30 Junie 1937 (sien Kaart IV) was bo normaal behalwe (1) oor die westelike Transvaal, tesame met gedeeltes van die sentrale Transvaal, die heel suidelike Transvaal en die noordelike Vrystaat; (2) oor die noordelike grens gebiede van die Kaap, die sentrale en gedeeltes van die suidelike en suidoostelike Kaap en suidelike Natal. Oor hierdie streke, egter, het die seisoen-neerslag meestal meer as 80% van die normaal bedra, behalwe oor klein streke rondom Prieska en Hanover (K.P.) waar dit skaars 50% van die normaal behaal het. Apart beskou, het al vier die provinsies 'n

surplus aangetoon, wat vir die Transvaal 10%, vir die Vrystaat 14%, vir Natal 5% en vir die Kaapprovinsie 1% van hulle respektiewe normale beteken het. Vir die Unie as geheel was daar 'n surplus van 7%. Oor dieselfde periode het die Kaapse somerreënvalstreek 'n tekort van 4%, en die winterreënvalstreek 'n surplus van 23% aangetoon.

DIE VERSAMELDE REENVAL VIR DIE TYDPERK 1 Januarie tot 30 Junie 1937, was bo normaal (1) oor 'n gedeelte van die suidwestelike Kaap, (2) oor die westelike Vrystaat en aangrensende distrikte van die noordelike Kaapprovinsie, (3) oor Basoetoeland en 'n gedeelte van die aangrensende oostelike Vrystaat, (4) oor noordelike Natal en die oostelike Transvaal, en (5) oor gedeeltes van die sentrale en noordwestelike Transvaal. Oor die res van die Unie was daar vir hierdie tydperk 'n tekort. As eenhede beskou het die Transvaal, Vrystaat en Natal surplusse van respektiewelik 15%, 10% en 5%, en die Kaapprovinsie 'n tekort van 16% aangetoon. Vir die Kaapse somerreënvalstreek egter, was daar 'n tekort van 23%, terwyl die winterreënvalstreek 'n surplus van 24% aangetoon het. Die Unie as 'n geheel het vir hierdie periode 'n surplus van 1% aangetoon.

U N I O N O F S O U T H A F R I C A.

DEPARTMENT OF IRRIGATION.

M O N T H L Y W E A T H E R R E P O R T

OF THE

METEOROLOGICAL OFFICE.

VOL. XVIII JUNE 1937 NO. 6.

GENERAL:

Mean pressure normal over interior and below along coast; more windy than usual with strong winds and gales in Cape Province and Natal on ten occasions; mean temperature about normal with days as a rule warmer and nights colder than usual; precipitation above normal in the winter rainfall zone and along the Natal coast; - total absence of rain over the greater portion of the interior of Union; frost occurred almost nightly over the interior plateaux.

PRESSURE:

The mean pressure distribution for this month (see Chart I) shows the typical winter anticyclone over the Union, with the highest pressure over the Free State. The actual mean pressure values over the interior were almost normal, but on the south and east coasts pressure was .05 inch below normal, which shows that the mean pressure gradient from interior to coast was steeper than usual. During the month there were six occasions on which well defined low-pressure systems passed along the coast.

STRONG WINDS AND GALES:

Due to the increased pressure gradient, the month was somewhat more

windy than usual, especially in the Cape Province and Natal (cf. also observers' notes). Exceptionally strong winds and gales, usually westerly or northwesterly, were experienced mainly in the south and southeastern Cape on the following dates, 3rd, 4th, 5th, 8th, 20th 21st, 23rd, 25th, 26th and 27th.

TEMPERATURE:

The mean temperature over the Union as a whole, as computed from a number of representative stations, was normal during this month, viz. 52.3°F. Over the Transvaal and Natal however, the mean temperature was above normal by 0.2° and 0.7° respectively, whilst over the Cape Province and Free State it was subnormal by 0.3° and 0.5° respectively.

The distribution of departures from the normal (Chart II) shows that mean monthly temperatures were above normal over the greater part of the Transvaal, Natal, the southeast and south Cape, and parts of the southwest Cape, whilst over the remainder of the Union, temperatures were mainly subnormal. The areas with the largest positive departures (from 2 to 3.5°) were situated in the southeast Cape and the southeastern Transvaal. The lowest mean temperatures on the other hand occurred around Prieska, Britstown and Carnarvon in the interior Cape Province.

Mean maxima (or day temperatures) were above normal except over the west and southwest Cape and the western interior of the Cape Province. Mean minima (or night temperatures) on the other hand except over the coastal areas of the Cape Province were generally below normal, and especially so (from 6° to 8°) over parts of the Free State and interior Cape. During this month the mean diurnal temperature range was, therefore, greater than usual and especially so over the Free State.

The highest individual maxima registered in each province were 86° at Kingwilliamstown (C.P.) on the 20th, 94° at Komatipoort (Tvl.) on the 2nd, 90° at Otsobotini (Natal) on the 2nd, and 74° at Kroonstad (O.F.S.) on the 21st.

The following were the lowest individual minima in each province: 45° at Mafeking (C.P.) on the 28th, 12° at both Standerton and Wakkerstroom (Tvl.) on the 18th and 28th respectively; 24° at Ladysmith (Natal) on the 18th and 14° at Lindley (O.F.S.) on the 28th.

FROST:

With the exception of a narrow coastal belt, and parts of the eastern Transvaal lowveld, frost occurred over the whole Union and was most marked during the last week of this month. Over the interior high plateaux it occurred nightly throughout the month.

PRECIPITATION:

From Chart III which shows the distribution of rainfall expressed as percentages of the normal, it will be seen that precipitation for this month was above normal (1) over the west and southwest Cape, (2) on the south coast around Port Elisabeth, and (3) over the Natal coastal belt. From the coast towards the interior, rainfall amounts decreased rapidly, and the whole Transvaal, Free State, northern borders and eastern interior of the Cape Province were, with but few exceptions, rainless.

Considering the provinces as units, Natal showed a small surplus of 6%, whilst the Transvaal, Free State and Cape Province showed deficits amounting respectively to 96%, 96% and 11% of their mean normal rainfall. Over the latter province, however, the

winter rainfall zone (west and southwest Cape) showed a surplus of 53% and the summer rainfall area a deficit of 69%. Taking the Union as a whole, there was a shortage of 23% of the mean normal rainfall.

Precipitation occurred over the winter rainfall zone, at irregular intervals throughout the month, on roughly 19 days. On 8 of these occasions, the rainy conditions extended to the south Cape, and on about 5 to the southeast Cape and Natal, whilst over the centre Cape and southern Free State light showers occurred on two occasions. Some heavy showers (over 1 inch) were experienced in the southwest Cape on the 4th and 21st, in the south Cape (around Port Elizabeth) on the 2nd and 26th, and at Durban on the 12th.

SNOW:

Snow was noticed on the mountains in the interior of the southwest Cape on the 7th, and in the mountainous parts of the southeast Cape and Basutoland on the 2nd and 3rd.

THE SEASONAL PRECIPITATION for the period 1st July 1936 to 30th June 1937 (see Chart IV) was above normal except roughly (1) over the western Transvaal together with parts of the centre Transvaal, the extreme southern Transvaal and northern Free State; (2) the northern borders of the Cape, centre and parts of the south and southeast Cape and southern Natal. Over these areas, however, the seasonal rainfall amounted generally to over 80% of the normal except over smaller areas around Prieska and Hanover (C.P.) where 50% of the normal was hardly reached. Considering the provinces as units, the Transvaal, Free State, Natal and Cape Province showed surplusses amounting respectively to 10%, 14%, 5% and 1% of their mean normal precipitation, resulting in a surplus of 7% for the Union as a whole. For this same period the Cape summer rainfall area showed a deficit of 4% and the winter rainfall area a surplus of 23%.

THE CUMULATIVE PRECIPITATION from 1st January to 30th June 1937 was above normal (1) over part of the southwest Cape, (2) over the western Free State and adjoining districts of the northern Cape Province, (3) over Basutoland and part of the adjoining eastern Free State, (4) over northern Natal and the eastern Transvaal, and (5) over parts of the centre and northwestern Transvaal. Over the remainder of the Union, rainfall for this period was deficient. Taking the provinces separately, the Transvaal, Free State and Natal showed surplusses of 15%, 10% and 5% respectively and the Cape Province a deficit of 16%. For the Cape summer rainfall area, however, there was a deficit of 23% whilst the winter rainfall zone showed a surplus of 24%. The Union as a whole, for this period, showed a surplus of 1% of its mean normal rainfall.

AANTEKENINGE VAN WAARNEMERS VIR JUNIE 1937.
OBSERVERS' NOTES FOR JUNE 1937.

LOUIS TRICHARDT (TVL): Dit was die koudste maand gedurende die laaste sestien jaar. Ryp het baie skade berokken. Thos. E. Theron.

VRYBURG (C.P.): Condition of veld still fair - severe frost. J. van Eden.

POTCHEFSTROOM (TVL): Hierdie maand was besonder koud en party dae baie winderig. Prinsipaal, Landbouskool.

KOPJE ALLEEN (TVL): No rain fell during the month; June itself has been rainless twelve times in the 25 years of observations. No hoar frost was observed. J. Lyall Soutter.

MIDDELBURG (TVL): Month was particularly dry - no rain. V.P. Rose.

OKIEP (C.P.): Very cold month. Rainfall was not up to expectations. 1.17 inch on 10 days. H. Jones.

SEODIN (KURUMAN KAAP): Nagte baie koud; lekker dae; veldbrande maak baie rook. Dr. A. Schonees.

KIMBERLEY (AEROLOGICAL STATION): Although minimum temperatures below freezing point were registered rather often, frost was only seen on the 4th, 6th, 9th, 15th and 27th. J.J. le Roux.

MOLDERPOORT (O.F.S.): There were slight duststorms on the 13th and 25th. J.W. Eddolls.

LINDLEY (O.F.S.): Rain badly needed. A. Tromp.

NEWCASTLE CONVENT (NATAL): A dry month (no rainfall). Duststorms were very frequent during the month. Sister M. Laurentia.

DURBAN POINT (NATAL): With the exception of heavy rains (3.55 inches on 12th and 13th) it has been a fine month, amount of cloudless days being conspicious. The Lightkeeper.

CALVINIA (KAAP): Die reent (1.21 duim op 6 dae) vir hierdie maand was normaal maar sag en landdringend. Veld groei goed. G.H. Kuhn.

VAN WYKSVLEI (C.P.): Very dry: farmers trekking with sheep. Sgt. L. Hawson.

CARNARVON (KAAP): Klimaat wisselvallig - oor die algemeen koud en winderig. P. Marais.

BEAUFORT WEST (C.P.): Veld very dry and dusty. Very strong winds blew on the 2nd, 22nd and 25th. S. Bosua.

VICTORIA WEST (C.P.): Severe drought continues. A. von Rensburg.

GROOTFONTEIN (MIDDELBURG C.P.): Many days unusually windy and dusty. J.Mackenzie.

GRAAFFREINET (C.P.): This month was exceedingly dry; the latter part was very windy with duststorms. Sister Ethelburgh.

QUEENSTOWN:(C.P.) A very dry month, no rain being recorded. Strong northwest and southwest winds prevailed during last ten days of the month. Gale on 25th did considerable damage to property and trees, etc. One firm in town suffered damage estimated at over £200, the wind blowing down a 12 ton parapet which crashed through the roof. W. Everitt.

QUTHING (BASUTOLAND): There was a slight fall of snow on the 3rd. M. Molopo.

WINGFIELD AIRPORT (CAPE TOWN): The wettest June since inception of station. We experienced two cloudbursts during the month, causing considerable damage and flooding city streets to depth of 3 feet at places. Record 74 miles gust at 1.45 p.m. on the 21st. D.J.Lombard.

GEORGE (C.P.): Very dry during month; as no large quantity of rain fell at one time the wind dried the ground out very soon. 0.87 inch on 8 days. A. Goedhals.

GRAHAMSTOWN:(C.P.): Drought conditions now acute. 50 to 60% of lamb crop lost owing to lack of green food and ewes without milk. 0.27 inch on 4 days. Veterinary Research Officer.

HILLARY (DURBAN): Mean maximum highest ever recorded for June since observations commenced here in 1907. H.A. Thorpe.

HERBERGFONTEIN (MATATIELE): Snow on Drakensberg on 3rd. J. Coetzer.

LUG TEMPERATURE : JUNIE 1937.
AIR TEMPERATURES: JUNE 1937.

STASIE STATION	MAXIMUM Gem. Mean	Norm.	Versk. Diff.	MINIMUM Gem. Mean	Norm.	Versk. Diff.	MAAND. GEM. MONTHLY MEAN. Gem. Mean	Norm.	Versk. Diff.	ABS. MAX.	DATUM DATE	ABS. MIN.	DATUM DATE
KAAPPROVINSIE:													
CAPE PROVINCE:													
ALIWAL NORTH	61.8	62.3	-0.05	25.9	30.1	-4.2	43.9	46.2	-2.3	72.0	1	18.0	28
BRITSTOWN		56.0			33.6			46.3					
CAPE L'AGULHAS	63.2	62.3	+0.9	52.1	50.9	+1.2	57.7	56.6	+1.1	71.0	21	48.0	11
CAPE TOWN		63.2			48.4			55.8					
CALA	66.1	63.8	+2.3	40.2	38.0	+2.2	53.2	50.9	+2.3	75.0	1	29.5	30
CARNARVON	58.2	60.5	-2.3	28.6	34.1	-5.5	43.4	47.3	-3.9	70.0	18	21.0	27
CERES	59.7	61.7	-2.0	40.3	36.6	+3.7	50.0	49.2	+0.8	67.0	19	31.0	17
CRADOCK	67.2	65.9	+1.3	33.8	35.2	-1.4	50.5	50.6	-0.1	77.0	1	21.0	14
CLANWILLIAM	65.9	69.3	-3.4	46.2	42.4	+3.8	56.1	55.9	+0.2	83.0	20	35.0	30
DEEPWALLS	64.6	62.8	+1.8	48.7	47.0	+1.7	56.7	54.9	+1.8	74.4	20	39.5	27
EAST LONDON	70.8	70.6	+0.2	49.9	49.9	+0.0	60.4	60.3	+0.1	82.0	23	44.0	16
COODHOUSE		73.3			44.7			59.0					
GRAAFF REINET	66.0	67.8	-1.8	38.1	42.6	-4.5	52.1	55.2	-3.1	78.4	20	30.4	(4)
GRAHAMSTOWN	67.4	65.9	+1.5	40.3	41.1	-0.8	53.9	53.5	+0.4	82.2	20	31.0	18
GROOT DRAKENSTEIN	62.8	64.4	-1.6	44.4	44.3	+0.1	53.6	54.4	-0.8	75.5	19	35.6	11
GROOTFONTEIN	61.4	60.6	+0.8	30.9	32.6	-1.7	46.2	46.6	-0.4	71.7	20	17.9	17
HOPETOWN	64.8	65.2	-0.4	30.5	33.4	-2.9	47.7	49.3	-1.6	75.0	19	23.0	28
IDUTYWA	70.5	66.8	+3.7	43.2	42.5	+0.7	56.9	54.7	+2.2	81.5	1	35.0	18
KENHARDT	66.8	68.0	-1.2	34.3	36.5	-2.2	50.6	52.3	-1.7	79.4	19	26.0	28
KIMBERLEY	65.6	65.0	+0.6	37.3	36.4	+0.9	51.5	50.7	+0.8	75.1	1	30.6	15
KINGWILLIAMSTOWN	72.3	69.9	+2.4	42.9	42.3	+0.6	57.6	56.1	+1.5	86.0	20	35.0	18
KLAVER	67.5	70.5	-3.0	46.7	48.0	-1.3	57.1	59.3	-2.2	78.8	10	41.5	29
KOKSTAD	65.7	64.0	+1.7	33.2	32.6	+0.6	49.5	48.3	+1.2	73.7	25	25.8	28
KURUMAN	66.6	65.5	+1.1	28.5	31.8	-3.3	47.6	48.7	-1.1	76.0	19	21.5	28
MAFEKING	70.5	68.4	+2.1	34.5	35.7	-1.2	52.5	52.1	+0.4	80.0	17	15.0	28
MOSSEL BAY	68.4	66.8	+1.6	53.8	50.5	+3.3	61.1	58.7	+2.4	77.0	20	47.0	27
NELSPOORT	61.1	63.6	-2.5	37.0	37.4	-0.4	49.1	50.5	-1.4	75.0	20	27.0	27
O'OKIEP	60.8	63.2	-2.4	40.8	44.3	-3.5	50.8	53.8	-3.0	74.2	19	32.3	27
OUDTSHOORN	67.1	66.7	+0.4	37.2	38.0	-0.8	52.2	52.4	-0.2	79.0	20	31.5	11
PORT ELIZABETH	68.5	67.9	+0.6	51.9	50.6	+1.3	60.2	59.3	+0.9	82.0	20	47.0	28
PORT NOLLOTH	62.5	65.0	-2.5	45.3	45.9	-0.6	53.9	55.5	-1.6	84.0	17	40.0	28
PORT ST. JOHNS	73.4	72.4	+1.0	57.3	52.7	+4.6	65.4	62.6	+2.8	83.0	23	52.0	27
POSTMASBURG	63.9	63.0	+0.9	40.6	37.5	+3.1	52.3	50.3	+2.0	73.8	19	28.5	27
PRIESKA	61.1	65.2	-4.1	28.4	34.8	-6.4	44.8	50.0	-5.2	72.0	20	20.0	28
QUEENSTOWN	67.4	64.2	+3.2	38.2	36.8	+1.4	52.8	50.5	+2.3	77.0	1	26.0	30
RIETPOORT	67.4	70.7	-3.3	42.8	45.0	-2.2	55.1	57.9	-2.8	83.0	19	35.0	14
SOMERSET EAST	68.4	65.8	+2.6	44.1	42.1	+2.0	56.3	54.0	+2.3	78.6	20	34.6	30
SUTHERLAND	54.1	56.0	-1.9	29.6	30.3	-0.7	41.9	43.2	-1.3	64.0	20	21.0	28
SYDNEY'S HOPE	62.9	64.2	-1.3	48.8	47.1	+1.7	55.9	55.7	+0.2	82.0	20	43.0	4
UITENHAGE	71.9	71.0	+0.9	44.9	42.3	+2.6	58.4	56.7	+1.7	84.0	20	37.6	18
UMTATA	74.0	70.4	+3.6	34.7	36.5	-1.8	54.4	53.5	+0.9	84.0	1	27.0	18
UPINGTON	68.0	69.6	-1.6	36.5	39.5	-3.0	52.3	54.6	-2.3	79.7	19	27.3	28
VAN WYKS VLEI	62.8	65.3	-2.5	32.9	34.2	-1.3	47.9	49.8	-1.9	76.0	20	24.0	27
VICTORIA WEST	59.9	60.0	-0.1	29.9	29.5	+0.4	44.9	44.8	+0.1	70.0	20	21.0	27
VRYBURG	69.1	67.6	+1.5	24.4	31.5	-7.1	46.8	49.6	-2.8	80.0	2	20.0	24
WILLOWMORE		61.2			35.3			48.3					
TRANSVAAL:													
BARBERTON	75.9	73.2	+2.7	51.6	48.2	+3.4	63.8	60.7	+3.1	85.0	26	44.4	29
BELFAST	62.5	61.3	+1.2	26.4	28.3	-1.9	44.5	44.8	-0.3	68.0	26	21.0	28
CHRISTIANA		65.6			32.0			48.8					
ERMELO	66.2	62.8	+3.4	32.7	31.8	+0.9	49.5	47.3	+2.2	74.0	2	24.0	28
HEIDELBERG	66.1	64.2	+1.9	25.6	28.9	-3.3	45.9	46.6	-0.7	71.8	25	15.5	28
JOHANNESBURG	62.0	60.1	+1.9	42.4	41.2	+1.2	52.2	50.7	+1.5	68.2	26	30.5	28
KLERKSDORP		67.4			33.0			50.2					
KOMATIPOORT	83.0	80.0	+3.0	45.2	46.8	-1.6	64.1	63.4	+0.7	94.0	2	37.0	5
KOPJE ALLEEN	73.4	69.9	+3.5	34.2	37.4	-3.2	53.8	53.7	+0.1	82.4	2	29.2	25
LOUIS TRICHARDT	73.4	70.5	+2.9	40.5	43.6	-3.1	57.0	57.1	-0.1	83.0	2	33.0	26

LUG TEMPERATURE : JUNIE 1937 (VERVOLG).
AIR TEMPERATURES : JUNE 1937 (CONTD).

STASIE STATION	MAXIMUM Gem. Mean	MAXIMUM Norm.	MAXIMUM Versk. Diff.	MINIMUM Gem. Mean	MINIMUM Norm.	MINIMUM Versk. Diff.	MAAND. GEM. MONTHLY MEAN. Gem. Mean	MAAND. GEM. MONTHLY MEAN. Norm.	MAAND. GEM. MONTHLY MEAN. Versk. Diff.	ABS. MAX.	DATUM DATE	ABS. MIN.	DATUM DATE
TRANSVAAL (VERVOLG):(CONTD).													
MARKEN	73.8	70.0	+3.8	32.6	35.6	-3.0	53.2	52.8	+0.4	84.0	2	26.0	25
MESSINA	80.7	76.5	+4.2	49.3	50.1	-0.8	65.0	63.3	+1.7	92.6	2	41.7	5
MIDDELBURG	67.0	67.0	+0.0	24.4	29.5	-5.1	45.7	48.3	-2.6	72.0	26	19.0	25
NYLSTROOM	73.3	70.2	+3.1	31.5	35.8	-4.3	52.4	53.0	-0.6	81.0	2	27.5	28
PIETERSBURG	69.8	69.2	+0.6	33.1	37.1	-4.0	51.5	53.2	-1.7	78.6	2	28.0	11
PIET RETIEF	69.9	67.0	+2.9	39.7	39.7	+0.0	54.8	53.4	+1.4	78.8	2	30.0	19
PILGRIMS REST	71.1	68.3	+2.8	34.1	36.1	-2.0	52.6	52.2	+0.4	79.0	24	27.0	19
POTCHEFSTROOM	67.4	67.3	+0.1	29.3	31.6	-2.3	48.4	49.5	-1.1	76.0	1	16.0	28
PRETORIA	69.7	68.2	+1.5	36.1	36.7	-0.6	52.9	52.5	+0.4	75.0	23	30.3	28
RUSTENBURG	71.7	69.7	+2.0	33.3	37.5	-4.2	52.5	53.6	-1.1	78.0	26	23.0	28
STANDERTON	67.9	64.1	+3.8	23.0	26.1	-3.1	45.5	45.1	+0.4	74.0	20	12.0	18
WAKKERSTROOM	64.3	60.8	+3.5	26.1	27.7	-1.6	45.2	44.3	+0.9	68.0	1	12.0	28
WEERUST	71.0	67.7	+3.3	29.8	32.4	-2.6	50.4	50.1	+0.3	77.9	(24)	24.0	(28)
NATAL.													
DUNDEE	70.4	68.0	+2.4	35.4	35.4	+0.0	52.9	51.7	+1.2	79.0	29	27.0	28
DURBAN POINT	74.0	72.3	+1.7	56.2	55.2	+1.0	65.1	63.8	+1.3	79.6	8	51.0	29
EMPANGENI	75.9	74.4	+1.5	50.3	50.5	-0.2	63.1	62.5	+0.6	86.0	25	43.0	29
ESHOWE	72.3	70.8	+1.5	51.9	53.2	-1.3	62.1	62.0	+0.1	84.5	25	42.2	28
ESTCOURT	69.5	66.5	+3.0	34.5	33.8	+0.7	52.0	50.2	+1.8	79.0	13	28.0	3
LADYSMITH	69.5	68.7	+0.8	31.9	36.0	-4.1	50.7	52.4	-1.7	79.0	1	24.0	18
PIETERMARITZBURG	73.4	70.4	+3.0	42.5	43.4	-0.9	58.0	56.9	+1.1	85.0	21	35.2	28
STOBOTINI	79.4	76.6	+2.8	53.0	54.3	-1.3	66.2	65.5	+0.7	90.0	2	43.0	24
PORT SHEPSTONE	73.7	72.4	+1.3	53.8	52.7	+1.1	63.8	62.6	+1.2	83.0	11	48.0	29
STANGER		74.7			54.1			64.4					
VRYHEID	71.9	67.9	+4.0	42.1	41.2	+0.9	57.0	54.6	+2.4	84.0	1	33.0	28
WEENEN	71.4	71.9	-0.5	32.3	32.9	-0.6	51.9	52.4	-0.5	79.0	25	25.0	29
O.V.S. : O.F.S.													
BETHULIE	63.4	61.8	+1.6	29.7	32.4	-2.7	46.6	47.1	-0.5	72.0	2	18.1	27
BLOEMFONTEIN	62.2	62.2	+0.0	25.9	32.0	-6.1	44.1	47.1	-3.0	71.1	1	16.8	15
FAURESMITH	61.3	59.4	+1.9	26.5	29.7	-3.2	43.9	44.6	-0.7	70.5	1	18.0	4
HARRISMITH	63.6	57.1	+6.5	37.2	34.1	+3.1	50.4	45.6	+4.8	70.0	14	30.0	29
KROONSTAD	65.8	64.0	+1.8	24.4	29.4	-5.0	45.1	46.7	-1.6	74.0	21	15.0	28
LADYBRAND	60.1	59.5	+0.6	31.4	32.4	-1.0	45.8	46.0	-0.2	70.0	2	25.0	25
LINDLEY	64.8	63.2	+1.6	22.8	28.3	-5.5	43.8	45.8	-2.0	73.0	1	14.1	28
WEPENER	62.0	61.0	+1.0	24.3	27.8	-3.5	43.2	44.4	-1.2	70.8	21	15.8	28
BASOETOELAND : BASUTOLAND:													
BUTHA BUTHE	61.9	61.8	+0.1	26.5	27.4	-0.9	44.2	44.6	-0.4	68.0	1	19.0	28
MAFETENG	59.8	56.6	+3.2	-	33.9	-	-	45.3	-	70.0	24	-	-
MOHALES HOEK	61.5	61.4	+0.1	27.8	32.6	-4.8	44.7	47.0	-2.3	67.0	24	22.0	29
MOKHOTLONG	56.5	55.0	+1.5	22.9	23.8	-0.9	39.7	39.4	+0.3	62.0	1	14.0	28
QACHASNEK	58.0	56.6	+1.4	35.2	31.6	+3.6	46.6	44.1	+2.5	65.0	25	26.0	28
BETSJOEANALAND : BECHUANALAND:													
DIKGATLONG	77.9	74.8	+3.1	31.3	33.8	-2.5	54.6	54.3	+0.3	89.0	5	26.0	24
GABERONES	74.4	71.6	+2.8	29.6	35.1	-5.5	52.0	53.4	-1.4	82.0	26	23.0	25
MAHALAPYE	75.7	73.1	+2.6	35.7	37.9	-2.2	55.7	55.5	+0.2	84.0	2	30.0	28
SWASIELAND : SWAZILAND:													
ABABANE	-	72.0			49.9			61.0					
STEGI	73.8	69.2	+4.6	52.2	49.6	+2.6	63.0	59.4	+3.6	84.0	22	45.0	28

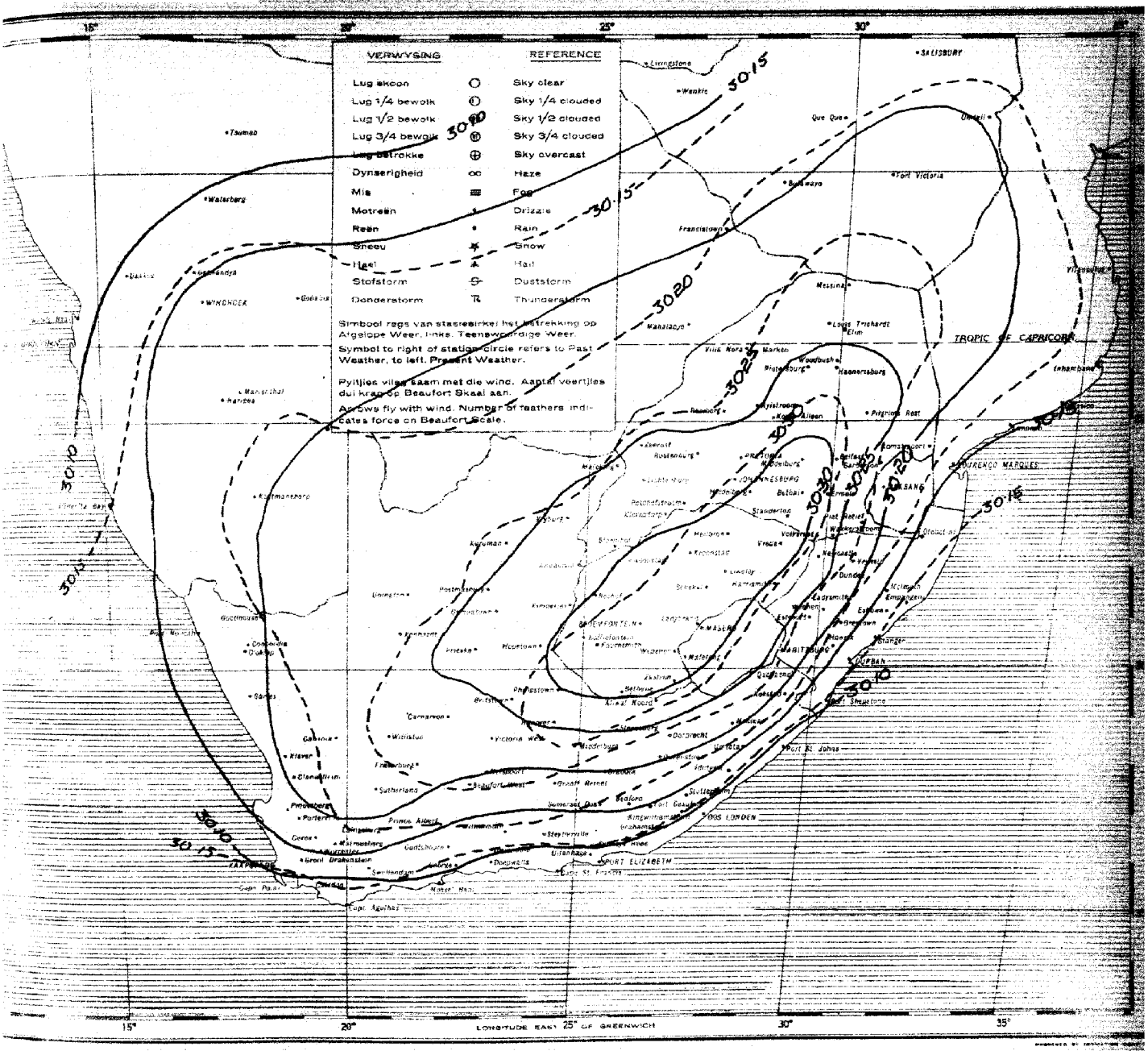
NEERSLAG : JUNIE 1937.
RAINFALL : JUNE 1937.

STASIE STATION	JUNIE 1937 JUNE	NORM.	VERSK. DIFF.	%	VANAF 1.1.37 FROM	NORM.	VERSK. DIFF.	VANAF 1.7.36 FROM	NORM.	VERSK. DIFF.	% SEISOEN SEASONAL
KAAPPROVINSIE - SOMER REENVAL STREEK.											
CAPE PROVINCE - SUMMER RAINFALL AREA.											
ALIWAL NORTH	0.00	0.43	-0.43	0	8.67	11.59	-2.92	20.36	18.98	+1.38	107
BEAUFORT WEST	0.04	0.35	-0.31	11	1.69	5.81	-4.12	5.45	9.26	-3.81	59
BEDFORD	0.04	0.96	-0.92	4	10.21	15.37	-5.16	25.62	27.46	-1.84	93
BRITSTOWN	0.00	0.38	-0.38	0	6.01	7.75	-1.74	8.72	10.96	-2.24	80
CARNARVON	0.03	0.30	-0.27	1	4.73	5.51	-0.78	8.07	7.80	+0.27	103
EAST LONDON	0.05	1.52	-1.47	3	13.54	16.33	-2.79	29.09	32.51	-3.42	90
FRASERBURG	0.12	0.40	-0.28	30	3.39	4.68	-1.29	6.11	6.64	-0.53	92
GEORGE	0.91	2.06	-1.15	44	13.95	17.12	-3.17	35.70	34.12	+2.58	108
GRAAFF REINET	0.03	0.54	-0.51	6	10.09	7.91	+2.18	20.68	14.03	+6.65	147
GRAHAMSTOWN	0.27	1.44	-1.17	19	5.61	10.65	-5.04	21.50	21.34	+0.16	101
GRIQUATOWN	0.00	0.30	-0.30	0	9.16	8.77	+0.39	11.82	12.61	-0.79	95
GROOTFONTEIN	0.00	0.34	-0.34	0	5.15	8.42	-3.27	12.45	13.57	-1.12	92
HANOVER	0.00	0.47	-0.47	0	2.98	9.46	-6.48	5.28	14.00	-8.72	38
HOPE TOWN	0.00	0.31	-0.31	0	6.58	8.19	-1.61	11.82	12.21	-0.39	97
IDUTYWA	0.21	0.87	-0.66	24	10.98	11.93	-0.95	24.78	24.66	+0.12	100
KENHARDT	0.00	0.21	-0.21	0	3.84	4.12	-0.28	5.22	5.70	-0.48	92
KIMBERLEY	0.01	0.24	-0.23	4	10.59	9.97	+0.62	20.67	15.60	+5.07	133
KINGWILLIAMSTOWN	0.11	0.87	-0.76	13	7.55	13.21	-5.66	19.24	24.98	-5.74	77
KOKSTAD	0.03	0.56	-0.53	5	18.26	16.34	+1.92	29.36	30.08	-0.72	98
MATJESFONTEIN	0.49	1.00	-0.51	49	1.27	3.80	-2.53	7.96	6.62	+1.34	120
MACLEAR	0.00	0.41	-0.41	0	18.33	18.70	-0.37	32.26	33.07	-0.81	98
MAFEKING	0.00	0.18	-0.18	0	11.60	11.63	-0.03	21.73	20.53	+1.20	106
MOSSEL BAY	0.92	1.28	-0.36	72	5.64	8.36	-2.72	16.23	17.00	-0.77	95
PHILIPSTOWN	0.00	0.41	-0.41	0	5.64	8.83	-3.19	9.17	13.06	-3.89	70
PORT ELIZABETH	1.79	1.68	+0.11	106	6.53	10.30	-3.77	20.12	22.73	-2.61	89
PORT ST. JOHNS	0.23	1.87	-1.64	12	22.06	24.28	-2.22	48.80	47.61	+1.19	102
PRIESKA	0.00	0.22	-0.22	0	3.73	6.80	-3.07	4.88	9.35	-4.47	52
QUEENSTOWN	0.00	0.57	-0.57	0	7.73	13.29	-5.56	21.19	22.31	-1.12	95
SOMERSET EAST	0.02	0.70	-0.68	3	5.69	12.17	-6.48	21.13	22.15	-1.02	95
STEYNSBURG	0.00	0.45	-0.45	0	7.17	9.30	-2.13	16.07	14.77	+1.30	109
STEYTLERVILLE	0.00	0.35	-0.35	0	3.29	5.18	-1.89	8.63	9.21	-0.58	94
SWELLENDAM	1.80	2.15	-0.35	84	11.93	15.65	-3.72	36.29	30.95	+5.34	117
SYDNEYS HOPE	0.46	1.26	-0.80	37	5.64	11.53	-5.89	17.89	22.79	-4.90	79
UITENHAGE	0.55	1.07	-0.52	51	4.81	9.27	-4.46	17.07	19.01	-1.94	90
UMTATA	0.03	0.88	-0.85	3	12.74	14.35	-1.61	26.68	25.65	+1.03	104
UNIONDALE	0.73	1.03	-0.30	71	2.26	6.76	-4.50	9.92	13.10	-3.18	76
UPINGTON	0.00	0.07	-0.07	0	3.57	5.29	-1.72	5.51	7.17	-1.66	77
VICTORIA WEST	0.03	0.38	-0.35	8	3.73	5.66	-1.93	7.59	9.05	-1.46	84
VRYBURG	0.00	0.20	-0.20	0	15.80	12.92	+2.88	23.09	18.94	+4.15	122
KAAPPROVINSIE - WINTER REENVAL STREEK.											
CAPE PROVINCE - WINTER RAINFALL AREA.											
CALEDON	3.75	2.74	+1.01	137	7.64	9.82	-2.18	20.16	21.11	-0.95	95
CALVINIA	1.18	1.19	-0.01	99	3.15	4.69	-1.54	11.45	8.16	+3.29	140
CAPE TOWN(ROYAL OBS.)	8.05	4.35	+3.70	185	16.48	12.00	+4.48	26.90	24.65	+2.25	110
CERES	13.18	7.45	+5.73	177	29.59	18.50	+11.09	55.92	40.47	+15.45	138
CLANWILLIAM	2.69	1.64	+1.05	164	4.23	4.33	-0.10	10.58	8.59	+1.99	123
GARIES	1.55	0.99	+0.56	156	2.14	2.56	-0.42	7.23	5.14	+2.09	141
GT. DRAKENSTEIN	11.17	6.47	+4.70	173	25.19	16.91	+8.28	40.87	35.18	+5.69	116
O'OKIEP	1.17	1.15	+0.02	102	2.75	3.59	-0.84	6.27	6.66	-0.39	94
PIQUETBERG	3.56	3.29	+0.27	108	8.33	9.17	-0.84	17.35	19.97	-2.62	87
PORT NOLLOTH	0.35	0.38	-0.03	92	1.09	1.25	-0.16	2.26	2.37	-0.11	95
SUTHERLAND	1.95	1.17	+0.78	167	6.28	5.28	+1.00	13.33	9.09	+4.24	147
WORCESTER	2.65	2.10	0.55	126	6.53	5.81	+0.72	16.38	12.11	+4.27	135
BETSJOANALAND - BECHUANALAND:											
MAHALAPYE	0.00	0.07	-0.07	0	11.25	10.15	+1.10	20.87	16.94	+3.93	123
DIKGATLONG	0.00	0.01	-0.01	0	9.25	10.06	-0.81	15.19	16.93	-1.74	90
GABERONES	0.00	0.20	-0.20	0	14.22	11.71	+2.51	21.12	19.80	+1.32	107

NEERSLAG : JUNIE 1937 (VERVOLG)
RAINFALL : JUNE 1937 (CONTD).

STASIE STATION	JUNIE 1937 JUNE	NORM.	VERSK. DIFF.	%	VANAF 1.1.37 FROM	NORM.	VERSK. DIFF.	VANAF 1.7.36 FROM	NORM.	VERSK. DIFF.	SEISOEN % SEASONAL.
O.V.S. : O.F.S.											
BETHULIE	0.00	0.46	-0.46	0	6.97	12.17	-5.20	19.18	18.54	+0.64	103
BLOEMFONTEIN	0.05	0.38	-0.33	13	13.16	13.29	-0.13	22.43	20.77	+1.66	108
BOSHOF	0.00	0.21	-0.21	0	14.57	11.45	+3.12	23.50	18.27	+5.23	128
FAURESMITH	0.00	0.18	-0.18	0	10.59	8.01	+2.58	20.50	14.53	+5.97	141
HARRISMITH	0.00	0.32	-0.32	0	13.34	15.10	-1.76	28.01	29.40	-1.39	95
KROONSTAD	0.00	0.28	-0.28	0	10.27	12.63	-2.36	23.85	23.32	+0.53	102
LADYBRAND	0.00	0.42	-0.42	0	17.70	15.33	+2.37	33.58	27.42	+6.16	122
LINDLEY	0.00	0.29	-0.29	0	12.86	13.65	-0.79	28.55	24.73	+3.82	115
VREDE	0.00	0.20	-0.20	0	11.88	13.73	-1.85	23.58	27.29	-3.71	86
WINBURG	0.00	0.22	-0.22	0	16.66	12.92	+3.74	28.28	21.89	+6.39	129
WEPENER	0.09	0.55	-0.46	16	15.31	15.46	-0.15	27.42	25.96	+1.46	106
NATAL:											
DUNDEE	0.09	0.28	-0.19	32	21.44	17.07	+4.37	36.87	32.05	+4.82	115
DURBAN	3.74	1.77	+1.97	211	19.45	23.90	-4.45	41.10	45.08	-3.98	91
EMTANGENI	1.49	1.46	+0.03	102	23.34	22.72	+0.62	43.72	42.02	+1.70	104
ESTCOURT	0.96	0.30	+0.66	320		16.07			28.84		
LADYSMITH	0.05	0.28	-0.23	18	17.11	16.39	+0.72	33.09	29.84	+3.25	111
MELMOTH	0.94	0.60	+0.34	157	15.06	16.60	-1.54	27.91	31.47	-3.56	89
OTOBOTINI	0.02	0.39	-0.37	5	20.36	13.04	+7.32	34.86	22.96	+11.90	152
PIETERMARITZBURG	0.42	0.49	-0.07	86	13.60	19.23	-5.63	30.21	36.06	-5.85	84
UBOMBO	0.00	0.37	-0.37	0	23.24	18.10	+5.14	37.86	35.10	+2.76	108
VRYHEID	0.08	0.36	-0.28	22	21.71	17.42	+4.29	37.24	34.16	+3.08	109
WEENEN	0.05	0.21	-0.16	24	10.23	14.33	-4.10	22.85	26.34	-3.49	87
BASOETOELAND : BASUTOLAND:											
MAFETENG	0.00	0.67	-0.67	0	19.60	18.30	+1.30	34.93	29.93	+5.00	117
BUTHA BUTHE	0.00	0.45	-0.45	0	21.27	17.85	+3.42	36.18	32.27	+3.91	112
MOHALESHOEK	0.22	0.58	-0.36	38	25.00	16.65	+8.35	40.34	27.90	+12.44	145
QACHASNEK	0.01	0.61	-0.60	2	21.53	20.17	+1.36	35.59	35.60	-0.01	100
MOKHOTLONG	0.00	0.18	-0.18	0	11.82	11.21	+0.61	25.20	21.28	+3.92	118
SWASIELAND : SWAZILAND:											
MBABANE	0.40	0.54	-0.14	74	47.39	29.77	+17.62	71.48	54.03	+17.45	132
TRANSVAAL:											
BARBERTON	0.00	0.25	-0.25	0	26.86	16.69	+10.17	41.17	30.18	+10.99	136
BELFAST	0.00	0.25	-0.25	0	21.05	16.05	+5.00	34.59	31.16	+3.43	111
BETHAL	0.00	0.22	-0.22	0	14.31	14.25	+0.06	30.04	28.76	+1.28	104
BLOEMHOF	0.00	0.16	-0.16	0	8.82	11.75	-2.93	13.77	18.34	-4.57	75
ELIM HOSPITAL	0.05	0.26	-0.21	19	19.68	20.20	-0.52	28.77	31.31	-2.54	92
ERMELO	0.00	0.25	-0.25	0	18.60	13.61	+4.99	32.64	29.22	+3.42	112
HAENERTSBURG	0.00	0.22	-0.22	0	29.62	23.38	+6.24	49.15	37.10	+12.05	133
HEIDELBERG	0.00	0.16	-0.16	0	13.55	14.61	-1.06	26.42	28.05	-1.63	94
JOHANNESBURG OBS.	0.00	0.18	-0.18	0	18.94	15.92	+3.02	29.36	29.47	-0.11	100
JOUBERT PARK	0.00	0.18	-0.18	0	23.38	18.07	+5.31	36.83	32.60	+4.23	113
KOMATIPOORT	0.00	0.24	-0.24	0	31.32	16.61	+14.71	50.24	25.78	+24.46	195
LICHTENBURG	0.00	0.14	-0.14	0	12.19	13.98	-1.79	21.54	23.47	-1.93	92
MESSINA	0.00	0.02	-0.02	0	7.01	8.01	-1.00	14.58	14.24	+0.34	102
MIDDELBURG	0.00	0.19	-0.19	0	11.93	15.01	-3.08	28.46	28.90	-0.44	99
NYLSTROOM	0.00	0.15	-0.15	0	13.69	14.27	-0.58	22.73	24.45	-1.72	93
PIETERSBURG	0.00	0.05	-0.05	0	14.95	11.26	+3.69	23.89	20.52	+3.37	116
PIET RETIEF	0.03	0.27	-0.24	11	23.52	17.62	+5.90	42.07	35.58	+6.49	118
PILGRIMS REST	0.00	0.33	-0.33	0	30.09	24.60	+5.49	48.91	38.85	+10.06	126
POTCHEFSTROOM	0.00	0.24	-0.24	0	9.55	13.35	-3.80	21.75	23.76	-2.01	92
PRETORIA	0.00	0.08	-0.08	0	16.93	15.20	+1.73	28.52	28.28	+0.24	101
ROODEBERG	0.00	0.09	-0.09	0	13.62	12.98	+0.64	20.81	23.23	-2.42	90
RUSTENBURG	0.00	0.16	-0.16	0	12.60	14.50	-1.90	22.35	25.52	-3.17	88
STANDERTON	0.00	0.24	-0.24	0	12.05	15.02	-2.97	24.52	29.58	-5.06	83
VILLA NORA	0.00	0.08	-0.08	0	13.90	10.12	+3.78	19.97	17.53	+2.44	114
WAKKERSTROOM	0.00	0.27	-0.27	0	19.14	15.46	+3.68	30.48	30.90	-0.42	99
WOODBUSH	0.15	0.51	-0.36	29	53.12	42.56	+10.56	86.71	68.03	+18.68	127
ZEERUST	0.00	0.10	-0.10	0	9.27	13.65	-4.38	17.57	23.20	-5.63	76

WEERKAART —— WEATHER MAP

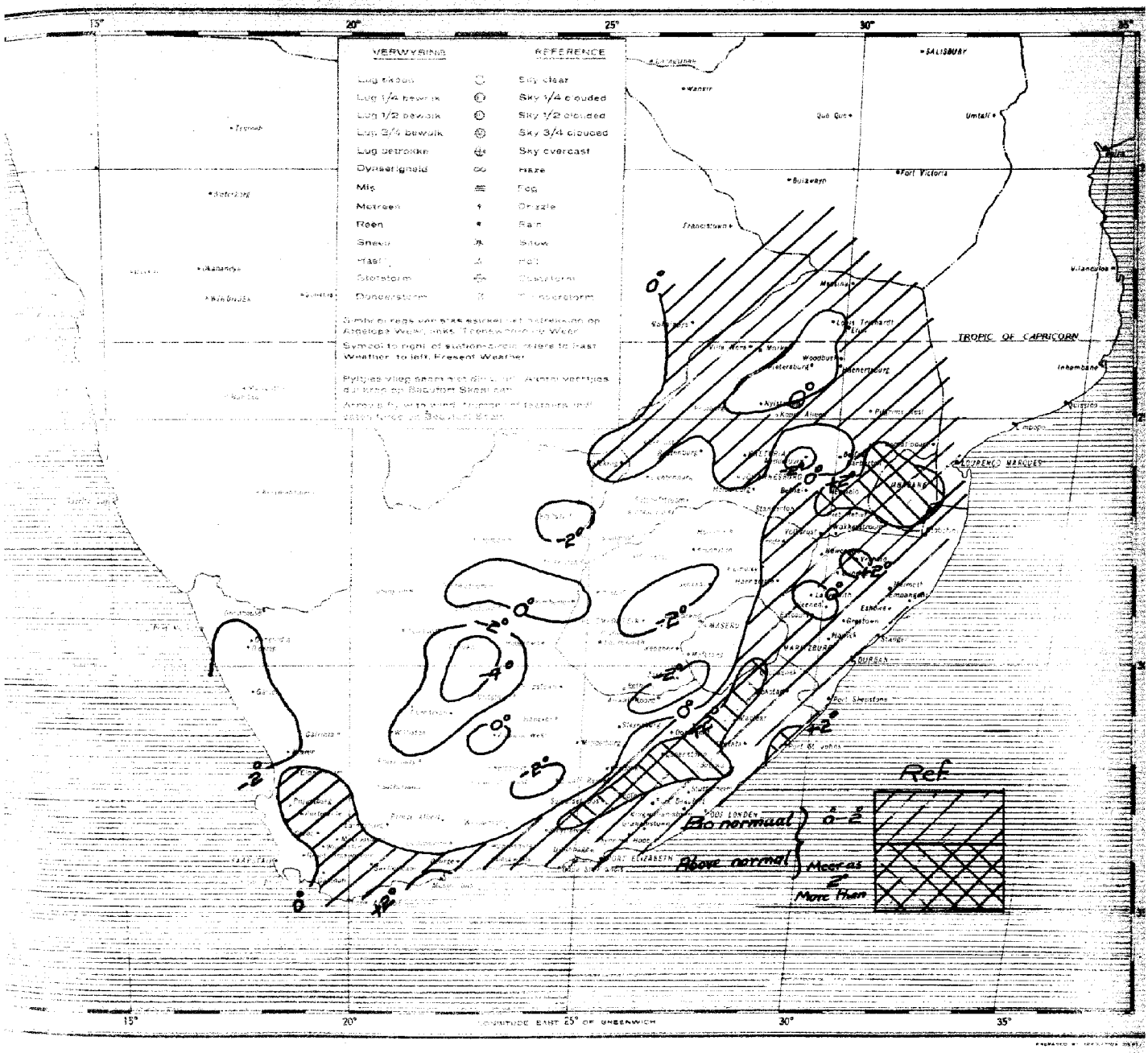


KAART I — CHART I.

JUNIE 1937 - Gemiddelde Lugdruk (by seespieël) om 8.30 v.m. Die gebroke lyne dui die normale distribusie vir Junie aan.

JUNE 1937 - Mean Atmospheric Pressure (at M.S.L.) at 8.30 a.m. The broken lines indicate the normal distribution for June.

WEERKAART —— WEATHER MAP

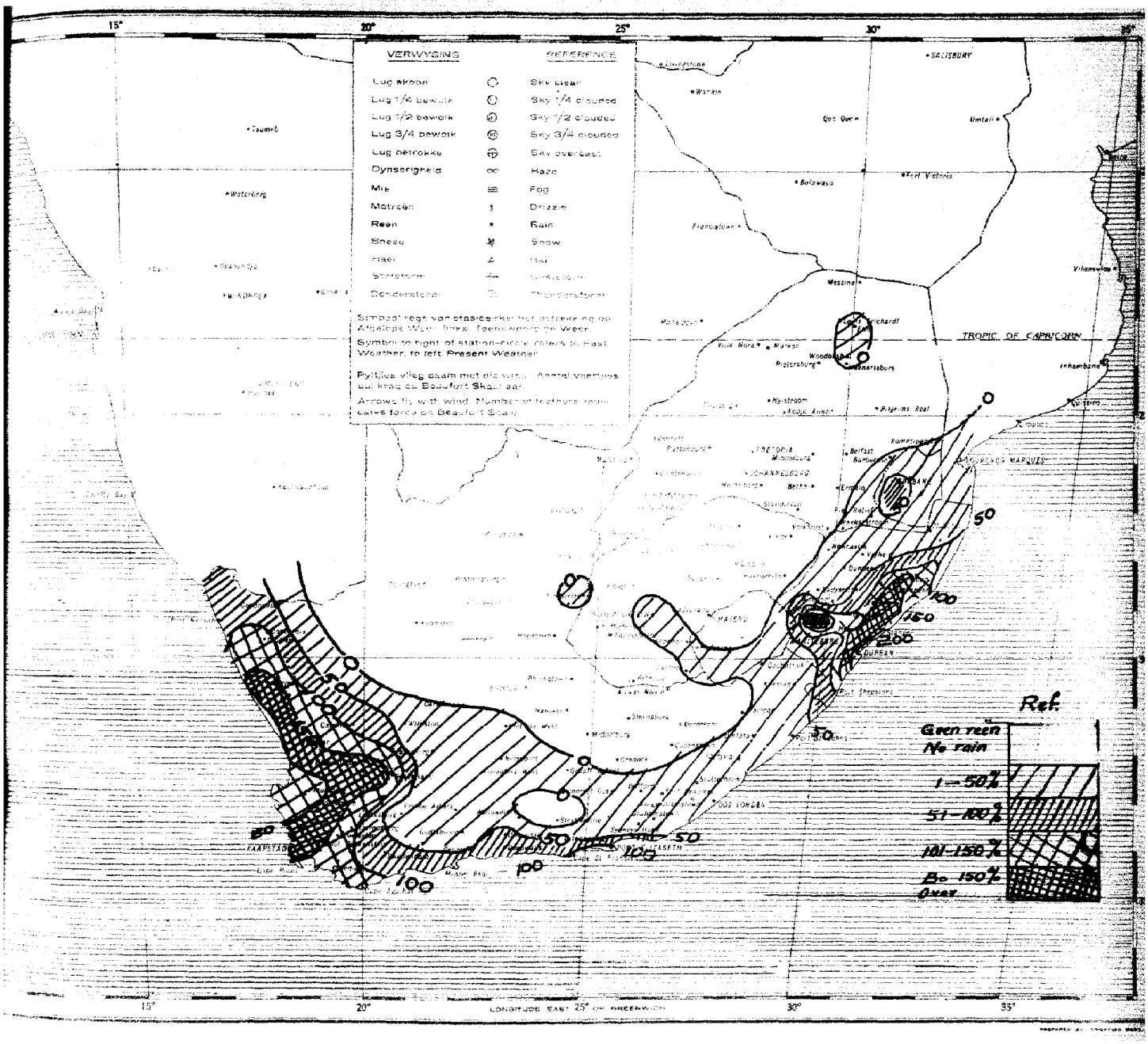


KAART II - CHART II.

JUNIE 1937 - Gemiddelde Temperatuur - afwyking van die normaal in °F.

JUNE 1937 - Mean Temperature - deviation from the normal in °F.

WEERKAART —— WEATHER MAP

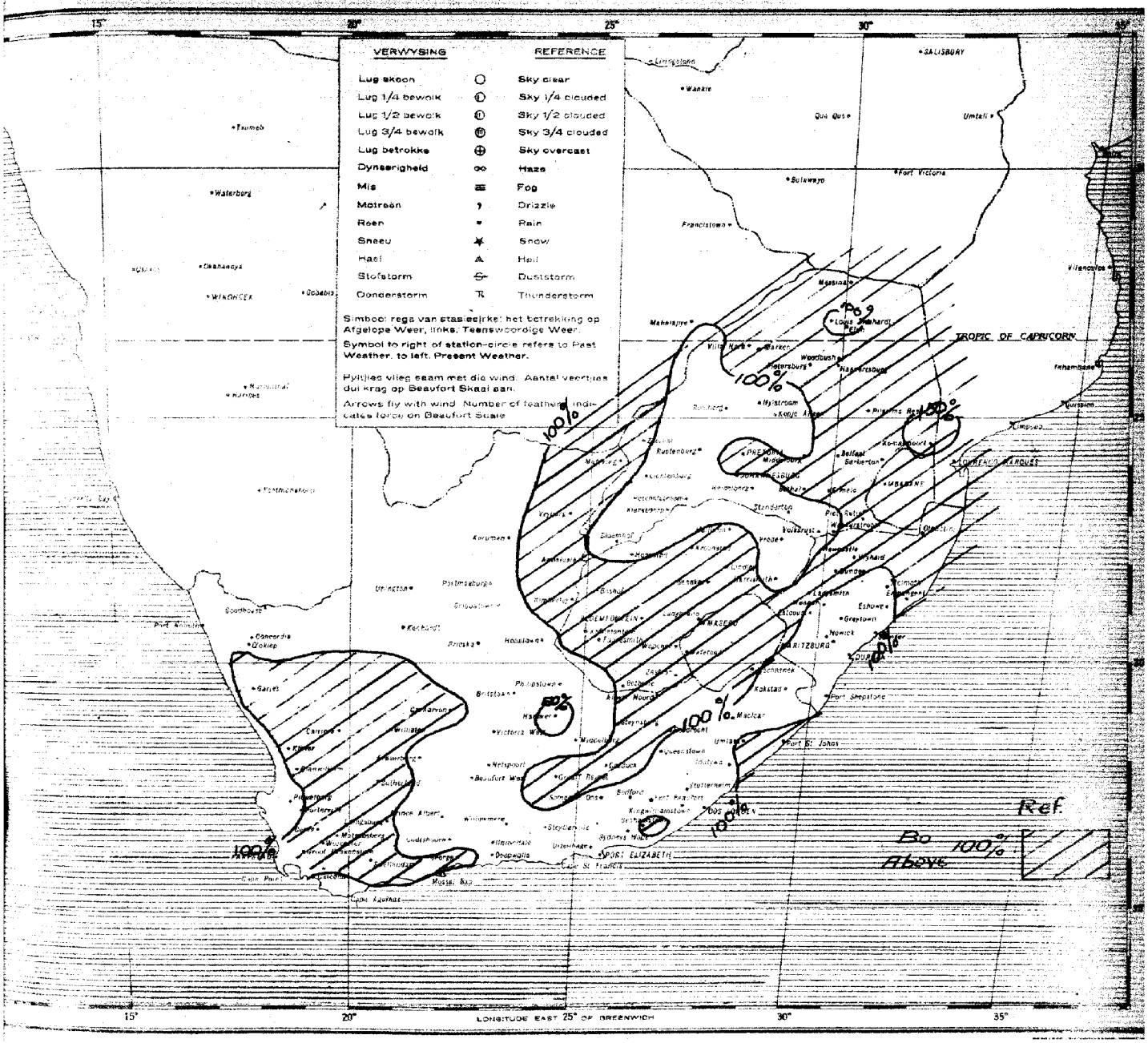


KAART III — CHART III.

JUNIE 1937 — Reënval aangegee as persentasie van die normaal.

JUNE 1937 — Rainfall shown as percentage of the normal.

WEERKAART —— WEATHER MAP



KAART IV. CHART IV.

SEISOEN NEERSLAG (1 Julie 1936 tot 30 Junie 1937) aangedui as persentasie van die normaal.

SEASONAL PRECIPITATION (1st July 1936 to 30th June 1937) shown as percentage of the normal.

UNION OF SOUTH AFRICA

DEPARTMENT OF IRRIGATION

MONTHLY WEATHER REPORT

OF THE

METEOROLOGICAL OFFICE

VOL XVIII JULY 1937 NO. 7

GENERAL:

Mean pressure above normal over interior and normal along coast, abnormally high pressures on the 15th; mean temperature mainly below normal; precipitation above normal over greater portion of Cape Province and along Natal coast and rainless over western Transvaal and northern Free State; extensive fall of snow on Cape mountains and Drakensberg; some isolated thunderstorms over interior Cape southern Free State and Natal; such were the more outstanding features of the weather of July 1937.

PRESSURE:

The mean distribution of pressure for this month (see Chart I) shows an anticyclone extending over the whole Union with the highest pressure over the Free State. Compared with the normal distribution, pressure was somewhat higher than usual (about .05") over the Free State and normal along the coast. The mean pressure gradient was thus somewhat steeper than usual.

Well-defined low pressure systems passed along the coast from west to east on the following occasions :- 1st to 3rd; 12th to 13th; 22nd to 23rd; 24th to 25th and 30th to 31st. The pressure fluctuations due to the passage of low and high pressure systems were abnormal during this month. The most outstanding case was that observed during the period 13th to 15th :- On the 13th a 'low' was centred somewhere off the east coast, the lowest pressure on the coast occurring at Port Shepstone (29.75") whilst an anticyclone had approached the west coast, the highest pressure there being observed at Port Nolloth (30.37"). By the 15th, the 'low' had disappeared eastwards, and the anticyclone, which proved to be extremely intense, was situated over the Union, with the highest pressure (30.84") over the southeastern Union. Along the coast there thus occurred within 2 days a rise in pressure of over 1 inch (33 mb.). The pressures experienced during the passage of this anticyclone were the highest yet recorded. Three synoptic maps are shown at the end of this volume.

STRONG WINDS AND GALES:

During the passage of a depression of sufficient intensity, the Cape Province, southern Free State and Natal are usually affected by strong northwesterly to southwesterly winds. During this month such high winds were experienced on the 2nd, 13th and 24th. On the 9th a southeasterly gale blew on the southwest coast.

TEMPERATURE:

Mean temperatures exceeded the average in the south Cape parts of the centre and southwestern Cape and along parts of the southeast and east coastal regions (see Chart II). The excess over these areas varied from 0.2° at Idutywa (Transkei) to 1.6° at Mossel Bay and Port Elizabeth. Over the remainder of the Union, mean temperatures were subnormal, the largest negative departures from the average (from 2 - 4°) occurring over an

extensive area embracing the major portion of the Transvaal, the Free State and adjoining districts of the Cape Province.

Considering the provinces as units, the mean temperatures over the Transvaal, Free State, Cape and Natal were below normal by 1.8°, 2.4°, 0.6° and 0.8° respectively, whilst for the Union as a whole, the general mean temperature was 50.6°F. or 1.3° below the average.

Mean maxima (or day temperatures) show very much the same distribution as the mean temperatures. Over parts of the northern Cape Province, the Free State and the Transvaal, the mean maxima were from 3 to 4° below the average.

The distribution of departures from the average minimum (or night temperatures) shows negative values over the Transvaal and Free State, whilst over the Cape Province and Natal, positive and negative departures occurred equally frequently. The largest negative departures from the average (varying from 2 - 4 7°) occurred over the Free State.

The highest individual maxima registered in each province were :- 88° at East London (C.P.) on the 1st; 92° at Komatipoort (Tvl.) on the 31st; 87° at Empangeni (Natal) on the 2nd, and 72° at Kroonstad (O.F.S.) on the 9th.

The lowest minima registered in each province were :- 12° at Lindley (O.F.S.) on the 4th; 11.4° at Wakkerstroom (Tvl.) on the 4th; 15.8° at Grootfontein (C.P.) on the 29th and 20° at Ladysmith (Natal) on the 14th.

FROST:

Except for a narrow coastal belt and the Transvaal lowveld, frost occurred almost nightly throughout the month.

PRECIPITATION:

The distribution of precipitation during this month is shown roughly on Chart III. The main points to observe are :- (1) Rainfall above normal over the western, southwestern, southern and parts of the centre and northeastern Cape Province, with however, an area of subnormal rainfall around Laingsburg, Prince Albert, Willowmore and Beaufort West. (2) Rainfall above normal over the north coastal regions of Natal (3) Smaller areas of more abundant precipitation (150 to 200% of the normal) mainly in the west, southwest and south Cape, the centre Cape and the north coast of Natal. (4) A rainless area comprising the western, centre and northwestern Transvaal, the northern Free State and Bechuanaland.

Considering the separate provinces as units, the Transvaal, Free State and Natal showed deficits amounting respectively to 86%, 59% and 7% of their mean normal precipitation, and the Cape Province a surplus of 36%. Over the Cape summer rainfall area, however, there was a small deficit of 2½%, whilst the winter rainfall zone showed a surplus of 73%. For the Union as a whole there was a small surplus of 8%.

Precipitation occurred during three distinct periods, viz:- from the 1st to 5th, 11th to 15th and 21st to 25th. During the first of these, precipitation started in the west and southwest Cape, and extended later to the south and centre Cape, the south-east Cape and Natal. During the second period, the whole Cape Province and the southern Free State was affected, and on the 13th and 15th also Natal. Some heavy showers (over 1 inch) fell in the southwest Cape and northern borders of the Cape on the 12th and 13th respectively.

From the 21st to 25th, precipitation was mainly confined to the winter rainfall zone and the south Cape, although isolated showers also occurred in the centre Cape, southeast Cape and southern Natal.

SNOW:

Snow fell on the mountains in the southwestern Cape on the 2nd and 3rd and in the southeastern Cape on the 4th. The most extensive snowfall during this month, however, occurred on the 12th and 13th when the mountainous areas of the Cape Province and the Drakensberg up to northern Basutoland were covered with snow. Some light falls of snow were even noticed as far north as the western Transvaal (Zeerust). Further light snowfalls occurred on the 25th in the southwest Cape and on the 2nd on the mountain ranges in the southeast Cape and southern Free State.

THUNDERSTORMS:

Thunderstorms, a somewhat unusual phenomenon in July, were recorded on the 11th in the western and centre Cape; on the 13th in northern Natal and on the 22nd in the southern Free State.

HAIL AND SLEET occurred in the southwest and centre Cape on the 2nd and in the west and southwest Cape on the 13th. No extensive damage, however, was reported probably due to small-sized and relatively soft hail-stones.

THE CUMULATIVE PRECIPITATION from 1st January 1937 to 31st July 1937 (see Chart IV) was above normal, (1) over the west and southwest Cape and, (2) over a large area in the northern provinces, embracing the eastern Transvaal, parts of the centre and northwestern Transvaal, northern Natal, Basutoland and the centre Free State, together with the adjoining districts of the Cape Province. Over the remainder of the Union the cumulative rainfall amounted on the average to about 80% of the normal. The only extensive area where the precipitation did not exceed 50% of the normal is situated around Laingsburg, Prince Albert, Beaufort West and Willowmore in the interior Cape Province.

Considering the provinces as units, the Transvaal and Natal showed surplusses amounting respectively to 12% and 3% of their mean normal rainfall, and the Cape and Free State deficits of 9% and 1% respectively. The Cape summer rainfall area, however, showed a deficit of 21% whilst for the winter rainfall zone there was a surplus of 32%. The Union as a whole showed a surplus of 2%.

D I E U N I E V A N S U I D - A F R I K A

DEPARTEMENT VAN BESPROEIING.

M A A N D E L I K S E W E E R - V E R S L A G

VAN DIE

WEERKUNDIGE KANTOOR.

DEEL XVIII JULIE 1937 NO. 7

ALGEMEEN:

Gemiddelde lugdruk bo normaal oor die binneland en normaal langs die kus; abnormaal hoë lugdruk op die 15de; gemiddelde temperature meestal onder normaal; neerslag bo normaal oor die grootste gedeelte van die Kaapprovinsie en langs die Natalse kus en heeltemaal geen reën oor die westelike Transvaal en noordelike Vrystaat; taamlik algemene sneeuval oor die bergagtige streke van die Kaapprovinsie en oor die Drakensberge, enkele

donderstorms oor die Kaapse binneland, suidelike Vrystaat en Natal; - dit was die uitstaande kenmerke van die weer gedurende Julie 1937.

LUGDRUK:

Die gemiddelde lugdrukdistribusie vir hierdie maand, (sien Kaart I) dui 'n antisiklone aan wat oor die hele Unie strek, met die hoogste druk oor die Vrystaat. Vergeleke met die normale distribusie, was die druk ietwat hoër as gewoonlik (omtrent .05") oor die Vrystaat, en normaal langs die kus. Die gemiddelde lugdrukgradiënt was dus skerper as gewoonlik.

Goed uitgebeelde laagdruksisteme het langs die kus van wes na oos beweeg tydens die volgende tydperke : 1ste tot 3de; 12de tot 13de; 22ste tot 23ste; 24ste tot 25ste en 30ste tot 31ste. Die lugdrukskommelings te wyte aan die verbytrek van laag en hoogdruksisteme was abnormaal gedurende hierdie maand. Die mees uitstaande geval was waar geneem gedurende die tydperk 13de tot 15de :- op die 13de was daar 'n 'laag' geleë langs die ooskus met die laagste bekende druk (29.75") by Port Shepstone, terwyl 'n antisiklone die weskus genader het waar die hoogste druk (30.37") by Port Nolloth gemeet was. Op die 15de het die laag na die ooste toe verdwyn, en die antisiklone, wat besonder intensief was het oor die hele Unie gestrek met sy hoogste druk (30.84") oor die suidoostelike Unie. Langs die kus het daar dus binne 2 dae 'n drukskommeling van oor 1 duim plaasgevind. Die lugdrukke wat gedurende die verbytrek van hierdie antisiklone gemeet was, was van die hoogste wat tot nog toe in die Unie voorgekom het. Drie sinoptiese kaarte word ter verduidliking aan die end van hierdie deel bygevoeg.

STERKWINDE EN STORMWINDE:

Gedurende die verbytrek van 'n laagdruksisteem wat intensief genoeg is, waai daar gewoonlik sterk noordwestelike tot suidwestelike winde oor die Kaapprovinsie, die suidelike Vrystaat en Natal. In hierdie maand het sulke sterk winde voorgekom op die 2de, 13de en 24ste. Op die 9de het 'n suidoostelike stormwind langs die suidwestelike kus gewoed.

TEMPERATUUR:

Gemiddelde temperature het die normaal oortref in die suidelike Kaap, gedeeltes van die sentrale en suidwestelike Kaap en langs gedeeltes van die suidoostelike en oostelike kusstreke (sien Kaart II). Die oormate oor hierdie streke het gevarieër van 0.2° by Idutywa (Transkei) tot 1.6° by Mosselbaai en Port Elizabeth. Oor die res van die Unie was gemiddelde temperature subnormaal, en die grootste negatiewe afwykings (2° tot 4°) het oor 'n groot area, bevattende die grootste gedeelte van die Transvaal, die Vrystaat en die aangrensende distrikte van die Kaapprovinsie, voorgekom.

Die Transvaal, Vrystaat, Kaap en Natal as eenhede beskou het gemiddelde temperature aangetoon wat respektiewelik 1.8°, 2.4°, 0.6° en 0.8° onder normaal was, terwyl vir die Unie as 'n geheel die gemiddelde temperatuur 50.6°, of 1.3° onder normaal was.

Gemiddelde maksima (of dag-temperature) toon baie dieselfde distribusie as die gemiddelde temperatuur aan. Oor gedeeltes van die noordelike Kaapprovinsie, die Vrystaat en die Transvaal was die gemiddelde maksima van 3 tot 4° onder normaal.

Die distribusie van afwykings van die normale minima (of nag temperature) toon negatiewe waardes oor die Transvaal en Vrystaat aan, terwyl oor die Kaap en Natal eweveel positiewe en negatiewe afwykings voorgekom het. Die grootste negatiewe afwykings (vanaf 2° tot 4.7°) het in die Vrystaat voorgekom.

Die hoogste indiwiduele maksima wat in elke provinsie geregistreer

was, volg hier :- 88° te Oos Londen (K.P.) op die 1ste; 92° te Komatipoort (Tvl.) op die 31ste; 87° te Empangeni (Natal) op die 2de, en 72° te Kroonstad (O.V.S.) op die 9de.

Die laagste minima in elke provinsie geregistreer, was :- 12° te Lindley (O.V.S.) op die 4de; 11.4° te Wakkerstroom (Tvl.) op die 4de; 15.8° te Grootfontein (K.P.) op die 29ste, en 20° te Ladysmith (Natal) op die 14de.

RYP:

Met uitsondering van 'n smal kusstreek en die Transvaalse laeveld, het ryp byna nagtelik dwarsdeur die maand voorgekom.

NEERSLAG:

Die distribusie van die neerslag vir hierdie maand word globaal aangedui op Kaart III. Die vernaamste punte om op te merk is :- (1) Reënval bo normaal oor die westelike, suidwestelike, suidelike en gedeeltes van die noordoostelike en sentrale Kaapprovinsie, met egter 'n streek van subnormale reënval rondom Laingsburg, Prince Albert, Willowmore en Beaufort Wes. (2) Reënval bo normaal oor die noordelike kusstreke van Natal. (3) Kleiner areas van swaarder neerslag (van 150 tot 200% van die normaal) vernaamlik in die westelike, suidwestelike en suidelike Kaap, die sentrale Kaap en die noord kus van Natal. (4) Geen reën oor 'n streek omvattende die westelike, sentrale en noordwestelike Transvaal, die noordelike Vrystaat en Betsjoeanaland.

Beskou ons nou die aparte provinsies as eenhede, dan toon die Transvaal, Vrystaat en Natal tekorte aan wat respektiewelik 86%, 59% en 7% van hulle gemiddelde normale neerslag bedra, en die Kaapprovinsie 'n surplus van 36%. Oor die Kaapse somerreënvalstreek, egter, was daar 'n klein tekort van 2½%, terwyl die winterreënvalstreek 'n surplus van 73% aangetoon het. Vir die Unie as 'n geheel was daar 'n surplus van 8%.

Neerslag het gedurende drie duidelike tydperke voorgekom, nl. van die 1ste tot die 5de; 11de tot 15de, en 21ste tot 25ste. Gedurende die eerste van hierdie periodes, het die neerslag in die westelike en suidwestelike Kaap begin en het later uitgebrei na die suidelike en sentrale Kaap, die suidoostelike Kaap en Natal. Gedurende die 2de periode was die hele Kaapprovinsie en op die 13de en 15de ook Natal beinvloed. 'n Paar swaar buie (oor 1 duim) het in die suidwestelike Kaap en die noordelike grensgebiede van die Kaap geval op die 12de en 13de onderskeidelik. Vanaf die 21ste tot die 25ste was die reënval grotendeels beperk tot die winterreënvalstreek en die suidelike Kaap alhoewel enkele verspreide buie ook in die sentrale en suidoostelike Kaap en Natal geval het.

SNEEU:

Sneeu het op die berge in die suidwestelike Kaap geval op die 2de en 3de, en in die suidoostelike Kaap op die 4de. Die uitgebreidste sneeuval gedurende hierdie maand, het egter voorgekom op die 12de en 13de toe die bergagtige streke van die Kaapprovinsie en die Drakensberge tot noord van Basoetoeland daarmee bedek was. Selfs so ver noord as die westelike Transvaal (by Zeerust) het daar 'n bietjie sneeu geval.

Ook het daar op die 25ste in die suidwestelike Kaap en op die 2de op die bergreekse in die suidoostelike Kaap en suidelike Vrystaat ligte sneeu geval.

DONDERSTORMS:

Donderstorms, 'n ietwat ongewone verskynsel in Julie, was opgemerk op die 11de in die westelike en sentrale Kaap; op die 13de in noordelike Natal, en op die 22ste in die suidelike Vrystaat.

HAEL het in die suidwestelike en sentrale Kaap geval op die 2de, en in die westelike en

suidwestelike Kaap op die 13de. Geen besondere skade was egter gerapporteer nie, waar skynlik omdat die haelstene klein en betreklik sag was.

DIE VERSAMELDE NEERSLAG:

Die versamelde neerslag vir die tydperk 1 Januarie 1937 tot 31 Julie 1937 (sien Kaart IV) was bo normaal, (1) oor die westelike en suidwestelike Kaap, en (2) oor 'n groot area in die noordelike provinsies omvattende die oostelike Transvaal, gedeeltes van die sentrale en noordwestelike Transvaal, noordelike Natal, Basoetoeland en die sentrale Vrystaat saam met die aangrensende distrikte van die Kaapprovinsie. Oor die res van die Unie het die versamelde reënval gemiddeld omtrent 80% van die normaal bedra. Die enigste uitgebreide streek waar die reënval minder as 50% van die normaal was, is geleë rondom Laingsburg, Prince Albert, Beaufort Wes en Willowmore in die Kaapse binneland. As eenhede beskou, het die Transvaal en Natal surplusse aangetoon wat respektiewelik 12% en 3% van hulle normale reënval bedra het, en die Kaapprovinsie en Vrystaat tekorte van respektiewelik 9% en 1%. Die Kaapse somerreënvalstreek egter, het 'n tekort van 21% terwyl die winterreënval streek 'n surplus van 32% getoon het. Vir die Unie as 'n geheel was daar 'n surplus van 2%.

OBSERVERS' NOTES : JULY 1937.
AANTEKENINGE VAN WAARNEMERS : JULIE 1937.

SYDNEY ON VAAL (KIMBERLEY): 13th Shower - few drops - sleet. G.R. Richards.

KROONSTAD (SOMERGEWAS PROEFSTASIE): Baie suid en suidweste winde. D.J. van der Berg.

BALFOUR (FORT BEAUFORT): 4th - Snow on Katberg and Elandsberg. E.W. Hulse.

RHODES (CAPE PROVINCE): Light snowfall on 3rd, 23rd and 26th. S. van der Merwe.

DARLING (C.P.) Crops suffering somewhat from long continuance of wet and cold. R.Drake.

TOKAI (C.P.) Hail at 8 a.m. on 13th. The Forester.

SLENT (PAARL): The air has been rather damp, vegetation remaining wet throughout day. Some damage has been done to buildings by continuous rains, the mud walls collapsing. 4.91 inches on 13 days. R.W. Short.

BIZIWENI (SOMERSET WEST): Snow on mountains on 2nd and 3rd. 13th Heavy hail during night about 2 a.m. Precipitation 0.21 inches. Total rainfall 6.69 inches on 13 days. K.B. Quinan.

SEVEN RIVERS (STELLENBOSCH): 2nd Snow on mountain. 3rd Mountains covered with snow. 13th Several hailstorms - all the mountains snow covered. 26th Snow on mountains. H.G. Lemon.

JONKERSHOEK (STELLENBOSCH): 2nd Snow on mountain. Soft hail fell at 10.15 a.m. 13th Heavy fall of snow on mountains. Soft hail fell at 8 a.m. and again between 9.30 a.m. and 10 a.m. Schoeman.

MONTAGU: 13th Mountain tops covered with snow. P.R. Lintvelt.

PARADYS (GEORGE:) 13th Very cold berg wind. Slight rain 14th Snow on mountains. W. L. Boshoff.

KANYE (BECHUANALAND): Exceptionally cold on the 14th. K.R. Bome.

KOPJE ALLEEN (NYLSTROOM): July was rainless for the third year in succession. In the 25 years of records here the month has been dry fifteen times, but this is the first time that May, June and July have been rainless. J.L. Soutter.

PORT NOLLOTH: Very nice rain during July - 0.77 inches on 7 days. Wild flowers coming up to give this sandy country a coloured carpet. R.W. Gardiner.

VAAL-HARTZ (KIMBERLEY): 13th Tiny flakes of snow. J.H. Kotze.

LADYBRAND O.F.S.: Snow on Basutoland mountains on 14th, 15th, 16th, 17th, 23rd, 24th, 25th 26th, 27th, 28th and 29th. Light snowfall on 13th between 4 and 5 p.m. 0.01 inch. Government Forester.

MODDERPOORT (LADYBRAND): 13th Bitter cold south wind - slight falls of sleet in the afternoon 23rd Snow on southern ranges. J.W. Eddolls.

LERIBE (BASUTOLAND): Snow on mountain tops 14th and 23rd. District Commissioner.

SCHLABATHEBE (BASUTOLAND): 23rd Snowed. Dist Commissioner.

MOKHOTLONG (BASUTOLAND): 23rd Snow on mountains. Assistant District Commissioner.

RIETPOORT (NAMAQUALAND): On the 5th although the sky was covered with fog it thundered and long streaks of lightning occurred. The Principal (Mission School).

CALVINIA: 3de Berge wit van kapok. S.H. Kuhn.

CARNARVON: Oor die algemeen koue bewolkte winderige dae. Nie besonder baie ryp nie.

BEAUFORT WEST: The weather was generally very unstable and erratic causing much illness to humans. Snow fell on the 13th on the mountains. S.J.P. Bosua.

SOMERSET EAST: 14th Snow on mountain. S.M. Benedict.

QUEENSTOWN: A dry month with cold nights and comparatively mild days. Gusty northwest to southwest winds prevailing. W. Everitt.

EVELYN VALLEY (STUTTERHEIM): A light fall of snow occurred during the forenoon of the 14th.

QUTHING (BASUTOLAND): 12th Heavy snow on mountains. M. Molopo.

IDUTYWA (EASTERN CAPE PROVINCE): 4th Very light fine snow just before 8.30 a.m. with pale snow rainbow (red colour missing). F. Richardson.

MATROOSBERG (WORCESTER): 2nd Snow falling at station for first time this winter. 3rd Mountains covered with snow. T.B. Hattle.

OUDTSHOORN: 15th Snow on Swartbergen. The Mother Superior.

GEORGE: 13th Snow on mountains. A. Goedhals.

ZEERUST: Few tiny snowflakes 8 p.m. on 13th, not occurred since 1858. H. Dietrich.

AIR TEMPERATURES : JULY 1937.

LUG TEMPERATURE : JULIE 1937.

STATION STASIE	MAXIMUM			MINIMUM			MONTHLY MEAN MAAND. GEM.			ABS. MAX.	DATE. DATUM	ABS MIN.	DATE DATUM
	Mean Gem.	Norm.	Diff. Verak.	Mean Gem.	Norm.	Diff. Verak.	Mean Gem.	Norm.	Diff. Verak.				
CAPE PROVINCE: KAAPPROVINSIE:													
ALIWAL NORTH	58.6	62.7	-4.1	27.0	28.7	-1.7	42.8	45.7	-2.9	70.0	9	18.0	20
BRITSTOWN		62.6			34.0			48.3					
CAPE L'AGULHAS	61.0	60.9	+0.1	50.1	49.5	+0.6	55.6	55.2	+0.4	64.0	1	43.0	14
CAPE TOWN	62.7	62.6	+0.1	46.8	47.1	-0.3	54.8	54.9	-0.1	72.9	17	40.5	29
CALA	62.1	63.1	-1.0	35.3	36.6	-1.3	48.7	49.9	-1.2	71.0	10	25.0	15
CARNARVON	58.6	61.0	-2.4	31.5	32.2	-0.7	45.1	46.6	-1.5	81.0	5	23.0	27
CERES	59.3	60.8	-1.5	37.0	35.0	+2.0	48.2	47.9	+0.3	69.0	20	32.0	29
CRADOCK	61.9	65.9	-4.0	33.0	33.2	-0.2	47.5	49.6	-2.1	74.0	31	25.0	18
CLANWILLIAM	66.9	68.6	-1.7	42.6	40.0	+2.6	54.8	54.3	+0.5	79.0	17	35.0	14
DEEPWALLS	63.4	61.9	+1.5	46.8	46.2	+0.6	55.1	54.1	+1.0	74.0	16	37.5	14
EAST LONDON	68.9	69.7	-0.8	49.2	48.7	+0.5	59.1	59.2	-0.1	88.0	1	42.0	27
GOODHOUSE		73.4			44.0			58.7					
GRAAFF REINET	63.9	67.2	-3.3		40.3			53.8		74.5	30		
GRAHAMSTOWN	64.6	65.8	-1.2	39.2	40.5	-1.3	51.9	53.2	-1.3	77.2	11	30.0	29
GROOT DRAKENSTEIN	62.4	63.8	-1.4	41.9	42.9	-1.0	52.2	53.4	-1.2	72.8	6	35.0	29
GROOTFONTEIN	58.0	60.1	-2.1	29.0	30.9	-1.9	43.5	45.5	-2.0	67.3	10	15.8	29
HOPE TOWN	62.9	66.2	-3.3	29.7	32.0	-2.3	46.3	49.1	-2.8	70.0	10	22.0	27
IDUTYWA	66.3	65.7	+0.6	41.1	41.3	-0.2	53.7	53.5	+0.2	77.0	10	34.0	29
KENHARDT	64.8	68.8	-4.0	35.5	35.2	+0.3	50.2	52.0	-1.8	76.6	9	26.0	4
KIMBERLEY	63.2	65.6	-2.4	36.1	36.1	+0.0	49.7	50.9	-1.2	75.0	8	27.2	14
KINGWILLIAMSTOWN	68.7	70.3	-1.6	41.6	40.9	+0.7	55.2	55.6	-0.4	81.0	1	32.0	30
KLAVER	65.9	68.7	-2.8	45.5	46.1	-0.6	55.7	57.4	-1.7	77.2	16	38.0	14
KOKSTAD	62.7	64.2	-1.5	35.4	31.5	+3.9	49.1	47.9	+1.2	72.0	2	23.2	27
KURUMAN		66.0		30.4	30.3	+0.1		48.2				21.0	27
MAFEKING	65.5	68.3	-2.8	32.2	35.6	-3.4	48.9	52.0	-3.1	73.6	25	17.0	27
MOSSEL BAY	66.0	65.2	+0.8	51.5	49.1	+2.4	58.8	57.2	+1.6	78.0	1	43.0	14
MELSPOORT	64.5	62.3	+2.2	35.3	36.4	-1.1	49.9	49.4	+0.5	71.0	10	27.0	28
O OKIEP	59.9	63.3	-3.4	40.6	43.9	-3.3	50.3	53.6	-3.3	73.1	10	32.0	3
OUDTSHOORN	66.9	65.4	+1.5	37.2	36.3	+0.9	52.1	50.9	+1.2	81.0	10	31.5	29
PORT ELIZABETH	67.9	66.5	+1.4	50.8	49.1	+1.7	59.4	57.8	+1.6	83.0	1	44.0	6
PORT NOLLOTH	62.6	64.2	-1.6	45.2	44.9	+0.3	53.9	54.6	-0.7	80.6	16	39.0	14
PORT ST. JOHNS	69.8	72.0	-2.2	55.4	52.0	+3.4	62.6	62.0	+0.6	79.0	11	45.0	14
POSTMASBURG	60.4	63.0	-2.6	39.0	35.8	+3.2	49.7	49.4	+0.3	70.3	9	25.8	14
PRIESKA	65.3	65.6	-0.3	28.3	32.5	-4.2	46.8	49.1	-2.3	77.8	9	21.0	27
QUEENSTOWN	62.9	64.5	-1.6	35.8	35.4	+0.4	49.4	50.0	-0.6	71.0	10	24.0	29
RIETPOORT	62.9	65.7	-2.8	41.7	40.8	+0.9	52.3	53.3	-1.0	78.0	28	33.0	14
SOMERSET OOS	65.9	65.8	+0.1	41.5	40.2	+1.3	53.7	53.0	+0.7	76.2	10	31.1	29
SUTHERLAND	51.8	54.1	-2.3	28.5	29.4	-0.9	40.2	41.8	-1.6	64.0	11	22.0	29
SYDNEYS HOPE	63.1	64.4	-1.3	46.4	46.3	+0.1	54.8	55.4	-0.6	76.0	1	39.0	3
UITENHAGE		71.0			40.8			55.9					
UMTATA	69.8	70.3	-0.5	34.2	35.6	-1.4	52.0	53.0	-1.0	79.0	1	25.0	27
UPINGTON	66.4	68.3	-1.9	38.1	37.3	+0.8	52.3	52.8	-0.5	80.4	8	27.0	4
VAN WYKSVLEI	62.3	63.6	-1.3	33.7	30.7	+3.0	48.0	47.2	+0.8	73.0	9	26.0	14
VICTORIA WEST	58.2	59.0	-0.8	29.8	26.5	+3.3	44.0	42.8	+1.2	69.0	9	22.0	29
VRYBURG	66.8	66.9	-0.1	27.1	30.5	-3.4	47.0	48.7	-1.7	85.0	6	22.0	27
WILLOWMORE		60.8			34.1			47.5					
TRANSVAAL:													
BARBERTON	70.5	72.2	-1.7	47.7	48.1	-0.4	59.1	60.2	-1.1	83.8	25	43.5	28
BELFAST	57.3	60.5	-3.2	26.7	27.5	-0.8	42.0	44.0	-2.0	65.0	25	19.0	14
CHRISTIANA		65.7			30.7			48.2					
ERMELO		62.9			31.7			47.3					
HEIDELBERG	62.2	64.6	-2.4	28.5	28.7	-0.2	45.4	46.7	-1.3	(68.8)	9	19.0	4
JOHANNESBURG	58.7	60.2	-1.5	36.3	40.7	-4.4	47.5	50.5	-3.0	66.6	27	23.1	14
KLERKSDORP		67.9			32.0			50.0					
KOMATIPOORT	77.8	79.2	-1.4	47.8	47.2	+0.6	62.8	63.2	-0.4	98.0	31	38.0	7
KORPJE ALLEEN	68.7	69.1	-0.4	33.6	36.4	-2.8	51.2	52.8	-1.6	78.4	25	25.8	27
LOUIS TRICHARDT	67.4	69.7	-1.3	43.2	43.2	+0.0	55.3	56.0	-0.7	81.0	26	36.0	28

AIR TEMPERATURES : JULY 1937 (CONTD.)
LUG TEMPERATURE : JULIE 1937 (VERVOLG)

STATION STASIE	MAXIMUM			MINIMUM			MONTHLY MEAN MAAND GEM.			ABS. MAX.	DATE DATUM	ABS. MIN.	DATE DATUM
	Mean Gem.	Norm.	Diff. Versk.	Mean Gem.	Norm.	Diff. Versk.	Mean Gem.	Norm.	Diff. Versk.				
TRANSVAAL (CONTD.) - (VERVOLG).													
MESSINA	74.3	75.7	-1.4	51.2	50.0	+1.2	62.8	62.9	-0.1	86.7	27	43.8	8
MIDDELBURG	63.0	67.0	-4.0	26.0	29.0	-3.0	44.5	48.0	-3.5	71.0	28	17.5	28
NYLSTROOM	68.3	69.3	-1.0	31.3	35.2	-3.9	49.8	52.3	-2.5	79.0	25	22.0	27
PIETERSBURG	64.8	68.6	-3.8	34.7	36.9	-2.2	49.8	52.8	-3.0	74.4	26	24.8	15
PIET RETIEF	65.4	66.6	-1.2	37.0	39.3	-2.3	51.2	53.0	-1.8	74.6	25	29.0	5
PILGRIMS REST	67.1	67.7	-0.6	35.5	35.8	-0.3	51.3	51.8	-0.5	77.8	25	25.5	28
POTCHEFSTROOM	63.9	67.0	-3.1	28.6	31.4	-2.8	46.3	49.2	-2.9	73.0	8	17.0	4
PRETORIA	65.7	68.2	-2.5	35.4	36.3	-0.9	50.6	52.3	-1.7	73.3	28	29.3	4
RUSTENBURG	67.1	69.2	-2.1	33.2	37.0	-3.8	50.2	53.1	-2.9	75.0	28	26.0	16
STANDERTON	64.5	64.6	-0.1	23.5	24.9	-1.4	44.0	44.8	-0.8	73.0	9	13.0	5
WAKKERSTROOM	60.0	61.0	-1.0	24.0	27.8	-3.8	42.0	44.4	-2.4	67.9	25	11.4	4
ZEERUST	64.3	67.8	-3.5	30.5	32.3	-1.8	47.4	50.1	-2.7	74.7	8	23.5	27
NATAL:													
DUNDEE	65.8	67.6	-1.8	35.2	35.0	+0.2	50.5	51.3	-0.8	76.0	25	25.0	18
DURBAN POINT	71.3	71.6	-0.3	55.6	55.1	+0.5	63.5	63.4	+0.1	83.6	2	50.2	18
EMPANGENI	73.1	73.9	-0.8	51.2	50.0	+1.2	62.2	62.0	+0.2	87.0	2	44.0	28
ESHOWE	69.6	70.3	-0.7	50.7	52.2	-1.5	60.2	61.3	-1.1	84.5	2	43.3	27
ESTCOURT	65.8	65.5	+0.3	32.6	33.1	-0.5	49.2	49.3	-0.1	77.0	26	27.0	27
LADYSMITH	66.0	68.5	-2.5	30.3	35.5	-5.2	48.2	52.0	-3.8	75.1	25	20.0	14
PIETERMARITZBURG	69.9	70.2	-0.3	42.8	42.6	+0.2	56.4	56.4	+0.0	81.4	30	34.2	27
OTOBOTINI	74.7	77.0	-2.3	52.4	52.9	-0.5	63.6	65.0	-1.4	82.0	2	47.0	14
PORT SHEPSTONE	69.3	70.0	-0.7	52.0	52.2	-0.2	60.7	61.1	-0.4	82.0	2	45.0	17
STANGER	74.2	74.7	-0.5	52.2	54.1	-1.9	63.2	64.4	-1.2	84.0	13	46.0	17
VRYHEID	65.1	68.4	-3.3	41.4	41.5	-0.1	53.3	55.0	-1.7	71.0	2	32.5	4
WEENEN	69.7	70.5	-0.8	32.6	31.9	+0.7	51.2	51.2	+0.0	79.0	25	26.0	28
O.F.S. : O.V.S.:													
BETHULIE	59.5	62.3	-2.8	29.5	31.6	-2.1	44.5	47.0	-2.5	70.0	9	20.8	5
BLOEMFONTEIN	59.1	62.5	-3.4	26.3	31.0	-4.7	42.7	46.8	-4.1	70.3	9	16.8	27
FAURESMITH	58.7	58.8	-0.1	26.6	28.8	-2.2	42.7	43.8	-1.1	71.0	9	15.5	27
HARRISMITH	57.0	57.4	-0.4	29.5	33.5	-4.0	43.3	45.5	-2.2	65.0	3	20.0	28
KROONSTAD	62.9	64.6	-1.7	24.9	28.8	-3.9	43.9	46.7	-2.8	72.0	9	16.0	27
LADYBRAND	57.8	60.1	-2.3	29.0	31.7	-2.7	43.4	45.9	-2.5	66.0	10	23.0	27
LINDLEY	60.4	63.7	-3.3	23.9	27.4	-3.5	42.2	45.6	-3.4	70.0	9	12.0	4
WEPENER	59.2	60.7	-1.5	26.8	26.6	+0.2	43.0	43.7	-0.7	69.4	9	15.5	27
BASUTOLAND : BASOETOELAND:													
BUTHA BUTHE	59.7	62.1	-2.4	25.5	28.2	-2.7	42.6	45.2	-2.6	67.0	9	17.0	4
MAFETENG	56.1	57.4	-1.3	34.5	33.2	+1.3	45.3	45.3	+0.0	65.0	8	25.0	27
MOHALES HOEK	57.1	60.4	-3.3	28.7	31.8	-3.1	42.9	46.1	-3.2	68.0	10	23.0	15
MOKHOTLONG		55.2		20.9	24.3	-3.4		39.8				12.0	4
QACHASNEK	57.1	56.2	+0.9	32.5	34.0	-1.5	44.8	45.1	-0.3	63.0	9	21.0	15
BECHUANALAND : BETSJOEANALAND:													
DIKGATLONG	72.6	74.3	-1.7	31.6	36.4	-4.8	52.1	55.4	-3.3	84.0	13	23.0	27
GABERONES	69.0	71.5	-2.5	29.7	33.9	-4.2	49.4	52.7	-3.3	79.0	25	24.0	19
MAHALAPYE	70.3	72.4	-2.1	34.7	37.4	-2.7	52.5	54.9	-2.4	80.0	25	23.0	15
SWAZILAND : SWASIELAND:													
MBABANE	63.9	71.0	-7.1	40.3	48.7	-8.4	52.1	59.9	-7.8	78.0	25	32.0	20
SIEGI	68.7	69.1	-0.4	49.2	49.4	-0.2	59.0	59.3	-0.3	79.0	(16)	44.0	5

RAINFALL : JULY 1937.
NEERSLAG : JULIE 1937.

STATION / STASIE	JULY 1937 JULIE	NORM.	DIFF. VERSK.	%	FROM 1.1.37 VANAF	NORM.	DIFF. VERSK.	CUMULATIVE % VERSAMELDE
CAPE PROVINCE (SUMMER RAINFALL AREA)								
KAAPPROVINSIE (SOMERREENVALSTREEK).								
ALIWAL NORTH	-0.59	0.43	+0.16	137	9.26	12.02	-2.76	77
BEAUFORT WEST	-0.13	0.32	-0.19	37	1.82	6.13	-4.31	30
BRITSTOWN	0.08	0.25	-0.17	32	6.09	8.00	-1.91	76
CARNARVON	0.00	0.22	-0.22	0	4.73	5.73	-1.00	83
EAST LONDON	1.68	1.55	+0.13	108	15.22	17.88	-2.66	85
FRASERBURG	0.32	0.32	+0.00	100	3.71	5.00	-1.29	74
GEORGE	2.75	1.73	+1.02	159	16.70	18.85	-2.15	89
GRAAFF REINET	0.95	0.53	+0.42	179	11.04	8.44	+2.60	131
GRAHAMSTOWN	1.55	1.16	+0.39	134	7.16	11.81	-4.65	61
GRIQUATOWN	-0.05	0.18	-0.13	28	9.21	8.95	+0.26	103
GROOTFONTEIN	0.37	0.44	-0.07	84	5.52	8.86	-3.34	62
HANOVER	0.41	0.39	+0.02	105	3.39	9.85	-6.46	34
HOPE TOWN	0.11	0.25	-0.14	44	6.69	8.44	-1.75	79
IDUTYWA	0.28	1.18	-0.90	24	11.26	13.11	-1.85	86
KENHARDT	-0.17	0.18	-0.01	94	4.01	4.30	-0.29	93
KIMBERLEY	0.05	0.25	-0.20	20	10.64	10.22	+0.42	104
KINGWILLIAMSTOWN	0.45	1.12	-0.67	40	8.00	14.33	-6.33	56
KOKSTAD	0.05	0.65	-0.60	8	18.31	16.99	+1.32	108
MATJESFONTEIN	0.56	0.65	-0.09	86	4.83	4.45	2.62	44
MACLEAR	0.08	0.62	-0.54	13	18.41	19.32	-0.91	95
MAFEKING	0.00	0.24	-0.24	0	11.60	11.87	-0.27	98
MOSSEL BAY	2.03	1.23	+0.80	165	7.67	9.59	-1.92	80
PHILIPSTOWN	0.45	0.29	+0.16	155	6.09	9.12	-3.03	67
PORT ELIZABETH	2.29	1.94	+0.35	118	8.82	12.24	-3.42	72
PORT ST. JOHNS	1.54	1.54	+0.00	100	23.60	25.82	-2.22	91
PRIESKA	0.00	0.18	-0.18	0	3.73	6.98	-3.25	53
QUEENSTOWN	0.55	0.60	-0.05	92	8.28	13.89	-5.61	60
SOMERSET EAST	0.73	0.88	-0.15	83	6.42	13.05	-6.63	49
STEYNSBURG	0.64	0.39	+0.25	164	7.81	9.69	-1.88	81
STEYTLERVILLE	0.37	0.33	+0.04	112	3.66	5.51	-1.85	66
SWELLENDAM	2.00	2.12	-0.12	94	13.93	17.77	-3.84	78
SYDNEYS HOPE	1.22	1.14	+0.08	107	6.86	12.67	-5.81	54
UMTATA	0.01	0.71	-0.70	1	12.75	15.06	-2.31	85
UNIONDALE	1.74	0.98	+0.76	177	4.00	7.74	-3.74	52
UPINGTON	0.04	0.10	-0.06	40	3.61	5.39	-1.78	67
VICTORIA WEST	0.49	0.09	+0.40	545	4.22	5.75	-1.53	73
VRYBURG	0.00	0.20	-0.20	0	15.80	13.12	+2.68	120
CAPE PROVINCE (WINTER RAINFALL AREA)								
KAAPPROVINSIE (WINTERREENVALSTREEK).								
CALEDON	4.71	2.55	+2.16	185	12.35	12.37	-0.02	100
CALVINIA	1.32	0.95	+0.37	139	4.47	5.64	-1.17	79
CAPE TOWN ROYAL OBS	5.92	3.58	+2.34	165	22.40	15.58	+6.82	144
CERES	12.68	5.91	+6.77	214	42.27	24.41	+17.86	173
CLANWILLIAM	1.90	1.33	+0.57	143	6.13	5.66	+0.47	108
GARIES	0.94	0.71	+0.23	132	3.08	3.27	-0.19	94
GT. DRAKENSTEIN	8.69	5.20	+3.49	167	33.88	22.51	+11.37	153
O'OKIEP	1.03	0.79	+0.24	130	3.78	4.38	-0.60	86
PIQUETBERG	3.67	2.69	+0.98	136	12.00	11.86	+0.14	101
PORT NOLLOTH	0.77	0.34	+0.43	226	1.86	1.59	+0.27	117
SUTHERLAND	1.40	0.94	+0.46	149	7.68	6.22	+1.46	123
WORCESTER	3.24	1.73	+1.51	187	9.77	7.54	+2.23	130
BECHUANALAND - BETSJOEANALAND:								
MAHALAPYE	0.00	0.13	-0.13	0	11.25	10.28	+0.97	109
DIKGATLONG	0.00	0.14	-0.14	0	9.25	10.20	-0.95	91
GABERONES	0.00	0.06	-0.06	0	14.22	11.77	+2.45	121
SWAZILAND - SWASIELAND:								
MBABANE	0.52	0.85	-0.33	61	47.91	30.62	+17.29	156

RAINFALL : JULY 1937 (CONTINUED).
NEERSLAG : JULIE 1937 (VERVOLG).

STATION STASIE	JULY 1937 JULIE	NORM.	DIFF. VERSK.	%	FROM 1.1.37 VANAF	NORM.	DIFF. VERSK.	CUMULATIVE % VERSAMELDE
O.F.S. : O.V.S.								
BETHULIE	0.28	0.38	-0.10	74	7.25	12.55	-5.30	58
BLOEMFONTEIN	0.21	0.33	-0.12	64	13.37	13.62	-0.25	98
BOSHOF	0.00	0.25	-0.25	0	14.57	11.70	+2.87	124
FAURESMITH	0.16	0.35	-0.19	46	10.75	8.36	+2.39	129
HARRISMITH	0.00	0.45	-0.45	0	13.34	15.55	-2.21	86
KROONSTAD	0.00	0.27	-0.27	0	10.27	12.90	-2.63	80
LADYBRAND	0.46	0.43	+0.03	107	18.16	15.76	+2.40	115
LINDLEY	0.00	0.32	-0.32	0	12.86	13.97	-1.11	92
WINBURG	0.16	0.32	-0.16	50	16.82	13.24	+3.58	127
WEPENER	0.19	0.49	-0.30	39	15.50	15.95	-0.45	97
NATAL:								
DUNDEE	0.00	0.34	-0.34	0	21.44	17.41	+4.03	123
DURBAN	1.42	1.68	-0.26	85	20.87	25.58	-4.71	82
EMPANGENI	3.18	1.81	+1.37	176	26.52	24.53	+1.99	108
ESTCOURT	0.00	0.36	-0.36	0		16.43		
LADYSMITH	0.00	0.38	-0.38	0	17.11	16.77	+0.34	102
MELMOTH	0.95	0.65	+0.30	146	16.01	17.25	-1.24	93
OTOBOTINI	0.34	0.43	-0.09	79	20.70	13.47	+7.23	154
PIETERMARITZBURG	0.45	0.49	-0.04	92	14.05	19.72	-5.67	71
STANGER	2.51	1.06	+1.45	237	21.68	21.59	+0.09	100
[illegible]	0.42	0.45	-0.03	93	23.66	18.55	+5.11	128
[illegible]	0.06	0.49	-0.43	12	21.77	17.91	+3.86	121
[illegible]	0.00	0.24	-0.24	0	10.23	14.59	-4.36	70
BASUTOLAND : BASOETOELAND:								
[illegible]	0.35	0.53	-0.18	66	19.95	18.83	+1.12	106
BUTHA BUTHE	0.18	0.59	-0.41	31	21.45	18.44	+3.01	116
MOKHOTLONG	0.10	0.27	-0.17	37	11.92	11.48	+0.44	104
MOHALESHOEK	0.44	0.53	-0.09	83	25.44	17.18	+8.26	148
QACHASNEK	0.12	0.38	-0.26	32	21.65	20.55	+1.10	106
TRANSVAAL:								
BARBERTON	0.02	0.33	-0.31	6	26.88	17.02	+9.86	158
BELFAST	0.00	0.33	-0.33	0	21.05	16.38	+4.67	129
BETHAL	0.00	0.32	-0.32	0	14.31	14.57	-0.26	98
BLOEMHOF	0.00	0.28	-0.28	0	8.82	12.03	-13.21	73
ELIM HOSPITAL	0.06	0.49	-0.43	12	19.74	20.69	-0.95	95
ERMELO	0.00	0.39	-0.39	0	18.60	14.00	+4.60	133
[illegible]	0.19	0.61	-0.42	31	29.81	23.99	+5.82	124
HEIDELBERG	0.08	0.32	-0.24	25	13.63	14.93	-1.30	91
JOHANNESBURG OBSERVATORY	0.06	0.42	-0.36	14	19.00	16.34	+2.66	116
JOUBERT PARK	0.07	0.38	-0.31	18	23.45	18.45	+5.00	127
KOMATIPOORT	0.00	0.42	-0.42	0	31.32	17.03	+14.29	184
LICHTENBURG	0.00	0.28	-0.28	0	12.19	14.26	-2.07	85
MESSINA	0.00	0.17	-0.17	0	7.01	8.18	-1.17	86
MIDDELBURG	0.00	0.22	-0.22	0	11.93	15.23	-3.30	78
NYLSTROOM	0.00	0.25	-0.25	0	13.69	14.52	-0.83	94
PIETERSBURG	0.00	0.24	-0.24	0	14.95	11.50	+3.45	130
PIET RETIEF	0.06	0.50	-0.44	12	23.58	18.12	+5.46	130
PILGRIMS REST	0.10	0.56	-0.46	18	30.19	25.16	+5.03	120
POTCHEFSTROOM	0.00	0.28	-0.28	0	9.55	13.63	-4.08	70
PRETORIA	0.00	0.32	-0.32	0	16.93	15.52	+1.41	109
ROOIBERG	0.00	0.26	-0.26	0	13.62	13.24	+0.38	103
RUSTENBURG	0.00	0.31	-0.31	0	12.60	14.81	-2.21	85
STANDERTON	0.05	0.43	-0.38	12	12.10	15.45	-3.35	78
VILLA NORA	0.00	0.14	-0.14	0	13.90	10.26	+3.64	136
WAKKERSTROOM	0.00	0.48	-0.48	0	19.14	15.94	+3.20	120
WOODBUSH	0.72	1.11	-0.39	65	53.84	43.67	+10.17	123
ZEERUST	0.00	0.16	-0.16	0	9.27	13.81	-4.54	67

WEERKAART —— WEATHER MAP

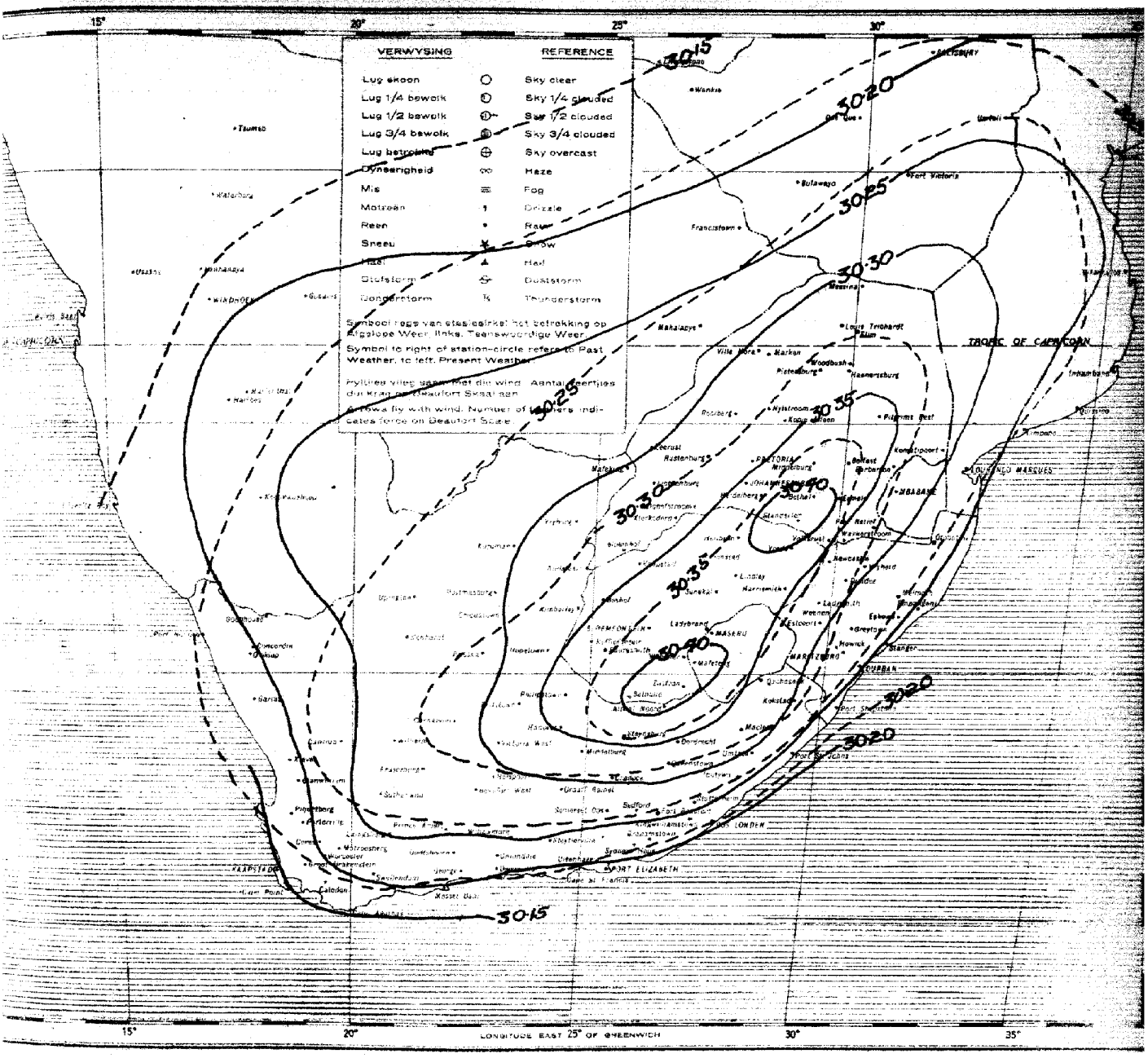


CHART I — KAART I.

JULY 1937 — Mean Atmospheric Pressure (at M.S.L.) at 8.30 a.m. The broken lines represent the normal distribution for July.

JULIE 1937 — Gemiddelde Lugdruk (by Seespieël) om 8.30 v.m. Die gebroke lyne dui die normale distribusie vir Julie aan.

WEERKAART —— WEATHER MAP

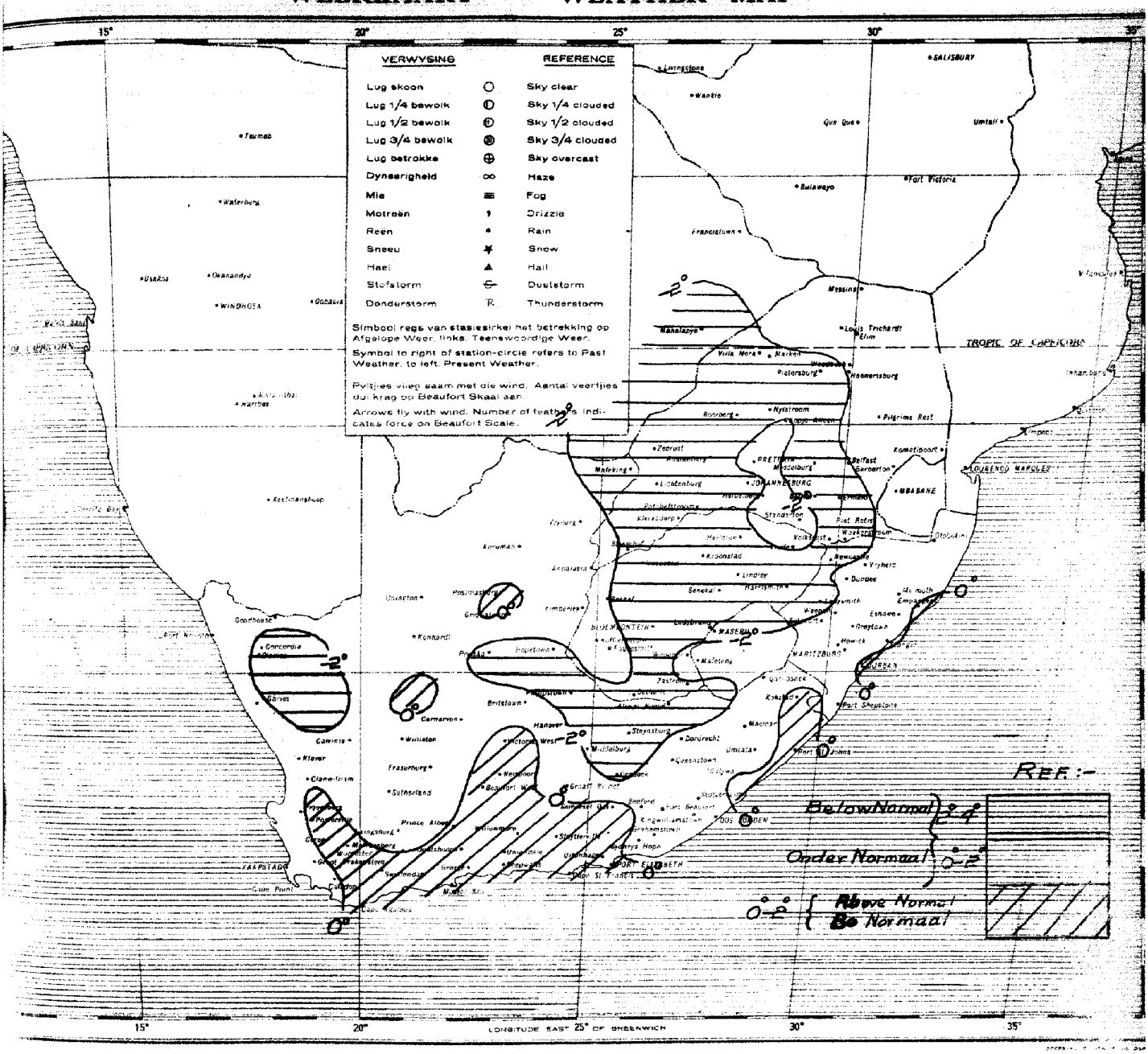


CHART II — KAART II.

JULY 1937 - Mean Temperature - departure from the normal in °F.

JULIE 1937 - Gemiddelde Temperatuur - afwyking van die normaal in °F.

WEERKAART —— WEATHER MAP

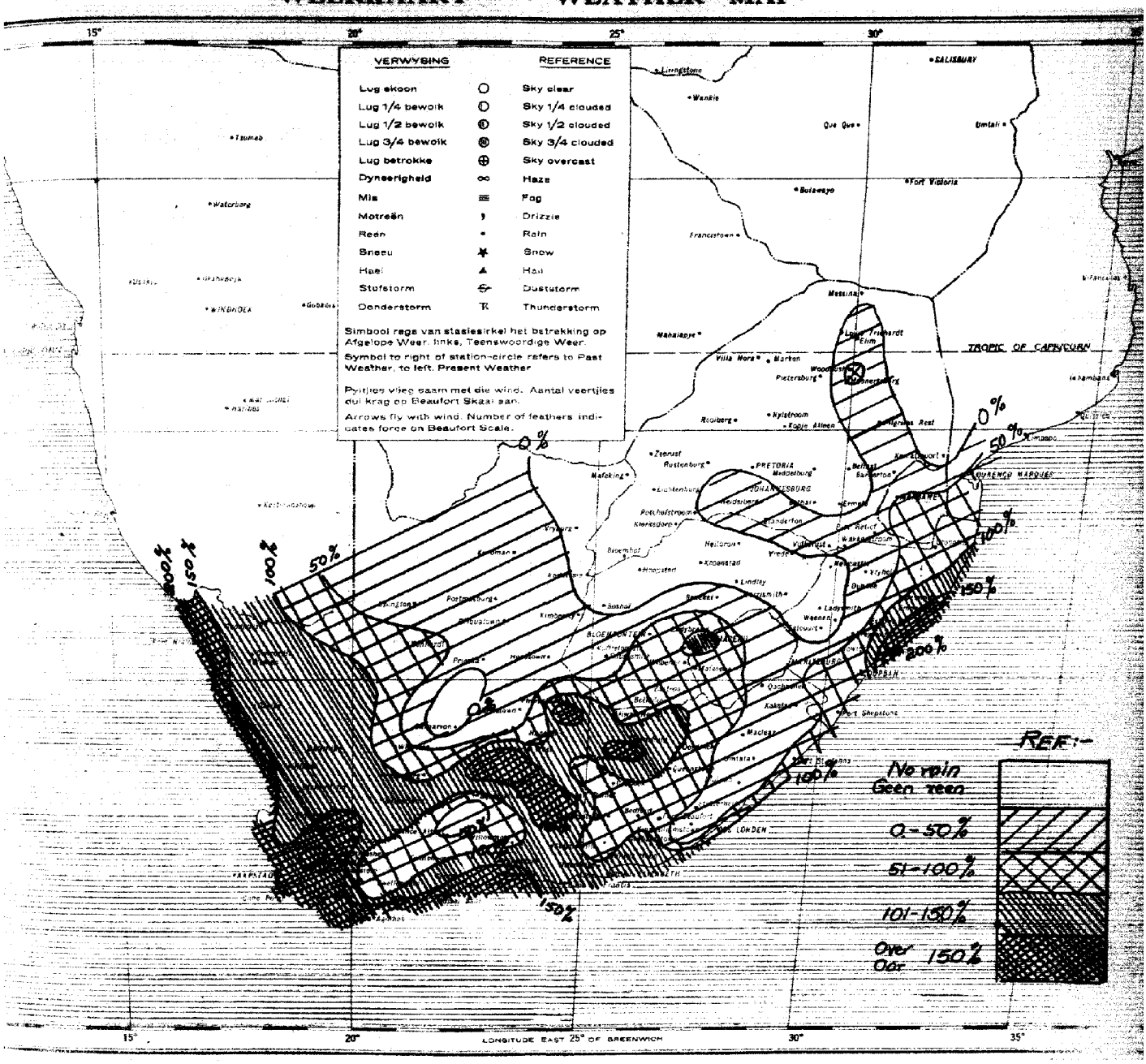


CHART III – KAART III.

JULY 1937 – Precipitation shown as percentage of the normal.

JULIE 1937 – Neerslag aangegee as persentasie van die normaal.

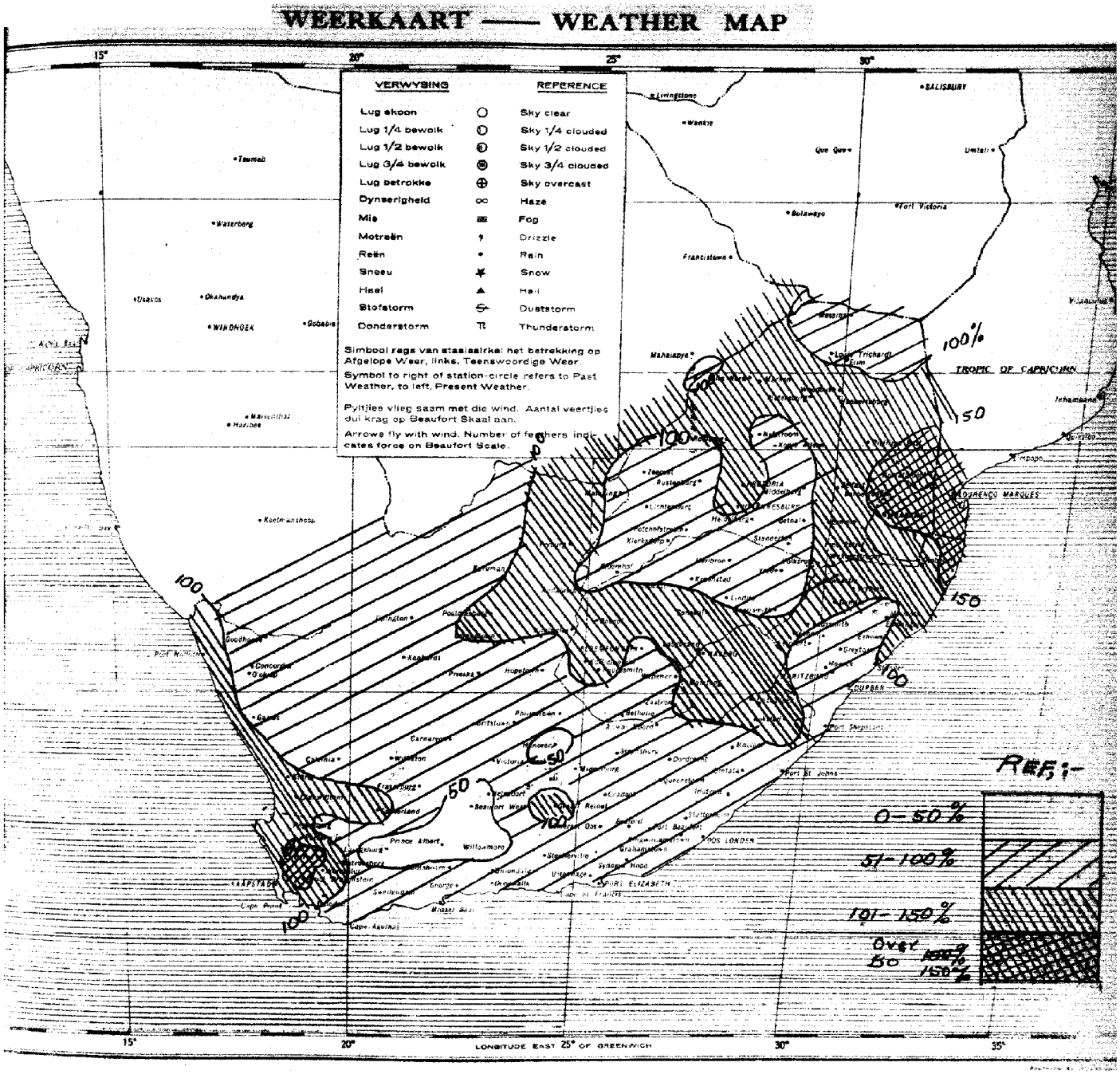
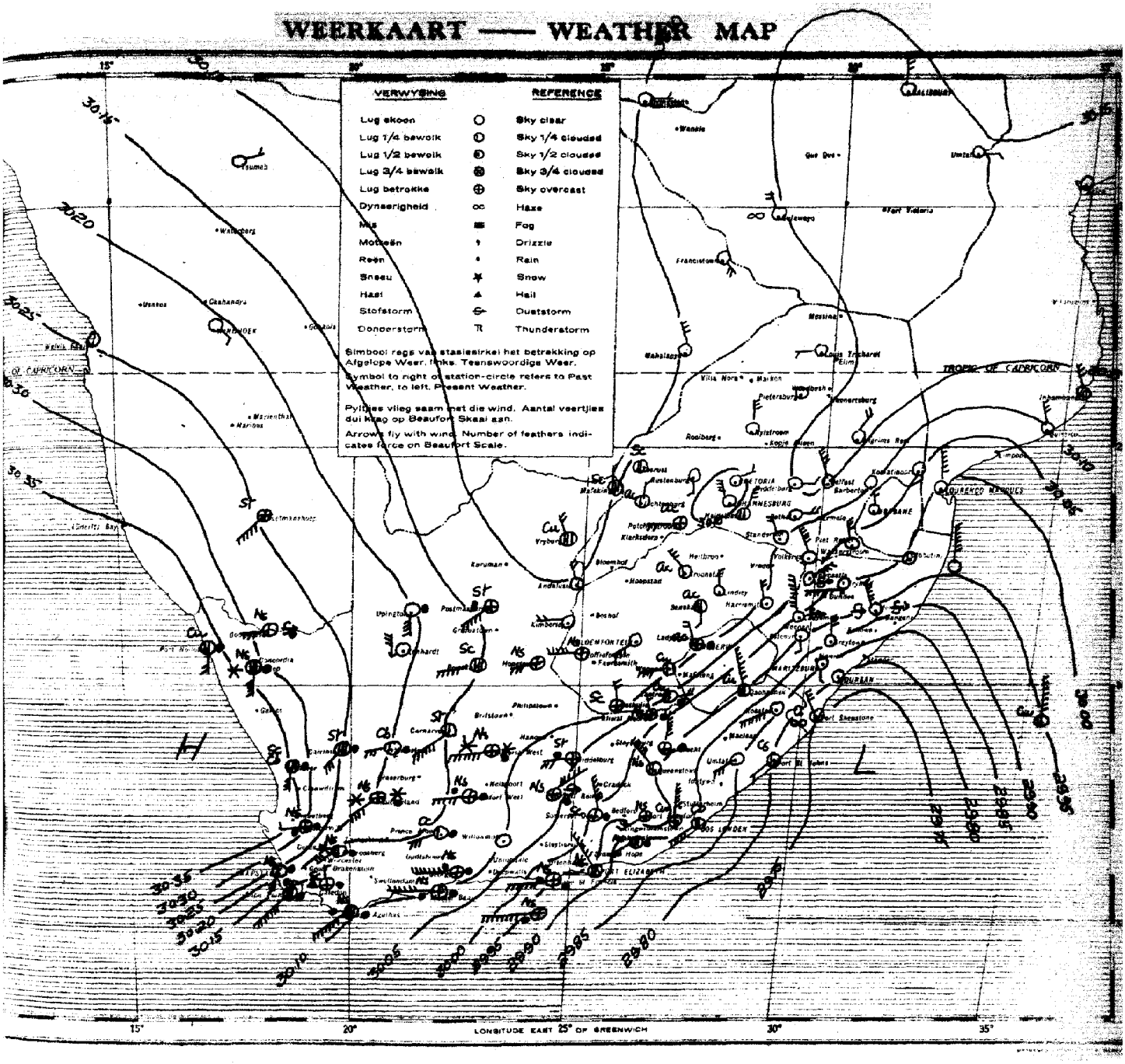


CHART IV - KAART IV.

JULY 1937 - Accumulative precipitation for the period 1st January 1937 to 31st July 1937.

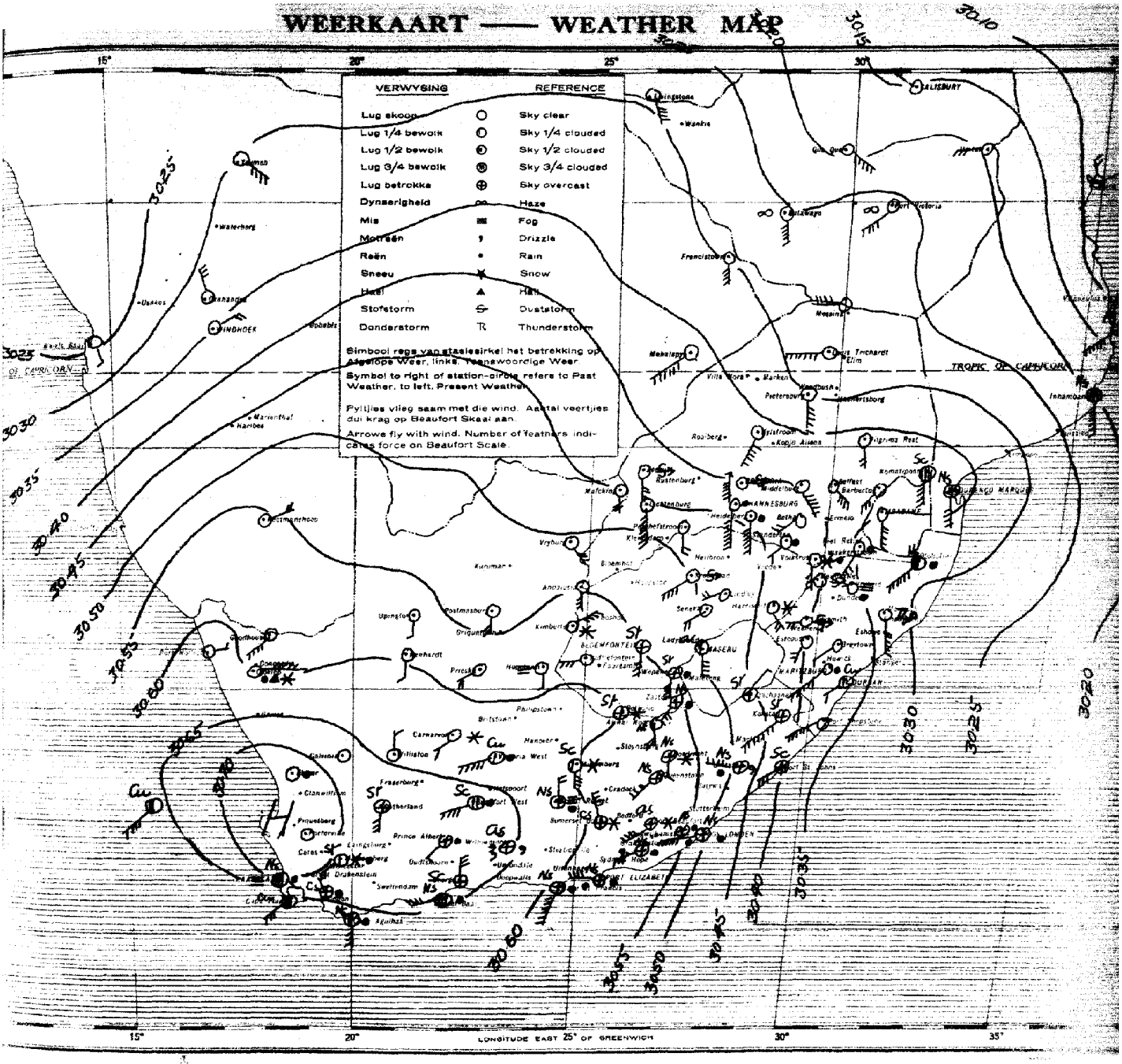
JULIE 1937 - Versamelde neerslag vir die tydperk 1 Januarie 1937 tot 31 Julie 1937.



SYNOPTIC WEATHER CHART.

13.7.1937 (8.30 a.m. S.A.S.T.)

PROBABILITIES 11 a.m. for 24 hours:- Cloudy in Cape Province with rain in southwest, south, centre and east and snow on mountains in southwest, central and eastern Cape; heavy downpours possible on south Cape coast, clearing later in northwest and southwest Cape. Fine to fair over three northern provinces, clouding today in eastern Free State and Basutoland and later on Natal coast where becoming rather unsettled with snow on Drakensberg. Winds northwesterly to southwesterly moderate in northwest Cape and fresh to strong over remainder of Union reaching gale force to-day in south and eastern Cape and along eastern slopes of Drakensberg; winds going southerly to easterly later in southwest and northwest Cape and moderating. Cold but mild at first in eastern Free State, Natal and Transvaal. Severe frost tonight in central Cape.

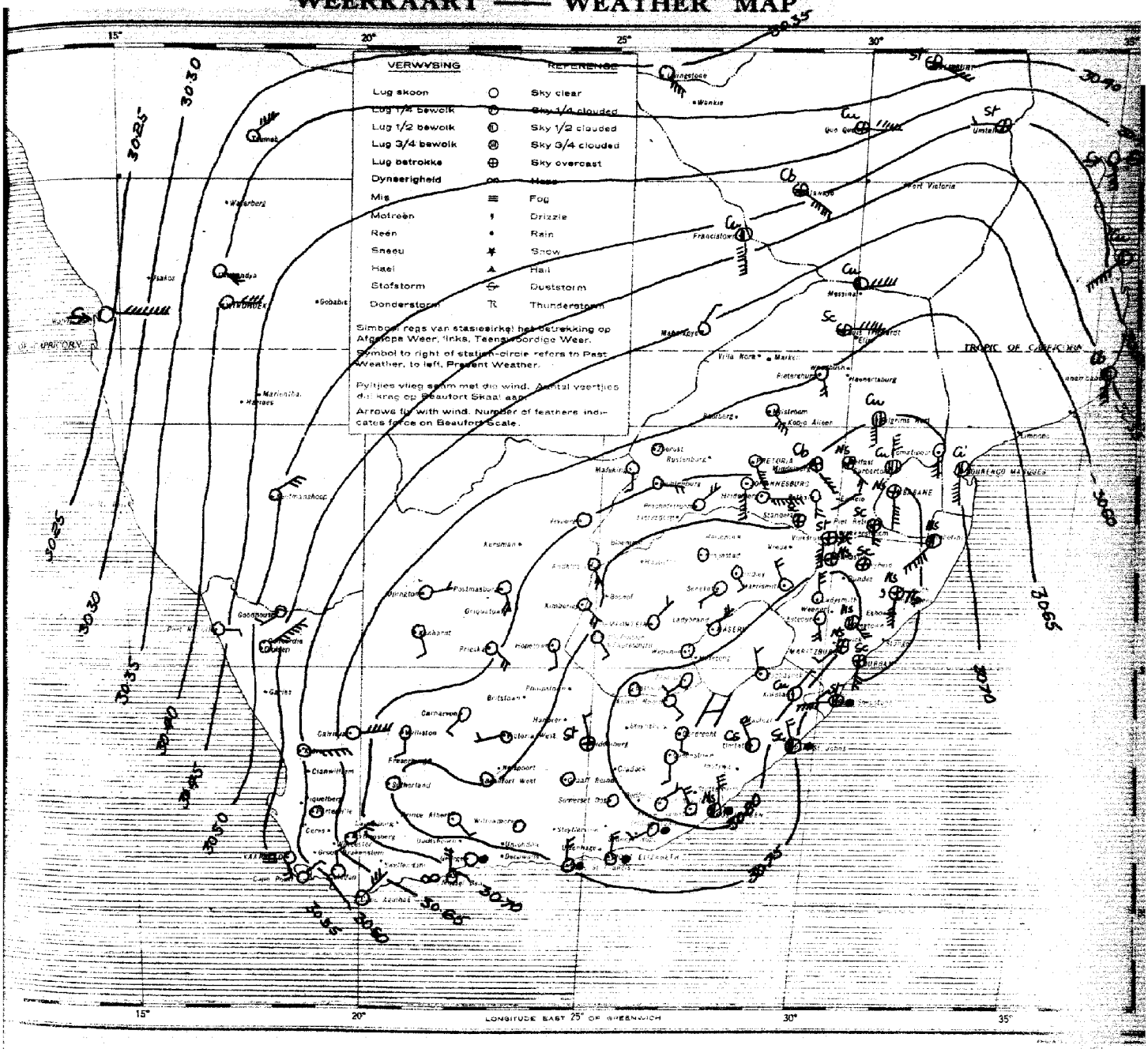


SYNOPTIC WEATHER CHART.

14.7.1937 - (8.30 a.m. S.A.S.T.)

PROBABILITIES 11 a.m. for 24 Hours:- Cloudy in south and eastern Cape with local showers and snow on mountains in eastern Cape; weather improving later. Fine over rest of Union with some cloud at first over Peninsula and later on Natal coast and Transvaal lowveld. Light to moderate southwesterly to southeasterly winds but southeasterly to northeasterly in northwest Cape and fresh at first in eastern Cape, east and north Transvaal and on Natal coast; winds freshening later in west Cape with berg wind spells on coast. Cold over whole Union with severe frosts tonight over interior, warming later along west coast.

WEERKAART —— WEATHER MAP



SYNOPTIC WEATHER CHART.

15.7.1937 - (8.30 a.m. S.A.S.T.)

PROBABILITIES 11 a.m. for 24 hours:- Bright anticyclonic weather with some cloud at first in Natal and Transvaal lowveld, and local drizzle possible on Natal coast. Fresh to strong easterly to northeasterly berg winds along west coastal areas reaching gale force at places, elsewhere winds light easterly to northerly but moderate to fresh southeasterly at first in Transvaal. Cold except on southwest coast where mild to cool and in western Cape where mild to warm.

D I E U N I E V A N S U I D - A F R I K A.

DEPARTEMENT VAN BESPROEIING

M A A N D E L I K S E W E E R V E R S L A G

VAN DIE

WEERKUNDIGE KANTOOR.

DEEL XVIII | AUGUSTUS 1937 | NO. 8.

ALGEMEEN:

Hierdie maand was gekenmerk deur warm en droë weer; neerslag het slegs as ligte buie voorgekom, meestal oor die kusstreke, buitengewoon swaar buie aan die Natalse kus op die 3de; droogte kondisies oor die grootste gedeelte van die binneland; skerp ryp oor die hoog-plato gedurende die eerste week van die maand.

LUGDRUK:

Die gemiddelde lugdruk vir hierdie maand, (sien Kaart I) was omtrent 0·05 duim bo normaal. Die distribusie toon die tiepiese winter-antisiklone oor die hele Unie aan, met sy hoogste druk oor die Vrystaat en Transvaalse hoeveld.

STERK WINDE EN STORMWINDE:

Sterk noordelike tot westelike winde het oor die Kaapprovinsie en besonderlik langs die suidwestelike, suidelike en suidoostelike kusstreke, gewaai op die 19de en 20ste en vanaf die 22ste tot 23ste. Hierdie winde het in verband gestaan met laagdruksteurings wat langs die kus van wes na oos getrek het.

TEMPERATUUR:

Gemiddelde temperature was byna oor die hele Unie bo-normaal. Die uitsonderings was (1) die noordwestelike Transvaal tesame met gedeeltes van die westelike en sentrale Transvaal, en (2) Swaziland en die uiterste noordoostelike Natal. Oor die Kaapprovinsie, die suidelike en oostelike Vrystaat het die temperatuur oormate gevarieer van 2 tot 4°F. en oor gedeeltes van die noordelike Kaapprovinsie en Basoetoeland van 4 tot 6°F.

Die Transvaal, Natal, Vrystaat en Kaapprovinsie as eenhede beskou het gemiddelde temperature aangetoon wat respektiewelik 0·7°, 0·8°, 2·4° en 2·7° bo normaal was terwyl die gemiddelde temperatuur vir die Unie as 'n geheel 57·3°F., of 1·7° bo-normaal, was.

Die hoogste individuele maksima gedurende hierdie maand in elke provinsie aangeteken, was: 99·4° te Klaver (K.P.) op die 29ste; 93° te Komatipoort (Tvl.) op die 11de; 90·4° te Maritzburg (Natal) op die 31ste, en 84° te Lindley (O.V.S.) op die 31ste.

Die laagste minima in elke provinsie was: 18·9° te Grootfontein (K.P.) op die 2de; 16° te Standerton (Tvl.) op die 2de; 30° te Estcourt en Ladysmith (Natal) op die 1ste, en 16° te Lindley (O.V.S.) op die 2de.

RYP:

Ryp het oor die Transvaalse hoëveld, die Vrystaat, westelike Natal en die binneland van die Kaapprovinsie voorgekom, maar was betreklik lig. Die kwaaiste ryp het gedurende die eerste 5 dae van die maand geval.

NEERSLAG:

Die distribusie van neerslag, aangegee as persentasie van die normaal, word globaal aangedui op Kaart III. Die enigste streke waar die reënval bo normaal was, was die Natalse kusstreek en 'n klein area rondom Haenertsburg in die oostelike Transvaal. Die grootste gedeelte van die binneland het of geen reën of minder dan 20% van die normaal gekry.

Beskou ons nou die provinsies apart, dan het die Transvaal, Vrystaat en Kaap tekorte aangedui wat respektiewelik 75%, 95% en 69% van hulle gemiddelde normale neerslag bedra het, en Natal 'n surplus van 55%. Word die Kaapprovinsie verdeel in die winter- en somerreënval streke dan was daar vir eersgenoemde 'n tekort van 62% en vir laasgenoemde 'n tekort van 74%. Vir die Unie as 'n geheel was daar 'n tekort van 58%.

Die neerslag het meestal net voorgekom as ligte buie. In die winterreënval streek het sulke buie op omtrent 7 dae van die maand geval, terwyl daar in die suidoostelike Kaap, Natal en die oostelike Transvaal neerslag voorgekom het vanaf die 3de tot 5de, 16de tot 17de, en 27ste tot 28ste. Die groot surplus deur Natal aangedui, was alleen te wyte aan abnormaal swaar donderbuie wat op die 3de langs die kusstreke afgesak het. (Vgl. ook aantekeninge van Waarnemers.)

DROOGTE:

Droogte het oor die grootste gedeelte van die binneland geheers, maar het veral die suidoostelike Kaap en Natal swaar getref.

DIE VERSAMELDE NEERSLAG vanaf 1 Januarie 1937 tot 31 Augustus 1937 was bo normaal oor (1) noordelike Natal, die oostelike en gedeeltes van die noordelike Transvaal; (2) noordoostelike Transkei, Basoetoeland, die sentrale Vrystaat en die distrikte Kimberley en Vryburg; (3) 'n klein gedeelte van die suidwestelike Kaap, en (4) oor afgesonderde klein areas om en by Sutherland en Graaff Reinet in die Kaapprovinsie. Oor die res van die Unie was daar 'n tekort aan neerslag.

As eenhede beskou, het die Transvaal en Natal surplusse aangetoon wat respektiewelik 10% en 8% van hulle normale reënval bedra het, en die Vrystaat en Kaapprovinsie tekorte van respektiewelik 4% en 14%. Die somerreënvalstreek van laasgenoemde provinsie het 'n tekort van 24%, terwyl die winterreënvalstreek 'n surplus van 19% aangetoon het. Vir die Unie as 'n geheel was die algemene gemiddelde neerslag normaal.

DIE SEISOEN NEERSLAG vanaf 1 Julie 1937 tot 31 Augustus 1937 word globaal aangetoon op Kaart IV.

Beskou ons nou (vir hierdie tydperk) die provinsies as eenhede, dan het Natal 'n surplus van 37%, terwyl die Transvaal, Vrystaat en Kaapprovinsie tekorte van respektiewelik 80%, 80% en 17% aangetoon het.

Die Kaapse winterreënvalstreek, egter, het 'n klein surplus van 6%, terwyl die somerreënvalstreek van dieselfde provinsie 'n tekort van 39% gehad het. Vir die Unie as 'n geheel was daar vir hierdie tydperk 'n tekort van 40%.

U N I O N O F S O U T H A F R I C A.

DEPARTMENT OF IRRIGATION.

M O N T H L Y W E A T H E R R E P O R T

OF THE

METEOROLOGICAL OFFICE.

VOL. XVIII AUGUST 1937 NO. 8.

GENERAL:

This month was characterized by warm and dry weather; precipitation occurred as light isolated showers, affecting mainly the coastal regions; abnormally heavy showers on the 3rd on the Natal coast; drought conditions over the greater portion of the interior; sharp frost on plateau during first week of month.

PRESSURE:

The mean pressure for this month (see Chart I) was about 0.05 inch above normal. The distribution shows the typical winter-anticyclone centred over the Free State and Transvaal highveld, and covering the whole Union.

STRONG WINDS AND GALES:

Strong northerly to westerly winds occurred over the Cape Province, and especially along the southwest, south and southeast coastal areas on the 19th and 20th, and from the 22nd to 23rd. These winds were associated with depressions which passed along the coast from west to east.

TEMPERATURE:

Mean temperatures exceeded the normal (see Chart II), almost over the whole of the Union, the exceptions being, (1) the northwestern Transvaal together with parts of the western and centre Transvaal, and (2) Swaziland and the extreme northeastern Natal. Over the Cape Province, the southern and eastern Free State the excesses in mean temperature varied from 2 to 4°F, and over parts of the northern Cape Province and Basutoland from 4 to 6°F.

Considering the provinces as units, the mean temperatures over the Transvaal, Natal, Free State and Cape Province were above normal by 0.7°, 0.8°, 2.4° and 3.7° respectively, whilst for the Union as a whole the general mean temperature was 57.3°F. or 1.7° above the normal.

The highest individual maxima registered in each province were : 99.4° at Klaver (C.P.) on the 29th; 93.0° at Komatipoort (Tvl.) on the 11th; 90.4° at Maritzburg (Natal) on the 31st, and 84.0° at Lindley (O.F.S.) on the 31st.

The lowest minima in each province were : 18.9°F. at Grootfontein (C.P.) on the 2nd; 16° at Standerton (Tvl.) on the 2nd; 30° at Estcourt and Ladysmith (Natal) on the 1st, and 16° at Lindley (O.F.S.) on the 2nd.

FROST:

Frost occurred over the Transvaal highveld, the Free State, western Natal and the interior Cape Province, and was relatively slight. The sharpest frost

PRECIPITATION:

The distribution of precipitation expressed as a percentage of the normal, is shown roughly on Chart III. The only areas where rainfall exceeded the average were the Natal coastal zone and an isolated small area around Haenertsburg in the eastern Transvaal. The greater portion of the interior received either no rain or less than 20% of the average.

Considering the provinces as units, the Transvaal, Free State and Cape Province showed deficits amounting respectively to 75%, 95% and 69% of their mean normal precipitation, and Natal a surplus of 55%. Dividing the Cape Province into winter and summer rainfall zones, the former showed a deficit of 62% and the latter a deficit of 74%. For the Union as a whole, there was a deficit of 58%.

Precipitation occurred mainly in the form of light isolated showers. In the winter rainfall zone, such showers occurred roughly on 7 days of the month, whilst in the southeast Cape, Natal and the eastern Transvaal precipitation occurred from the 3rd to 5th, 16th to 17th and 27th to 28th. The large surplus shown by Natal was entirely due to abnormally heavy thunder showers over the coastal regions on the 3rd. (See also observers' notes).

DROUGHT:

Drought conditions prevailed over the greater portion of the interior and were most acutely felt in the interior southeastern Cape and Natal.

THE CUMULATIVE PRECIPITATION from 1st January 1937 to 31st August 1937 was above normal over (1) northern Natal, the eastern Transvaal and parts of northern Transvaal; (2) the extreme northeastern Transkei, Basutoland, the central Free State and the districts of Kimberley and Vryburg; (3) a small portion of the southwest Cape, and (4) over isolated small areas around Sutherland and Graaff Reinet in the Cape Province. Over the remainder of the Union precipitation was deficient.

Taking the provinces as units, the Transvaal and Natal showed surplusses of 10% and 8% respectively, whilst the Free State and Cape Province showed deficits amounting respectively to 4% and 14% of their mean average rainfall. The summer rainfall area of the latter province, however, showed a deficit of 24%, while over the winter rainfall zone there was a surplus of 19%. For the Union as a whole the general mean precipitation was normal.

THE SEASONAL PRECIPITATION from 1st July 1937 to 31st August 1937 is shown roughly on Chart IV.

Considering the provinces separately for this period Natal showed a surplus of 37%, whilst the Transvaal, Free State and Cape Province showed deficits of 80%, 80% and 17% respectively. The Cape winter rainfall area, however, showed a small surplus of 6%, whilst the summer rainfall area of the same province, showed a deficit of 39%. For this period, the precipitation over the Union as a whole was deficient by 40%.

AANTEKENINGE VAN WAARNEMERS VIR AUGUST 1937.
OBSERVERS' NOTES FOR AUGUST 1937.

KIMBERLEY (AIRPORT): Except for one thunder shower (0.07 inch precipitation) on the 5th which was of short duration, August was characterized by warm, cloudless, dry weather. J.J. le Roux.

WEPENER: A dry month, sheep are having a bad time. On the 24th zodiacal light, very strong. W.E. Kemm.

LINDLEY: Drought conditions now acute. A.H. Tromp.

LADYSMITH: Water supplies running down. C. Crause.

DURBAN (POINT): With the exception of unprecedented heavy rain on the evening of the 3rd. (5.76 inches from 6.20 p.m. on 3rd to 8.30 a.m. on 4th) and equinoctial winds, it has been a fair month. Total rainfall 7.21 inches on 6 days.

CARNARVON: Warm vir Augustus. Soms ligte stofstorms in namiddag. Orals tekens van droogte. P.M. Marais.

WINGFIELD (AIRPORT): Berg winds came down to the surface on the 18th causing a hot spell. It is a rare occurrence for these winds to come to the surface over the peninsula, as they usually remain blowing at a height of approximately 2,000 ft. D.J. Lombard.

GRAHAMSTOWN: Water on many farms given out. Veterinary Research Officer.

GREAT FISH POINT: On the 4th, 7.15 p.m. to 10.45 p.m. whole gale, wind force 50 m.p.h. and squalls of 60 m.p.h. E.N.E. After 10.45 p.m. E.N.E. 40 m.p.h. Several trees uprooted and kaffir hut wrecked. The Lightkeeper.

RIETHOEK (ROUXVILLE): Drought - sheep are dying by hundreds. Rainfall - nil. J.N.P.Botha

HOPEWELL (STUTTERHEIM): In full grip of serious drought. Stock starving and will die in hundreds if no rain in a week or two. Sheep lambing people cut the lambs throats to save mothers. Rainfall 0.16 inch on 1 day. Jas. W. Whittal.

WINTERHOEK (GREYTOWN): Severe drought. At Inchanga, 29 miles from Durban some people have to buy water at 1/- per 100 gallons. 0.01 inch on 1 day. Geo. Moe.

DOMBIETERSFONTEIN (VICTORIA WES): Dinge lyk sleg. Vee word baie maer. G.W.C. van Heerden.

ELBA (BLOEMFONTEIN): August was more or less very calm and the usual heavy winds did not put in an appearance. 0.04 inch on 1 day. R.P. Duminy.

WHITSON FARM (RICHMOND): Last five months have only given 1.28 inch of rain. Driest spell for over eight years. 0.04 inch on 1 day. J.T. Hodges.

RORVIK AVENUE (DURBAN): Terrible storm at Durban on the 3rd. A mile from Rorvik Avenue 11 1/3 inches fell. The Power Station at Congella was flooded out - all lights and power off for twelve hours; still drought at Pinetown and Kloof is very serious. 2.62 inches on 6 days. M. Cruickshank.

KLIPFONTEIN (SOMERSET EAST): Unusual continuation of northwest and west winds. Stock in poor condition and are dying by dozens every day. W.J. de Lange.

RIVERSIDE:(ALFRED): Conditions very bad for stock. Trees dying through lack of moisture. M. Payn.

ADELAIDE (ZOUTPANSBERG): 6th August. Large Meteor, sky bright, fell N.E. 5.42 p.m. 0.40 inch on 1 day. H. Chalmers.

RIETPAN (VRYBURG): Op die 25ste ongeveer 7 uur namiddag het 'n groot ster verskiet na die suidooste rigting. Dit was so lig as sonlig en het vinnig getrek en het gelyk of daar altyd stukke loslaat. 'n Hoorbare gedruis soos sterk wind was hoorbaar. Drie minute na hy weg was, was daar 'n harde dreuning soos van swaar weer, sodat die huis geskud het. J.J. van Tonder.

KLERKSKRAAL (POTCHEFSTROOM): Throughout month mild weather; some days very hot. A few nights were cold when frost fell. G.H. Zeeman.

KLIPKOPSPRUIT:(RUSTENBURG): Terribly dry here. F. Bure.

ELANDSFONTEIN (POTCHEFSTROOM): Geen reën; laaste was in April wat maar min was - 1.10" dus baie droog; vee hou nog goed, maar begin swaar kry en vanaand - 3 September - lyk dit weer na ryp pleks van reënt - so gaan dit. P. Davidtz.

BARNARDSKOP (HEIDELBERG): Ontsettend droog. Vee word baie sleg. Te droog om te ploeg. B.C. Greyling.

OLIFANTSPOORT (WATERBERG): Early peach trees in blossom. Water in Olifantspruit running strong. D. Wright.

CRAIGEND (LYDENBURG): Very dry - one or two springs are drying up for the first time in 30 years. J. Lewis Craig.

LUG TEMPERATURE : AUGUSTUS 1937.
AIR TEMPERATURES : AUGUST 1937.

STASIE / STATION	MAXIMUM			MINIMUM			MAAND GEM. / MONTHLY MEAN.			ABS. DATUM MAX. DATE		ABS. DATUM MIN. DATE	
	Gem. Mean	Norm.	Versk. Diff.	Gem. Mean	Norm.	Versk. Diff.	Gem. Mean	Norm.	Versk. Diff.				
KAAPPROVINSIE: CAPE PROVINCE:													
ALIWAL NORTH	-	67.0	-	33.6	33.7	-0.1	-	50.4	-	-	-	21.0	1
BRITSTOWN	-	67.5	-	-	37.7	-	-	52.6	-	—	-	-	-
CAPE L'AGULHAS	64.6	61.0	+3.6	52.2	50.0	+2.2	58.4	55.5	+2.9	88.0	19	45.0	12
CAPE TOWN	66.8	63.3	+3.5	49.0	47.8	+1.2	57.9	55.6	+2.3	88.8	29	39.8	12
CALA	72.1	68.0	+4.1	42.6	41.1	+1.5	57.4	54.6	+2.8	86.0	31	30.0	2
CARNARVON	68.9	65.2	+3.7	36.8	34.8	+2.0	52.9	50.0	+2.9	80.0	29	23.0	1
CERES	65.9	63.1	+2.8	38.8	37.3	+1.5	52.4	50.2	+2.2	85.0	30	33.0	12
CRADOCK	72.0	69.9	+2.1	37.5	36.5	+1.0	54.8	53.2	+1.6	89.0	31	30.0	3
CLANWILLIAM	75.1	71.1	+4.0	42.0	41.4	+0.6	58.6	56.3	+2.3	98.0	29	36.0	12
DEEPWALLS	67.8	64.5	+3.3	48.7	46.9	+1.8	58.3	55.7	+2.6	90.7	31	39.6	12
EAST LONDON	69.7	69.5	+0.2	52.2	51.1	+1.1	61.0	60.3	+0.7	99.0	26	44.5	13
GOODHOUSE	-	77.4	-	-	47.3	-	-	62.4	-	-	-	-	-
GRAAFF REINET	73.5	70.6	+2.9	45.1	42.9	+2.2	59.3	56.8	+2.5	92.7	30	33.2	12
GRAHAMSTOWN	72.4	69.0	+3.4	42.5	42.9	-0.4	57.4	55.9	+1.5	91.2	30	30.0	17
GROOT DRAKENSTEIN	68.1	64.7	+3.4	44.0	43.9	+0.1	56.1	54.3	+1.8	87.8	29	36.8	12
GROOTFONTEIN	69.0	65.8	+3.2	33.6	33.8	-0.2	51.3	49.8	+1.5	81.2	30	18.9	2
HOPETOWN	75.2	71.5	+3.7	38.6	36.6	+2.0	56.9	54.1	+2.8	84.0	29	27.0	1
IDUTYWA	-	69.0	-	-	43.6	-	-	56.3	-	-	-	-	-
KENHARDT	76.5	72.4	+4.1	42.9	39.0	+3.9	59.7	55.7	+4.0	88.6	29	28.8	1
KIMBERLEY	75.2	70.0	+5.2	43.9	39.9	+4.0	59.6	55.0	+4.6	83.1	31	29.5	2
KINGWILLIAMSTOWN	74.9	72.6	+2.3	46.1	44.3	+1.8	60.5	58.5	+2.0	97.0	31	35.0	3
KLAVER	74.5	72.5	+2.0	48.0	47.6	+0.4	61.3	60.1	+1.2	99.4	29	40.5	5
KOKSTAD	70.8	67.1	+3.7	39.2	36.5	+2.7	55.0	51.8	+3.2	85.1	31	30.1	20
KURUMAN	-	70.4	-	36.5	34.4	+2.1	-	52.4	-	-	-	23.0	2
MAFEKING	75.8	72.7	+3.1	41.9	40.2	+1.7	58.9	56.5	+2.4	82.0	11	30.0	1
MOSSEL BAY	69.0	65.4	+3.6	54.1	49.6	+4.5	61.6	57.5	+4.1	88.0	19	47.0	12
NELSPOORT	72.0	67.7	+4.3	40.2	39.9	+0.3	56.1	53.8	+2.3	83.0	30	26.0	12
O'OKIEP	71.6	65.2	+6.4	45.5	43.6	+1.9	58.6	54.4	+4.2	85.8	30	31.7	1
OUDTSHOORN	74.4	69.6	+4.8	41.7	40.3	+1.4	58.1	55.0	+3.1	96.0	31	32.0	12
PORT ELIZABETH	71.5	66.5	+5.0	51.9	50.4	+1.5	61.7	58.5	+3.2	97.5	31	41.0	14
PORT NOLLOTH	64.7	63.8	+0.9	44.8	45.0	-0.2	54.8	54.4	+0.4	99.0	29	37.0	28
PORT ST. JOHNS	68.5	72.3	-3.8	57.7	52.9	+4.8	63.1	62.6	+0.5	80.0	26	51.0	20
POSTMASBURG	73.1	67.9	+5.2	47.9	40.4	+7.5	60.5	54.2	+6.3	79.9	25	35.0	2
PRIESKA	77.4	70.9	+6.5	36.0	36.7	-0.7	56.7	53.8	+2.9	88.5	29	24.8	3
QUEENSTOWN	73.1	68.1	+5.0	41.6	39.1	+2.5	57.4	53.6	+3.8	88.0	31	30.0	2
RIETPOORT	73.8	71.4	+2.4	43.6	43.0	+0.6	58.7	57.2	+1.5	97.0	29	29.5	5
SOMERSET OOS	73.3	68.9	+4.4	45.8	43.4	+2.4	59.6	56.2	+3.4	92.9	30	33.0	12
SUTHERLAND	62.4	59.4	+3.0	30.6	31.4	-0.8	46.5	45.4	+1.1	78.0	31	21.0	12
SYDNEYS HOPE	70.7	67.0	+3.7	49.8	47.1	+2.7	60.3	57.1	+3.2	93.0	30	40.0	12
UITENHAGE	-	72.9	-	-	43.6	-	-	58.3	-	-	-	-	-
UMTATA	76.7	72.6	+4.1	42.3	40.7	+1.6	59.5	56.7	+2.8	94.0	31	31.0	3
UPINGTON	77.8	73.6	+4.2	46.0	42.4	+3.6	61.9	58.0	+3.9	88.5	29	28.7	1
VAN WYKSVLEI	73.1	69.1	+4.0	38.2	34.3	+3.9	55.7	51.7	+4.0	85.0	29	26.0	1
VICTORIA WEST	-	65.7	-	-	30.0	-	-	47.9	-	-	-	-	-
VRYBURG	77.9	71.4	+6.5	36.3	35.8	+0.5	57.1	53.6	+3.5	83.0	27	26.0	10
WILLOWMORE	-	65.4	-	-	37.3	-	-	51.4	-	-	-	-	-
TRANSVAAL:													
BARBERTON	74.6	75.3	-0.7	52.8	51.0	+1.8	63.7	63.2	+0.5	85.2	11	46.0	19
BELFAST	64.5	65.1	-0.6	32.5	31.0	+1.5	48.5	48.1	+0.4	72.0	27	23.0	20
CHRISTIANA	74.4	71.1	+3.3	35.8	35.8	+0.0	55.1	53.5	+1.6	83.0	31	20.0	2
ERMELO	-	67.7	-	-	35.7	-	-	51.7	-	-	-	-	-
HEIDELBERG	71.9	69.5	+2.4	34.1	34.3	-0.2	53.0	51.9	+1.1	78.5	31	19.8	2
JOHANNESBURG	68.1	64.8	+3.3	45.0	43.2	+1.8	56.6	54.0	+2.6	74.0	31	34.8	19
KLERKSDORP	-	73.1	-	-	37.3	-	-	55.2	-	-	-	-	-
KOMATIPOORT	82.1	82.2	-0.1	53.4	52.3	+1.1	67.8	67.3	+0.5	93.0	11	40.0	3
KOPJE ALLEEN	76.5	74.7	+1.8	39.4	40.4	-1.0	58.0	57.6	+0.4	82.7	27	32.6	4
LOUIS TRICHARDT	72.1	72.7	-0.6	46.5	46.4	+0.1	59.3	59.6	-0.3	83.0	27	39.0	1

LUG TEMPERATURE : AUGUSTUS 1937 (VERVOLG)
AIR TEMPERATURES : AUGUST 1937 (CONTD.)

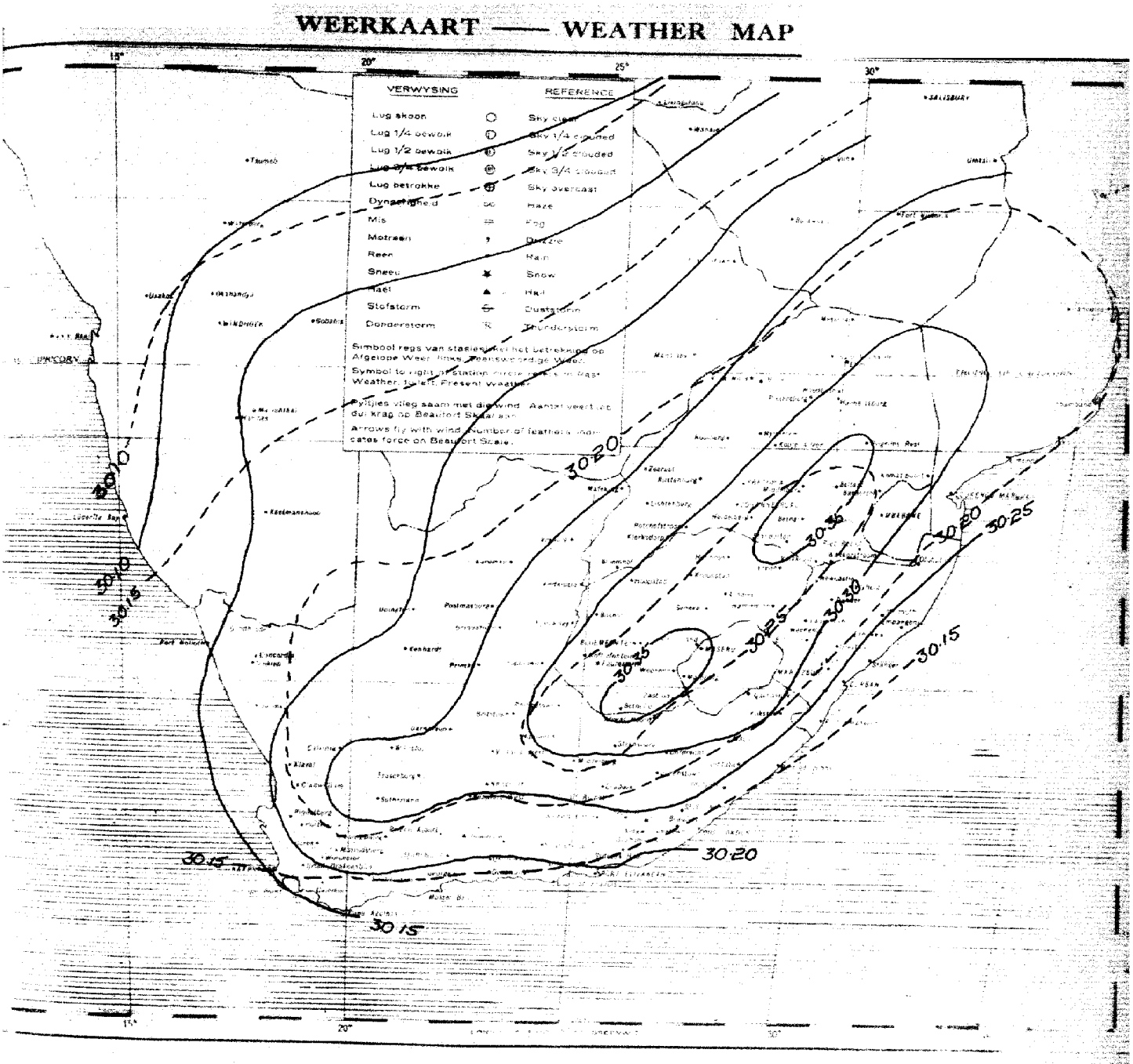
STASIE STATION	MAXIMUM Gem. Mean	Norm.	Versk. Diff.	MINIMUM Gem. Mean	Norm.	Versk. Diff.	MAAND. GEM. MONTHLY MEAN. Gem. Mean	Norm.	Versk. Diff.	ABS.DATUM MAX.DATE		ABS.DATUM MIN.DATE	
TRANSVAAL (VERVOLG) (CONTD.)													
MIDDELBURG	71.5	71.0	+0.5	31.0	34.3	-3.3	51.3	52.7	-1.4	78.0	27	21.0	1
NYLSTROOM	76.4	74.1	+2.3	36.9	39.5	-2.6	56.7	56.8	-0.1	83.0	10	30.0	1
PIETERSBURG	70.9	72.5	-1.6	38.5	39.8	-1.3	54.7	56.2	-1.5	78.5	10	30.4	2
PIET RETIEF	71.1	70.2	+0.9	44.4	42.7	+1.7	57.8	56.5	+1.3	80.8	11	35.1	2
PILGRIMS REST	71.3	71.1	+0.2	39.5	39.9	-0.4	55.4	55.5	-0.1	80.0	11	32.5	2
POTCHEFSTROOM	74.4	72.0	+2.4	37.1	36.3	+0.8	55.8	54.2	+1.6	80.0	11	22.5	2
PRETORIA	74.3	72.5	+1.8	42.0	41.0	+1.0	58.2	56.8	+1.4	79.6	16	34.3	1
RUSTENBURG	76.2	74.1	+2.1	40.8	41.1	-0.3	58.5	57.6	+0.9	82.0	11	31.0	1
STANDERTON	73.4	69.0	+4.4	31.5	30.4	+1.1	52.5	49.7	+2.8	81.0	15	16.0	1-3
WAKKERSTROOM	68.1	65.8	+2.3	33.1	32.7	+0.4	50.6	49.3	+1.3	78.1	31	18.0	2
ZEERUST	70.7	73.1	-2.4	39.5	37.7	+1.8	55.1	55.4	-0.3	82.0	27	26.0	1
NATAL:													
DUNDEE	72.8	71.0	+1.8	40.8	39.4	+1.4	56.8	55.2	+1.6	85.0	27	31.0	19
DURBAN POINT	71.3	71.5	-0.2	58.7	56.8	+1.9	65.0	64.2	+0.8	75.0	23	53.8	20
EMPANGENI	74.2	75.6	-1.4	56.0	53.1	+2.9	65.1	64.4	+0.7	85.0	23	49.0	1
ESHOWE	72.2	71.9	+0.3	53.1	53.3	-0.2	62.7	62.6	+0.1	86.9	23	45.6	18
ESTCOURT	72.3	69.7	+2.6	40.8	38.2	+2.6	56.6	54.0	+2.6	81.0	27	30.0	1
LADYSMITH	73.8	73.1	+0.7	40.4	40.7	-0.3	57.1	56.9	+0.2	85.0	31	30.0	1
PIETERMARITZBURG	74.5	72.9	+1.6	47.9	46.9	+1.0	61.2	59.9	+1.3	90.4	31	39.0	1
UMBOTINI	76.2	79.2	-3.0	57.1	55.5	+1.6	66.7	67.4	-0.7	82.0	23	51.0	20
POINT SHEPSTONE	69.0	70.2	-1.2	55.6	54.2	+1.4	62.3	62.2	+0.1	73.5	14	49.0	20
STANGER	77.9	75.3	+2.6	55.4	55.6	-0.2	66.7	65.5	+1.2	85.0	31	49.0	20
VRYHEID	70.3	72.4	-2.1	46.9	44.9	+2.0	58.6	58.7	-0.1	79.0	15	38.0	19
WEENEN	-	74.6	-	-	38.2	-	-	56.4	-	-	-	-	-
O.V.S. : O.F.S.													
BETHULIE	72.3	67.0	+5.3	36.3	35.6	+0.7	54.3	51.3	+3.0	83.0	31	23.0	3
BLOEMFONTEIN	71.1	67.4	+3.7	33.7	36.4	-2.7	52.4	51.9	+0.5	80.1	31	16.3	1
FAURESMITH	70.4	65.8	+4.6	33.0	33.1	-0.1	51.7	49.5	+2.2	78.6	31	20.0	1
HARRISMITH	67.5	61.3	+6.2	36.7	35.8	+0.9	52.1	48.6	+3.5	75.0	31	22.0	5
KROONSTAD	74.5	69.5	+5.0	32.9	34.8	-1.9	53.7	52.2	+1.5	81.0	31	19.0	2
LADYBRAND	68.0	64.3	+3.7	38.4	36.1	+2.3	53.2	50.2	+3.0	75.0	31	25.0	2
LINDLEY	71.6	68.1	+3.5	32.5	32.7	-0.2	52.1	50.4	+1.7	84.0	31	16.0	2
WEPENER	71.0	66.2	+4.8	33.9	31.8	+2.1	52.5	49.0	+3.5	81.4	31	17.0	2
BASOETOELAND : BASUTOLAND:													
BUTHA BUTHE	68.9	66.1	+2.8	33.9	32.4	+1.5	51.4	49.3	+2.1	79.0	31	22.0	2
MAFETENG	68.8	62.3	+6.5	42.7	36.9	+5.8	55.8	49.6	+6.2	79.0	31	31.0	2
MOHALESHOEK	67.6	66.6	+1.0	40.7	36.3	+4.4	54.2	51.5	+2.7	76.0	31	27.0	3
MOKHOTLONG	63.0	60.9	+2.1	28.2	28.6	-0.4	45.6	44.8	+0.8	75.0	31	18.0	2
QACHASNEK	65.9	61.9	+4.0	39.2	34.9	+4.3	52.6	48.4	+4.2	76.0	31	26.0	3
BETSJOEANALAND : BECHUANALAND:													
PITSANTLONG	78.5	78.8	-0.3	38.5	40.3	-1.8	58.5	59.6	-1.1	87.0	10	30.0	1
GAMERONES	77.3	75.9	+1.9	35.5	37.6	-2.1	56.7	56.8	-0.1	86.0	28	26.0	2
MAHALAPYE	77.1	77.1	+0.0	41.3	41.6	-0.3	59.2	59.4	-0.2	84.0	10	35.0	20
SWASIELAND : SWAZILAND:													
MBABANE	68.0	73.4	-5.4	45.3	51.2	-5.9	56.7	62.3	-5.6	81.0	11	37.0	2
STEGI	73.1	75.7	-2.6	52.3	53.9	-1.6	62.7	64.8	-2.1	86.0	11	46.0	18

NEERSLAG : AUGUSTUS 1937.
RAINFALL : AUGUST 1937.

STASIE STATION	AUG. 1937.	NORM.	VERSK.	%	VANAF 1.1.37 FROM	NORM.	VERSK.	VANAF 1.7.37 FROM	NORM.	VERSK.	SEISOEN % SEASONAL
KAAPPROVINSIE – SOMER REENVAL STREEK.											
CAPE PROVINCE – SUMMER RAINFALL AREA.											
ALIWAL NORTH	0.03	0.63	-0.60	5	9.29	12.65	-3.36	0.62	1.06	-0.44	59
BEAUFORT WEST	0.00	0.34	-0.34	0	1.82	6.47	- 4.65	0.13	0.66	-0.53	11
BEDFORD	0.15	1.00	-0.85	15	-	17.24	-	-	1.87	-	-
BRITSTOWN	0.00	0.20	-0.20	0	6.09	8.20	-2.11	0.08	0.45	-0.37	18
CARNARVON	0.00	0.28	-0.28	0	4.73	6.01	-1.28	0.00	0.50	-0.50	0
EAST LONDON	1.77	1.87	-0.10	95	16.99	19.75	-2.76	3.45	3.42	+0.03	101
FRASERBURG	0.00	0.28	-0.28	0	3.71	5.28	-1.57	0.32	0.60	-0.28	53
GEORGE	0.94	2.43	-1.49	39	17.64	21.28	-3.64	3.69	4.16	-0.47	89
GRAAFF REINET	0.02	0.56	-0.54	4	11.06	9.00	+2.06	0.97	1.09	-0.12	89
GRAHAMSTOWN	-	1.05	-	-	-	12.86	-	-	2.21	-	-
GRIQUATOWN	0.00	0.24	-0.24	0	9.21	9.19	+0.02	0.05	0.42	-0.37	12
GROOTFONTEIN	0.00	0.28	-0.28	0	5.52	9.14	-3.62	0.37	0.72	-0.35	51
HANOVER	0.00	0.32	-0.32	0	3.39	10.17	-6.78	0.41	0.71	-0.30	58
HOPE TOWN	0.01	0.26	-0.25	4	6.70	8.70	-2.00	0.12	0.51	-0.39	24
IDUTYWA	-	0.93	-	-	-	14.04	-	-	2.11	-	-
KENHARDT	0.00	0.15	-0.15	0	4.01	4.45	-0.44	0.17	0.33	-0.16	52
KIMBERLEY	0.02	0.29	-0.27	7	10.66	10.51	+0.15	0.07	0.54	-0.47	13
KINGWILLIAMSTOWN	0.16	1.05	-0.89	15	8.16	15.38	-7.22	0.61	2.17	-1.56	28
KOKSTAD	0.00	0.79	-0.79	0	18.31	17.78	+0.53	0.05	1.44	-1.39	3
MATJESFONTEIN	0.00	0.62	-0.62	0	1.83	5.07	-3.24	0.56	1.27	-0.71	44
MACHAR	0.11	0.87	-0.76	13	18.52	20.19	-1.67	0.19	1.49	-1.30	13
MAFEKING	0.00	0.39	-0.39	0	11.60	12.26	-0.66	0.00	0.63	-0.63	0
MOSSEL BAY	0.30	1.44	-1.14	21	7.97	11.03	-3.06	2.33	2.67	-0.34	87
PHILIPSTOWN	0.00	0.36	-0.36	0	6.09	9.48	-3.39	0.45	0.65	-0.20	69
PORT ELIZABETH	0.76	2.11	-1.35	36	9.58	14.35	-4.77	3.05	4.05	-1.00	75
PORT ST. JOHNS	1.99	2.16	-0.17	92	25.59	27.98	-2.39	3.53	3.70	-0.17	95
PRIESKA	0.00	0.18	-0.18	0	3.73	7.16	-3.43	0.00	0.36	-0.36	0
PRINCE ALBERT ROAD	-	0.22	-	-	-	2.80	-	-	0.35	-	-
QUEENSTOWN	0.01	0.57	-0.56	2	8.29	14.46	-6.17	0.56	1.17	-0.61	48
SOMERSET EAST	0.02	0.92	-0.90	2	6.44	13.97	-7.53	0.75	1.80	-1.05	42
STEYNSBURG	0.00	0.42	-0.42	0	7.81	10.11	-2.30	0.64	0.81	-0.17	79
STEYTLERVILLE	0.00	0.44	-0.44	0	3.66	5.95	-2.29	0.37	0.77	-0.40	48
SWELLENDAM	0.83	2.38	-1.55	35	14.76	20.15	-5.39	2.83	4.50	-1.67	63
SYDNEYS HOPE	0.10	1.29	-1.19	9	6.96	13.96	-7.00	1.32	2.43	-1.11	54
UMTATA	0.16	0.80	-0.64	20	12.91	15.86	-2.95	0.17	1.51	-1.34	11
UNIONDALE	0.00	1.21	-1.21	0	4.00	8.95	-4.95	1.74	2.19	-0.45	80
UPINGTON	0.00	0.11	-0.11	0	3.61	5.50	-1.89	0.04	0.21	-0.17	19
VICTORIA WEST	0.00	0.14	-0.14	0	4.22	5.89	-1.67	0.49	0.23	+0.26	213
VRYBURG	0.00	0.25	-0.25	0	15.80	13.37	+2.43	0.00	0.45	-0.45	0
KAAPPROVINSIE : WINTER REENVAL STREEK:											
CAPE PROVINCE : WINTER RAINFALL AREA :											
CALEDON	-	2.62	-	-	-	14.99	-	-	5.17	-	-
CALVINIA	0.00	0.87	-0.87	0	4.47	6.51	-2.04	1.32	1.82	-0.50	73
CAPE TOWN ROYAL OBS.	1.37	3.34	-1.97	41	23.77	18.92	+4.85	7.29	6.92	+0.37	105
CERES	2.39	5.78	-3.39	41	44.66	30.19	+14.47	15.07	11.69	+3.38	129
CLANWILLIAM	0.09	1.12	-1.03	8	6.22	6.78	-0.56	1.99	2.45	-0.46	81
GARIES	0.03	0.81	-0.78	4	3.11	4.08	-0.97	0.97	1.52	-0.55	64
GT. DRAKENSTEIN	2.72	4.75	-2.03	56	36.60	26.86	+9.74	11.41	9.95	+1.46	115
O OKIEP	0.07	0.97	-0.90	7	3.85	5.35	-1.50	1.10	1.76	-0.66	63
PIQUETBERG	1.63	2.82	-1.19	58	13.63	14.68	-1.05	5.30	5.51	-0.21	96
PORT NOLLOTH	0.13	0.32	-0.19	41	1.99	1.91	+0.08	0.90	0.66	+0.24	136
SUTHERLAND	0.05	0.87	-0.82	6	7.73	7.09	+0.64	1.45	1.81	-0.36	80
WORCESTER	0.28	1.54	-1.26	18	10.05	9.08	+0.97	3.52	3.27	+0.25	108
BETSJOEANALAND : BECHUANALAND:											
MAHALAPYE	0.00	0.15	-0.15	0	11.25	10.43	+0.82	0.00	0.28	-0.28	0
DIKGATLONG	0.00	0.08	-0.08	0	9.25	10.28	-1.03	0.00	0.22	-0.22	0

NEERSLAG : AUGUSTUS 1937 (VERVOLG).
RAINFALL : AUGUST 1937 (CONTD).

STASIE STATION	AUG. 1937	NORM.	VERSK. DIFF.	%	VANAF 1.1.37 FROM	NORM.	VERSK. DIFF.	VANAF 1.7.37 FROM	NORM.	VERSK. DIFF.	SEISOEN % SEASONAL
O.V.S. : O.F.S.											
BETHULIE	0.02	0.46	-0.44	4	7.27	13.01	-5.74	0.30	0.84	-0.54	36
BLOEMFONTEIN	0.02	0.44	-0.42	5	13.39	14.06	-0.67	0.23	0.77	-0.54	30
BOSHOF	0.10	0.43	-0.33	23	14.67	12.13	+2.54	0.10	0.68	-0.58	15
FAURESMITH	0.01	0.41	-0.40	2	10.76	8.77	+1.99	0.17	0.76	-0.59	22
HARRISMITH	0.00	0.70	-0.70	0	13.34	16.25	-2.91	0.00	1.15	-1.15	0
KROONSTAD	0.01	0.49	-0.48	2	10.28	13.39	-3.11	0.01	0.76	-0.75	1
LADYBRAND	0.05	0.60	-0.55	12	18.21	16.36	+1.85	0.51	1.03	-0.52	50
LINDLEY	0.00	0.49	-0.49	0	12.86	14.46	-1.60	0.00	0.81	-0.81	0
VREDE	-	0.47	-	-	-	14.45	-	-	0.72	-	-
WINBURG	0.00	0.40	-0.40	0	16.82	13.64	+3.18	0.16	0.72	-0.56	22
WEPENER	0.06	0.64	-0.58	11	15.56	16.59	-1.03	0.25	1.13	-0.88	22
NATAL:											
DUNDEE	0.00	0.73	-0.73	0	21.44	18.14	+3.30	0.00	1.07	-1.07	0
DURBAN	7.21	1.77	+5.44	408	28.08	27.35	+0.73	8.63	3.45	+5.18	250
EMPANGENI	3.57	1.58	+1.99	226	30.09	26.11	+3.98	6.75	3.39	+3.36	199
ESTCOURT	0.00	0.63	-0.63	0	-	17.06	-	0.00	0.99	-0.99	0
LADYSMITH	0.00	0.81	-0.81	0	17.11	17.58	-0.47	0.00	1.19	-1.19	0
MELMOTH	-	0.91	-	-	-	18.16	-	-	1.56	-	-
OTOBOTINI	1.53	0.38	+1.15	402	22.23	13.85	+8.38	1.87	0.81	+1.06	231
PIETERMARITZBURG	0.54	0.99	-0.45	54	14.59	20.71	-6.12	0.99	1.48	-0.49	67
STANGER	1.24	1.37	-0.13	91	22.92	22.96	-0.04	3.75	2.43	+1.32	154
UBOMBO	-	0.90	-	-	-	19.45	-	-	1.35	-	-
VRYHEID	0.00	0.85	-0.85	0	21.77	18.76	+3.01	0.06	1.34	-1.28	4
WEENEN	-	0.70	-	-	-	15.27	-	-	0.94	-	-
TRANSVAAL:											
BARBERTON	0.25	0.43	-0.18	58	27.13	17.45	+9.68	0.27	0.76	-0.49	36
BELFAST	0.00	0.39	-0.39	0	21.05	16.77	+4.28	0.00	0.72	-0.72	0
BETHAL	0.00	0.45	-0.45	0	14.31	15.02	-0.71	0.00	0.77	-0.77	0
BLOEMHOF	0.00	0.24	-0.24	0	8.82	12.27	-3.45	0.00	0.52	-0.52	0
ELIM HOSPITAL	0.18	0.32	-0.14	56	19.92	21.01	-1.09	0.24	0.81	-0.57	30
ERMELO	0.08	0.53	-0.45	15	18.68	14.53	+4.15	0.08	0.92	-0.84	9
HAENERTSBURG	1.18	0.33	+0.85	357	30.99	24.32	+6.67	1.37	0.94	+0.43	146
HEIDELBERG	0.00	0.40	-0.40	0	13.63	15.33	-1.70	0.08	0.72	-0.64	11
JOHANNESBURG OBS.	0.00	0.43	-0.43	0	19.00	16.77	+2.23	0.06	0.85	-0.79	7
JOUBERT PARK	0.00	0.45	-0.45	0	23.45	18.90	+4.55	0.07	0.83	-0.76	8
KOMATIPOORT	0.00	0.40	-0.40	0	31.32	17.43	+13.89	0.00	0.82	-0.82	0
LICHTENBURG	0.00	0.25	-0.25	0	12.19	14.51	-2.32	0.00	0.53	-0.53	0
MESSINA	0.03	0.06	-0.03	50	7.04	8.24	-1.20	0.03	0.23	-0.20	13
MIDDELBURG	0.00	0.38	-0.38	0	11.93	15.61	-3.68	0.00	0.60	-0.60	0
NYLSTROOM	0.00	0.35	-0.35	0	13.69	14.87	-1.18	0.00	0.60	-0.60	0
PIETERSBURG	0.00	0.21	-0.21	0	14.95	11.71	+3.24	0.00	0.45	-0.45	0
PIET RETIEF	0.06	0.61	-0.55	10	23.64	18.73	+4.91	0.12	1.11	-0.99	11
PILGRIMS REST	0.26	0.50	-0.24	52	30.45	25.66	+4.79	0.36	1.06	-0.70	34
POTCHEFSTROOM	0.00	0.46	-0.46	0	9.55	14.09	-4.54	0.00	0.74	-0.74	0
PRETORIA	0.00	0.51	-0.51	0	16.93	16.03	+0.90	0.00	0.83	-0.83	0
ROOIBERG	0.00	0.48	-0.48	0	13.62	13.72	-0.10	0.00	0.74	-0.74	0
RUSTENBURG	0.00	0.44	-0.44	0	12.60	15.25	-2.65	0.00	0.75	-0.75	0
STANDERTON	0.00	0.55	-0.55	0	12.10	16.00	-3.90	0.05	0.98	-0.93	5
VILLA NORA	0.00	0.18	-0.18	0	13.90	10.44	+3.46	0.00	0.32	-0.32	0
WAKKERSTROOM	0.00	0.62	-0.62	0	19.14	16.56	+2.58	0.00	1.10	-1.10	0
WOODBUSH	0.73	0.94	-0.21	78	54.57	44.61	+9.96	1.45	2.05	-0.60	71
ZEERUST	0.00	0.33	-0.33	0	9.27	14.14	-4.87	0.00	0.49	-0.49	0
SWASIELAND : SWAZILAND:											
MBABANE	0.67	1.06	-0.39	63	48.58	31.68	+16.90	1.19	1.91	-0.72	62
BASOETOELAND : BASUTOLAND:											
BUTHA BUTHE	0.05	0.98	-0.93	5	21.50	19.42	+2.08	0.23	1.57	-1.34	15
MOHALESHOEK	0.00	0.63	-0.63	0	25.44	17.81	+7.63	0.44	1.16	-0.72	38
QACHASNEK	0.00	0.82	-0.82	0	21.65	21.37	+0.28	0.12	1.20	-1.08	10
MOKHOTLONG	0.00	0.48	-0.48	0	11.92	11.96	-0.04	0.10	0.75	-0.65	13

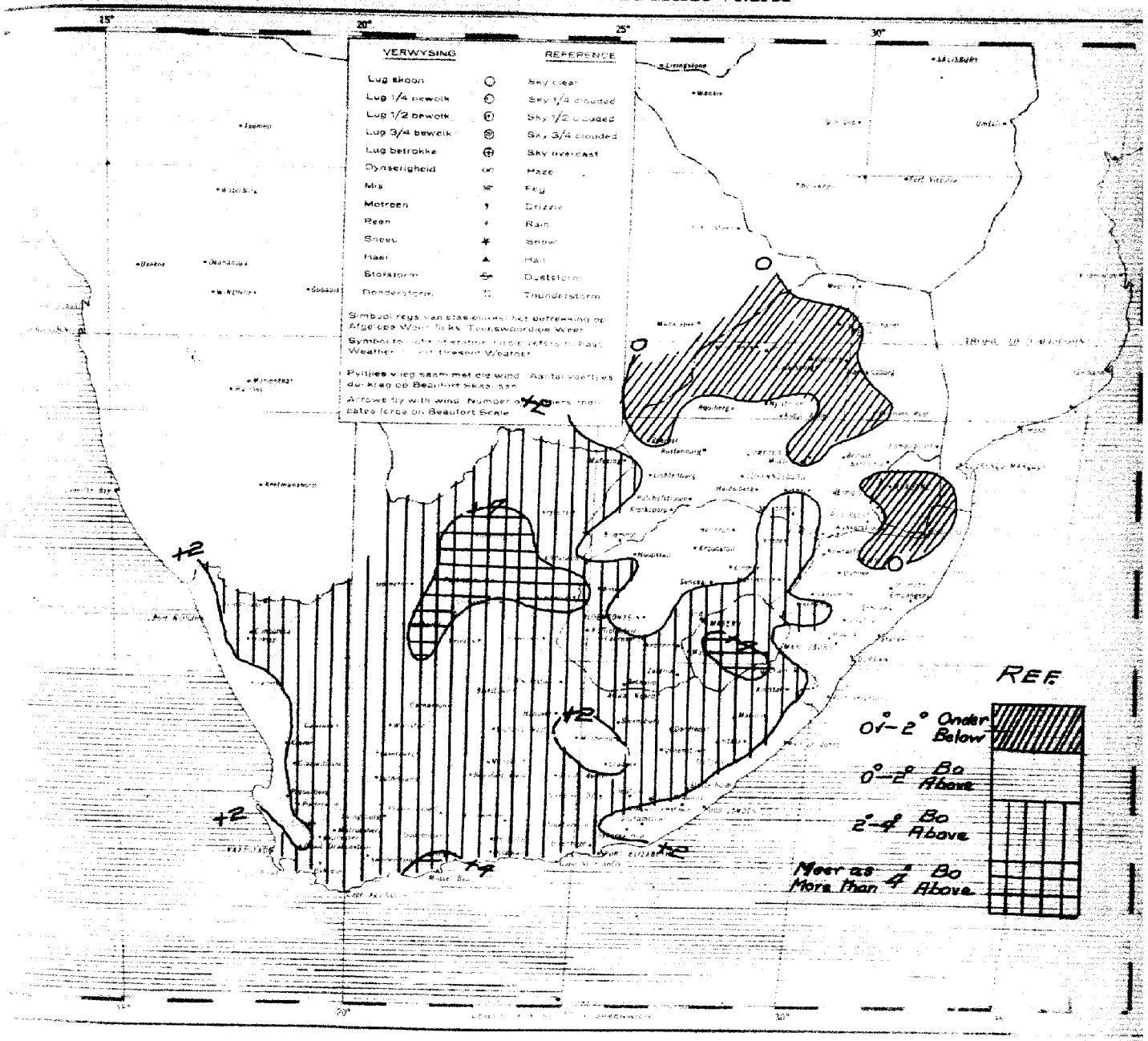


KAART I – CHART I.

AUGUSTUS 1937 – Gemiddelde Lugdruk (by seespieël) om 8.30 v.m.). Die gebroke lyne dui die normale distribusie vir Augustus aan.

AUGUST 1937 – Mean Atmospheric Pressure (at M.S.L.) at 8.30 a.m. The broken lines represent the normal distribution for August.

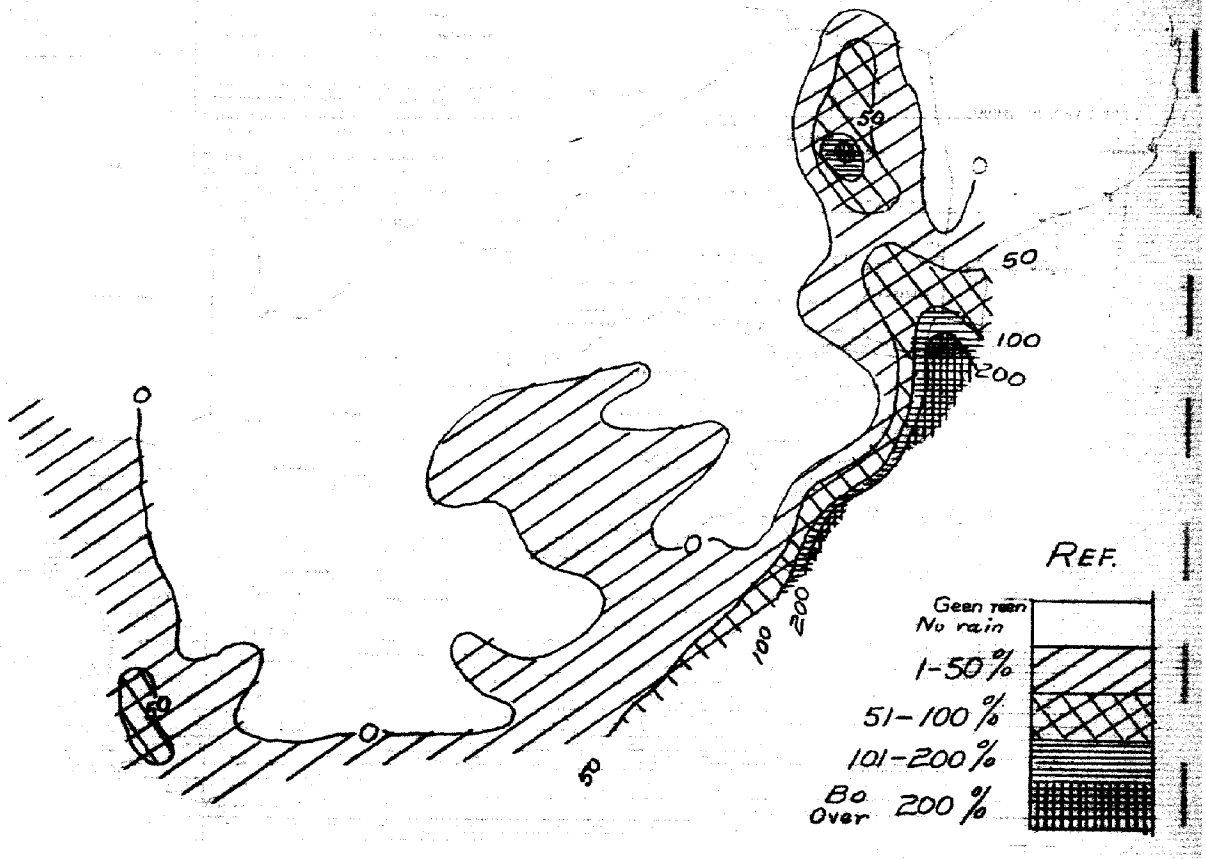
WEERKAART —— WEATHER MAP



KAART II - CHART II.

AUGUSTUS 1937 - Gemiddelde Temperatuur - afwyking van die normaal in °F

AUGUST 1937 - Mean Temperature - departure from the normal in °F.

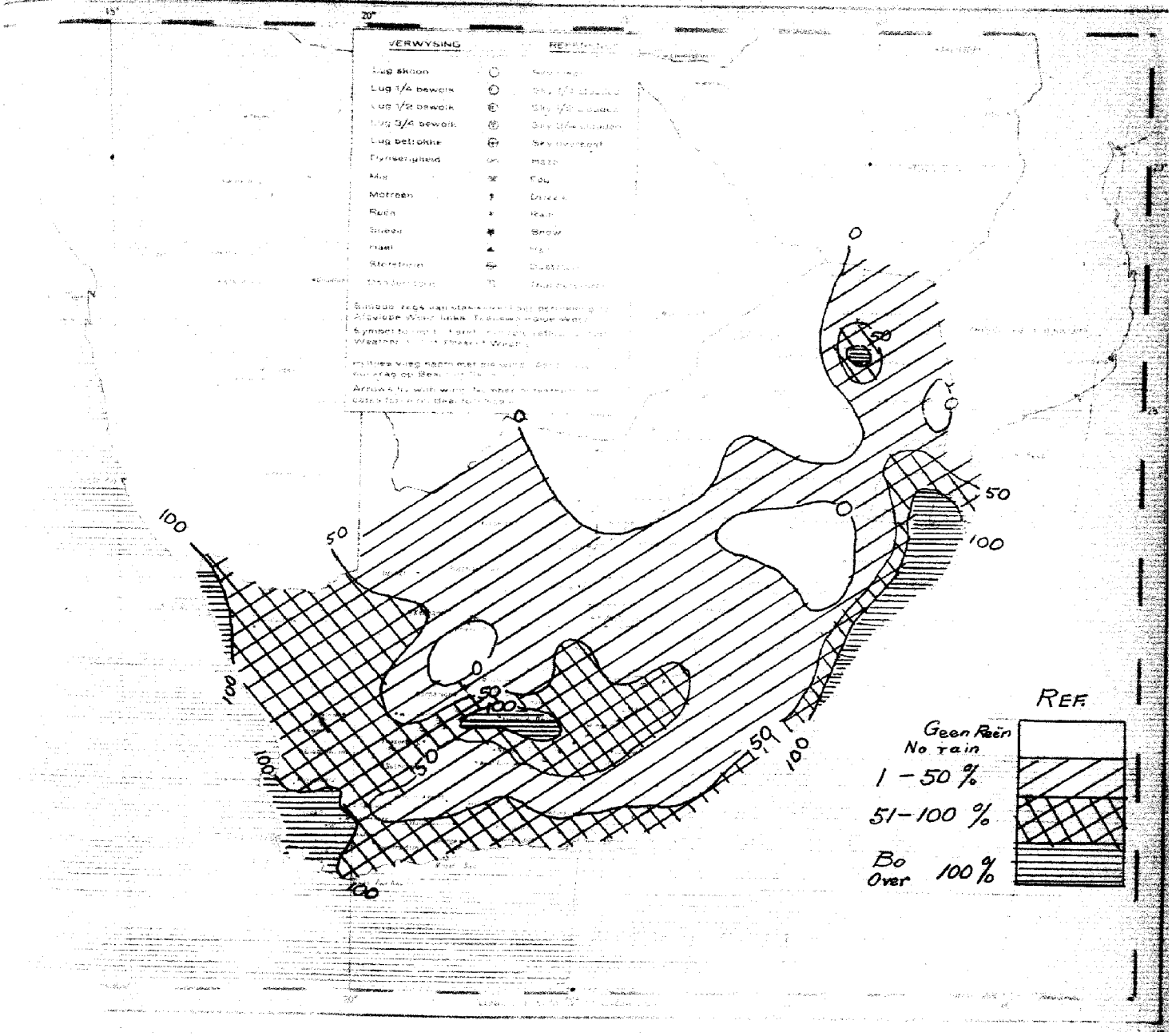


KAART III - CHART III.

AUGUSTUS 1937 - Neerslag aangegee as persentasie van die normaal.

AUGUST 1937 - Precipitation shown as percentage of the normal.

WEERKAART —— WEATHER MAP



KAART IV **CHART IV.**

SEISOEN-NEERSLAG **1 Julie 1937 tot 31 Augustus 1937, aangedui as persentasie van die normaal.**

SEASONAL PRECIPITATION **1st July 1937 to 31st August 1937, shown as percentage of the normal.**

U N I O N O F S O U T H A F R I C A.

DEPARTMENT OF IRRIGATION.

M O N T H L Y W E A T H E R R E P O R T

OF THE

METEOROLOGICAL OFFICE.

VOL. XVIII SEPTEMBER 1937 NO. 9

GENERAL:

Mean temperatures mainly below normal; precipitation above normal over parts of the Transvaal, and below over the remainder of the country; some snow on the mountains in the Cape Province and on the Drakensberg; sharp frost over the interior during the first week of the month; drought conditions over the interior Cape Province and the Free State.

PRESSURE:

The mean pressure was about 0.05 inch above normal over the southern Cape and Basutoland, whilst over the interior it was almost normal (see Chart 1). The transition from winter to summer is clearly shown in that the mean isobars suggest the [illegible] of the summer low pressure over the interior.

TEMPERATURE:

Mean temperatures (see Chart II) were below normal except over limited areas where the normal was slightly exceeded, viz: (1) the northwest Cape and the southwest and south coast; (2) small areas around Graaff Reinet, Victoria West, Postmasburg and Christiana in the interior.

For the Union as a whole, the general mean temperature was 59°F. or 1.1° below normal, whilst the Transvaal, Free State, Natal and Cape provinces separately, showed mean temperatures below normal by 1.9°, 1.3°, 1.4° and 0.6° respectively.

Mean maximum temperatures were rather higher than usual over the western Cape, northern borders of Cape, the eastern Free State and over smaller areas in southern Natal, the southeast and south Cape. Mean minima on the other hand were generally below normal except along the southwest, south and southeast coasts and over isolated small areas in the interior of the southern Cape and around Postmasburg and Kimberley.

The extreme maxima registered in each province were : 96° at Clanwilliam (C.P.) on the 22nd; 98° at Messina (Tvl) on the 12th; 98° at Stanger (Natal) on the 26th, and 90° at Kroonstad (O.F.S.) on the 27th.

The lowest minima in each province were registered on the 6th, viz: 17.5° at Grootfontein (C.P.); 19° at Belfast and Standerton (Tvl); 29° at Ladysmith (Natal) and 18° at Lindley (O.F.S.).

FROST:

Frost occurred mainly in the first week of the month over the Transvaal highveld, Free State, extreme western Natal and northern interior of the Cape Province. Damage to gardens due to this cause, was reported from the Free State.

PRECIPITATION:

The distribution of precipitation is roughly shown on Chart III. The

outstanding features are : (1) Rainfall above normal over the eastern, centre and northern Transvaal; (2) the total absence of rain over the southwestern Transvaal, western Free State and northern Cape Province; (3) almost normal precipitation on the south coast.

Considering the provinces as units, the Free State, Natal and Cape Province showed deficits amounting respectively to 64%, 45% and 48% of their mean normal precipitation, and the Transvaal a surplus of 17%. Separating the Cape Province into winter and summer rainfall zones, the former showed a deficit of 62% and the latter a deficit of 43%. For the Union as a whole there was a deficit of 10%.

During the first week of this month, precipitation occurred mainly over the southwest, south, centre and southeastern Cape Province; on the 2nd and 3rd snow fell on the mountains in these areas, and on the 3rd and 4th some heavy showers were noted in the south Cape.

During the second week (mainly on the 11th and 12th) light showers fell over the same areas, but from the 12th to 15th, the unsettled conditions extended to Natal and the Transvaal, where light thunderstorms and showers occurred. Some isolated thundershowers also occurred over the northern half and centre Transvaal on the 8th and 9th.

During the third week (up to the 20th) conditions remained unsettled in the Transvaal, Natal and northern Free State; snow fell on the Drakensberg ranges up to Wakkerstroom on the 18th and 19th and some heavy showers occurred in northern Natal and the eastern Transvaal.

From the 21st to 28th the weather remained fine with the exception of a few light showers on the south coast. On the 29th and 30th however, precipitation occurred in Natal and the eastern, centre and western Transvaal.

HAIL:

A few hailstorms occurred in the following districts : Waterberg, Pretoria, Swaziland and Rustenburg; also in the southeastern Transvaal, northern Free State and the southwest, south and centre Cape Province.

DROUGHT:

Drought conditions prevailed over the whole interior Cape Province, the Free State, southern Natal and the western Transvaal.

THE CUMULATIVE PRECIPITATION since 1st January 1937, was above normal (1) over the eastern and parts of the northwestern and centre Transvaal; (2) over the extreme northern Natal; (3) over small portions of the western and eastern Free State, and (4) over part of the southwestern Cape. Precipitation over the remainder of the Union was deficient.

Considering the provinces as units, the Transvaal showed a small surplus of 7%, whilst the Free State, Natal and Cape provinces showed deficits amounting to respectively to 8%, 2% and 20% of their mean normal precipitation for the same period. In the latter province the winter rainfall area (west and southwest Cape) showed a surplus of 10% and the summer rainfall area a deficit of 29%. The general mean precipitation for the Union as a whole only just exceeded the normal.

SEASONAL PRECIPITATION:

Chart IV shows the distribution of the seasonal precipitation since 1st July 1937.

Considering the provinces separately for this period, the Transvaal, Natal, Free State and Cape showed deficits amounting respectively to 32%. 16%. 72% and 30% of their mean normal rainfall. The Cape summer rainfall area showed a deficit of 42% as against a deficit of 11% for the winter rainfall zone. For the Union as a whol the precipitation for this period was deficient by 33%.

D I E U N I E V A N S U I D-A F R I K A.

DEPARTEMENT VAN BESPROEIING

M A A N D E L I K S E W E E R V E R S L A G

VAN DIE

WEERKUNDIGE KANTOOR

DEEL XVIII | SEPTEMBER 1937 | NO. 9

ALGEMEEN:

Gemiddelde temperature was hoofsaaklik onder normaal; neerslag was b normaal oor gedeeltes van die Transvaal en onder normaal oor die res van die Unie; sneeu het voorgekom op die bergreekse in die Kaapprovinsie en op die Drakensberge; skerp ryp oor die binneland gedurende die eerste week van die maand; droogte oor die Kaapse binneland en Vrystaat.

LUGDRUK:

Die gemiddelde druk was omtrent 0.05 duim bo normaal oor die suidelik Kaap en Basoetoeland, terwyl dit oor die res van die binneland bykans normaal was (sien Kaart I). Die oorgang van winter na somer is duidelik merkbaar daardeur dat die gemiddelde isobare die somer laagdruk alreeds aandui.

TEMPERATUUR:

Die gemiddelde temperature (sien Kaart II) was hoofsaaklik onder normaal behalwe vir beperkte streke waar hulle ietwat bo-normaal was, nl. (1) die noordwestelike Kaap en die suidwestelike en suidelike kus; (2) klein streke rondom Graaff Reinet, Victoria Wes, Postmasburg en Christiana in die binneland.

Vir die Unie as 'n geheel, was die algemene gemiddelde temperatuur 59°F. of 1.1° onder normaal, terwyl die Transvaal, Vrystaat, Natal en Kaap provinsies, apart beskou, gemiddelde temperature aangedui het wat respektiewelik 1.9°, 1.3°, 1.4° en 0.6° onder normaal was.

Die gemiddelde maksimum temperature was hoër as gewoonlik oor die westelike Kaap, die noordelike grensgebiede van die Kaap, die oostelike Vrystaat en oor kleiner streke in suidelike Natal, die suidoostelike en suidelike Kaap. Die gemiddelde minima egter, was oor die algemeen onder normaal behalwe langs die suidwestelike

suidelike en suidoostelike kuste en oor afgesonderde klein areas in die binneland van die suidelike Kaap en rondom Postmasburg en Kimberley.

Die hoogste maksima in die onderskeie provinsies geregistreer, was as volg : 98° te Clanwilliam (K.P.) op die 22ste; 98° te Messina (Tvl) op die 12de; 98° te Stanger (Natal) op die 26ste, en 90° te Kroonstad (O.V.S.) op die 27ste.

Die laagste minima in die verskillende provinsies was gemeet op die 6de, nl. 17.5° te Grootfontein (K.P.), 19° te Belfast en Standerton (Tvl), 29° te Ladysmith (Natal) en 18° te Lindley (O.V.S.).

RYP:

Ryp het veral gedurende die eerste week van die maand voorgekom oor die Transvaalse hoëveld, die Vrystaat, westelike Natal en die noordelike binneland van die Kaapprovinsie. Skade aan tuinbou (deur ryp) was gerapporteer uit die Vrystaat.

NEERSLAG:

Die distribusie van neerslag word globaal aangedui op Kaart III. Ons merk besonderlik op (1) dat die reënval bo normaal is oor die oostelike, sentrale en noordelike Transvaal; (2) dat daar hoegenaamd geen reën geval het oor die suid-westelike Transvaal, westelike Vrystaat en noordelike Kaapprovinsie, en (3) dat die reënval bykans normaal was langs die suidelike kusstreek.

Die Vrystaat, Natal en Kaapprovinsie, apart beskou, het tekorte gehad wat respektiewelik 64%, 45% en 48% van hulle gemiddelde normale neerslag bedra het, terwyl die Transvaal 'n surplus van 17% aangetoon het. Word die Kaapprovinsie verdeel in die winter- en somerreënvalstreke, dan was daar vir eersgenoemde 'n tekort van 62% en vir laasgenoemde 'n tekort van 43%. Vir die Unie as 'n geheel het die tekort 10% bedra.

Gedurende die eerste week van hierdie maand, het daar neerslag plaasgevind oor die suidwestelike, suidelike, sentrale en suidoostelike Kaapprovinsie; op die 2de en 3de het daar sneeu geval op die bergreekse in hierdie streke, en op die 3de en 4de was daar 'n paar swaar buie aangeteken in die suidelike Kaap.

Gedurende die twede week (hoofsaaklik op die 11de en 12de) het daar ligte buie geval oor dieselfde (bogenoemde) streke, maar vanaf die 12de tot 15de het die ongestadige weer uitgebrei na Natal en die Transvaal, waar daar ligte donderbuie voorgekom het. 'n Paar geisoleerde donderbuie het ook op die 8ste en 9de oor die sentrale en noordelike helfte van die Transvaal uitgesak.

Gedurende die derde week (tot die 20ste) het die weer ongestadig gebly in die Transvaal, Natal en noordelike Vrystaat; sneeu het op die Drakensberge tot by Wakkerstroom geval op die 18de en 19de, en 'n paar swaar buie het in noordelike Natal en die oostelike Transvaal voorgekom.

Vanaf die 21ste tot die 28ste het mooi weer geheers, behalwe vir 'n paar ligte buie langs die suidelike kus. Op die 29ste en 30ste egter, het neerslag voorgekom in Natal en die oostelike, sentrale en westelike Transvaal.

HAEL:

Hael het in die distrikte : Waterberg, Pretoria, Swasieland en Rustenburg geval asook in die suidoostelike Transvaal, die noordelike Vrystaat en die suidwestelike, suidelike en sentrale Kaapprovinsie.

Droogte kondisies het geheers oor die hele binneland van die Kaapprovinsie, die Vrystaat, suidelike Natal en die westelike Transvaal.

DIE VERSAMELDE NEERSLAG vanaf 1 Januarie 1937 was bo normaal (1) oor die oostelike gedeeltes van die noordwestelike en die sentrale Transvaal; (2) oor die noordelikste gedeelte van Natal; (3) oor klein gedeeltes van die westelike en oostelike Vrystaat, en (4) oor 'n gedeelte van die suidwestelike Kaap. Oor die res van die Unie was daar 'n tekort.

Beskou ons die provinsies as eenhede, dan het die Transvaal 'n klein surplus van 7%, terwyl die Vrystaat, Natal en die Kaapprovinsie tekorte aangetoon het wat respektiewelik 8%, 2% en 20% van hulle normale neerslag vir dieselfde periode bedra het. Die somerreënvalstreek van laasgenoemde provinsie het 'n tekort van 29%, en die winterreënvalstreek 'n surplus van 10% ondervind. Vir die Unie as 'n geheel was die algemene gemiddelde neerslag net hoër as die normale hoeveelheid.

DIE SEISOEN-NEERSLAG:

Kaart IV dui die distribusie van die seisoen-neerslag (vanaf 1 Julie 1937) aan.

Apart beskou, het die Transvaal, Natal, Vrystaat en Kaapprovinsie tekorte gehad wat respektiewelik 32%, 16%, 72% en 30% van hulle gemiddelde normale reënval vir hierdie periode bedra. Die Kaapse somerreënvalstreek het 'n tekort van 42%, en die winterreënvalstreek 'n tekort van 11% ondervind.

Vir die Unie as 'n geheel was daar vir hierdie tydperk 'n tekort van 33%.

OBSERVERS' NOTES FOR SEPTEMBER 1937.
AANTEKENINGE VAN WAARNEMERS VIR SEPTEMBER 1937.

DIKGATLONG: Nice month, cool nights. Grass sprouting. P. Jousse.

POTCHEFSTROOM: In spite of the high maximum temperatures and close weather, the barometric pressure kept very high. Except only for the 30th the weather hardly showed any signs of rain with a very low moisture. Very hot, summery and windy days were the main features of the month. B. Saayman.

MIDDELBURG (TVL): Weather conditions dry and variable. V.P. Rose

SECDIN (KURUMAN): Exceptionally cold during nights of the 4th and 5th. Otherwise fine weather; air dry; much wind from northwest during day. D.Schoonees.

KIMBERLEY (AERO): Frost on night of 4th did considerable damage to gardens. J.J.le Roux

FAURESMITH (VELD RESERVE): Nights considerably colder than usual. Minimum of 19.5 on 5th was the lowest temperature for September yet recorded. Generally open and windy, reaching gale force on the 19th. Very dry - area declared drought stricken from August. J. Potter.

BLOEMFONTEIN (AERO.): Weather generally fine, except for some high winds. No rain recorded for about two months. Frosts in first week did considerable damage to fruit crops. A. de Vos.

WEPENER (O.F.S.): Frost on 5th and 6th damaged fruit gardens slightly; rain is badly needed as cattle and sheep are suffering. W. Kemm.

LADYBRAND: Tenspyte van 1.04 duim reen op die 19de bly dit baie droog. P.de Waal.

LINDLEY: Drought conditions now acute. A. Tromp.

LADYSMITH: We had many strong winds during the month. Not much improvement on the veld. Farmers have begun to plough. C. Crause.

NEWCASTLE:(CONVENT). Total rainfall for month was 1.23 inches. Very dry and windy during month. A swarm of locusts passed over on the 29th and 30th. No damage done. Sister M. Lorentia.

WAKKERSTROOM: Die hael op 18 en kapok op 19 deser het die bloesem van die vrugtebome en die jong groente totaal vernietig. Die vors op 24deser het die jong gras verdor. H. Sousenthaler.

DUNDEE: Rain still badly needed. Country very dry and farmers grousing. Mrs. I.K. Thorrold.

CALVINIA: 'n Uiters droe maand met kwaai ryp, in die begin en later warmer dae en nagte. Wind het dikwels met son geloop. S. Kuhn.

WILLISTON: Barometric pressure low; temperatures rising; winds stronger during day. Cold snaps. J. Swart.

BEAUFORT WEST: Although it has rained a little the veld is still in a bad state for sheep farmers; otherwise nothing extraordinary to report, except a tendancy of the cirrus clouds to form a thin veil mostly late in the afternoon. Rain and snow fell on the 2nd after 11 p.m. The mountains as far as Nelspoort and the Swartberge were all covered with snow on top. S. Bosua.

CARNARVON: Afwisselend koud en warm; soms sterk wind met stof. Droog. C.F.Marais.

VICTORIA WEST: Very dry indeed. Stock dying. N.van Rensburg.

GROOTFONTEIN (MIDDELBURG): Very dry and hot; much wind and very little frost except at beginning of month. A. Mackenzie.

CRADOCK: District very dry, no water in the dams. Continuous northeasterly winds. No indication of rain. M. van Heerden.

QUEENSTOWN: A very dry month, rain only falling on the 2nd and 3rd. A very cold spell followed the rain with one or two frosts. Few very hot windy days towards end of month. Hoar frosts on five mornings. W. Everitt.

UMTATA: Drought conditions continue and the veld is brown. Strong winds practically every afternoon. C. du Plessis.

PORT SHEPSTONE: Changeable weather, temperatures mild. 1.10 inches rain fell but much more is needed. H. Mantle.

GRAHAMSTOWN: Disastrous veld and plantation fires during month. Refreshing showers. Grass growing. Veterinary Research Officer.

MAHALAPYE: High winds; lots of dust devils and veld fires. Thunderstorms severe but little rain. Miss M. Giles.

GEYSDORP (LICHTENBURG): Ryp en ys skade aan vrugte-bloeisels. 0.30 op 1 dag. S.Strydom.

RETREAT:(VRYBURG): Besonder dorre maand. Vee sleg in kondisie. W.Oberholzer.

WILGEBOOM (POTCHEFSTROOM): Continuous heavy ice in mornings from June till 24th September Farming conditions - grazing very scarce in parts, cattle holding out well as a whole. Rain seems remote owing to absence of east winds. Mooi River strong. P.v.d. Merwe.

ELANDSFONTEIN (POTCHEFSTROOM): Very dry - no grass - no milk - no butter - no nothing. 0.10 inch on 1 day. P.J. Davidtz.

MOABSVELDEN (SPRINGS): Daar geen reën geval het gedurende die winter is daar min geploeg; as dit nie in twee weke goed reën, kan die boere nie meer hulle grond oor geploeg kry nie. 0.48 duim op 3 dae. J. Oppermann.

JAARSVELD (PRETORIA): Slegs een buitjie het geval, wat gepaard was met sterk wind. Sommige plekke het dit swaar gehael. 0.33 duim op 1 dag. E. v.Jaarsveld.

KEEROM (WATERBERG): Baie hael so groot soos duiwe-eiers; sterk wind; bome ontwortel. 1.45 duim op 2 dae. D. Wolhuter.

TSHOKWANE, K.N. PARK: The usual prevailing winds - hot from north with clear sky; cool to cold from southeast with overcast sky. Almost every time the wind comes from the southeast there is every indication of rain and the prospects seem good. There is no apparent reason why rain fell when it did, and not on other occasions when the tokens were as favourable. 0.58 inch on 3 days. L.B. Steyn.

DWALENI (HLATIKULU): Very violent storms with heavy fall of fine hail at 7.10 p.m. One cow and two gumtrees struck by lightning. 3.75 inches on 4 days. M. King.

MIDDLETON (GREYTOWN): Observed on the 11th at 6 p.m. meteor about twice the brilliance of Venus to east of Zenith, travelling slowly towards east. Scintillations until exploded. Not audible. 0.66 inch on 3 days. N.G. Nel.

HENDRIK THERON (BOTHAVILLE): Ys doen baie skade aan vrugte. W. Odendaal.

BELLEVILLE (BARKLY EAST): September has been the severest experienced for many years with cold west winds and sleet, which did a lot of damage to young grass and land. Stock - both large and small - are in poor condition. Heavy losses are reported. 0.62 inch on 4 days. S.J.N. Vorster.

AIR TEMPERATURES : SEPTEMBER 1937.
LUG TEMPERATURE : SEPTEMBER 1937.

STATION STASIE	MAXIMUM: Mean Gem.	Norm.	Diff. Versk.	MINIMUM: Mean Gem.	Norm.	Diff. Versk.	MONTHLY MEAN MAAND. GEM. Mean. Gem.	Norm.	Diff. Versk.	ABS. MAX.	DATE DATUM	ABS. MIN	DATE DATUM
CAPE PROVINCE: KAAPPROVINSIE:													
ALIWAL NORTH	72.2	73.1	-0.9	36.2	40.5	-4.3	54.2	56.8	-2.6	89.0	26	20.0	6
BRITSTOWN		71.5			41.5			56.5					
CAPE L'AGULHAS	62.5	62.4	+0.1	53.2	52.0	+1.2	57.9	57.2	+0.7	67.0	22	48.0	3
CAPE TOWN	66.8	65.8	+1.0	51.7	50.1	+1.6	59.3	58.0	+1.3	84.0	22	42.1	3
CALA	71.0	71.4	-0.4	43.5	45.6	-2.1	57.3	58.5	-1.2	91.5	27	30.0	5
CARNARVON	72.2	71.7	+0.5	38.2	39.7	-1.5	55.2	55.7	-0.5	88.0	24	24.0	6
CERES	67.4	67.7	-0.3	41.1	41.4	-0.3	54.3	54.6	-0.3	[illegible]	22	33.0	6
CRADOCK	73.1	74.7	-1.6	40.8	42.3	-1.5	57.0	58.5	-1.5	[illegible]	28	29.0	7
CLANWILLIAM	77.9	75.5	+2.4	43.4	44.8	-1.4	60.7	60.2	+0.5	[illegible]	22	34.0	6
DEEPWALLS	63.2	63.7	-0.5	47.4	46.8	+0.6	55.3	55.3	0.0	[illegible]	23	36.5	4
EAST LONDON		69.4			54.5			62.0					
GOEDHOUSE		84.4			53.3			68.9					
GRAAFF REINET	75.5	74.9	+0.6	46.7	46.5	+0.2	61.1	60.7	+0.4	[illegible]	27	34.0	3
GRAHAMSTOWN	68.4	70.2	-1.8	45.7	45.0	+0.7	57.1	57.6	-0.5	[illegible]	27	33.2	14
GT. DRAKENSTEIN	68.3	68.2	+0.1	46.7	47.2	-0.5	57.5	57.7	-0.2	[illegible]	22	38.8	9
GROOTFONTEIN	70.7	71.1	-0.4	34.7	39.4	-4.7	52.7	55.3	-2.6	[illegible]	27	17.5	6
HOPETOWN	76.2	77.1	-0.9	42.0	43.6	-1.6	59.1	60.4	-1.3	[illegible]	26	23.0	5
IDUTYWA		70.6			46.1			58.4					
JENHARDT	78.4	78.3	+0.1	44.6	45.3	-0.7	61.5	61.8	-0.3	93.6	26	30.3	6
KIMBERLEY	76.9	77.3	-0.4	46.4	46.3	+0.1	61.7	61.8	-0.1	[illegible]	27	30.7	5
KING WILLIAMSTOWN	71.9	74.2	-2.3	48.0	48.6	-0.6	60.0	61.4	-1.4	[illegible]	27	37.0	5
KLAVER	75.5	74.3	+1.2	48.8	50.3	-1.5	62.2	62.3	-0.1	97.0	22	38.5	4
KOKSTAD	69.3	70.9	-1.6	40.9	42.6	-1.7	55.1	56.8	-1.7	90.9	28	26.8	6
KURUMAN	74.1	77.6	-3.5	40.5	42.4	-1.9	57.3	60.0	-2.7	89.0	30	23.0	5
MAFEKING	78.1	80.5	-2.4	47.7	48.8	-1.1	62.9	64.7	-1.8	91.5	28	28.8	6
MOSSEL BAY		65.7			52.0			58.9					
NELSPOORT	68.2	70.1	-1.9	41.6	43.1	-1.5	54.9	56.6	-1.7	87.0	26	29.0	15
O'OKIEP	71.8	70.3	+1.5	46.0	46.3	-0.3	58.9	58.3	+0.6	92.0	25	33.6	4
OUDTSHOORN	73.4	73.7	-0.3	44.2	44.5	-0.3	58.8	59.1	-0.3	96.5	23	34.0	6
PORT ELIZABETH	65.9	66.6	-0.7	53.1	52.9	+0.2	59.5	59.8	-0.3	74.0	23	46.0	14
PORT NOLLOTH	61.3	63.5	-2.2	44.9	46.1	-1.2	53.1	54.8	-1.7	87.0	20	38.0	4
PORT ST. JOHNS	68.1	72.3	-4.2	57.0	56.3	+0.7	62.6	64.3	-1.7	77.0	9	48.0	5
POSTMASBURG	74.5	73.7	+0.8	48.4	46.4	+2.0	61.5	60.1	+1.4	87.9	27	29.9	4
PRIESKA	79.3	77.3	+2.0	42.7	45.1	-2.4	61.0	61.2	-0.2	94.3	26	29.2	8
QUEENSTOWN	74.4	72.7	+1.7	42.6	44.4	-1.8	58.5	58.6	-0.1	94.0	27	27.0	6
RIETPOORT		73.9			46.3			60.1					
SOMERSET EAST	71.1	71.9	-0.8	45.8	45.6	+0.2	58.5	58.8	-0.3	92.5	27	37.0	7
SUTHERLAND	64.8	63.6	+1.2	32.4	33.8	-1.4	48.6	48.7	-0.1	82.0	24	19.0	6
SYDNEY'S HOPE	64.5	68.6	-4.1	48.2	48.6	-0.4	56.4	58.6	-2.2	89.0	27	40.0	5
UITENHAGE	73.9	73.4	+0.5	49.0	47.7	+1.3	61.5	60.6	+0.9	93.5	23	35.0	14
UMTATA	74.7	73.9	+0.8	45.5	47.0	-1.5	60.1	60.5	-0.4	97.0	26	29.0	6
UPINGTON	78.1	79.2	-1.1	47.2	47.6	-0.4	62.7	63.4	-0.7	95.0	26	32.3	5
VAN WYKSVLEI	72.0	73.5	-1.5	42.0	40.3	+1.7	57.0	56.9	+0.1	92.0	25	27.0	7
VICTORIA WEST	72.2	71.1	+1.1	38.9	37.5	+1.4	55.6	54.3	+1.3	88.0	26	26.0	5
VRYBURG		73.7			44.7			62.2					
WILLOWMORE		69.2			41.5			55.4					
O.F.S. : O.V.S.													
BETHULIE	74.2	73.4	+0.8	39.4	42.3	-2.9	56.8	57.9	-1.1	88.9	26	21.0	5
BLOEMFONTEIN	73.0	74.6	-1.6	39.1	43.3	-4.2	56.1	59.0	-2.9	87.7	27	21.4	5
FAURESMITH	72.5	72.0	+0.5	36.7	40.7	-4.0	54.6	56.4	-1.8	88.1	26	19.5	5
HARRISMITH	69.7	67.2	+2.5	37.0	41.7	-4.7	53.4	54.5	-1.1	85.0	27	20.0	5
KROONSTAD	76.3	76.4	-0.1	40.8	44.1	-3.3	58.6	60.3	-1.7	90.0	27	21.0	6
LADYBRAND	70.8	70.1	+0.7	41.7	42.4	-0.7	56.3	56.3	0.0	84.0	28	27.0	5
LINDLEY	73.3	74.4	-1.1	40.0	41.9	-1.9	56.7	58.2	-1.5	87.0	28	18.0	6
WEPENER	72.5	71.3	+1.2	36.8	39.3	-2.5	54.7	55.3	-0.6	86.9	26	19.2	5

AIR TEMPERATURES : SEPTEMBER 1937 (CONTD.)
LUG TEMPERATURE : SEPTEMBER 1937 (VERVOLG)

STATION STASIE	MAXIMUM:			MINIMUM:			MONTHLY MEAN MAAND. GEM.			ABS.DATE MAX.DATUM		ABS.DATE MIN.DATUM	
	Mean Gem.	Norm.	Diff. Versk.	Mean Gem.	Norm.	Diff. Versk.	Mean. Gem.	Norm.	Diff. Versk.				
TRANSVAAL:													
BARBERTON	77.2	79.0	-1.8	54.8	56.0	-1.2	66.0	67.5	-1.5	92.0	12	45.0	6
BELFAST	66.0	70.9	-4.9	36.9	38.6	-1.7	51.5	54.8	-3.3	81.0	29	19.0	6
CHRISTIANA	80.6	77.9	+2.7	42.3	43.2	-0.9	61.5	60.6	+0.9	94.0	30	31.0	7
ERMELO	70.8	73.4	-2.6	41.9	43.4	-1.5	56.4	58.4	-2.0	88.0	29	25.0	4
HEIDELBERG	74.0	76.2	-2.2	42.2	43.2	-1.0	58.1	59.7	-1.6	88.0	29	20.7	6
JOHANNESBURG	69.8	70.7	-0.9	47.0	48.1	-1.1	58.4	59.4	-1.0	83.8	29	30.0	4
KLERKSDORP		79.3			45.9			62.6					
KOMATIPOORT		86.3			58.9			72.6					
KOPJE ALLEEN	79.4	82.1	-2.7	47.1	49.6	-2.5	63.3	65.9	-2.6	94.0	29	32.2	6
LOUIS TRICHARDT		77.9			53.1			65.5					
MESCINA	82.3	84.8	-2.5	59.1	60.3	-1.2	70.7	72.6	-1.9	98.0	12	50.1	6
MIDDELBURG	73.3	76.7	-3.4	39.8	43.0	-3.2	56.6	59.9	-3.3	87.0	29	20.0	6
NYLSTROOM	78.9	80.6	-1.7	46.3	47.6	-1.3	62.6	64.1	-1.5	91.0	29	30.0	6
PIETERSBURG	74.5	78.2	-3.7	45.1	47.7	-2.6	59.8	63.0	-3.2	87.0	27	28.3	6
PIET RETIEF	72.7	73.4	-0.7	44.2	48.1	-3.9	58.5	60.8	-2.3	90.3	18	32.2	5
PILGRIMS REST		75.9			46.1			61.0					
POTCHEFSTROOM	77.4	78.9	-1.5	44.7	45.2	-0.5	61.1	62.1	-1.0	91.0	27	22.7	6
PRETORIA	76.5	78.1	-1.6	48.6	48.5	+0.1	62.6	63.3	-0.7	89.5	29	34.0	5
RUSTENBURG	79.3	80.7	-1.4	47.5	48.9	-1.4	63.4	64.8	-1.4	91.0	27	30.0	6
STANDERTON	74.5	75.0	-0.5	38.3	39.5	-1.2	56.4	57.3	-0.9	90.0	27	19.0	6
WAKKERSTROOM	68.2	69.4	-1.2	37.3	40.4	-3.1	52.8	54.9	-2.1	84.7	27	13.1	5
ZEERUST	75.3	80.2	-4.9	46.0	47.5	-1.5	60.7	63.9	-3.2	91.0	29	27.0	6
NATAL:													
DUNDEE	73.6	75.6	-2.0	44.9	46.6	-1.7	59.3	61.1	-1.8	92.0	28	29.0	5
DURBAN POINT	72.5	72.6	-0.1	60.3	60.4	-0.1	66.4	66.5	-0.1	79.0	26	53.4	6
EMPANGENI		76.9			57.1			67.0					
ESHOWE	72.4	72.8	-0.4	53.5	55.5	-2.0	63.0	64.2	-1.2	93.7	26	42.9	5
ESTCOURT	74.5	74.2	+0.3	44.8	46.3	-1.5	59.7	60.3	-0.6	92.0	29	30.0	6
LADYSMITH	75.9	78.1	-2.2	43.9	49.0	-5.1	59.9	63.6	-3.7	95.0	28	29.0	6
PIETERMARITZBURG	76.0	74.8	+0.2	49.5	51.9	-2.4	62.3	63.4	-1.1	97.4	26	35.0	5
OTOBOTINI	78.9	82.4	-3.5	56.9	60.4	-3.5	67.9	71.4	-3.5	92.0	28	50.0	8
PORT SHEPSTONE	70.4	71.1	-0.7	57.0	57.9	-0.9	63.7	64.5	-0.8	75.5	27	49.0	6
STANGER	76.5	77.5	-1.0	57.0	58.3	-1.3	66.8	67.9	-1.1	98.0	26	49.0	6
VRYHEID		76.0			49.3			62.7					
WEENEN	79.1	79.4	-0.3	46.2	46.7	-0.5	62.7	63.1	-0.4	97.0	28	32.0	6
BASUTOLAND : BASOETOELAND:													
Butha Buthe	70.7	72.8	-2.1	40.7	40.3	+0.4	55.7	56.6	-0.9	82.0	28	20.0	5
MAFETENG	72.4	68.0	+4.4	44.3	42.6	+1.7	58.4	55.3	+3.1	85.0	28	26.0	6
MOHALESHOEK	70.9	71.9	-1.0	42.6	43.0	-0.4	56.8	57.5	-0.7	85.0	28	25.0	6
MOKHOTLONG	66.1	67.2	-1.1	34.2	35.9	-1.7	50.2	51.6	-1.4	80.0	27	18.0	5
QACHASNEK	66.1	67.3	-1.2	40.3	40.5	-0.2	53.2	53.9	-0.7	80.0	27	24.0	5
BECHUANALAND : BETSJOEANALAND:													
PUKGATLONG	83.4	79.9	+3.5	49.6	51.1	-1.5	66.5	65.5	+1.0	98.0	12	26.0	6
GABERONES	80.6	83.9	-3.3	43.5	48.7	-5.2	62.1	66.3	-4.2	95.0	20	33.0	7
MAHALAPYE	82.1	84.3	-2.2	47.2	51.6	-4.4	64.7	68.0	-3.3	96.0	29	29.0	5
SWAZILAND : SWASIELAND:													
MBABANE	70.2	76.1	-5.9	47.7	54.5	-6.8	59.0	65.3	-6.3	89.0	12	35.0	5
STEGI	72.5	75.7	-3.2	50.8	53.9	-3.1	61.7	64.8	-3.1	92.0	12	44.0	5

RAINFALL : SEPTEMBER 1937.
NEERSLAG : SEPTEMBER 1937.

STATION / STASIE	SEPT. 1937.	NORM.	DIFF. VERSK.	%	FROM 1.1.37 VANAF	NORM.	DIFF. VERSK	FROM 1.7.37 VANAF	NORM.	DIFF. VERSK.	% SEISOEN SEASONAL
CAPE PROVINCE - SUMMER RAINFALL AREA:											
KAAPPROVINSIE - SOMER REENVALSTREEK:											
ALIWAL NORTH	0.00	0.91	-0.91	0	9.29	13.56	-4.27	0.62	1.97	-1.35	31
BEAUFORT WEST	0.35	0.64	-0.29	55	2.17	7.11	-4.94	0.48	1.30	-0.82	37
BEDFORD	1.41	1.97	-0.56	72	12.64	19.21	-6.57	2.43	3.84	-1.41	63
BRITSTOWN	0.00	0.51	-0.51	0	6.09	8.71	-2.62	0.08	0.96	-0.88	8
CARNARVON	0.00	0.31	-0.31	0	4.73	6.32	-1.59	0.00	0.81	-0.81	0
FRASERBURG	0.04	0.28	-0.24	14	3.75	5.56	-1.81	0.36	0.88	-0.52	41
GEORGE	3.29	3.31	-0.02	99	20.93	24.59	-3.66	6.98	7.47	-0.49	93
GRAAFF REINET	0.68	1.05	-0.37	65	11.74	10.05	+1.69	1.65	2.14	-0.49	77
GRAHAMSTOWN	1.64	1.96	-0.32	84	8.96	14.82	-5.86	3.35	4.17	-0.82	80
GRIQUATOWN	0.00	0.40	-0.40	0	9.21	9.59	-0.38	0.05	0.82	-0.77	6
GROOTFONTEIN	0.12	0.79	-0.67	15	5.64	9.93	-4.29	0.49	1.51	-1.02	32
HANOVER	0.00	0.75	-0.75	0	3.39	10.92	-7.53	0.41	1.46	-1.05	28
HOPETOWN	0.00	0.45	-0.45	0	6.70	9.15	-2.45	0.12	0.96	-0.84	13
KENHARDT	0.00	0.18	-0.18	0	4.01	4.63	-0.62	0.17	0.51	-0.34	33
KIMBERLEY	0.00	0.59	-0.59	0	10.66	11.10	-0.44	0.07	1.13	-1.06	6
KINGWILLIAMSTOWN	0.88	1.81	-0.93	49	9.04	17.19	-8.15	1.49	3.98	-2.49	37
KOKSTAD	0.45	1.58	-1.13	28	18.76	19.36	-0.60	0.50	3.02	-2.52	17
MATJESFONTEIN	0.00	0.45	-0.45	0	1.83	5.52	-3.69	0.56	1.72	-1.16	33
MACLEAR	1.04	1.63	-0.59	64	19.56	21.82	-2.26	1.23	3.12	-1.89	39
MAFEKING	0.05	0.60	-0.55	8	11.65	12.86	-1.21	0.05	1.23	-1.18	4
MOSSEL BAY	1.66	1.73	-0.07	96	9.63	12.76	-3.13	3.99	4.40	-0.41	91
PHILIPSTOWN	0.00	0.64	-0.64	0	6.09	10.12	-4.03	0.45	1.29	-0.84	35
PORT ELIZABETH	3.14	2.38	+0.76	132	12.72	16.73	-4.01	6.19	6.43	-0.24	96
PORT ST. JOHNS	1.89	3.91	-2.02	48	27.48	31.89	-4.41	5.42	7.61	-2.19	71
PRIESKA	0.00	0.26	-0.26	0	3.73	7.42	-3.69	0.00	0.62	-0.62	0
QUEENSTOWN	0.37	1.08	-0.71	33	8.66	15.54	-6.88	0.93	2.25	-1.32	41
SOMERSET EAST	1.22	1.54	-0.32	79	7.66	15.51	-7.85	1.97	3.34	-1.37	59
STEYNSBURG	0.16	0.74	-0.58	22	7.97	10.85	-2.88	0.80	1.55	-0.75	52
STEYTLERVILLE	0.06	0.71	-0.65	8	3.72	6.66	-2.94	0.43	1.48	-1.05	29
SWELLENDAM	2.76	2.71	+0.05	102	17.52	22.86	-5.34	5.59	7.21	-1.62	77
SYDNEYS HOPE	1.56	2.06	-0.50	76	8.52	16.02	-7.50	2.88	4.49	-1.61	64
UITENHAGE	0.77	2.17	-1.40	36	6.85	13.89	-7.04	2.04	4.62	-2.58	44
UMTATA	0.38	1.67	-1.29	23	13.29	17.53	-4.24	0.55	3.18	-2.63	17
UNIONDALE	0.85	1.33	-0.48	64	4.85	10.28	-5.43	2.59	3.52	-0.93	74
UPINGTON	0.00	0.13	-0.13	0	3.61	5.63	-2.02	0.04	0.34	-0.30	12
VICTORIA WEST	0.00	0.43	-0.43	0	4.22	6.32	-2.10	0.49	0.66	-0.17	74
VRYBURG	0.56	0.37	+0.19	151	16.36	13.74	+2.62	0.56	0.82	-0.26	68
CAPE PROVINCE - WINTER RAINFALL AREA:											
KAAPPROVINSIE - WINTER REENVALSTREEK:											
CALVINIA	0.00	0.58	-0.58	0	4.47	7.09	-2.62	1.32	2.40	-1.08	55
CAPE TOWN ROYAL OBS.	1.69	2.26	-0.57	75	25.46	21.18	+4.28	8.98	9.18	-0.20	98
CERES	0.36	4.11	-3.75	9	45.02	34.30	+10.72	15.43	15.80	-0.37	98
CLANWILLIAM	0.00	0.73	-0.73	0	6.22	7.51	-1.29	1.99	3.18	-1.19	63
GARIES	0.05	0.43	-0.38	12	3.16	4.51	-1.35	1.02	1.95	-0.93	52
GR. DRAKENSTEIN	2.08	3.34	-1.26	62	38.68	30.20	+8.48	13.49	13.29	+0.20	102
O'OKIEP	0.03	0.58	-0.55	5	3.88	5.93	-2.05	1.13	2.34	-1.21	48
PIQUETBERG	0.64	2.11	-1.47	30	14.27	16.79	-2.52	5.94	7.62	-1.68	78
PORT NOLLOTH	0.01	0.18	-0.17	6	2.00	2.09	-0.09	0.91	0.84	+0.07	108
SUTHERLAND	0.40	0.57	-0.17	70	8.13	7.66	+0.47	1.85	2.38	-0.53	78
WORCESTER	0.88	1.13	-0.25	78	10.93	10.21	+0.72	4.40	4.40	0.00	100
BASUTOLAND : BASOETOELAND:											
MAFETENG	0.18	1.24	-1.06	15	20.23	20.75	-0.52	0.63	2.45	-1.82	26
BUTHA BUTHE	0.00	1.34	-1.34	0	21.50	20.76	+0.74	0.23	2.91	-2.68	8
MOKHOTLONG	0.04	0.47	-0.43	9	11.96	12.43	-0.47	0.14	1.22	-1.08	11
MOHALESHOEK	0.09	1.23	-1.14	7	25.53	19.04	+6.49	0.53	2.39	-1.86	22
QACHASNEK	1.71	1.71	-0.00	100	23.36	23.08	+0.28	1.83	2.91	-1.08	63

RAINFALL : SEPTEMBER 1937 (CONTD).
NEERSLAG : SEPTEMBER 1937 (VERVOLG).

STATION STASIE	SEPT. 1937.	NORM.	DIFF. VERSK.	%	FROM 1.1.37 VANAF	NORM.	DIFF. VERSK	FROM 1.7.37 VANAF.	NORM.	DIFF. VERSK.	SEASONAL % SEISOEN.
O.F.S. : O.V.S.											
BETHULIE	0.00	0.75	-0.75	0	7.27	13.76	-6.49	0.30	1.59	-1.29	19
BLOEMFONTEIN	0.00	0.82	-0.82	0	13.39	14.88	-1.49	0.23	1.59	-1.36	14
BOSHOF	0.00	0.84	-0.84	0	14.67	12.97	+1.70	0.10	1.52	-1.42	7
FAURESMITH	0.00	0.88	-0.88	0	10.76	9.65	+1.11	0.17	1.64	-1.47	10
HARRISMITH	0.55	1.41	-0.86	39	13.89	17.66	-3.77	0.55	2.56	-2.01	21
KROONSTAD	0.38	0.82	-0.44	46	10.66	14.21	-3.55	0.39	1.58	-1.19	25
LADYBRAND	1.04	1.34	-0.30	78	19.25	17.70	+1.55	1.55	2.37	-0.82	65
LINDLEY	0.31	0.96	-0.65	32	13.17	15.42	-2.25	0.31	1.77	-1.46	18
WINBURG	0.82	0.80	+0.02	103	17.64	14.44	+3.20	0.98	1.52	-0.54	65
WEPENER	0.31	0.84	-0.53	37	15.87	17.43	-1.56	0.56	1.97	-1.41	28
NATAL:											
DUNDEE	0.85	1.40	-0.55	61	22.29	19.54	+2.75	0.85	2.47	-1.62	34
DURBAN	1.24	2.75	-1.51	45	29.32	30.10	-0.78	9.87	6.20	+3.67	159
EMPANGENI	-	-	-	-	-	-	-	-	-	-	-
ESTCOURT	0.31	1.23	-0.92	25	-	18.29	-	0.31	2.22	-1.91	14
LADYSMITH	0.59	1.25	-0.66	47	17.70	18.83	-1.13	0.59	2.44	-1.85	24
MELMOTH	1.33	1.45	-0.12	92	17.99	19.61	-1.62	2.93	3.01	-0.08	97
OTOBOTINI	0.00	1.30	-1.30	0	22.23	15.15	+7.08	1.87	2.11	-0.24	89
PIETERMARITZBURG	1.03	1.94	-0.91	53	15.62	22.65	-7.03	2.02	3.42	-1.40	59
STANGER	0.62	2.96	-2.34	21	23.54	25.92	-2.38	4.37	5.39	-1.02	81
UBOMBO	2.80	1.75	+1.05	160	27.92	21.20	+6.72	4.68	3.10	+1.58	151
VRYHEID	2.73	1.54	+1.19	180	24.50	20.30	+4.20	2.79	2.88	-0.09	97
WEENEN	0.40	1.10	-0.70	36	-	16.37	-	-	2.04	-	-
BECHUANALAND : BETSJOEANALAND:											
MAHALAPYE	0.14	0.24	-0.10	58	11.39	10.67	+0.72	0.14	0.52	-0.38	27
DIKGATLONG	0.91	0.28	+0.63	325	10.16	10.56	-0.40	0.91	0.50	+0.41	182
GABERONES	0.04	0.38	-0.34	11	14.26	12.33	+1.93	0.04	0.62	-0.58	6
TRANSVAAL:											
BARBERTON	1.36	1.00	+0.36	136	28.49	18.45	+10.04	1.63	1.76	-0.13	93
BELFAST	1.45	0.96	+0.49	151	22.50	17.73	+4.77	1.45	1.68	-0.23	86
BETHAL	0.13	0.97	-0.84	13	14.44	15.99	-1.55	0.13	1.74	-1.61	7
BLOEMHOF	0.00	0.65	-0.65	0	8.82	12.92	-4.10	0.00	1.17	-1.17	0
ELIM HOSPITAL	0.67	0.46	+0.21	146	20.59	21.47	-0.88	0.91	1.27	-0.36	72
ERMELO	0.52	1.17	-0.65	44	19.20	15.70	+3.50	0.60	2.09	-1.49	29
HAENERTSBURG	1.62	0.61	+1.01	266	32.61	24.93	+7.68	2.99	1.55	+1.44	193
HEIDELBERG	0.35	0.83	-0.48	42	13.98	16.16	-2.18	0.43	1.55	-1.12	27
JOHANNESBURG	1.06	0.87	+0.19	122	20.06	17.64	+2.42	1.12	1.72	-0.60	65
JOUBERT PARK	0.70	0.95	-0.25	74	24.15	19.85	+4.30	0.77	1.78	-1.01	43
KLERKSDORP	0.14	0.63	-0.49	22	13.58	14.55	-0.97	0.14	1.19	-1.05	12
LICHTENBURG	0.26	0.52	-0.26	50	12.45	15.03	-2.58	0.26	1.05	-0.79	25
MESSINA	0.68	0.08	+0.60	850	7.72	8.32	-0.60	0.71	0.31	+0.40	229
MIDDELBURG	0.67	0.80	-0.13	84	12.60	16.41	-3.81	0.67	1.40	-0.73	48
NYLSTROOM	0.87	0.52	+0.35	167	14.56	15.39	-0.83	0.87	1.12	-0.25	78
PIETERSBURG	0.59	0.33	+0.26	179	15.54	12.04	+3.50	0.59	0.78	-0.19	76
PIET RETIEF	2.58	1.64	+0.94	157	26.22	20.37	+5.85	2.70	2.75	-0.05	98
POTCHEFSTROOM	0.00	0.68	-0.68	0	9.55	14.77	-5.22	0.00	1.42	-1.42	0
PRETORIA	0.71	0.63	+0.08	113	17.64	16.66	+0.98	0.71	1.46	-0.75	49
ROODEBERG	0.34	0.41	-0.07	83	13.96	14.13	-0.17	0.34	1.15	-0.81	30
RUSTENBURG	0.79	0.63	+0.16	125	13.39	15.88	-2.49	0.79	1.38	-0.59	57
STANDERTON	0.23	0.99	-0.76	23	12.33	16.99	-4.66	0.28	1.97	-1.69	14
VILLA NORA	0.68	0.26	+0.42	262	14.58	10.70	+3.88	0.68	0.58	+0.10	117
WAKKERSTROOM	2.51	1.21	+1.30	207	21.65	17.77	+3.88	2.51	2.31	+0.20	109
WOODBUSH	2.57	1.60	+0.97	161	57.14	46.21	+10.93	4.02	3.65	+0.37	110
ZEERUST	0.22	0.46	-0.24	48	9.49	14.60	-5.11	0.22	0.95	-0.73	23
SWAZILAND - SWASIELAND:											
MBABANE	3.83	2.15	+1.68	178	52.41	33.83	+18.58	5.02	4.06	+0.96	124

WEERKAART —— WEATHER MAP

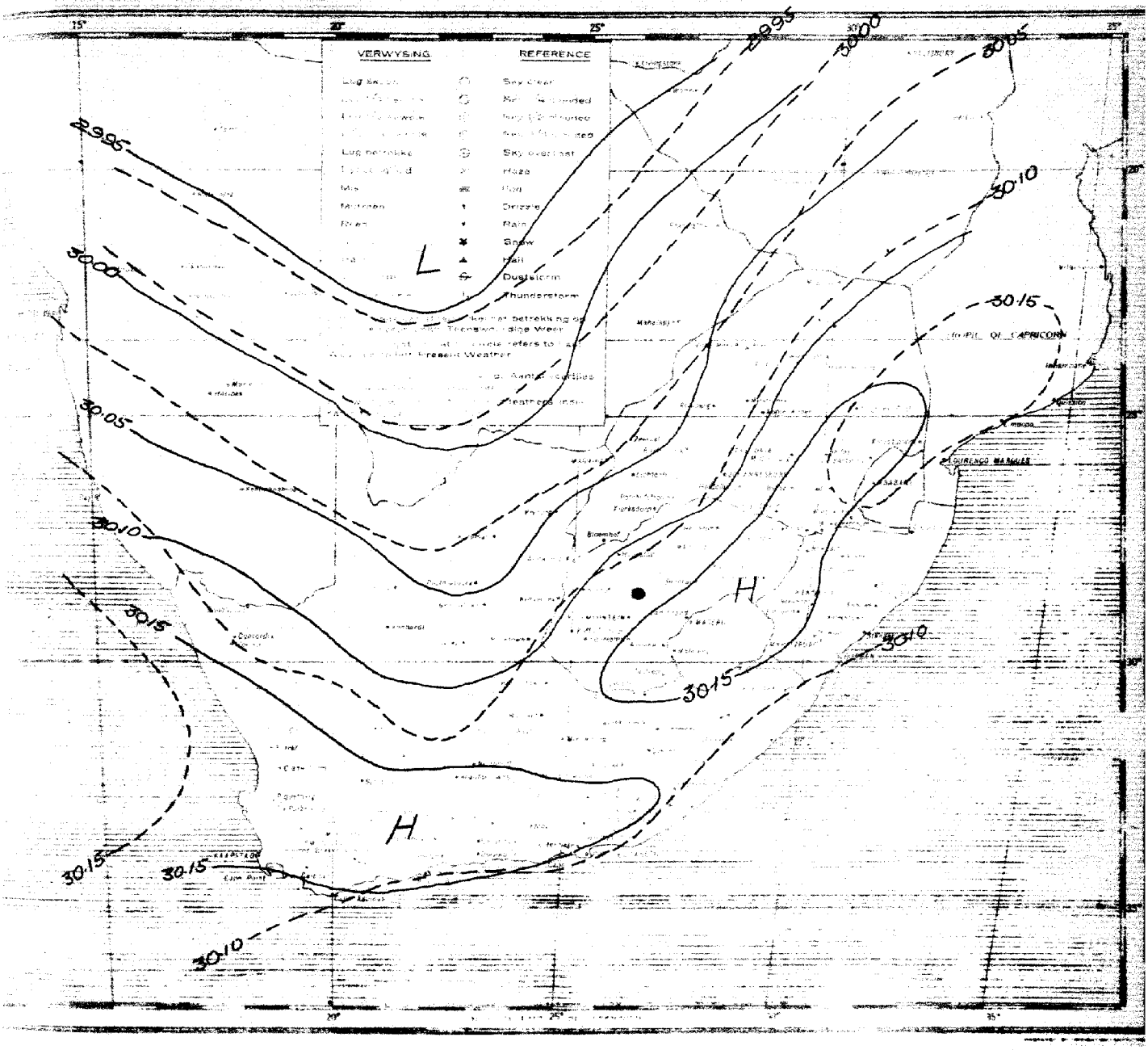


CHART I · KAART I.

SEPTEMBER 1937 · Mean Atmospheric Pressure (at M.S.L.) at 8.30 a.m. The broken lines represent the normal distribution for September.

SEPTEMBER 1937 · Gemiddelde Lugdruk (by seespieël) om 8.30 v.m. Die gebroke lyne dui die normale distribusie vir September aan.

WEERKAART —— WEATHER MAP

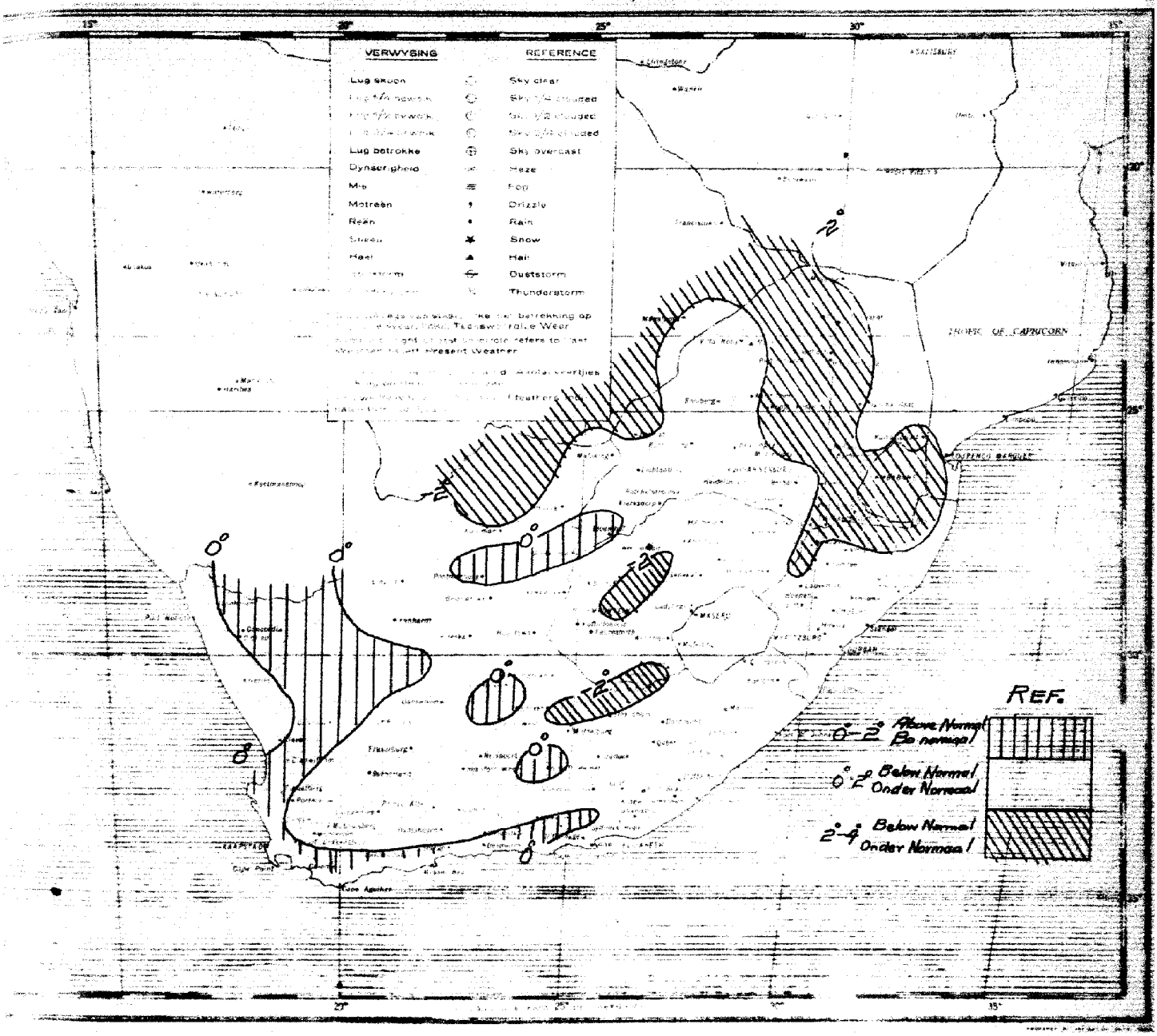


CHART II **KAART II**

SEPTEMBER 1937 **Mean Temperature** - departure from the normal in °F.

SEPTEMBER 1937 **Gemiddelde Temperatuur** afwyking van die normaal in °F

WEERKAART —— WEATHER MAP

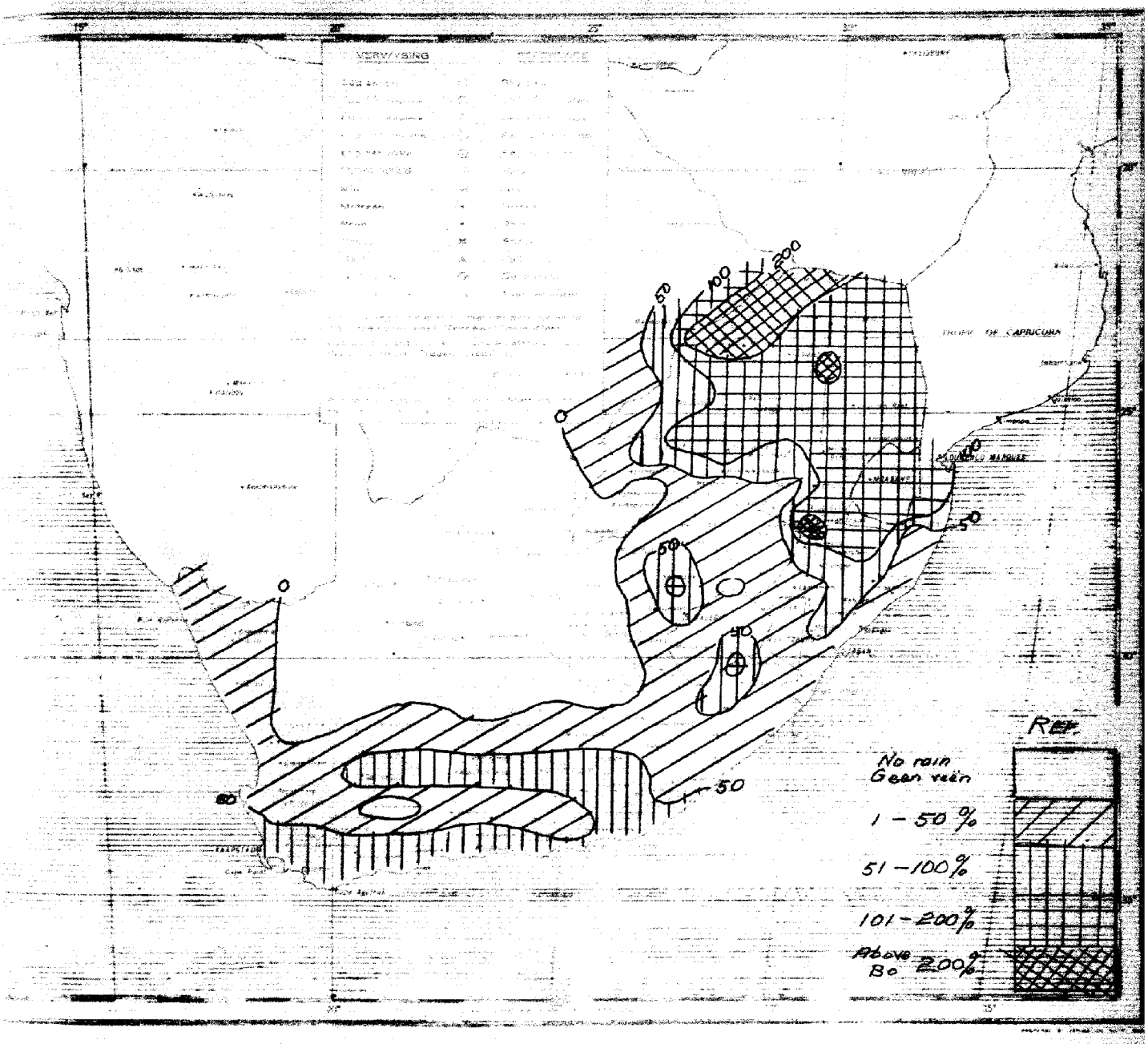


CHART III **KAART III**

SEPTEMBER 1937 - **Precipitation shown as percentage of the normal.**

SEPTEMBER 1937 - **Neerslag aangegee as persentasie van die normaal.**

WEERKAART —— WEATHER MAP

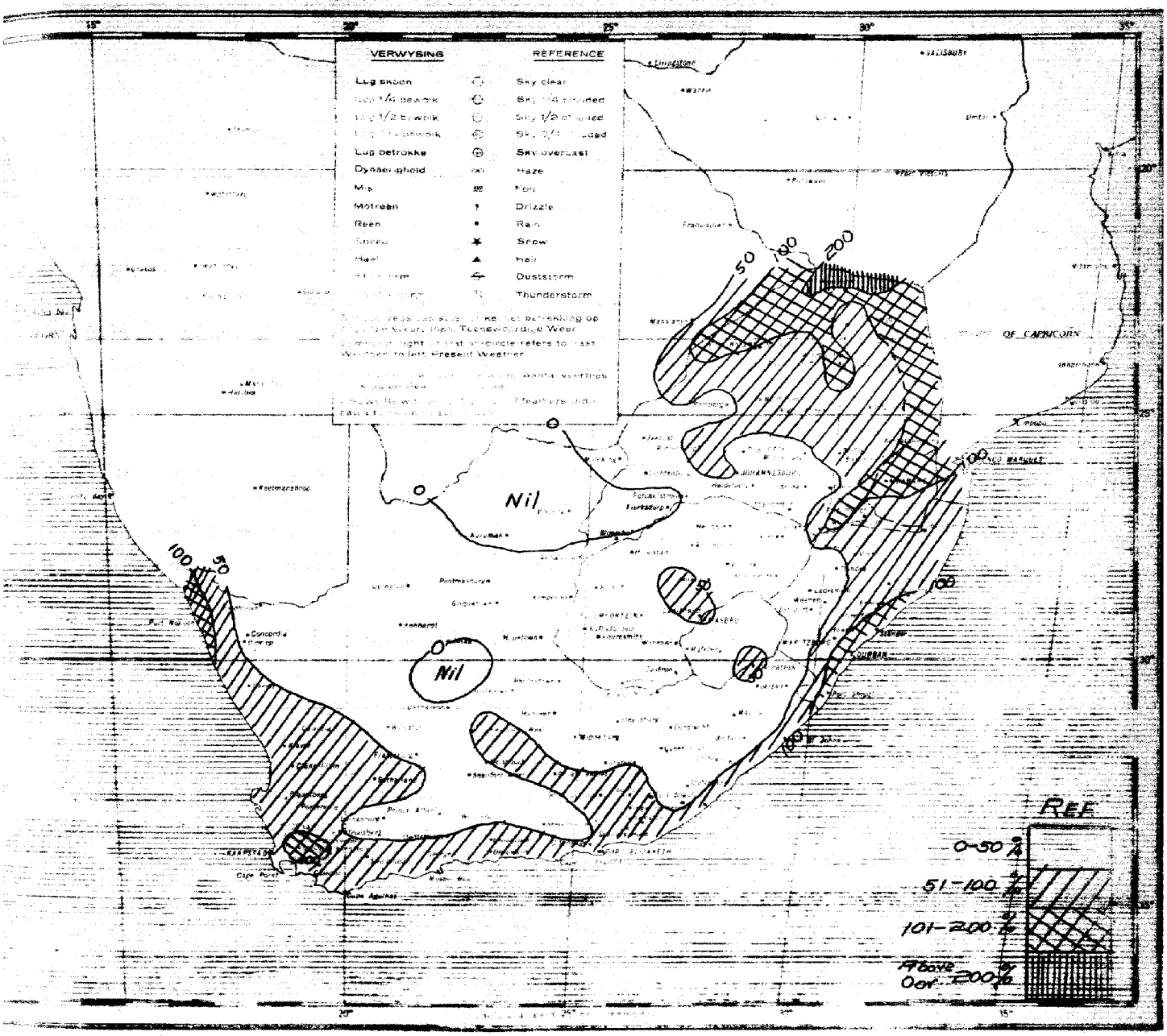


CHART IV KAART IV.

SEASONAL PRECIPITATION 1st July 1937 to 30th September 1937, shown as percentage of the normal.

SEISOEN-NEERSLAG 1 Julie 1937 tot 30 September 1937, aangedui as persentasie van die normaal.

D I E U N I E V A N S U I D - A F R I K A.

DEPARTEMENT VAN BESPROEIING.

M A A N D E L I K S E W E E R V E R S L A G.

VAN DIE

WEERKUNDIGE KANTOOR.

DEEL XVIII | OKTOBER 1937 | NO.10

ALGEMEEN:

Warm tot baie warm; dikwels donderstorms soms baie hewig; af en toe hael-storms; neerslag oor die algemeen egter onder normaal; droogte oor die Vrystaat, Transvaalse hoëveld en die binneland van die Kaapprovinsie.

LUGDRUK:

Die gemiddelde lugdruk (sien Kaart I), was omtrent normaal oor die westelike Kaapprovinsie en Suidwesafrika, maar 0.05" bo normaal oor die oostelike Unie. Die somer-laagdruk oor die binneland was goed uitgebeeld. Laagdruk sisteme (gevolg deur anti-siklones) het langs die kus beweeg op ses geleenthede, en het sterk noordelike tot westelike winde veroorsaak vernaamlik oor die Kaapprovinsie, Vrystaat en Natal.

TEMPERATUUR:

Die gemiddelde temperature (sien Kaart II), was bo normaal oor die grootste gedeelte van die Unie, vernaamlik oor die oostelike Vrystaat, die suidwestelike Transvaal, die noordelike grensgebiede en gedeeltes van die oostelike Kaapprovinsie, waar die positiewe afwykings van die normale maandelikse temperature 2° oorskry het. Ondernormale gemiddelde temperature was beperk tot die oostelike en noordelike Transvaal, suidelike Natal en die suidoostelike kusstreek, gedeeltes van die westelike binneland van die Kaapprovinsie en die weskus. Die negatiewe afwykings oor hierdie streke egter, was oor die algemeen klein gewees, en was nerens meer as 2° nie.

Soos uit die gegewens van 'n aantal uitgekose stasies bereken, was die algemene gemiddelde temperatuur vir die Unie as 'n geheel 65.6°F, of 0.5° bo normaal. Oor die Transvaal, Kaapprovinsie en Vrystaat, elk apart geneem, was die gemiddelde temperatuur onderskeidelik 0.2°, 0.8° en 2.1° bo normaal, en 0.4° onder normaal oor Natal.

Beide die gemiddelde maksimum en minimum temperature toon min of meer dieselfde distribusie aan as die gemiddelde temperature. Oor die algemeen, egter, dui die gemiddelde minima, of nag-temperature, groter positiewe afwykings as die gemiddelde maksima. Byvoorbeeld, vir die Unie as 'n geheel, was die gemiddelde minimum 0.9° bo normaal terwyl die gemiddelde maksimum sy normale waarde maar net met 0.2° oortref het.

Die volgende is sommige van die hoogste indiwiduele temperature wat in die verskillende provinsies geregistreer was :- 106° te Goodhouse (N.W. Kaap) op die 22ste; 105° te Umtata (Transkei) op die 17de; 101.9° te Messina (Tvl.) op die 9de; 110° te Stanger (Natal) op die 17de; en 97° te Kroonstad (O.V.S.) op die 17de.

Die laagste minimum temperature in die onderskeie provinsies geregistreer, was :- 25° te Sutherland (K.P.) op die 5de; 28.5° te Grootfontein (K.P.) op die 5de; 29° te Belfast (Tvl.) op die 24ste; 36° te Estcourt (Natal) op die 23ste, en 33° te Bethulie (O.V.S.) op die 2de.

RYP:

Ligte ryp het in sekere streke voorgekom, nl. in die oostelike Vrystaat,

binneland van Natal en die westelike binneland van die Kaapprovinsie; daar is egter geen skade gerapporteer nie.

NEERSLAG:

Die distribusie van die neerslag word globaal aangedui op Kaart III. Van hierdie kaart is dit duidelik dat net baie beperkte streke van die Unie meer as hul normale kwantiteit reën ontvang het, en wel (1) 'n gedeelte van die suidelike Kaapprovinsie; (2) 'n klein streek in die sentrale Kaapprovinsie, en (3) gedeeltes van die sentrale, noordwestelike en noordelike Transvaal. Oor die Vrystaat, noordelike Kaapprovinsie en die oostelike en suidwestelike Transvaal het die neerslag minder as 50% van die normaal bedra, terwyl dit oor die res van die Unie vanaf 50% tot 99% gevariëer het.

Beskou ons die provinsies apart dan het die Transvaal, Vrystaat, Natal en Kaapprovinsie onderskeidelik tekorte aangetoon wat 27%, 71%, 40% en 38% van hulle gemiddelde normale neerslag bedra. Verdeel ons die Kaapprovinsie in winter- en somerreënvalstreke, dan het eersgenoemde 'n tekort van 40%, en laasgenoemde 'n tekort van 37% gehad. Vir die Unie as 'n geheel beskou, was daar 'n tekort van 37%.

Gunstige kondisies vir buie en donderstorms het byna dwarsdeur die maand oor die somerreënvalstreek geheers, maar was mees opvallend van die 1ste tot die 7de, 13de tot 23ste en 27ste tot 30ste. Soos gewoonlik die geval is onder hierdie omstandighede, was die neerslag baie lokaal, met hier en daar swaar stortbuie en hewige weerlig. Aanhoudende landreëns het glad nie voorgekom nie.

Die gevolgende was naasteby die aantal dae waarop ongestadige kondiesies oor verskillende streke van die Unie geheers het:- westelike Kaapprovinsie 5; suidwestelike Kaapprovinsie 10; suidelike Kaapprovinsie 11; sentrale Kaapprovinsie 8; suidoostelike Kaapprovinsie 15; noordelike grensgebiede van die Kaapprovinsie 6; suidelike Natal 16; noordelike Natal 10; suidelike Vrystaat 5; noordelike Vrystaat 10; oostelike Transvaal 10; sentrale Transvaal 8; en noordelike en westelike Transvaal 4 dae.

HAEL:

Haelstorms het in die volgende streke voorgekom :- op die 4de in die noordelike Vrystaat; op die 7de in suidelike Natal, die Vrystaat, Kimberley distrik en in die westelike Transvaal; op die 10de in die Nelspruit distrik (oostelike Transvaal); op die 20ste en 21ste in die sentrale Transvaal, en op die 28ste in die noordelike Vrystaat. In sommige gevalle het die haelstorms aanmerklike skade berokken, (sien ook aantekeninge van waarnemers).

SNEEU:

Sneeu het op die 4de en 5de op die berge in die suidwestelike en suidelike Kaapprovinsie voorgekom.

DROOGTE:

Weens die ongunstige neerslag het daar droogte geheers oor die Vrystaat, gedeeltes van die Transvaalse hoëveld, en oor baie distrikte in die binneland van die Kaapprovinsie. Van die distrikte Rouxville, Bethulie en Aliwal Noord word gerapporteer dat beeste doodgaan, en van baie ander distrikte word vermeld dat oeste 'n totale mislukking sal wees.

DIE VERSAMELDE NEERSLAG:

Die versamelde neerslag vanaf 1 Januarie 1937 was bo normaal (1) oor die Transvaal, behalwe die suidwestelike gedeelte en streke van die hoëveld rondom Middelburg,

Bethal en Standerton; (2) oor noordelike Natal; (3) oor gedeeltes van die suidwestelike Kaap; (4) oor 'n beperkte streek in die sentrale en oostelike Vrystaat, en (5) oor klein afgesonderde streke rondom Graaff Reinet en in die suide van Basoetoeland. Oor die grootste gedeelte van die Kaapprovinsie het die versamelde neerslag omstreeks van 50% tot 75% van die normaal bedra, terwyl dit oor daardie streke wat hierbo nog nie vermeld is nie, gevarieer het van 60% tot 90% van die normaal.

Beskou ons die provinsies as eenhede, dan het die Transvaal 'n klein surplus van 2% aangetoon, en die Vrystaat, Natal en Kaapprovinsie tekorte wat respektiewelik 15%, 3% en 20% van hul normale neerslag vir dieselfde periode bedra. Die somerreënvalstreek van laasgenoemde provinsie het 'n tekort van 29%, en die winterreënvalstreek (westelike en suidwestelike Kaap) 'n surplus van 7% ondervind. Vir die Unie as 'n geheel was daar 'n tekort van 8%.

DIE SEISOEN-NEERSLAG:

Kaart IV dui die distribusie van die seisoen-neerslag (vanaf 1 Julie 1937) aan.

Elk apart beskou het die Transvaal, Vrystaat, Natal en Kaapprovinsie tekorte gehad wat respektiewelik 28%, 71%, 22% en 32% van hulle gemiddelde normale reënval vir hierdie periode bedra. Die Kaapse somerreënvalstreek het 'n tekort van 40%, en die winterreënvalstreek 'n tekort van 16% gehad. Vir die Unie as 'n geheel was daar vir hierdie tydperk 'n tekort van 33%.

U N I O N O F S O U T H A F R I C A.

DEPARTMENT OF IRRIGATION.

M O N T H L Y W E A T H E R R E P O R T

OF THE

METEOROLOGICAL OFFICE

VOL XVIII | OCTOBER 1937 | NO.10

GENERAL:

A warm to hot month with frequent thunderstorms, sometimes very severe; occasional hailstorms; precipitation on the whole, however, below normal; drought conditions over the Free State, Transvaal highveld and interior Cape Province.

PRESSURE:

Mean pressure (see Chart I) was about normal over the western Cape Province and Southwest Africa, but above normal by 0.05" over the eastern Union. The summer low pressure over the interior was well defined. Low pressure systems (followed by anti-cyclones) passed along the coast on six occasions, giving rise to strong northerly to westerly winds mainly over the Cape Province, Free State and Natal.

TEMPERATURE:

Mean temperature (see Chart II) was above normal over the greater portion of the Union, especially over the eastern Free State, southwestern Transvaal,

northern borders of Cape and parts over the eastern Cape Province, where positive departures from the normal monthly temperatures exceeded 2°. Subnormal mean temperatures were confined to the eastern and northern Transvaal, southern Natal and the southeast coastal belt, parts of the western interior of the Cape Province, and the west coast. The negative departures over these areas, however, were generally small and hardly anywhere exceeded 2°F.

As computed from the data of a number of representative stations, the general mean temperature for the Union as a whole was 65.6°F. or 0.5° above normal. For the Transvaal, Cape Province and Free State, taken separately, the mean temperature was above normal by 0.2°, 0.8° and 2.1° respectively, and 0.4° below normal over Natal.

Both mean maxima and mean minima show practically the same distribution as the mean temperatures. On the whole, however, the mean minima, or night-temperatures seem to show greater positive departures than the mean maxima. Thus, for the Union as a whole the general mean minimum was 0.9° above, whilst the mean maximum was only 0.2° above normal.

Some of the highest individual temperatures registered in each province were : 106° at Goodhouse (N.W. Cape) on the 22nd; 105° at Umtata (Transkei) on the 17th; 101.9° at Messina (Tvl) on the 9th; 110° at Stanger (Natal) on the 17th and 97° at Kroonstad (O.F.S.) on the 17th.

Some of the lowest minima in each province were : 25° at Sutherland (C.P.) on the 5th; 28.5° at Grootfontein (C.P.) on the 5th; 29° at Belfast (Tvl.) on the 24th; 36° at Estcourt (Natal) on the 23rd and 33° at Bethulie (O.F.S.) on the 2nd.

FROST:

Slight frost was reported from some localities, viz: the eastern Free State, interior Natal and western interior of Cape, without however causing much damage.

PRECIPITATION:

The distribution of precipitation for this month is shown roughly on Chart III. From this map it is clear that only limited portions of the Union received more than their normal amounts of rainfall, viz: (1) part of the southern Cape Province; (2) a small area in the centre Cape, and (3) parts of the centre, northwestern and northern Transvaal. Over the Free State, northern Cape and eastern and southwestern Transvaal, the amounts were well under 50% of the normal, whilst the remainder of the Union showed amounts varying from 50% to 99% of the normal.

Considering the provinces as units, the Transvaal, Free State, Natal and Cape Province showed deficits amounting respectively to 27%, 71%, 40% and 38% of their mean normal precipitation. Dividing the Cape Province into winter and summer rainfall zones, the former showed a 40%, and the latter a 37% deficit. For the Union as a whole there was a deficit of 37%.

Thunderstorm and shower conditions prevailed over the summer rainfall area almost throughout the month, but were most marked from the 1st to 7th; 19th to 23rd, and 27th to 30th. As is usually the case in these circumstances, the precipitation was very local with occasional heavy downpours and severe lightning. Continued set-in rains were completely absent.

The following were roughly the number of days on which unsettled conditions prevailed over different sections of the Union :- western Cape Province 5;

southwestern Cape Province 10; southern Cape Province 11; centre Cape Province 8; northern borders of Cape 6; southeastern Cape Province 15; southern Natal 16; northern Natal 10; southern Free State 5; northern Free State 10; eastern Transvaal 10; centre Transvaal 8, and northern and western Transvaal 4 days.

HAIL:

Hailstorms occurred in the following sections of the country :- on the 4th in the northern Free State; on the 7th in southern Natal, the Free State and Kimberley district, and in the western Transvaal; on the 10th in the Nelspruit district (eastern Transvaal); on the 20th and 21st in the centre Transvaal, and on the 28th in the northern Free State. In some instances considerable damage was caused (see also observers' notes).

SNOW:

Light falls of snow occurred on the 4th and 5th on the mountains in the southwestern and southern Cape Province.

DROUGHT:

On account of the unfavourable precipitation, drought conditions prevailed over the Free State, parts of the Transvaal highveld and in many districts of the interior Cape Province. In the Rouxville, Bethulie, Aliwal North districts cattle were reported to be dying, and in many other districts crops were said to be past recovery.

THE CUMULATIVE PRECIPITATION:

The cumulative precipitation since 1st January 1937 was above normal (1) over the Transvaal, excepting the southwestern Transvaal and parts of the highveld around Middelburg, Bethal and Standerton; (2) over northern Natal; (3) over parts of the southwestern Cape; (4) over a small area in the central and eastern Free State, and (5) over small isolated areas around Graaff Reinet and in the south of Basutoland. Over the greater part of the Cape Province the cumulative precipitation amounted roughly from 50 to 75% of the normal, whilst those areas not mentioned above had amounts varying roughly from 60% to 90% of the normal.

Taking the provinces separately, the Transvaal showed a small surplus of 2%, whilst the Free State, Natal and Cape Provinces showed deficits amounting respectively to 15%, 3% and 20% of their mean normal precipitation for the same period. In the latter province the winter rainfall area (west and southwest Cape) showed a surplus of 7% and the summer rainfall area a deficit of 29%. For the Union as a whole there was a deficit of 8%.

SEASONAL PRECIPITATION:

Chart IV shows roughly the distribution of the seasonal precipitation since 1st July 1937. Considering the provinces as units for this period, the Transvaal, Free State, Natal and Cape showed deficits amounting respectively to 28%, 71%, 22% and 32% of their mean normal rainfall. The Cape summer rainfall area showed a deficit of 40% and the winter rainfall zone a deficit of 16%. For the Union as a whole the precipitation for this period was deficient by 33%.

AANTEKENINGE VAN WAARNEMERS VIR OKTOBER 1937.
OBSERVERS' NOTES FOR OCTOBER 1937.

KRUGERSDORP: October has been a hot and rather dry month. W. Webster.

VLAKPLAATS (NYLSTROOM): Hail on 20th did about £50 damage to Irrigation plot. Harry Koll.

KOPJE ALLEEN (NYLSTROOM): There was a short heat wave from the 17th to the 19th when the maximum temperature registered 96.0°, 95.1° and 96.0°. Thunderstorms followed on the 20th and 21st when rainfalls of 0.63" and 1.03" were recorded with slight hail on the 20th. The 22nd was a cold bleak day when the temperature only rose to 61.6°. J.Lyall Soutter, F.R.M.S.

MIDDELBURG (TVL): Grass plentiful and stock gaining in condition. V.P. Rose.

RIETVLEI (ERMELO): Baie, baie droog. Koue en hitte wissel mekaar skerp af. [illegible] duim op 6 dae. N. Steenkamp.

BERLIN (NELSPRUIT): Heavy hailstorm on 10th, stones hard and of considerable size. 0.08 inch on 10th; total 1.74 inches on 10 days. S. Nienaber.

KIMBERLEY (AIRPORT): Severe hailstorm passed over Airport on 7th. (precipitation 0.72 inch) Stones as large as pigeon eggs fell. After storm dense mist rose from ground, rendering visibility nil. Line-squall duststorm from southwest at 6.50 p.m. on 23rd. J.J. le Roux.

KROONSTAD (SOMERGEWAS PROEFSTASIE): Die saai boerdery is baie agter. Selfs die veld en bome lyk baie onder die droogte. D.J. van der Berg.

MODDERPOORT (O.F.S.): There was a slight frost on some farms in the vicinity on October 21st. Patrick Tone.

LINDLEY (O.F.S.): Farmers report that wheat crop will be 80% failure. A. Tromp.

TABORA (PETRUS STEYN): Thousands of trees dying, big and small. Very dry. A. Kern.

CELARA (PIETERMARITZBURG): The month was remarkable for the sudden changes of temperatures, e.g. on the 18th maximum temperature 98.0°, dropped in two days to 50.4°. On the 23rd the minimum dropped to 37.8°F. and we had frost in the vleis. Principal (School of Agriculture).

DURBAN (AIRPORT): Very strong N.N.E. wind reaching gale force of 76 m.p.h. at 2.30 p.m. on the 2nd. S.A. Engelbrecht.

STANGER (NATAL): 17th Maximum Temperature 110.0°F. Hottest day since 114.0°F. on 21st November 1928. One of the hottest, if not the hottest October experienced here. C.C.Pos.

VAN WYKSVLEI (CARNARVON): Very dry. Irrigation dam totally dried up. Heavy wind storms. Crops bad. T. Hawson.

CARNARVON: Wolkerig, winderig, stowwerig, some baie warm. J. Crafford.

GRAAFF REINET: A very high maximum temperature on the 12th (100.2°F) must be recorded. Mother Superior (Convent).

ALIWAL NOORD: Vee vrek by die honderde. de Villiers.

QUEENSTOWN: Month notable for rapid changes of temperature and strong westerly to north-westerly winds. Gale on 30th caused damage to trees and overhead wires. W. Everitt.

ELENT (PAARL): 5th Snow on mountains in southeast. R.W. Short.

STELLENBOSCH: 5th Snow on mountains. W. Wessels.

SEVEN RIVERS (STELLENBOSCH): 5th Snow on mountains. Forester.

JONKERSHOEK (STELLENBOSCH): 5th Snow on mountains. Schoeman.

CERES: Snow on the Matroosberg on the 4th instant. The Gaoler.

MATROOSBERG: Snow on mountains on 4th. T.B. Hattle.

OUDTSHOORN: 6th Snow on mountains. The Mother Superior (Convent).

VAALBANK (BLOEMFONTEIN): Weer gaan oor en dit lyk of die droogte nog lank gaan aanhou. Met vee gaan dit sleg en oral word gevoer. Die weer het 'n paar plekke gras aan die brand geslaan sonder reën. 0.26 duim op 3 dae. C.F. Grobbelaar.

RIETHOEK (ROUXVILLE): Cattle beginning to die. On 31st dust storm like in 1933. Wind very strong. 0.34 inch on 2 days. J.W.P. Botha.

ZEVENFONTEIN (BLOEMHOF): 7th October - mostly hail, ranging in size from pigeon to fowl eggs. Duration of storm about 30 minutes. 1.20 inches on 1 day. W.H. Edwards.

FLAAUWKRAAL (ALBERT): No wheat crops this year. No mealies sown, so far too dry to plough Stock in fair condition. Losses not excessive. 1.36 inches on 4 days. C.J. Hoar.

RIETKUIL:(STEYNSBURG): 23rd October dust storm and rain. 0.70 inch on 4 days. A.Vermaak.

COLLINGHAM (MOLTENO): Drought position good deal worse than drought of 1933. Terrible dust during month. 0.54 inch on 3 days. H. Fergus.

LOURENSIA (HEILBRON): 6th October hail from small to pigeon eggs. 2.56 inches on 3 days. E. Boucher.

ROCKWOOD (THABA 'NCHU): 7th Thunder and lightning severe. Weather looked beautiful for a set-in. Tremendous hailstorm at 9.20 p.m. passed to south of here, travelling from west to south - hailstones size of pigeon eggs. Heard of no damage done. End of month still very dry. 0.98 inch on 5 days. C.J. Howell.

ODENDAALSTROOM (ALBERT): Verskeie keer onweer, wat deur sterk weste winde verdryf is. sommige plekke in die distrik het mooi reën gehad, waar daar meer as 'n duim aangeteken was, maar in die algemeen is die droogte swaar en die verliese aan vee groot. 0.35 duim op 2 dae P.J. Ralph.

BERGVIEW (UNDERBERG): 1st October severe lightning and thunderstorm at 7 a.m. Four head of cattle struck on four farms. 7th October - three severe lightning and thunderstorms between two and five a.m. Numerous cattle died of pneumonia, a result of the continuous wet weather. Stock still thin, while dry stock have picked up. 3.48 inches on 10 days. A.C. Michaux.

TEMBANI (ALEXANDRIA): We are suffering very severe drought conditions and the few points registered beyond augmenting our drinking water in the tanks, are really quite useless. It is now just over a year ago since the last rain fall, that is, to do any good. 0.73 inch on 3 days. R.E. D'Arcy.

CAPE HERMES (PORT ST. JOHNS): The 5th was the coldest night on record for the past four years (34.0°F). J. Steyn.

MEANDER (WEPENER): 27th Some hail. Very severe thunderstorm. Set veld alight and burnt down a thatched building. 1.33 inches on 3 days. F. Dewar.

NIEUWKLOOF (CALEDON): Snow on the mountains. 3.64 inches on 13 days. M.T. v. Rooyen.

LAIR (CATHCART): Stock very poor - have been feeding cattle and most sheep since July. Is not as bad as the 1933 drought. Dreadful southwesterly and southeasterly winds blew and the clouds that came up on the 20th and 21st were almost as cold as any winter weather. I have noticed the absence of any southwest blows during winter; past years it generally blew four or eight days at a time, but during the last three or four years we have had more of these winds. 0.76 inch on 6 days. Sinclair Arnold.

PROSPECT (VREDE): Torrential rain. Lightning struck haystacks on adjoining farm and burnt five of them. Veld good for sheep, but at the end of the month hay will be finished and cattle are getting thin. Mealies are coming up and need rain badly. 2.54 inches on 5 days. T. Pitcairn.

DOMBIETERSFONTEIN (VICTORIA WES): Toestande laat baie te wense oor. Plekke het mooi gereën waar toestande gou sal verbeter. Die brommerplaag is besonder erg en het al heelwat skape doodgevreet. 0.36 duim op 2 dae. G.W. van Heerden.

WITTE ELSBOSCH (HUMANSDORP): 23rd October An unusually heavy thunderstorm accompanied by forked lightning set fire to the veld growth and struck down a boy passing through a gate in a fence. 3.35 inches on 15 days. G.W. Rowan.

GROOTBULTFONTEIN (VRYBURG): Weer belowend, maar weste wind het alles weggewaai. Toestande word ernstig. Baie veldbrande en vee wil net daarop wei alhoewel daar niks te ete is nie. Melk oor die algemeen skaars. 0.76 duim op 2 dae. J.J. Dry.

MIDDELFONTEIN (BETHULIE): Vreeslike stofstorms. Die droogte neem die vorm aan wat bome en alle plante laat doodgaan. Die vee gaan dood van maerte en sonder wyding. Water gee in. Boerdery is in gevaar. 0.22 op 3 dae. H.J. Human.

BAGHDAD (SPRINGFONTEIN): Drought conditions bad. Feeding sheep. Weather comes and goes. Looks fine but nothing solid. Last heavy rain on this farm when water ran was November 1936. 0.25 inch on 2 days. W. Jackson.

SILVERSTREAMS (HAY): 22nd October most terrific storm ever experienced on this farm and adjoining one. Heavy losses in small stock and much damage to property. 2.60 inches rain fell. 2.82 inches on 2 days. N. Hoelson.

MAGDALENA (LINDLEY): Rain very badly needed. 80% of the wheat crops lost on account of the drought - all ploughing stopped - for mealies - ground too hard and dry. 1.07 inches on 3 days. C.E. Nel.

QULTON (MURRAYSBURG): 2nd and night of 3rd snow. 1.64 inches on 3 days. G.F. Hurndall.

STRAWBERRY HILL (HEIDELBERG): 4th October. Soft rain. Light snow on mountains. 1.19 inches on 9 days. J.C. Swardt.

EXCELSIOR (CERES): Very unseasonable weather. Cold days and severe frosty nights, doing damage to fruit as well as grain crops, which were already damaged by the strong southeaster blowing for days. Grain crops have suffered consequently, diminishing the grain prospects by at least 25 to 30%. 0.65 inch on 2 days. C.P. Jooste.

LEEUWFONTEIN (BOSHOF): 7de Oktober. Dit het gehael vir 'n kwartier en die grootte van die hael was soos die van 'n duif eier. Geen skade. 0.70 duim op 1 dag. P.R. Wiese.

MAKOUWSDRIFT (BOSHOF): 1.58 duim reënval op die 7de Oktober. Donder en hagelstorm. Wind stil - skade aan koring, hawerlande en vrugteboorde. 1.63 duim op 2 dae. J.A.D. Serfontein.

FRANCINA (THABA'NCHU): 7de Oktober - 1.23 duim reën. Sagte reën van 3 tot 5 n.m. Haelstorm van 7 tot 8 n.m. Hael was so groot as hoender eiers en sommige soos tennisballe. 1.39 duim op 2 dae. D.F.P. Lubbe.

BEN AVIS (ALIWAL NORTH): Wheat crops are a thing of the past; there is not the slightest chance of a recovery. Stock are holding fairly well, but spring lambs are doing very badly. 0.30 inch on 1 day. D. Shone.

CAIRNSMORE (HARRISMITH): 1.83 inches of rain fell on 28th October. Very bad hailstorm garden and orchard completely ruined. Hail mostly ¾ inch in diameter up to 1 inch. 4.34 inches on 8 days. John Mclelland.

PRINSHOEK (JACOBSDAL): 23rd October Big storm, damage to houses and gardening. 0.92 inch on 3 days. M.F. Oosthuizen.

MOOIPLAATS (ROUXVILLE): Dis ellendig droog en hoewel volop gras, beswyk skape by duisende en beeste volg fluks. Vreeslike windstorms word ondervind. 0.09 duim op 3 dae. H.P. van Staden.

KELVEDEN (BOSHOF): 7th October. Severe hailstorm. All fruit knocked off. 1.28 inches on 1 day. A. Ross.

LISBURN (BARKLY WEST): After each shower of rain wind blew so that all is dry after half an hour. The position in this area is very much worse than what it was in 1933. Sheep die by hundreds owing to the scarcity of water, veld and feeding. Crops are an absolute failure this year. 0.92 inch on 5 days. Chas. Vorster.

LUG TEMPERATURE : OKTOBER 1937.
AIR TEMPERATURES : OCTOBER 1937.

STASIE STATION	MAXIMUM Gem. Mean	Norm.	Versk. Diff.	MINIMUM Gem. Mean	Norm.	Versk. Diff.	MAAND. GEM. MONTHLY MEAN Gem. Mean	Norm.	Versk. Diff.	ABS.MAX.	DATE	ABS.MIN.	DATUM DATE
KAAPPROVINSIE: CAPE PROVINCE:													
ALIWAL NORTH	80.3	77.2	+3.1	49.9	46.0	+3.9	65.1	61.6	+3.5	93.0	17	38.0	22
ARMOEDSVLAKTE	87.8	86.8	+1.0	53.8	52.5	+1.3	70.8	69.7	+1.1	96.7	17	38.9	10
BRITSTOWN		79.2			49.0			64.1					
CAPE L'AGULHAS	65.3	64.8	+0.5	54.1	54.4	-0.3	59.7	59.6	+0.1	73.0	17	42.0	5
CAPE TOWN	72.6	69.7	+2.9	53.2	52.8	+0.4	62.9	61.3	+1.6	94.0	22	42.7	5
CALA	75.0	75.4	-0.4	50.8	49.0	+1.8	62.9	62.2	+0.7	96.5	17	39.0	6
CARNARVON	77.2	78.6	-1.4	47.0	46.5	+0.5	62.1	62.6	-0.5	89.0	16	32.0	5
CERES	71.7	72.6	-0.9	46.2	46.1	+0.1	59.0	59.4	-0.4	90.0	22	38.0	10
[illegible]RADOCK	79.9	79.5	+0.4	48.5	47.2	+1.3	64.2	63.4	+0.8	100.0	18	39.0	10
[illegible]LANWILLIAM	82.5	78.9	+3.6	50.3	49.2	+1.1	66.4	64.1	+2.3	103.5	22	40.0	5
DEEPWALLS	68.3	66.6	+1.7	49.1	48.8	+0.3	58.7	57.7	+1.0	89.7	12	37.5	5
EAST LONDON	69.8	70.5	-0.7	55.5	57.2	-1.7	62.7	63.9	-1.2	83.0	3	39.0	23
GOODHOUSE	91.1	90.7	+0.4	58.2	59.8	-1.6	74.7	75.3	-0.6	106.0	22	47.0	5
GRAAFF REINET	82.3	79.8	+2.5	52.4	49.9	+2.5	67.4	64.9	+2.5	100.2	12	41.2	22
GRAHAMSTOWN	72.8	72.2	+0.6	49.6	48.2	+1.4	61.2	60.2	+1.0	96.2	29	36.4	27
GROOT DRAKENSTEIN	73.7	73.4	+0.3	50.3	50.8	-0.5	62.0	62.1	-0.1	93.5	22	37.0	10
GROOTFONTEIN	76.9	77.3	-0.4	43.3	44.0	-0.7	60.1	60.7	-0.6	93.1	17	28.5	5
HOPETOWN	84.9	81.3	+3.6	52.9	49.5	+3.4	68.9	65.4	+3.5	100.0	17	37.0	5
IDUTYWA		71.9			48.9			60.4					
KENHARDT	85.3	84.3	+1.0	54.1	51.5	+2.6	69.7	67.9	+1.8	98.0	26	38.2	5
KIMBERLEY	85.6	83.9	+1.7	56.5	53.3	+3.2	71.1	68.6	+2.5	98.0	17	42.0	6
KINGWILLIAMSTOWN	76.8	76.2	+0.6	53.6	52.0	+1.6	65.2	64.1	+1.1	102.0	29	45.0	27
KLAVER	78.1	79.4	-1.3	54.0	53.0	+1.0	66.1	66.2	-0.1	100.2	22	42.0	5
KOKSTAD	70.8	72.5	-1.7	49.4	46.9	+2.5	60.1	59.7	+0.4	96.1	17	36.9	23
KURUMAN		83.9			49.2			66.6					
MAFEKING	87.1	84.9	+2.2	58.0	56.2	+1.8	72.6	70.6	+2.0	95.3	17	48.4	9
MOSSEL BAY	68.7	67.9	+0.8	55.7	54.9	+0.8	62.2	61.4	+0.8	76.0	22	47.0	5
NELSPOORT	73.7	76.7	-3.0	47.3	48.3	-1.0	60.5	62.5	-2.0	90.0	13	38.0	6
O'OKIEP	76.8	75.9	+0.9	49.1	49.9	-0.8	63.0	62.9	+0.1	94.1	27	37.3	5
OUDTSHOORN	81.5	78.6	+2.9	50.7	50.2	+0.5	66.1	64.4	+1.7	98.0	12	40.0	5
PORT ELIZABETH	69.4	68.1	+1.3	55.8	55.5	+0.3	62.6	61.8	+0.8	90.0	23	49.0	5
PORT NOLLOTH	63.3	65.1	-1.8	49.3	48.6	+0.7	56.3	56.9	-0.6	99.5	21	42.0	6
PORT ST. JOHNS	71.0	73.5	-2.5	58.7	58.5	+0.2	64.9	66.0	-1.1	83.0	3	34.0	5
POSTMASBURG	82.6	81.0	+1.6	56.8	53.4	+3.4	69.7	67.2	+2.5	94.5	17	38.1	6
PRIESKA	86.6	84.1	+2.5	52.9	53.1	-0.2	69.8	68.6	+1.2	98.8	17	38.0	5
QUEENSTOWN	79.3	76.8	+2.5	50.3	48.5	+1.8	64.8	62.7	+2.1	100.0	17	41.0	6
RIETPOORT		76.3			50.2			63.3					
SOMERSET OOS	77.3	76.9	+0.4	50.6	48.4	+2.2	64.0	62.7	+1.3	97.7	12	40.0	27
SUTHERLAND	69.5	71.1	-1.6	38.9	37.6	+1.3	54.2	54.4	-0.2	84.0	29	25.0	5
SYDNEYS HOPE	69.2	70.2	-1.0	50.4	50.2	+0.2	59.8	60.2	-0.4	95.0	12	40.0	26
UITENHAGE	76.3	75.5	+0.8	52.6	51.6	+1.0	64.5	63.6	+0.9	96.8	29	41.3	10
UMTATA	76.5	74.8	+1.7	51.9	51.3	+0.6	64.2	63.1	+1.1	105.0	17	44.0	23
UPINGTON	86.8	85.7	+1.1	56.9	54.6	+2.3	71.9	70.2	+1.7	101.1	16	40.0	6
VAN WYKSVLEI	80.7	82.0	-1.3	51.2	48.8	+2.4	66.0	65.4	+0.6	95.0	16	35.0	6
VICTORIA WEST	78.4	78.4	0.0	47.1	43.9	+3.2	62.8	61.2	+1.6	90.0	13	35.0	6
WILLOWMORE	75.3	75.4	-0.1	46.8	46.2	+0.6	61.1	60.8	+0.3	94.0	12	36.0	5
O.V.S. : O.F.S.:													
BETHULIE	81.0	78.6	+2.4	46.9	48.4	-1.5	64.0	63.5	+0.5	93.4	17	33.1	2
BLOEMFONTEIN	82.0	80.1	+1.9	50.3	49.9	+0.4	66.2	65.0	+1.2	94.4	17	35.7	5
BRANDSMITH	80.8	78.4	+2.4	49.7	48.4	+1.3	65.3	63.4	+1.9	94.5	17	35.0	6
HARRISMITH	74.8	71.2	+3.6	47.6	46.7	+0.9	61.2	59.0	+2.2	90.0	19	35.0	22
KROONSTAD	83.9	81.1	+2.8	52.2	51.2	+1.0	68.1	66.2	+1.9	97.0	17	38.0	9
LADYBRAND	79.0	75.4	+3.6	50.3	48.9	+1.4	64.7	62.2	+2.5	91.0	18	40.0	22
LINDLEY	81.7	78.1	+3.6	50.2	48.7	+1.5	66.0	63.4	+2.6	94.0	17	37.0	9
WEPENER	80.7	77.0	+3.7	50.3	45.6	+3.7	65.5	61.8	+3.7	92.0	18	36.0	5
SWASIELAND : SWAZILAND:													
MBABANE	72.0	79.0	-7.0	54.1	57.8	-3.7	63.1	68.4	-5.3	90.0	17	38.0	23
SIEGI	74.1	78.7	-4.6	56.2	57.1	-0.9	65.2	67.9	-2.7	94.0	18	47.0	22

LUG TEMPERATURE : OKTOBER 1937 (VERVOLG)
AIR TEMPERATURES: OCTOBER 1937 (CONTD).

STASIE STATION	MAXIMUM			MINIMUM			MAAND. GEM. MONTHLY MEAN.			ABS.DATUM. MAX.DATE		ABS.DATUM MIN.DATE	
	Gem. Mean	Norm.	Versk. Diff.	Gem. Mean	Norm.	Versk. Diff.	Gem. Mean	Norm.	Versk. Diff.				
TRANSVAAL:													
BARBERTON	80.4	81.1	-0.7	60.0	59.5	+0.5	70.2	70.3	-0.1	97.4	17	48.0	23
BELFAST	72.6	73.5	-0.9	44.0	44.4	-0.4	58.3	59.0	-0.7	83.0	17	29.0	24
CHRISTIANA	86.1	84.8	+1.3	51.7	51.1	+0.6	68.9	68.0	+0.9	98.0	11	38.0	10
ERMELO	78.1	75.7	+2.4	49.2	48.4	+0.8	63.7	62.1	+1.6	89.0	17	36.0	23
HEIDELBERG	80.9	79.6	+1.3	51.6	50.5	+1.1	66.3	65.1	+1.2	90.6	17	42.7	22
JOHANNESBURG	75.7	74.1	+1.6	52.4	51.9	+0.5	64.1	63.0	+1.1	86.1	17	40.1	22
KLERKSDORP	84.9	83.7	+1.2	56.6	53.3	+3.3	70.8	68.5	+2.3	94.8	17	46.0	9
KOMATIPOORT		89.7			63.2			76.5					
KOPJE ALLEEN	86.2	86.1	+0.1	55.4	56.4	-1.0	70.8	71.3	-0.5	96.0	17	45.9	24
LOUIS TRICHARDT	78.8	81.1	-2.3	57.2	57.2	0.0	68.0	69.2	-1.2	94.0	19	45.0	24
MESSINA	87.5	89.1	-1.6	64.7	64.6	+0.1	76.1	76.9	-0.8	101.9	9	53.3	24
MIDDELBURG	78.4	79.8	-1.4	49.0	49.9	-0.9	63.7	64.9	-1.2	89.8	17	37.0	24
NYLSTROOM	84.7	84.1	+0.6	53.5	54.2	-0.7	69.1	69.2	-0.1	93.0	17	45.0	24
PIETERSBURG	78.9	81.4	-2.5	52.5	54.0	-1.5	65.7	67.7	-2.0	94.0	9	38.7	24
PIET RETIEF	74.3	75.8	-1.5	53.3	52.3	+1.0	63.8	64.1	-0.3	93.0	17	38.2	23
PILGRIMS REST	78.4	77.9	+0.5	49.8	51.4	-1.6	64.1	64.7	-0.6	92.2	17	34.2	24
POTCHEFSTROOM	84.5	82.6	+1.9	54.9	51.8	+3.1	69.7	67.2	+2.5	94.3	17	43.0	9
PRETORIA	82.3	82.3	0.0	56.4	55.4	+1.0	69.4	68.9	+0.5	92.2	17	46.5	22
RUSTENBURG	85.2	85.2	0.0	57.1	55.9	+1.2	71.2	70.6	+0.6	95.0	19	47.0	10
STANDERTON	81.0	77.8	+3.2	49.9	46.7	+3.2	65.5	62.3	+3.2	93.0	17	40.0	23
WAKKERSTROOM	73.4	78.8	-5.4	48.8	47.6	+1.2	61.1	63.2	-2.1	88.1	17	31.0	23
ZEERUST		84.3			58.8	54.8	+4.0		69.6				51.0	10
NATAL:													
DUNDEE	77.5	78.7	-1.2	53.6	51.8	+1.8	65.6	65.3	+0.3	96.0	17	37.0	23
DURBAN POINT	73.6	74.6	-1.0	62.7	63.2	-0.5	68.2	68.9	-0.7	82.0	13	54.2	22
EMPANGENI	79.6	79.4	+0.2	61.7	60.8	+0.9	70.7	70.1	+0.6	101.6	19	52.0	22
ESHOWE	76.0	74.6	+1.4	57.9	57.9	0.0	67.0	66.3	+0.7	103.5	17	44.9	23
ESTCOURT	76.3	77.4	-1.1	52.9	52.3	+0.6	64.6	64.9	-0.3	99.0	17	36.0	23
LADYSMITH	78.5	82.3	-3.8	54.2	54.5	-0.3	66.4	68.4	-2.0	100.0	17	40.0	23
PIETERMARITZBURG	76.4	76.7	-0.3	55.9	55.9	0.0	66.2	66.3	-0.1	103.2	17	42.0	23
STOBOTINI	82.0	85.0	-3.0	61.4	63.6	-2.2	71.7	74.3	-2.6	104.0	18	51.0	23
PORT SHEPSTONE	71.5	73.3	-1.8	60.4	61.0	-0.6	66.0	67.2	-1.2	80.0	17	53.0	22
STANGER	83.0	78.6	+4.4	61.6	61.2	+0.4	72.3	69.9	+2.4	110.0	17	53.0	22
VRYHEID	73.7	78.1	-4.4	55.1	53.5	+1.6	64.4	65.8	-1.4	91.1	13	41.0	23
WEENEN	80.4	83.3	-2.9	55.5	53.7	+1.8	68.0	68.5	-0.5	103.0	17	38.0	23
BASOETOELAND : BASUTOLAND:													
BUTHA BUTHE	76.6	78.4	-1.8	49.0	47.3	+1.7	62.8	62.9	-0.1	90.0	17	37.0	22
MAFETENG	78.1	73.6	+4.5	51.5	48.2	+3.3	64.8	60.9	+3.9	89.0	17	38.0	21
MOHALESHOEK	78.1	77.9	+0.2	51.4	48.7	+2.7	64.8	63.3	+1.5	90.0	17	40.0	23
MOKHOTLONG	72.8	71.7	+1.1	43.2	43.8	-0.6	58.0	57.8	+0.2	84.0	17	34.0	23
QACHASNEK	71.3	73.4	-2.1	48.0	42.1	+5.9	59.7	57.8	+1.9	86.0	17	34.0	22
BETSJOEANALAND : BECHUANALAND:													
DIKGATLONG	89.7	90.8	-1.1	59.2	59.6	-0.4	74.5	75.2	-0.7	102.0	31	53.0	24
GABERONES	89.4	89.8	-0.4	57.4	56.3	+1.1	73.4	73.1	+0.3	97.0	31	46.0	7
MAHALAPYE	88.6	89.6	-1.0	60.9	60.7	+0.2	74.8	75.2	-0.4	100.0	19	52.0	24

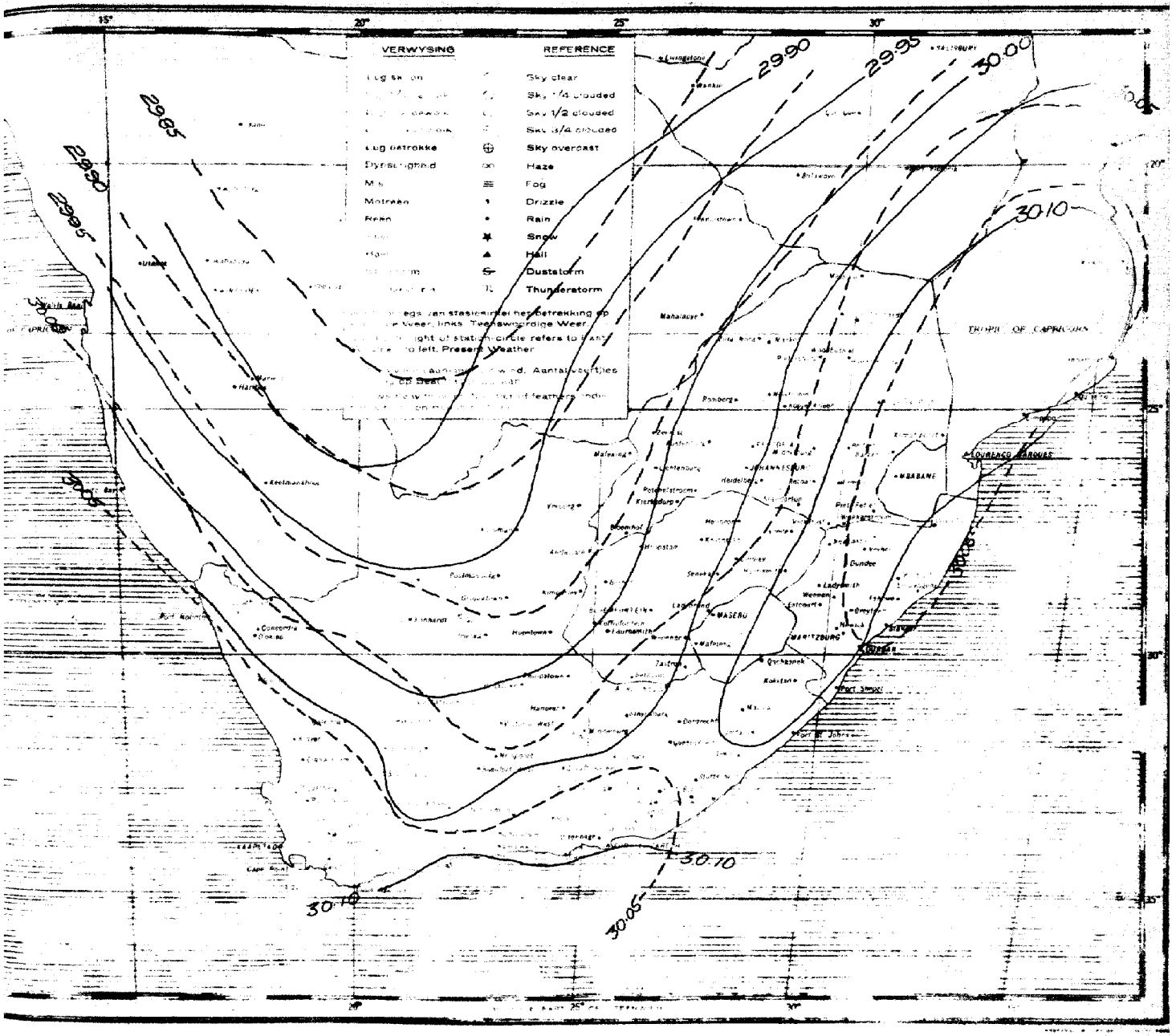
NEERSLAG : OKTOBER 1937.
RAINFALL : OCTOBER 1937.

STASIE STATION	OKT. 1937 OCT.	NORM.	VERSK. DIFF.	%	VANAF 1.1.37 FROM	NORM.	VERSK.	VANAF 1.7.37 FROM	NORM.	VERSK. DIFF.	SEISOEN % SEASONAL
KAAPPROVINSIE – SOMERREENVALSTREEK:											
CAPE PROVINCE – SUMMER RAINFALL AREA:											
ALIWAL NORTH	0.64	1.11	-0.47	58	9.93	14.67	-4.74	1.26	3.08	-1.82	41
BEAUFORT WEST	0.50	0.59	-0.09	85	2.67	7.70	-5.03	0.98	1.89	-0.91	52
BEDFORD	1.30	2.42	-1.12	54	13.94	21.63	-7.69	3.73	6.26	-2.53	60
BRITSTOWN	0.23	0.59	-0.36	39	6.32	9.30	-2.98	0.31	1.55	-1.24	20
CARNARVON	0.17	0.38	-0.21	45	4.90	6.70	-1.80	0.17	1.19	-1.02	14
EAST LONDON	1.32	3.46	-2.14	38		26.15			9.82		
FRASERBURG	0.38	0.26	+0.12	146	4.13	5.82	-1.69	0.74	1.14	-0.40	65
GEORGE	3.41	3.20	+0.21	107	24.34	27.79	-3.45	10.39	10.67	-0.28	97
GRAAFF REINET	0.63	1.06	-0.43	59	12.37	11.11	+1.26	2.28	3.20	-0.92	71
GRAHAMSTOWN	2.19	1.97	+0.22	111	11.15	16.79	-5.64	5.54	6.14	-0.60	90
GRIQUATOWN	0.22	0.71	-0.49	31	9.43	10.30	-0.87	0.27	1.53	-1.26	18
GROOTFONTEIN	0.31	0.64	-0.33	48	5.95	10.57	-4.62	0.80	2.15	-1.35	37
HANOVER	0.20	0.73	-0.53	27	3.59	11.65	-8.06	0.61	2.19	-1.58	28
HOPETOWN	0.41	0.73	-0.32	56	7.11	9.88	-2.77	0.53	1.69	-1.16	31
KENHARDT	0.00	0.31	-0.31	0	4.01	4.94	-0.93	0.17	0.82	-0.65	21
KIMBERLEY	0.11	1.03	-0.92	11	10.77	12.13	-1.36	0.18	2.16	-1.98	8
KINGWILLIAMSTOWN	1.25	2.40	-1.15	52	10.29	19.59	-9.30	2.74	6.38	-3.64	43
KOKSTAD	1.48	2.38	-0.90	62	20.24	21.74	-1.50	1.98	5.40	-3.42	37
MATJESFONTEIN	0.00	0.50	-0.50	0	1.83	6.02	-4.19	0.56	2.22	-1.66	25
MACLEAR	1.63	2.33	-0.70	70	21.19	24.15	-2.96	2.86	5.45	-2.59	53
MAFEKING	0.30	1.39	-1.09	22	11.95	14.25	-2.30	0.35	2.62	-2.27	13
MOSSEL BAY	1.65	1.63	+0.02	101	11.28	14.39	-3.11	5.64	6.03	-0.39	94
PHILIPSTOWN	0.15	0.66	-0.51	23	6.24	10.78	-4.54	0.60	1.95	-1.35	31
PORT ELIZABETH	2.37	2.27	+0.10	104	15.09	19.00	-3.91	8.56	8.70	-0.14	98
PORT ST. JOHNS	2.57	5.47	-2.90	47	30.05	37.36	-7.31	7.99	13.08	-5.09	61
PRIESKA	0.16	0.44	-0.28	36	3.89	7.86	-3.97	0.16	1.06	-0.90	15
QUEENSTOWN	0.84	1.49	-0.65	56	9.50	17.03	-7.53	1.77	3.74	-1.97	47
SOMERSET EAST	0.84	1.81	-0.97	46	8.50	17.32	-8.82	2.81	5.15	-2.34	55
STEYNSBURG	0.63	0.87	-0.24	72	8.60	11.72	-3.12	1.43	2.42	-0.99	59
STEYTLERVILLE	0.92	0.72	+0.20	128	4.64	7.38	-2.74	1.35	2.20	-0.85	61
SWELLENDAM	1.78	2.86	-1.08	62	19.30	25.72	-6.42	7.37	10.07	-2.70	73
SYDNEYS HOPE	0.95	2.40	-1.45	40	9.47	18.42	-8.95	3.83	6.89	-3.06	56
UITENHAGE	2.11	1.95	+0.16	108	8.96	15.84	-6.88	4.15	6.57	-2.42	63
UMTATA	1.00	2.24	-1.24	45	14.29	19.77	-5.48	1.55	5.42	-3.87	29
UNIONDALE	1.25	1.04	+0.21	120	6.10	11.32	-5.22	3.84	4.56	-0.72	84
UPINGTON	0.21	0.37	-0.16	57	3.82	6.00	-2.18	0.25	0.71	-0.46	35
VICTORIA WEST	0.72	0.54	+0.18	133	4.94	6.86	-1.92	1.21	1.20	+0.01	100
VRYBURG	0.34	0.90	-0.56	38	16.70	14.64	+2.06	0.90	1.72	-0.82	52
KAAPPROVINSIE : WINTERREENVALSTREEK:											
CAPE PROVINCE : WINTER RAINFALL AREA:											
CALVINIA	0.05	0.45	-0.40	11	4.52	7.54	-3.02	1.37	2.85	-1.48	48
CAPE TOWN ROYAL OBS.	1.12	1.62	-0.50	69	26.58	22.80	+3.78	10.10	10.80	-0.70	94
CERES	2.82	3.29	-0.67	80	47.64	37.59	+10.05	18.05	19.09	-1.04	94
CLANWILLIAM	0.42	0.53	-0.11	79	6.64	8.04	-1.40	2.41	3.71	-1.30	65
CARIES	0.35	0.32	+0.03	109	3.51	4.83	-1.32	1.37	2.27	-0.90	60
GROOT DRAKENSTEIN	1.40	2.47	-1.07	57	40.08	32.67	+7.41	14.89	15.76	-0.87	95
D'OKIEP	0.17	0.38	-0.21	45	4.05	6.31	-2.26	1.30	2.72	-1.42	48
PIQUETBERG	0.85	1.60	-0.75	53	15.12	18.39	-3.27	6.79	9.22	-2.43	74
PORT NOLLOTH	0.03	0.12	-0.09	25	2.03	2.21	-0.18	0.94	0.96	-0.02	98
SUTHERLAND	0.29	0.56	-0.27	52	8.42	8.22	+0.20	2.14	2.94	-0.80	73
WORCESTER	0.13	1.01	-0.88	13	11.06	11.22	-0.16	4.53	5.41	-0.88	84
BASOETOELAND : BASUTOLAND:											
MAFETENG	0.41	2.03	-1.62	20	20.64	22.78	-2.14	1.04	4.48	-3.44	23
BUTHA BUTHE	1.99	2.60	-0.61	77	23.49	23.36	+0.13	2.22	5.51	-3.29	40
MOHALESHOEK	0.50	2.21	-1.71	23	26.03	21.25	+4.78	1.03	4.60	-3.57	22
QACHASNEK	0.83	2.66	-1.83	31	24.19	25.74	-1.55	2.66	5.57	-2.91	48
MOKHOTLONG	1.42	2.05	-0.63	69	13.38	14.48	-1.10	1.56	3.27	-1.71	48

NEERSLAG : OKTOBER 1937 (VERVOLG)
RAINFALL : OCTOBER 1937 (CONTD.)

STASIE STATION	OKT. 1937 OCT.	NORM.	VERSK. DIFF.	%	VANAF 1.1.37 FROM	NORM.	VERSK. DIFF.	VANAF 1.7.37	NORM.	VERSK. DIFF.	SEISOEN % SEASONAL.
O.V.S. : O.F.S.											
BETHULIE	0.21	1.09	-0.88	19	7.48	14.85	-7.37	0.51	2.68	-2.17	19
BLOEMFONTEIN	0.38	1.51	-1.13	25	13.77	16.39	-2.62	0.61	3.10	-2.49	20
BOSHOF	0.00	1.04	-1.04	0	14.67	14.01	+0.66	0.10	2.56	-2.46	4
FAURESMITH	0.31	1.42	-1.11	22	11.07	11.07	0.00	0.48	3.06	-2.58	16
HARRISMITH	0.77	3.01	-2.24	26	14.66	20.67	-6.01	1.32	5.57	-4.25	24
KROONSTAD	0.45	2.06	-1.61	22	11.11	16.27	-5.16	0.84	3.64	-2.80	23
LADYBRAND	1.12	2.38	-1.26	47	20.37	20.08	+0.29	2.67	4.75	-2.08	56
LINDLEY	1.15	2.26	-1.11	51	14.32	17.68	-3.36	1.46	4.03	-2.57	36
WINBURG	0.00	1.74	-1.74	0	17.64	16.18	+1.46	0.98	3.26	-2.28	30
WEPENER	0.93	1.83	-0.90	51	16.80	19.26	-2.46	1.49	3.80	-2.31	39
NATAL:											
DUNDEE	1.32	2.94	-1.62	45	23.61	22.48	+1.13	2.17	5.41	-3.24	40
DURBAN	3.68	5.14	-1.46	72	33.00	35.24	-2.24	13.55	11.34	+2.21	119
EMPANGENI	1.92	4.42	-2.50	44	33.94	33.02	+0.92	10.60	10.30	+0.30	103
ESTCOURT	1.05	2.42	-1.37	43		20.71		1.36	4.64	-3.28	29
LADYSMITH	1.66	2.70	-1.04	61	19.36	21.53	-2.17	2.25	5.14	-2.89	44
MELMOTH	2.12	3.13	-1.01	68	20.11	22.74	-2.63	5.05	6.14	-1.09	82
OTOBOTINI	1.36	1.55	-0.19	88	23.59	16.70	+6.89	3.23	3.66	-0.43	88
PIETERMARITZBURG	3.69	3.35	+0.34	110	19.31	26.00	-6.69	5.71	6.77	-1.06	84
STANGER	3.02	4.74	-1.72	64	26.56	30.66	-4.10	7.39	10.13	-2.74	73
UBOMBO	1.81	4.04	-2.23	45	29.73	25.24	+4.49	6.49	7.14	-0.65	91
VRYHEID	1.75	3.22	-1.47	54	26.25	23.52	+2.73	4.54	6.10	-1.56	74
WEENEN	0.72	2.31	-1.59	31	11.35	18.68	-7.33	1.12	4.35	-3.23	26
TRANSVAAL:											
RAPPERTON	0.48	2.46	-1.98	20	28.97	20.91	+8.06	2.11	4.22	-2.11	50
BELFAST	1.83	3.02	-1.19	61	24.33	20.75	+3.58	3.28	4.70	-1.42	70
BETHAL	3.10	2.97	+0.13	104	17.54	18.96	-1.42	3.23	4.71	-1.48	69
BLOEMHOF	0.15	1.09	-0.94	14	8.97	14.01	-5.04	0.15	2.26	-2.11	7
ELIM HOSPITAL	0.79	1.69	-0.90	47	21.38	23.16	-1.78	1.70	2.96	-1.26	57
ERMELO		3.86				19.56			5.95		
HAENERTSBURG	1.65	2.44	-0.79	68	34.26	27.37	+6.89	4.64	3.99	+0.65	116
HEIDELBERG	0.78	2.42	-1.64	32	14.76	18.58	-3.82	1.21	3.97	-2.76	30
JOHANNESBURG OBS.	1.36	2.39	-1.04	57	21.41	20.03	+1.38	2.47	4.11	-1.64	60
JOUBERT PARK	1.25	2.48	-1.23	50	25.40	22.33	+3.07	2.02	4.26	-2.24	47
KLERKSDORP	0.98	1.77	-0.79	55	14.56	16.32	-1.76	1.12	2.96	-1.84	38
LICHTENBURG	0.19	1.76	-1.57	11	12.64	16.79	-4.15	0.45	2.81	-2.36	16
MESSINA	0.71	0.69	+0.02	103	8.43	9.01	-0.58	1.42	1.00	+0.42	142
MIDDELBURG	2.90	2.66	+0.24	109	15.50	19.07	-3.57	3.57	4.06	-0.49	88
NYLSTROOM	2.92	1.85	+1.07	158	17.48	17.24	+0.24	3.79	2.97	+0.82	128
PIETERSBURG	2.12	2.77	-0.65	63	16.66	13.81	+2.85	1.71	2.55	-0.84	67
PIET RETIEF	3.03	3.79	-0.76	80	29.25	24.16	+5.09	5.73	6.54	-0.81	88
PILGRIMS REST	0.68	2.36	-1.68	23	31.88	28.74	+3.14	1.79	4.14	-2.35	43
POTCHEFSTROOM	0.76	1.81	-1.05	42	10.31	16.58	-6.27	0.76	3.23	-2.47	24
PRETORIA	2.71	2.48	+0.23	109	20.35	19.14	+1.21	3.42	3.94	-0.52	87
RUSTENBURG	3.12	1.72	+1.40	181	17.08	15.85	+1.23	3.46	2.87	+0.59	120
RUSTENBURG	0.72	1.90	-1.18	38	14.11	17.78	-3.67	1.51	3.28	-1.77	46
STANDERTON	3.89	3.25	+0.64	120	16.22	20.24	-4.02	4.17	5.22	-1.05	80
VILLA NORA	0.50	1.03	-0.23	78	15.38	11.73	+3.65	1.48	1.61	-0.13	92
WAKKERSTROOM	3.20	3.30	-0.10	97	24.85	21.07	+3.78	5.71	5.61	+0.10	102
WOODBUSH	3.68	4.00	-0.32	92	60.82	50.21	+10.61	7.70	7.65	+0.05	101
ZEERUST	0.21	1.55	-1.34	14	9.70	16.15	-6.45	0.43	2.50	-2.07	17
BETSJOEANALAND : BECHUANALAND:											
MAHALAPYE	3.03	1.00	+2.03	303	14.42	11.67	+2.75	3.17	1.52	+1.65	208
DIKGATLONG	1.64	0.96	+0.68	171	11.80	11.52	+0.28	2.55	1.46	+1.09	175
GABERONES	1.55	1.26	+0.29	123	15.81	13.59	+2.22	1.59	1.88	-0.29	85
SWASIELAND : SWAZILAND:											
MBABANE	2.98	4.98	-2.00	60	55.39	38.81	+16.58	8.00	9.04	-1.04	88

WEERKAART —— WEATHER MAP

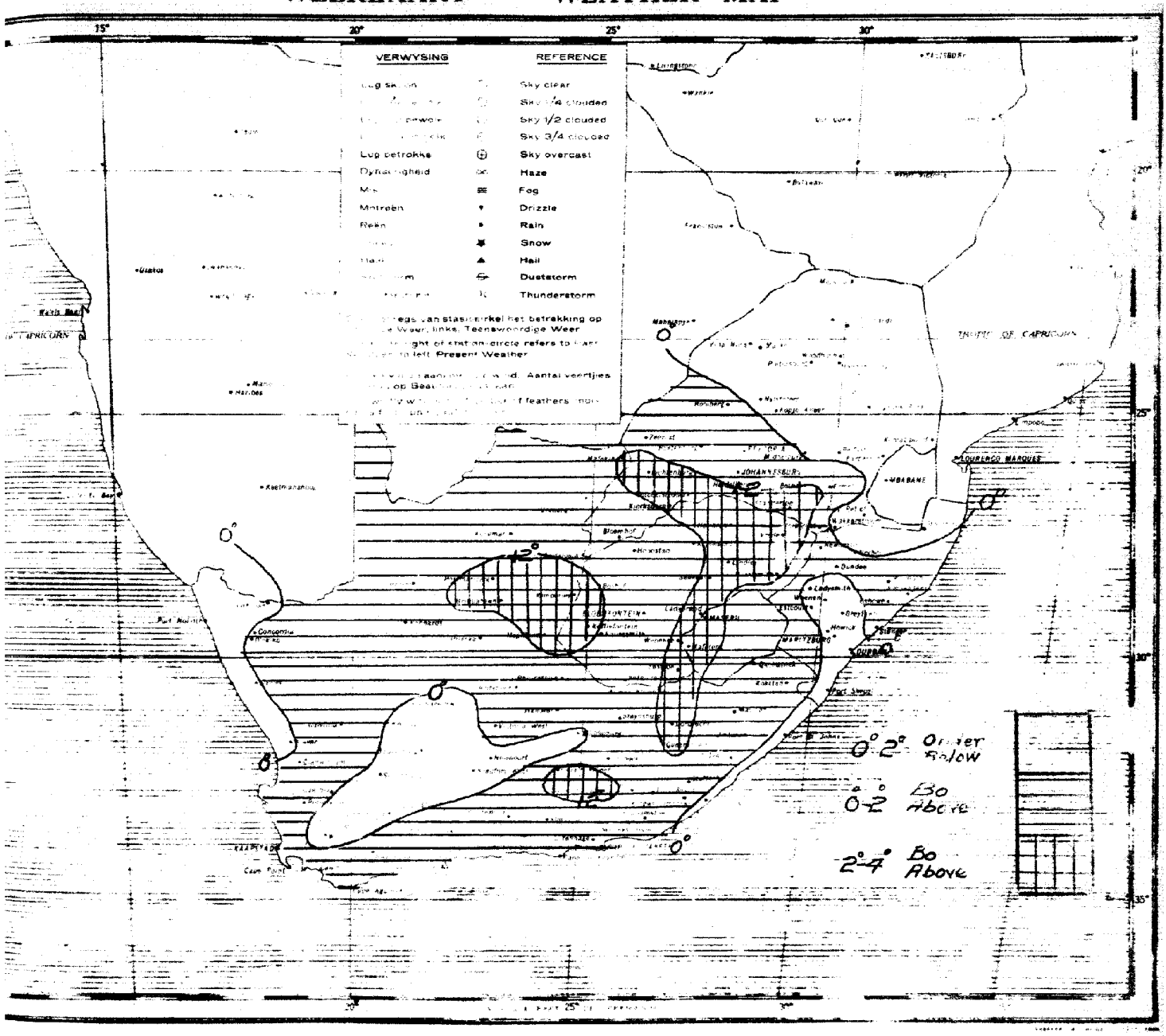


KAART I : CHART I.

OKTOBER 1937 – Gemiddelde Lugdruk (by seespieel) om 8.30 v.m. Die gebroke lyne dui die normale distribusie vir Oktober aan.

OCTOBER 1937 – Mean Atmospheric Pressure (at M.S.L.) at 8.30 a.m. The broken lines represent the normal distribution for October.

WEERKAART —— WEATHER MAP

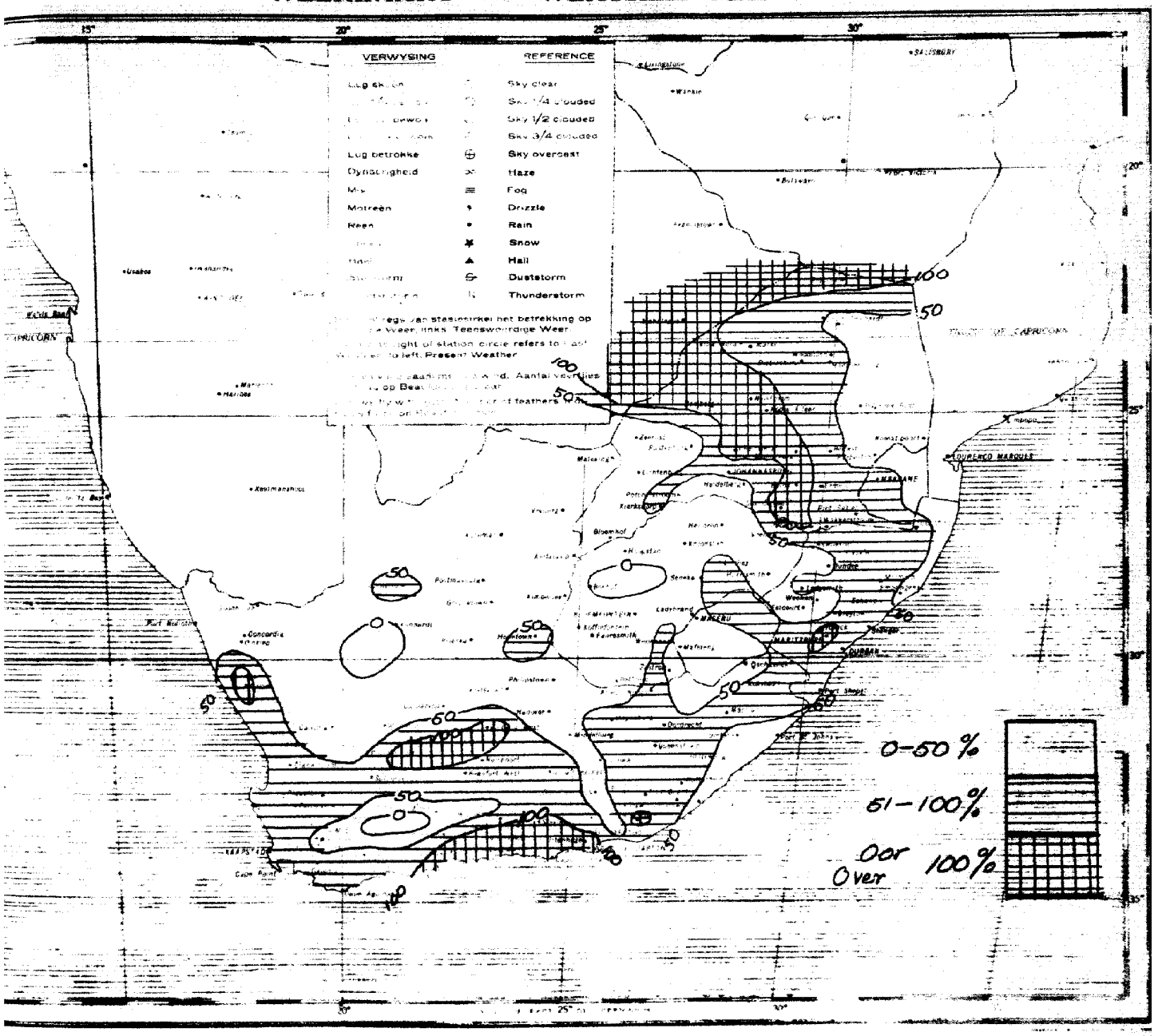


KAART II -- CHART II.

OKTOBER 1937 -- Gemiddelde Temperatuur -- afwyking van die normaal in °F.

OCTOBER 1937 -- Mean Temperature -- departure from the normal in °F.

WEERKAART —— WEATHER MAP

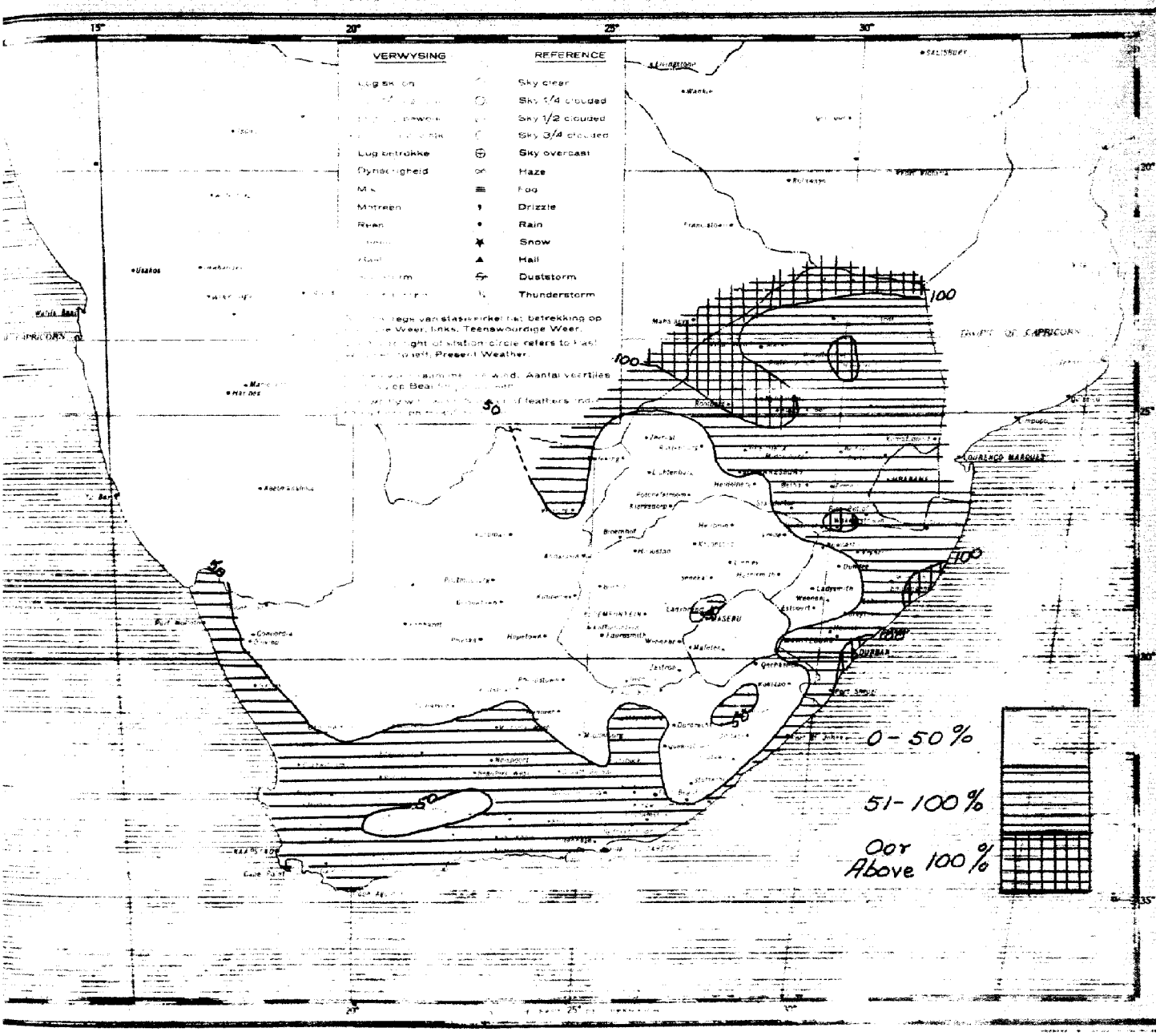


KAART III . CHART III.

OKTOBER 1937 .. Neerslag aangegee as persentasie van die normaal.

OCTOBER 1937 .. Precipitation shewn as percentage of the normal.

WEERKAART —— WEATHER MAP



KAART IV · · **CHART IV.**

SEISOEN NEERSLAG · 1 Julie 1937 tot 31 Oktober 1937, aangedui as persentasie van die normaal

SEASONAL PRECIPITATION · · 1st July 1937 to 31st October 1937, shown as percentage of the normal.

UNION OF SOUTH AFRICA.

DEPARTMENT OF IRRIGATION.

MONTHLY WEATHER REPORT

OF THE

METEOROLOGICAL OFFICE.

VOL. XVIII NOVEMBER 1937 NO. 11

GENERAL:

Temperatures considerably above normal; precipitation below normal; frequent local thunderstorms sometimes with hail; drought conditions over almost the whole interior - such were the unsatisfactory features of the weather of November, 1937

PRESSURE:

The mean pressure distribution (see Chart I) differed but little from the normal distribution. The low pressure over the interior is well in evidence and lies slightly to the west of its normal position. Well defined low pressure disturbances, followed by anticyclones, skirted the coast on seven occasions during the month, viz: from the 4th to 6th; 9th to 11th; 17th; 21st to 23rd; 27th to 28th, and 29th to 30th.

TEMPERATURE:

Mean temperatures (see Chart II) were generally above normal except over very limited parts of the coastal zone. A large portion of the interior, mainly the southern Transvaal and Free State, showed positive departures from the normal of more than 4°F.

The mean temperature over the Union as a whole, as computed from records of a number of representative stations, was 70.6°F. or 2.6° above the normal. For the Transvaal, Free State, Natal and Cape Provinces taken separately, the mean temperature was above normal by 3.2°, 3.9°, 1.8° and 2.3° respectively.

The distribution of both mean maxima and mean minima was practically the same as that of the mean temperatures, although the maxima, on the whole, showed larger positive departures from the normal than the mean minima. Thus, for the Union as a whole, the general mean maximum was 84.0° or 3.5° above, and the mean minimum 57.2° or only 1.8° above the normal.

The following were some of the highest temperatures registered in each province :- 108.2° at Messina (Tvl) on the 14th; 105.0° at Stanger (Natal) on the 17th; 95.8° at Bethulie (O.F.S.) on the 9th, and 112.0° at Goodhouse (C.P.) on the 20th.

Some of the lowest minima in each province were :- 34.2° at Wakkerstroom (Tvl) on the 16th; 44.0° at Dundee (Natal) on the 16th; 40.2° at Wepener (O.F.S.) on the 1st, and 35.0° at Sutherland (C.P.) on the 25th.

PRECIPITATION:

The distribution of precipitation for November 1937 is roughly shown on Chart III. It will be noticed that precipitation was below normal except over a limited area in the Cape Province, embracing the southeast coastal zone, parts of the interior southern Cape and a small portion of the centre Cape around Carnarvon and Fraserburg. The greater part of the remainder of the Union received less than half its normal precipitation. Areas where the rainfall amounted to between 50 and 99% of the normal are

shown on Chart III, and comprise mainly Natal, the interior eastern Cape and isolated areas in the Free State and Transvaal.

Considering the provinces as units, the Transvaal, Free State, Natal and Cape Province all showed deficits amounting respectively to 64%, 47%, 43% and 17% of their mean normal rainfall. Dividing the Cape Province into winter and summer rainfall areas, the former showed a deficit of 72% and the latter a deficit of 10%. For the Union as a whole there was a deficit of 45%.

Precipitation during November took place in the form of local convectional showers and thunderstorms which were mostly light, with however occasional isolated heavy downpours very often accompanied by severe lightning. Such heavy showers occurred mainly on the 3rd, 4th and 5th; 13th and 14th; 22nd and 30th. The number of days on which precipitation occurred was greatest (viz: roughly 16) over the Transkei, Natal and the southeastern Transvaal, and decreased towards the interior to 5 over the northern borders of the Cape (Orange River valley).

DROUGHT:

Owing to the insufficient amounts, the nature of the precipitation the absence of general set-in rains and the general deficit during the previous month, drought conditions prevailed over almost the whole Transvaal, the Free State and interior of the Cape Province as well as over some Natal districts adjoining the Free State. As a result much stock was lost, the water supply had diminished, ploughing was out of the question, and there were no prospects for plentiful crops. (See also observers' notes).

HAIL:

Isolated hailstorms occurred in the following sections of the country :- on the 3rd in the eastern Transvaal, northern Free State and centre Cape; on the 4th in the Free State; on the 5th in the centre Transvaal; on the 6th in the southeastern and eastern Transvaal; on the 22nd in northern Natal; on the 24th and 25th in the eastern and centre Transvaal, and on the 26th near Mafeking. In most instances considerable damage was caused to fruit trees and crops. (See also observers' notes).

SNOW:

Snow occurred on the 14th and 15th on the mountains in the northeastern Cape Province, Basutoland and on the Drakensberg range.

THE CUMULATIVE PRECIPITATION since 1st January 1937 was above normal (1) over the southeastern, eastern and parts of the northwestern Transvaal; (2) over a small portion of the southwest Cape, and (3) over isolated small areas around Sutherland and Graaff Reinet (C.P.). Over the remainder of the Union the cumulative amounts were usually above 50% of the normal, whilst over 80% of the normal was reached over the greater part of Natal, the Transkei, the central Free State and the centre and northwestern Transvaal.

Taking the provinces separately, the Transvaal, Free State, Natal and Cape Province showed deficits amounting respectively to 9%, 21%, 10% and 20% of their mean normal precipitation for the same period. In the latter province, the summer rainfall zone showed a deficit of 26% and the winter rainfall zone (southwest and southern Cape) a small surplus of 4%. For the Union as a whole there was a deficit of 14%.

THE SEASONAL PRECIPITATION since 1st July 1937 is roughly shown on Chart IV. Considering

the provinces as units for this period, the Transvaal, Free State, Natal and Cape Province showed deficits amounting respectively to 47%, 58%, 29% and 27% of their mean normal rainfall. The Cape summer rainfall area showed a deficit of 32% and the winter rainfall zone a deficit of 20%. For the Union as a whole the precipitation for this period was deficient by 38%.

D I E U N I E V A N S U I D - A F R I K A.

DEPARTEMENT VAN BESPROEIING.

M A A N D E L I K S E W E E R V E R S L A G

VAN DIE

WEERKUNDIGE KANTOOR

DEEL XVIII | NOVEMBER 1937 | NO.11

ALGEMEEN:

Temperatuur aanmerklik bo normaal; neerslag onder normaal; herhaalde lokale donderbuie soms met hael; droogte oor bykans die hele binneland - sodanig was die onbevredigende hooftrekke van die weer gedurende November 1937.

LUGDRUK:

Die gemiddelde lugdruk distribusie (sien Kaart I) het maar min van die normaal verskil. Die laagdruk oor die binneland is goed uitgebeeld en lê ietwat ten weste van sy normale posisie. Goed uitgebeelde laagdruk steurings, gevolg deur antisiklones, het langs die kus verbygetrek op sewe geleenthede gedurende die maand, nl. van die 4de tot 6de; 9de tot 11de; 17de; 21ste tot 23ste; 27ste tot 28ste en 29ste tot 30ste.

TEMPERATUUR:

Die gemiddelde temperature (sien Kaart II) was algemeen bo normaal behalwe oor baie beperkte dele van die kusstreke. Oor 'n groot gedeelte van die binneland, vernaamlik die suidelike Transvaal en die Vrystaat, het die positiewe afwykings van die normaal 4°F. oorskry.

Die gemiddelde temperatuur oor die Unie as 'n geheel, soos uit die gegewens van 'n aantal uitgekose stasies bereken, was 70.6°F. of 2.6° bo normaal. Oor die Transvaal, Vrystaat, Natal en Kaapprovinsie, elk apart geneem, was die gemiddelde temperature onderskeidelik 3.2°, 3.9°, 1.8° en 2.3° bo normaal.

Beide die gemiddelde maksimum en minimum temperature toon min of meer dieselfde distribusie aan as die gemiddelde temperature, alhoewel die maksima oor die algemeen groter positiewe afwykings van die normaal aangetoon het as die gemiddelde minima. Vir die Unie as 'n geheel b.v., was die algemene gemiddelde maksimum 84.0° of 3.5° bo, en die gemiddelde minimum 57.2° of net 1.8° bo normaal.

Die volgende was sommige van die hoogste temperature in elke

provinsie geregistreer :- 106.2° te Messina (Tvl) op die 14de; 105.0° te Stanger (Natal) op die 17de; 95.8° te Bethulie (O.V.S.) op die 9de, en 112.0° te Goodhouse (K.P.) op die 20ste.

Sommige van die laagste minimum temperature was :- 34.2° te Wakkerstroom (Tvl) op die 16de; 44.0° te Dundee (Natal) op die 16de; 40.2° te Wepener (O.V.S.) op die 1ste en 35.0° te Sutherland (K.P.) op die 25ste.

NEERSLAG:

Die distribusie van neerslag vir November 1937 word globaal op Kaart III aangedui. Op die kaart is duidelik te sien dat die neerslag onder normaal was behalwe oor 'n beperkte streek in die Kaapprovinsie, omvattende die suidoostelike kusstreek, gedeeltes van die suidelike Kaapse binneland en 'n klein gedeelte van die sentrale Kaap om en by Carnarvon en Fraserburg. Die grootste deel van die res van die Unie het minder dan die helfte van sy normale neerslag ontvang. Streke waar die reënval tussen 50 en 99% van die normaal bedra het is ook te sien op Kaart III; hieronder val vernaamlik Natal, die [illegible] van die oostelike Kaapprovinsie en 'n paar alleenstaande streke in die Transvaal en Vrystaat.

Beskou ons die provinsies as eenhede, dan het die Transvaal, Vrystaat, Natal en Kaapprovinsie almal tekorte aangetoon wat respektiewelik 64%, 47%, 43% en 17% van hulle gemiddelde normale neerslag bedra. Word die Kaapprovinsie in winter- en somer-reënvalstreke verdeel, dan het eersgenoemde 'n tekort van 72% en laasgenoemde 'n tekort van 10% gehad. Vir die Unie as 'n geheel beskou was daar 'n tekort van 45%.

Die neerslag gedurende November het voorgekom in die vorm van lokale konveksie-buie en donderstorms, wat meesal min reën gegee het, alhoewel daar ook af en toe geïsoleerde swaar onweersbuie voorgekom het. Sulke swaar buie het veral op die volgende datums voorgekom : 3de, 4de, 5de; 13de, 14de; 22ste en 30ste. Die aantal dae waarop neerslag plaasgevind het was grootste (omtrent 16) oor die Transkei, Natal en die suidoostelike Transvaal, en het na die binneland toe afgeneem tot 5 dae oor die noordelike grensgebiede van die Kaap (Oranjerivier vallei).

DROOGTE:

Weens die aard van die neerslag, die ontoereikende hoeveelhede, die afwesigheid van landreëns en die algemene tekort gedurende die voorafgaande maand, het daar droogte geheers oor bykans die hele Transvaal, Vrystaat en die binneland van die Kaapprovinsie sowel as oor sommige distrikte van Natal wat aan die Vrystaat grens. Die resultaat was dat daar nie geploeg kon word nie, dat verliese aan vee gely is, dat daar skaarste aan water was, en dat daar geen vooruitsigte op goeie oeste was nie. (Sien ook aantekeninge van waarnemers).

HAEL:

Afgesonderde haelstorms het in die volgende streke voorgekom:- op die 3de in die oostelike Transvaal, noordelike Vrystaat en sentrale Kaapprovinsie; op die 4de in die Vrystaat; op die 5de in die sentrale Transvaal; op die 6de in die suidoostelike en oostelike Transvaal; op die 22ste in die noordelike Natal; op die 24ste en 25ste in die oostelike en sentrale Transvaal, en op die 26ste naby Mafeking. In die meeste gevalle het die hael heelwat skade aan vrugtebome, gewasse, ens., veroorsaak. (Sien ook aantekeninge van waarnemers).

SNEEU:

Sneeu het op die 14de en 15de voorgekom op die berge in die noordoostelike Kaapprovinsie, Basoetoeland en op die Drakensberge.

DIE VERSAMELDE NEERSLAG vanaf 1 Januarie 1937 was bo normaal (1) oor die suidoostelike, oostelike en gedeeltes van die noordwestelike Transvaal; (2) oor 'n klein gedeelte van die suidwestelike Kaapprovinsie, en (3) oor alleenstaande klein streke om en by Sutherland en Graaff Reinet (K.P.). Oor die res van die Unie het die versamelde hoeveelhede gewoonlik meer as 50% van die normaal bedra, terwyl dit meer as 80% van die normaal bereik het oor die grootste gedeelte van Natal, die Transkei, die sentrale Vrystaat en die sentrale en noordwestelike Transvaal.

Elk apart geneem, het die Transvaal, Vrystaat, Natal en Kaapprovinsie tekorte aangetoon wat respektiewelik 9%, 21%, 10% en 20% van hulle gemiddelde normale neerslag vir dieselfde tydperk bedra het. In laasgenoemde provinsie het die somerreënvalstreek 'n tekort van 26%, en die winterreënvalstreek (westelike en suidwestelike Kaap) 'n klein surplus van 4% aangetoon. Vir die Unie as 'n geheel was daar 'n tekort van 14%.

DIE SEISOEN-NEERSLAG vanaf 1 Julie 1937 word globaal aangedui op Kaart IV. Beskou ons, vir hierdie tydperk, die provinsies as eenhede, dan het die Transvaal, Vrystaat, Natal en Kaapprovinsie tekorte aangetoon wat onderskeidelik 47%, 58%, 29% en 27% van hulle gemiddelde normale neerslag bedra het. Die Kaapse somerreënvalstreek het 'n tekort van 32% en die winterreënvalstreek 'n tekort van 20% aangetoon. Vir die Unie as 'n geheel was daar vir hierdie periode 'n tekort van 38%.

OBSERVERS' NOTES FOR NOVEMBER 1937.
AANTEKENINGE VAN WAARNEMERS VIR NOVEMBER 1937.

HOUTRIVIER (ZOUTPANSBERG): Rains arrived late but condition of stock fair, due to good rains of the past season. Prospects for coming season not too good, as terrific hot winds dry up moisture in a few days. 3.16 inches on 3 days. C.W. Aardweg.

VLIEGENPAN (ZOUTPANSBERG): Soil too dry to plant crops. (New station, rainfall incomplete) T. Thomas.

BOSHOEK (MAFEKING): Very dry and hot with unusual duststorms. Clouds appear very promising but are always driven away by strong westerly winds. 0.24 inch on 2 days. M.J.Nel.

SPRING VALLEY (MAFEKING): The last two months have been the worst experienced for over fifty years - hot and dry. Hailstorm at Mafeking on 26th but not a drop fell here. 0.44 inch on 10 days. J. de Kock.

WERK-MET-LUST (LICHTENBURG): Very dry. Some farmers are losing many cattle and small stock on account of poorness. No ploughing or planting done in my division. 0.45 inch on 2 days. J. Jooste.

LEEUWFONTEIN (LICHTENBURG): Drought has become alarming in this district - cattle are dying of starvation. No ploughing has been done up to the present. 0.92 inch on 3 days. P.E. Jordan.

RIETFONTEIN (RUSTENBURG): Baie droog; weiveld swak, water verswak; vee meestal maer. Toestand vir somer oes lyk maar treurig. 1.10 duim op 3 dae. M. Barnard.

RIETFONTEIN (POTCHEFSTROOM): Berigte van verwoestende haelstorms in die omtrek en oorstromings. Die grond bly te droog om te ploeg. Van 'n mielie oes is daar tot nog toe nie sprake nie. Swaar verliese van vee as gevolg van die droogte word gerapporteer. Gal-lamsiekte het by verskyning op verskillende plekke gemaak. Vee is baie maer en nog groter verliese kan verwag word. 0.58 duim op 4 dae. P. Steyn.

KLIPKOPSPRUIT (RUSTENBURG): Very dry; no ploughing or planting done yet. 1.40 inches on 7 days. T.Burn.

OLIFANTSPOORT (WATERBERG): Not much fruit about; grass green and growing; cattle look well. Started to plough after 26th. 2.10 inches on 8 days. D. Wright.

HEKPOORT (KRUGERSDORP): 22nd. Terrific lightning damaged crops by striking stacks of wheat, etc. 0.68 inch on 4 days. F. Tait.

HOUGHTON (JOHANNESBURG): Dry winds have persisted from northwest causing high temperatures and apparently dispersing whatever rain clouds may have formed. 3.06 inches on 9 days. G. Carter.

ZANDRIVER (WATERBERG): This has been a bad month. The heat has been terrible. Crops are late this year, very little done to date. 0.55 inch on 4 days. R.M. Armstrong.

STRYDPAN (PRETORIA): Crops struggling; feed practically nil. Stock poor, although no losses so far. 1.37 inches on 4 days. F. Erskine.

GROENFONTEIN MINE (POTGIETERSRUST): The month has been remarkable for the violent lightning storms, there being practically no rain with them and intense heat. The veld is very dry and the grass is wilting. 1.81 inches on 7 days. T. Haldane,

NIEKERKSVLEI (STANDERTON): Very dry. Prospects for mealies very bad. Most of the lands had to be replanted; 60% not up. Crops will be very late in these parts. 1.21 inches on 7 days. D. Palm.

BUSBY (ERMELO): Poorest November fall on record. Every indication of rain, but no rain although sky full of clouds. Rivers lower than in winter. 1.58 inches on 4 days. G.Lunt.

CAIRN (BARBERTON): 5th Hail some ½ " to 3" diameter; damage to trees and fruit. 24th Hail ½" to 1½" diameter; damage to trees. 3.35 inches on 9 days. G. McEwan.

CHERWELL (BARBERTON): 6th 3 p.m. - 3.20 p.m. a devastating hailstorm from east doing great damage to citrus and avocado trees. Stones up to 15" in circumference. Plaston got the edge of storm where stones were as big as hens' eggs. The storm will about halve the export of citrus from White River for next season. 2.74 inches on 6 days. C.Lynam.

DIKGATLONG RANCH: November has been a very trying month. Heat almost unbearable. Grass very dry. 0.51 inch on 4 days. Paul Jousse.

ALASKA (LOUIS TRICHARDT): High temperatures this month. Very disappointing when wind northerly to northwesterly with promise of rain, easterly and southeasterly comes up and disperses all clouds. Veld parched and water low. I.G. Rudd. 0.76 inch on 5 days.

GOOLDVILLE: Very hot month. Thirteen days above 90°. Very dry. 0.44 inch on 8 days. E.I. Aitken.

CHESTER (PIETERSBURG): The rain on the night of the 24th was preceded by intense lightning and thunder accompanied by a very strong southeast wind. The rain on this night came as a great boon as grazing for stock had become very acute. Numbers of stock suffering from lack of grazing - a few dying. 1.39 inches on 6 days. H.H.Wolff.

CONVENT MAFEKING: Hail on the 26th. Some of the hailstones were almost one inch in diameter. 2.80 inches on 8 days. Mother Superior.

RONDAVELSKRAAL (ZEERUST): The drought is continuing; the few showers caused no improvement whatsoever in the veld; farmers have lost a good many head of cattle mostly cows and calves. The wheat harvest is poor. The Marico river has not been seen to be so low for the last twenty years and water furrows only show a tiny stream with which we cannot plant. tobacco; the outlook is most perplexing. 1.51 inches on 5 days. C.F.Leo.

POTCHEFSTROOM: There were two outstanding characteristics and leading features this month, viz: high temperatures and the general absence of moisture in the air. The vast difference between the wet and dry bulb clearly indicated that the air kept dry. The intense heat and dry winds made evaporation figures run very high. 0.80 inch on 3 days. B.W. Saayman.

CORONATION PARK, KRUGERSDORP: November has been a hot dry month. The mean average temperature was 70.0° against an average of 66.6° for the past twenty-eight years. 1.81 inches on 8 days. W.W. Webster.

MIDDELBURG (TVL): Month has been particularly dry and hot. In parts of district veld has suffered. Ploughing and planting operations practically at a standstill. Water supplies well maintained. 1.20 inches on 9 days. V.P. Rose.

PROTEST (STANDERTON): Light showers have kept grass alive and enabled farmers to get in a portion of their land to mealies. Approximately half lands are unploughed and planting season has passed; prospects therefore not too rosy. 2.17 inches on 8 days. W. Crooke.

ERMELO, EVERARD STREET: On November 11th 96° registered the highest for nine years. The showers in latter part of month freshened up vegetation, but is getting dry again. 2.29 inches on 13 days. R.N. Marilliar.

HLATIKULU (SWAZILAND): Rain is still badly needed in the west. Stock in fair condition. Grazing bad in parts. 3.88 inches on 13 days. J. Pullen.

GOODHOUSE: The Orange River stopped running - no rain since February. Veld very dry but plenty of grass. 0.04 inch on 4 days. C. Weidner.

LOUISVALE (UPINGTON): River very low; still running at Upington; Straussberg weir, Louisvale canal still adequate water but elsewhere, above and below, said to be dry veld; area proclaimed drought stricken but own sheep in fair condition. 0.57 inch on 4 days. Briant Neunell.

BARKLY WEST: Drought serious. Wind more than average. 0.88 inch on 4 days. J. Smith Houghton.

LINDLEY: Very dry and windy. Stock in poor condition. 1.61 inches on 8 days. A.H.Tromp.

TABORA (LINDLEY): Very severe drought. Big trees dying in great numbers, mostly bursting open through lack of moisture in the air. 0.95 inch on 6 days. A. Kem.

ISMONT, MID-ILLOVO: Cattle in fair condition. Planting of maize crop progressing. Rain greatly aided ploughing. 3.24 inches on 16 days. J.W. Montgomery.

PAULPIETERSBURG: The hailstorm on the 22nd did a great deal of damage in the village and also to wattle plantations, particularly in a belt plantation under two years growth; in older plantations the value of bark will be greatly reduced. 3.55 inches on 8 days. Dr. N.Lipscomb.

QUEENSTOWN: Heavy storms at Bushmanshoek forty miles away (nearly 3 inches under 1 hour). Water poured into the Hex River which overflowed, flooding the town of Sterkstroom, sweeping away fowls, pigs and other animals. Roads and bridges badly damaged and trains delayed. 1.63 inches on 9 days. The Curator.

PORT ELIZABETH: A violent storm with thunder and lightning on the morning of the 14th. Wind recorded at Hill Lighthouse, changed suddenly at 0605 from approximately 8 m.p.h. N.N.E. to 60 m.p.h. S.W. (maximum gust 80 m.p.h.) for five minutes, then dropped to about 40 m.p.h. 1.63 inches rain was recorded between 0610 and 0925, of which approximately 1.09 fell in the first twenty minutes. 2.84 inches on 12 days. J.B.Hattle and O.B. Swallow.

GRAHAMSTOWN: Wonderfully refreshed immediate surroundings, rain has only been patchy in district. Drought cannot be said to be broken. Rain is again very badly needed to allow ploughing to continue. 3.68 inches on 10 days. The Veterinary Research Officer.

UITENHAGE: Drought conditions prevail. Weather warm with dry winds. 2.26 inches on 6 days. W. Preddy.

SPRINGVALE (EMTONJANENI): Three severe storms following one another from 5 p.m. to 7 p.m. and heavy rain all night. Bad electrical storm on 6th. 5.63 inches on 12 days. A.R.Boast.

RONGPOST: Hot and dry up to the 21st. A fine soaking rain on the last day of the month; country getting green and ploughing just commencing; all stock still very poor in condition. 3.58 inches on 8 days. Jas. H.Bartholomew.

UITKYK (KROONSTAD): Die reënval was maar min gedurende die maand en die droogte heers oral. Die boere het nog niks geploeg en die tyd is verby, tot dusver is dit 'n mis-oes vir mielies. 0.65 duim op 3 dae. P.S. Marais.

BRANDWACHT (SENEKAL): Position becoming extremely critical - no prospect of a mealie crop and stock suffering. Veld dry and bare. 0.83 inch on 3 days. J. Fichardt.

GLEN CAIRN (BATHURST): Drought definitely broken. Grazing good for remainder of month. Dams full but no permanent run of water. More rain needed for crops. 3.37 inches on 11 days. C.G. Campbell.

MENIN (BETHLEHEM): Very hot, dry, dusty and unpleasant; severe drought conditions; mealies planted but no result. 0.92 inch on 5 days. Thos. B. Orpen.

ESTOIRE (BLOEMFONTEIN): 4de Geweldige haelstorm; stene bietjie groter as duif-eiers; heel wat skade aan bome, vrugte en groente-tuine. 1.50 duim op 4 dae. J.H.v.d. Merwe.

BLUEBANK (LADYSMITH): Drought very bad indeed and all stock suffering; no ploughing done yet; lowest rainfall recorded for November for twenty years. 0.95 inch on 5 days. L.N. Niland.

DOMBIETERSFONTEIN (VICTORIA WES): Strepies reën het begin val wat gepaard gegaan het met geweldige storms. Die droogte laat hom gedug voel en toestande word by die dag hagliker. Die oes is gering. 0.14 duim op 2 dae. G.W. van Heerden.

MEMEL (VREDE): 3de om 1 uur het 'n sterk bui van 0.61 duim geval en om 7 n.m. hael wat alles weggeslaan het. 3.02 duim op 4 dae. J.J. Postma.

MORESON (WINBURG): Die reënval vir hierdie maand was die laagste vir November in die laaste elf jaar; die koringoes is 'n totale mislukking; vir mielies is in hierdie omtrek nog nie 'n voor geploeg nie; vee hou nog taamlik goed. Die meeste damme is reeds droog en water skaarste is baie ernstig. 0.79 duim op 5 dae. H.J. Kok.

GAMBRIA (LADYBRAND): Exceptionally dry month, but veld fair and stock good. Maize fair but wheat failure. 1.97 inches on 5 days. A.F. Bombin.

ROCKWOOD (THABA'NCHU): Rain badly needed. Unable to plough for mealies; weather comes up beautifully and looks very promising and a strong west wind blows clouds away. 1.33 inches on 6 days. C.J. Howell.

ODENDAALSTROOM (ALBERT): Die toestand bly verder nog net dieselfde, die droogte duur nog voort. Ons het nog geen swaar buie reën hier gehad nie; die weer is elke dag baie belowend maar geen reën. Weens droogte moet ons maar al die gesaaides laat vreet om die diere te red, dus sal hier geen oes wees nie. 0.23 duim op 3 dae. P.J. Ralph.

PHILADELPHIA (MIDDELBURG C.P.): Drought now more severe than ever. In September and October no rainfall. 0.84 inch on 3 days. J.A. Bellingan.

MOOIDAM (FOURIESBURG): Die droogte is straf, hoewel vee nog goed hou; nog geen verliese; water nog volop; mielie-oes blyk 90% mislukking, skade deur wurms wat mielies onder grond opvreet. Koring-oeste is maar skraal. 0.50 duim op 2 dae. P.J.Cilliers.

WILDEBEESTFONTEIN (BRITSTOWN): Drought worse than 1933 at this time of year. 0.22 inch on 2 days. J. Bell.

FORT MONTGOMERY (VICTORIA EAST): 1.23 inches on 14th = breaking of worst drought since 1927. 0.55 inch fell in half an hour followed by steady showers for twelve hours. 2.48 inches on 9 days. L. Jakins.

RIETSPRUIT (PIET RETIEF): Hailstorm 6th November. Hail as large as hens' eggs = destroyed all vegetables. 2.12 inches on 6 days. C.M. Robertson.

BETHANIE (ESTCOURT): Several thunderstorms during month. Snow-storm on berg on the 15th. 2.51 inches on 10 days. H. Bentley.

KAPPA (REITZ): Dit is vreeslik droog. Die wereld is spierwit, kan glad nie ploeg nie. In die algemeen nog geen mielies, of altans baie min ingesit. 2.14 duim op 5 dae. N. van Rensburg.

UPSAL (SOMERSET EAST): The rainfall during November was fair though the veld is not too good. The crops are a failure as the rain came too late and it is still so dry that the lands cannot be ploughed. Stock is improving and we are looking forward to a brighter future. 2.28 inches on 9 days. D.du P.Scheepers.

ELIZABETH (VREDE): Die maand was baie droog nieteenstaande ons ligte buie reën gehad het. Gesaaides is vir die algemeen swak en hier is baie min geploeg. Vee is nog in 'n swak kondisie. 2.05 duim op 5 dae. W.A. Odendaal.

MPOFANE (MSINGA): Road on Tugela Hill badly damaged, unrecognisable owing to landslides. Cloudbursts on 22nd. 4.31 inches on 7 days. W.R.S. Cope.

BERGVIEW (UNDERBERG): Most extraordinary weather ever experienced. Daily southwesterly winds, at times reaching velocity of a gale. While most days are terribly hot, they are broken by bitterly cold days. Snow fell on the hills on the 14th. Ground still too hard to plough. 2.30 inches on 9 days. A.C. Michaux.

POTFONTEIN (BARKLY WEST): Sheep and cattle in very poor condition and some have to be fed. 0.70 inch on 5 days. R.W. Collen.

BELLROCK (COLESBERG): The first November that we have had no rain; though rain fell in the district, none fell here. Sheep, cattle and horses are dying; they are not too thin but are too weak. Nil rainfall. J. Bell.

QUAGGAFONTEIN (ZASTRON): Dit is vreeslik droog hier. Ek kan sê die distrik se vee water raak vinnig op en sal groot moeilikheid veroorsaak. Weiding is skaars om te kry. Saaityd is vir 14 dae gelede al verby en hier in die omgewing is geen voor getrek vir mielies nie. 0.78 duim op 3 dae. J.P.v. Rooyen.

OSSA (LADY GREY): 15th - snow on mountains. 1.52 inches on 8 days. N.E. Torr.

WATERFALL (KLIPRIVER): Drought is completely broken. 2.54 inches on 5 days. B.G. Marais.

WOODLANDS (KINGWILLIAMSTOWN): No winter ploughing done owing to drought - soil in poor condition. Tremendous amount of unseasonal heavy winds after every rain - moisture dried out almost at once. 3.66 inches on 12 days. S. Landrey.

DE HOOP (UNIONDALE): 4de - Verwoestende hael - groot skade aan gesaaides en vrugtebome. 1.46 duim op 2 dae. J.P. Honiball.

THE WILLOWS (KAALSPRUIT): Lots of hail on the 4th and 27th. Much damage to fruit, etc. 3.68 inches on 4 days. N. Baser.

RIETLAAGTE (HARRISMITH): Geen mielies geplant nie - vooruitsigte vir enige oes baie swak. Heeltemaal drukkend warm; stofstorm die 28ste. 1.21 duim op 5 dae. W.P. de Jager.

BLOEMHOF (GRAAFF REINET): On the 14th little snow on mountain. Drought still very serious; showers too small to bring real relief. 1.12 inches on 7 days. A.E.Murray & Sons.

DE BRUG (KESTELL): Met middernag die 28ste 'n kwaai windstorm. Dakke afgewaai en bome omver. Feitlik geen gesaaides van jaar nie. Koring verdroog en geen mielies tot dus ver geplant nie. 0.66 duim op 4 dae. J.C. de Vries.

RIVERDALE (KROONSTAD): In my immediate area practically no ploughing or planting has been done. The rain on the 4th was very heavy and ran off quickly. 2.40 inches on 6 days. H.C. Kimmins.

WOOLHOPE (KOMGHA): Drought definitely broken. Dams not full yet. Maize planted in October showing badly infected with "top grub. Cut worm also bad in maize planted in November. All stock in good order and healthy, except for parasites in lambs. 3.82 inches on 13 days. T. Wright.

UFIOMI (BEDFORD): The drought is really very serious. Stock losses are severe and their condition is pitiful. The heat is becoming almost unbearable. Winds mainly in southeast. Very little dew at night but a fair amount of mist. The nights were fairly cool too. The little rain that fell will not help if not followed up by more. 1.55 inches on 6 days. J. Vermaak.

SMYTHE (KURUMAN): Driest November for years; we are suffering from a very bad drought. 0.52 inch on 3 days. V. Pearce.

SEHONGHONG (BASUTOLAND): Snow on mountains on 14th. 1.48 inches on 7 days. N.E. Crooks.

GLENDOONE (ESTCOURT): Snow on berg on 14th. 3.24 inches on 12 days. S.R. Rawlinson.

VERGELEGEN (RICHMOND): Frost damaged garden, etc on 26th. 0.48 inch on 2 days. F. Meiring.

SEELANE'S (QACHASNEK): 14th - dew and misty. 7 p.m. - 7.30 p.m. snowing. 3.19 inches on 11 days. M. Seelane.

DOORNKLOOF (VENTERSTAD): Baie droog - geen gesaaides. Diere word gevoer. Op sommige plase los bui reën alreeds geval. Weste winde waai byna elke dag en verskriklike stof storms. 0.46 duim op 2 dae. J. v.d. Merwe.

CARLSRUHE (KURUMAN): The most severe drought since 1933. Animals are impoverished and dying and conditions prevailing are becoming alarming. 0.23 inch on 2 days. S.L. Wayland.

MAGDALENA (LINDLEY): Baie droog. Die toestand is baie ernstig; die koringoes is 70% onder laas jaar; daar is baie min mielies geplant weens die heersende droogte. 1.13 duim op 4 dae. C.E. Nel.

MOKOENINI (QACHASNEK): Snow on mountain on 15th. 0.87 inch on 3 days. E.J.S. Horn.

MAKHEKA (SEHLABATHEBE): Snow on the hill on 15th. 2.21 inches on 7 days. E. Lephatsi.

DE RUS (VENTERSTAD): Droogte is baie ernstig; vee is baie maer en swak. Toestand is ernstiger as in 1933. 0.37 duim op 2 dae. J.C. Aucamp.

AIR TEMPERATURES : NOVEMBER 1937.
LUG TEMPERATURE : NOVEMBER 1937.

STATION STASIE	MAXIMUM: Mean Gem.	Norm.	Diff. Versk.	MINIMUM Mean Gem.	Norm.	Diff. Versk.	MONTHLY MEAN MAAND. GEM. Mean. Gem.	Norm.	Diff. Versk.	ABS.DATE MAX.DATUM		ABS.DATE MIN.DATUM	
CAPE PROVINCE: KAAPPROVINSIE:													
ALIWAL NORTH	85.2	80.7	+4.5	54.0	49.8	+4.2	69.6	65.3	+4.3	93.0	21	41.0	16
ARMOEDSVLAKTE	93.4	87.6	+5.8	56.4	56.3	+0.1	74.9	72.0	+2.9	99.2	11	45.0	1
BRITSTOWN	-	85.4	-	-	54.3	-	-	69.9	-	-	-	-	-
CAPE L'AGULHAS	68.6	68.0	+0.6	59.2	57.0	+2.2	63.9	62.5	+1.4	72.0	29	53.0	25
CAPE TOWN	75.9	73.5	+2.4	56.7	55.5	+1.2	66.3	64.5	+1.8	91.7	20	47.4	23
CALA	80.8	77.0	+3.8	54.1	52.1	+2.0	67.5	64.6	+2.9	95.5	27	46.0	26
CARNARVON	85.7	81.7	+4.0	54.8	51.4	+3.4	70.3	66.6	+3.7	96.0	20	43.0	15
CERES	80.5	77.9	+2.6	52.3	50.4	+1.9	66.4	64.2	+2.2	94.0	20	40.0	25
CRADOCK	83.9	83.0	+0.9	55.3	51.4	+3.9	69.6	67.2	+2.4	101.0	28	43.0	26
CLANWILLIAM	89.3	84.6	+4.7	56.5	53.2	+3.3	72.9	68.9	+4.0	104.0	20	49.0	26
DEEPWALLS	71.1	70.3	+0.8	52.8	51.9	+0.9	62.0	61.1	+0.9	89.0	21	43.2	25
EAST LONDON	72.2	72.6	-0.4	60.9	59.8	+1.1	66.6	66.2	+0.4	77.0	29	50.0	26
GOODHOUSE	98.0	94.1	+3.9	65.0	64.3	+0.7	81.5	79.2	+2.3	112.0	20	55.0	25
GRAAFF REINET	85.3	83.1	+2.2	56.0	53.5	+2.5	70.7	68.3	+2.4	101.2	17	48.0	19
GRAHAMSTOWN	74.5	75.4	-0.9	53.1	51.1	+2.0	63.8	63.3	+0.5	90.4	21	39.4	26
GT. DRAKENSTEIN	80.3	77.6	+2.7	54.8	53.9	+0.9	67.6	65.8	+1.8	96.8	20	44.4	23
GROOTFONTEIN	82.1	80.2	+1.9	49.2	49.0	+0.2	65.7	64.6	+1.1	92.3	9	36.6	26
HOPETOWN	90.4	86.7	+3.7	59.8	54.0	+5.8	75.1	70.4	+4.7	100.0	20	48.0	15
IDUTYWA	75.8	74.3	+1.5	53.8	52.7	+1.1	64.8	63.5	+1.3	101.0	27	44.0	1
KENHARDT	93.1	89.4	+3.7	61.3	56.2	+5.1	77.2	72.8	+4.4	104.0	20	50.0	25
KIMBERLEY	90.8	86.0	+4.8	61.9	56.8	+5.1	76.4	71.4	+5.0	99.8	21	49.7	15
KINGWILLIAMSTOWN	-	78.7	-	-	55.2	-	-	67.0	-	-	-	-	-
KLAVER	83.4	84.3	-0.9	57.3	56.3	+1.0	70.4	70.3	+0.1	100.9	20	50.0	26
KOKSTAD	79.7	74.6	+5.1	52.9	50.1	+2.8	66.3	62.4	+3.9	95.0	17	44.0	16
KURUMAN	89.9	86.5	+3.4	56.7	53.3	+3.4	73.3	69.9	+3.4	96.0	21	49.0	5
MAFEKING	90.2	85.9	+4.3	61.4	58.4	+3.0	75.8	72.2	+3.6	98.6	11	50.0	6
MOSSEL BAY	71.7	70.7	+1.0	60.4	57.7	+2.7	66.1	64.2	+1.9	80.0	24	53.0	25
NELSPOORT	83.5	82.5	+1.0	53.3	52.4	+0.9	68.4	67.5	+0.9	95.0	17	44.0	16
O'OKIEP	82.2	79.4	+2.8	53.8	52.5	+1.3	68.0	66.0	+2.0	100.1	20	44.0	11
OUDTSHOORN	84.5	82.8	+1.7	55.4	51.8	+3.6	70.0	67.3	+2.7	97.0	20	45.0	26
PORT ELIZABETH	72.4	70.9	+1.5	59.8	58.3	+1.5	66.1	64.6	+1.5	88.0	29	53.0	14
PORT NOLLOTH	64.8	65.6	-0.8	52.7	50.4	+2.3	58.8	58.0	+0.8	71.7	20	43.0	26
PORT ST. JOHNS	73.5	75.7	-2.2	62.9	61.4	+1.5	68.2	68.6	-0.4	90.0	27	45.0	5
POSTMASBURG	-	84.2	-	-	57.5	-	-	70.9	-	-	-	-	-
PRIESKA	94.3	87.4	+6.9	59.0	58.8	+0.2	76.7	73.1	+3.6	105.8	20	48.0	15
QUEENSTOWN	84.5	80.5	+4.0	56.0	52.2	+3.8	70.3	66.4	+3.9	99.0	27	44.0	1
RIETPOORT	82.3	82.9	-0.6	55.4	55.0	+0.4	68.9	69.0	-0.1	102.0	20	45.0	11
SOMERSET EAST	81.9	78.4	+3.5	54.1	51.9	+2.2	68.0	65.2	+2.8	97.2	27	42.5	26
SUTHERLAND	74.8	75.4	-0.6	44.2	42.6	+1.6	59.5	59.0	+0.5	89.0	21	35.0	25
SYDNEYS HOPE	74.4	73.3	+1.1	54.6	52.8	+1.8	64.5	63.1	+1.4	94.0	21	45.0	25
UITENHAGE	77.9	78.2	-0.3	56.0	55.1	+0.9	67.0	66.7	+0.3	90.2	21	44.6	26
UMTATA	79.5	77.0	+2.5	56.2	54.8	+1.4	67.9	65.9	+2.0	103.0	27	46.0	1
UPINGTON	93.0	90.2	+2.8	62.8	60.5	+2.3	77.9	75.4	+2.5	103.9	9	52.7	14
VAN WYKSVLEI	87.8	86.8	+1.0	57.9	54.1	+3.8	72.9	70.5	+2.4	101.0	27	50.0	26
VICTORIA WEST	85.5	80.4	+5.1	54.7	50.2	+4.5	70.1	65.3	+4.8	97.0	20	45.0	23
WILLOWMORE	-	80.0	-	-	50.3	-	-	65.2	-	-	-	-	-
O.F.S. : O.V.S.:													
BETHULIE	86.9	82.3	+4.6	54.6	52.3	+2.3	70.8	67.3	+3.5	95.8	9	44.0	1
BLOEMFONTEIN	85.6	82.5	+3.1	54.9	53.8	+1.1	70.3	68.2	+2.1	94.0	21	41.6	1
FAURESMITH	86.0	79.9	+6.1	54.7	53.7	+1.0	70.4	66.8	+3.6	94.9	21	44.5	16
HARRISMITH	-	72.2	-	-	49.1	-	-	60.7	-	-	-	-	-
KROONSTAD	88.9	82.1	+6.8	56.0	54.2	+1.8	72.5	68.2	+4.3	94.0	21	47.0	1
LADYBRAND	84.0	76.8	+7.2	54.2	51.3	+2.9	69.1	64.1	+5.0	92.0	22	44.0	15
LINDLEY	86.3	80.3	+6.0	54.8	51.7	+3.1	70.5	66.0	+4.1	93.0	24	41.0	15
WEPENER	85.8	80.2	+5.6	55.0	51.4	+3.6	70.4	65.8	+4.6	93.0	18	40.2	1

AIR TEMPERATURES : NOVEMBER 1937 (CONTD):
LUG TEMPERATURE : NOVEMBER 1937 (VERVOLG):

STATION STASIE	MAXIMUM: Mean Gem.	Norm.	Diff. Versk.	MINIMUM: Mean Gem.	Norm.	Diff. Versk.	MONTHLY MEAN MAAND.GEM. Mean Gem.	Norm.	Diff. Versk.	ABS.DATE MAX.DATUM		ABS.DATE MIN.DATUM	
TRANSVAAL:													
BARBERTON	83.6	80.6	+3.0	62.6	61.0	+1.6	73.1	70.8	+2.3	96.4	14	55.0	16
BELFAST	76.5	73.1	+3.4	48.0	47.6	+0.4	62.3	60.4	+1.9	86.0	11	35.0	17
CHRISTIANA	93.7	86.2	+7.5	56.6	55.8	+0.8	75.2	71.0	+4.2	102.0	29	43.0	2
ERMELO	83.3	75.6	+7.7	51.7	50.8	+0.9	67.5	63.2	+4.3	96.0	11	41.0	16
HEIDELBERG	86.7	80.1	+6.6	55.3	53.5	+1.8	71.0	66.8	+4.2	94.9	21	44.0	15
JOHANNESBURG	81.0	74.4	+6.6	55.6	53.5	+2.1	68.3	64.0	+4.3	90.2	12	45.6	15
KLERKSDORP		85.6			56.7			71.2					
KOMATIPOORT	91.3	89.9	+1.4	62.0	66.3	-4.3	76.7	78.1	-1.4	106.0	14	51.0	8
KOPJE ALLEEN	91.5	85.9	+5.6	60.5	60.0	+0.5	76.0	73.0	+3.0	100.9	11	53.8	15
LOUIS TRICHARDT	85.2	81.1	+4.1	60.9	59.7	+1.2	73.1	70.4	+2.7	100.0	14	55.0	13
MESSINA	92.7	90.0	+2.7	69.6	66.6	+3.0	81.2	78.3	+2.9	108.2	14	62.9	20.
MIDDELBURG	84.4	79.7	+4.7	53.0	53.3	-0.3	68.7	66.5	+2.2	93.0	11	42.0	17
NYLSTROOM	88.9	83.5	+5.4	58.4	58.1	+0.3	73.7	70.8	+2.9	98.0	11	49.0	8
PIETERSBURG	82.9	81.1	+1.8	56.7	57.3	-0.6	69.8	69.2	+0.6	93.7	11	49.2	10
PIET RETIEF	80.9	76.0	+4.9	56.4	54.8	+1.6	68.7	65.4	+3.3	97.3	11	43.3	16
PILGRIMS REST	81.3	77.8	+3.5	54.6	54.7	-0.1	68.0	66.3	+1.7	93.2	11	46.5	16
POTCHEFSTROOM	89.6	83.4	+6.2	58.3	54.4	+3.9	74.0	68.9	+5.1	95.0	23	45.0	15
PRETORIA	88.2	82.2	+6.0	60.6	58.2	+2.4	74.4	70.2	+4.2	96.1	12	52.7	15
RUSTENBURG	91.6	85.9	+5.7	62.2	58.4	+3.8	76.9	72.2	+4.7	100.0	12	56.0	16
STANDERTON	86.4	78.6	+7.8	54.2	51.2	+3.0	70.3	64.9	+5.4	93.0	11	44.0	15
WAKKERSTROOM	80.1	73.0	+7.1	51.3	50.0	+1.3	65.7	61.5	+4.2	89.9	30	34.2	16
ZEERUST	90.9	85.0	+5.9	62.0	57.8	+4.2	76.5	71.4	+5.1	100.0	12	51.0	3
NATAL:													
DUNDEE	87.1	79.6	+7.5	56.1	54.3	+1.8	71.6	67.0	+4.6	99.0	11	44.0	16
DURBAN POINT	78.4	77.2	+1.2	66.5	65.5	+1.0	72.5	71.4	+1.1	84.6	22	59.8	26
EMPANGENI	83.2	82.8	+0.4	63.5	63.4	+0.1	73.4	73.1	+0.3	101.4	18	55.0	16
ESHOWE	79.3	76.3	+3.0	60.4	59.7	+0.7	69.9	68.0	+1.9	99.1	17	52.0	3
ESTCOURT	84.9	79.1	+5.8	57.0	55.2	+1.8	71.0	67.2	+3.8	100.0	24	45.0	16
LADYSMITH	88.1	84.2	+3.9	58.1	57.7	+0.4	73.1	71.0	+2.1	100.0	24	50.0	5
PIETERMARITZBURG	80.6	78.5	+2.1	59.5	58.3	+1.2	70.1	68.4	+1.7	103.1	17	51.2	16
OTOBOTINI	87.6	86.3	+1.3	64.8	66.7	-1.9	76.2	76.5	-0.3	103.0	29	57.0	16
PORT SHEPSTONE	75.1	75.6	-0.5	64.3	63.6	+0.7	69.7	69.6	+0.1	82.5	29	58.0	26
STANGER	82.5	80.4	+2.1	63.7	63.5	+0.2	73.1	72.0	+1.1	105.0	17	58.0	16
VRYHEID		78.9			55.7			67.3					
WEENEN	89.2	86.3	+2.9	59.5	56.5	+3.0	74.4	71.4	+3.0	101.0	17	47.0	16
BASUTOLAND : BASOETOELAND:													
BUTHA-BUTHE	82.9	78.8	+4.1	51.8	50.3	+1.5	67.4	64.6	+2.8	89.0	21	41.0	15
MAFETENG	83.1	76.0	+7.1	55.8	51.7	+4.1	69.5	63.9	+5.6	90.0	18	43.0	1
MOHALES HOEK	84.4	80.1	+4.3	54.5	51.1	+3.4	69.5	65.6	+3.9	91.0	19	45.0	16
MOKHOTLONG	77.3	71.6	+5.7	46.4	45.6	+0.8	61.9	58.6	+3.3	83.0	27	35.0	15
QACHASNEK	78.6	71.3	+7.3	50.3	46.8	+3.5	64.5	59.1	+5.4	86.0	27	39.0	15
BECHUANALAND : BETSJOEANALAND:													
DIKGATLONG	94.7	90.2	+4.5	64.4	64.6	-0.2	79.6	77.4	+2.2	104.0	30.	55.0	?
GABERONES	94.5	89.6	+4.9	59.9	60.6	-0.7	77.2	75.1	+2.1	102.0	22	52.0	8
MAHALAPYE	92.8	89.2	+3.6	64.5	64.1	+0.4	78.7	76.7	+2.0	102.0	30	54.0	?
SWAZILAND : SWASIELAND:													
MBABANE*	78.0	75.3	+2.7	56.2	55.1	+1.1	67.1	65.2	+1.9	92.0	14	47.0	16
STEGI	79.0	78.8	+0.2	58.8	58.7	+0.1	68.9	68.8	+0.1	96.0	11	51.0	16

* Up to Oct.1937 wrong normals for Mbabane Station have been published. Correct normals are :-

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Max:	77.0	76.6	74.3	72.4	68.8	66.5	66.1	69.5	73.1	74.1	75.3	76.4
Min:	58.8	58.3	56.4	52.3	47.6	43.9	43.2	45.7	49.7	53.8	55.1	57.3
Monthly Mean:	67.9	67.5	65.4	62.4	58.2	55.2	54.7	57.6	61.4	64.0	65.2	66.9

RAINFALL : NOVEMBER 1937.
NEERSLAG : NOVEMBER 1937.

STATION STASIE	NOV. 1937.	NORM.	DIFF. VERSK.	%	FROM 1.1.37 VANAF	NORM.	DIFF. VERSK.	FROM 1.7.37 VANAF	NORM.	DIFF. VERSK.	SEASONAL % SEISOEN
CAPE PROVINCE - SUMMER RAINFALL AREA:											
KAAPPROVINSIE - SOMER REENVALSTREEK:											
ALIWAL NORTH	1.16	2.28	-1.12	51	11.09	16.95	-5.86	2.40	5.36	-2.96	45
BEAUFORT WEST	0.44	0.73	-0.29	60	3.11	8.43	-5.32	1.42	2.62	-1.20	54
BEDFORD	2.37	2.93	-0.56	81	16.31	24.56	-8.25	6.10	9.19	-3.09	66
BRITSTOWN	0.00	0.78	-0.78	0	6.32	10.08	-3.76	0.31	2.33	-2.02	13
CARNARVON	0.82	0.62	+0.20	132	5.72	7.32	-1.60	0.99	1.81	-0.82	55
EAST LONDON	5.27	3.24	+2.03	163	25.95	29.39	-3.44	12.41	13.06	-0.65	95
FRASERBURG	0.70	0.40	+0.30	175	4.83	6.22	-1.39	1.44	1.54	-0.10	93
GEORGE	2.27	3.12	-0.85	73	26.61	30.91	-4.30	12.66	13.79	-1.13	92
GRAAFF REINET	3.06	1.44	+1.62	21	15.43	12.55	+2.88	5.34	4.64	+0.70	115
GRAHAMSTOWN	3.68	2.73	+0.95	135	14.83	19.52	-4.69	9.22	8.87	+0.35	104
GRIQUATOWN	0.65	0.94	-0.29	69	10.08	11.24	-1.16	0.92	2.47	-1.55	37
GROOTFONTEIN	1.19	1.52	-0.33	78	7.14	12.09	-4.95	1.99	3.67	-1.68	54
HANOVER	0.69	1.26	-0.57	55	4.28	12.91	-8.63	1.30	3.45	-2.15	38
HOPE TOWN	0.15	1.21	-1.06	12	7.26	11.09	-3.83	0.68	2.90	-2.22	23
IDUTYWA	2.88	3.30	-0.42	87	16.11	21.24	-5.13	5.13	9.31	-4.18	55
KENHARDT	0.00	0.35	-0.35	0	4.01	5.29	-1.28	0.17	1.17	-1.00	15
KIMBERLEY	0.60	1.46	-0.86	41	11.37	13.59	-2.22	0.78	3.62	-2.84	22
KOKSTAD	2.16	3.86	-1.70	56	22.40	25.60	-3.20	4.14	9.26	-5.12	45
MATJESFONTEIN	1.13	0.28	+0.85	404	2.96	6.30	-3.34	1.69	2.50	-0.81	68
MACLEAR	2.12	3.65	-1.53	58	23.31	27.80	-4.49	4.98	9.10	-4.12	55
MAFEKING	2.40	2.79	-0.39	86	14.35	17.04	-2.69	2.75	5.41	-2.66	51
MOSSEL BAY	0.96	1.31	-0.35	73	12.24	15.70	-3.46	6.60	7.34	-0.74	90
PHILIPSTOWN	0.06	1.15	-1.09	5	6.30	11.93	-5.63	0.66	3.10	-2.44	21
PORT ELIZABETH	3.99	2.06	+1.93	194	19.08	21.06	-1.98	12.55	10.76	+1.79	117
PORT ST. JOHNS	4.86	4.88	-0.02	100	34.91	42.24	-7.33	12.85	17.96	-5.11	72
PRIESKA	0.13	0.70	-0.57	19	4.02	8.56	-4.54	0.29	1.76	-1.47	16
PRINCE ALBERT ROAD	1.23	0.39	+0.84	316		3.86			1.41		
QUEENSTOWN	1.63	2.29	-0.66	71	11.13	19.32	-8.19	3.40	6.03	-2.63	56
SOMERSET EAST	1.77	2.34	-0.57	76	10.27	19.66	-9.39	4.58	7.49	-2.91	61
STEYNSBURG	0.32	1.31	-0.99	24	8.92	13.03	-4.11	1.75	3.73	-1.98	47
STEYTLERVILLE	0.96	0.89	+0.07	108	5.60	8.27	-2.67	2.31	3.09	-0.78	75
SWELLENDAM	2.81	2.57	+0.24	109	22.11	28.29	-6.18	10.18	12.64	-2.46	81
SYDNEYS HOPE	2.22	2.30	-0.08	97	11.69	20.72	-9.03	6.05	9.19	-3.14	66
UITENHAGE	2.26	1.66	+0.60	136	11.22	17.50	-6.28	4.41	8.23	-3.82	54
UMTATA	3.86	2.71	+1.15	142	18.15	22.48	-4.33	5.41	8.13	-2.72	67
UNIONDALE	1.65	1.03	+0.62	160	7.75	12.35	-4.60	5.49	5.59	-0.10	98
UPINGTON	0.16	0.54	-0.38	30	3.98	6.54	-2.56	0.41	1.25	-0.84	33
VICTORIA WEST	0.38	1.53	-1.15	25	5.32	8.39	-3.07	1.59	2.73	-1.14	58
VRYBURG	0.12	1.73	-1.61	7	16.82	16.37	+0.45	1.02	3.45	-2.43	30
CAPE PROVINCE - WINTER RAINFALL AREA:											
KAAPPROVINSIE - WINTER REENVALSTREEK:											
CALEDON	0.47	1.32	-0.85	36	16.73	20.21	-3.48	9.09	10.39	-1.30	88
CALVINIA	0.00	0.42	-0.42	0	4.52	7.96	-3.44	1.37	3.27	-1.90	42
CAPE TOWN ROYAL OBS	1.03	1.05	-0.02	98	27.61	23.85	+3.76	11.13	11.85	-0.72	94
CERES	0.00	1.74	-1.74	0	47.64	39.33	+8.31	18.05	20.83	-2.78	87
CLANWILLIAM	0.00	0.36	-0.36	0	6.64	8.40	-1.76	2.41	4.07	-1.66	59
GARIES	0.00	0.19	-0.19	0	3.51	5.02	-1.51	1.37	2.46	-1.09	56
GT.DRAKENSTEIN	0.28	1.63	-1.35	17	40.36	34.30	+6.06	15.17	17.39	-2.22	87
O'OKIEP	0.02	0.19	-0.17	11	4.07	6.50	-2.43	1.32	2.91	-1.59	45
PIQUETBERG	0.00	0.96	-0.96	0	15.12	19.35	-4.23	6.79	10.18	-3.39	67
PORT NOLLOTH	0.11	0.07	+0.04	157	2.14	2.28	-0.14	1.05	1.03	+0.02	102
SUTHERLAND	0.44	0.50	-0.06	88	8.86	8.72	+0.14	2.58	3.44	-0.86	75
WORCESTER	0.19	0.52	-0.33	36	11.25	11.74	-0.49	4.72	5.93	-1.21	80
BECHUANALAND : BETSJOEANALAND:											
MAHALAPYE	0.33	2.54	-2.21	13	14.75	14.21	+0.54	3.50	4.06	-0.56	86
DIKGATLONG	0.51	2.31	-1.80	22	12.31	13.83	-1.52	3.06	3.77	-0.71	81
GABERONES	1.25	2.81	-1.56	44	17.06	16.40	+0.66	2.84	4.69	-1.85	61

RAINFALL : NOVEMBER 1937 (CONTD):
NEERSLAG : NOVEMBER 1937 (VERVOLG):

STATION STASIE	NOV. 1937.	NORM.	DIFF. VERSK.	%	FROM 1.1.37 VANAF	NORM.	DIFF. VERSK.	FROM 1.7.37 VANAF.	NORM.	DIFF. VERSK.	SEASONAL % SEISOEN
TRANSVAAL:											
BARBERTON	3.24	4.59	-1.35	71	32.21	25.50	+6.71	5.35	8.81	-3.46	61
BELFAST	2.58	5.18	-2.60	50	26.91	25.93	+0.98	5.86	9.88	-4.02	59
BETHAL	1.87	5.06	-3.19	37	19.41	24.02	-4.61	5.10	9.77	-4.67	52
BLOEMHOF	0.31	2.22	-1.91	14	9.28	16.23	-6.95	0.46	4.48	-4.02	10
ELIM HOSPITAL	1.03	3.44	-2.41	30	22.41	26.60	-4.19	2.73	6.40	-3.67	43
ERMELO	1.87	4.79	-2.92	39	23.46	24.35	-0.89	4.86	10.74	-5.88	45
HAENERTSBURG	0.88	4.17	-3.29	21	35.14	31.54	+3.60	5.52	8.16	-2.64	68
HEIDELBERG	1.89	4.98	-3.09	38	16.65	23.56	-6.91	3.10	8.95	-5.85	35
JOHANNESBURG OBS.	2.41	4.71	-2.30	51	23.82	24.74	-0.92	4.88	8.82	-3.94	55
JOUBERT PARK	3.39	4.90	-1.51	69	28.79	27.23	+1.56	5.41	9.16	-3.75	59
KOMATIPOORT	0.68	3.06	-2.38	22		21.98			5.37		
LICHTENBURG	0.96	3.03	-2.07	32	13.60	19.82	-6.22	1.41	5.84	-4.43	24
MESSINA	0.09	2.38	-2.29	4	8.52	11.39	-2.87	1.51	3.38	-1.87	45
MIDDELBURG	1.20	5.06	-3.86	24	16.70	24.13	-7.43	4.77	9.12	-4.35	52
NYLSTROOM	1.78	3.52	-1.74	51	19.26	20.76	-1.50	5.57	6.49	-0.92	86
PIETERSBURG	1.60	3.02	-1.42	53	18.26	16.83	+1.43	3.31	5.57	-2.26	59
PIET RETIEF	2.25	5.22	-2.97	43	31.50	29.38	+2.12	7.98	11.76	-3.78	68
PILGRIMS REST	2.46	4.74	-2.28	52	34.34	33.48	+0.86	4.25	8.88	-4.63	48
POTCHEFSTROOM	0.80	3.25	-2.45	25	11.11	19.83	-8.72	1.56	6.48	-4.92	24
PRETORIA	0.56	4.72	-4.16	12	20.91	23.86	-2.95	3.98	8.66	-4.68	46
ROOIBERG	0.81	3.79	-2.98	21	17.89	19.64	-1.75	4.27	6.66	-2.39	64
RUSTENBURG	0.95	3.65	-2.70	26	15.06	21.43	-6.37	2.46	6.93	-4.47	35
STANDERTON	0.81	4.70	-3.89	17	17.03	24.94	-7.91	4.98	9.92	-4.94	50
VILLA NORA	0.48	2.60	-2.12	18	15.86	14.33	+1.53	1.96	4.21	-2.25	47
WAKKERSTROOM	1.78	4.99	-3.21	36	26.63	26.06	+0.57	7.49	10.60	-3.11	71
WOODBUSH	2.52	7.26	-4.74	35	63.34	57.47	+5.87	10.22	14.91	-4.69	69
ZEERUST	1.72	3.33	-1.61	52	11.42	19.48	-8.06	2.15	5.83	-3.68	37
O.F.S. : O.V.S.:											
BETHULIE	0.20	1.49	-1.29	13	7.68	16.34	-8.66	0.71	4.17	-3.46	17
BLOEMFONTEIN	2.82	2.13	+0.69	137	16.59	18.52	-1.93	3.43	5.23	-1.80	66
BOSHOF	1.23	2.17	-0.94	57	15.90	16.18	-0.28	1.33	4.73	-3.40	28
FAURESMITH	0.43	1.66	-1.23	26	11.50	12.73	-1.23	0.91	4.72	-3.81	19
HARRISMITH	1.07	4.27	-3.20	25	15.73	24.94	-9.21	2.39	9.84	-7.45	24
KROONSTAD	2.30	3.35	-1.05	69	13.41	19.62	-6.21	3.14	6.99	-3.85	45
LADYBRAND	3.17	3.77	-0.60	84	23.54	23.85	-0.31	5.84	8.52	-2.68	69
LINDLEY	1.61	3.28	-1.67	49	15.93	20.96	-5.03	3.07	7.31	-4.24	42
VREDE	2.35	4.51	-2.16	52	17.67	22.92	-5.25	5.79	9.19	-3.40	63
WINBURG	0.88	3.02	-2.14	29	18.52	19.20	-0.68	1.86	6.28	-4.42	30
WEPENER	1.25	2.92	-1.67	43	18.05	22.18	-4.13	2.74	6.72	-3.98	41
NATAL:											
DUNDEE	1.74	4.33	-2.59	40	25.35	26.81	-1.46	3.91	9.74	-5.83	40
DURBAN	2.74	4.68	-1.94	59	35.74	39.92	-4.18	16.29	16.02	+0.27	102
EMPANGENI	2.69	4.63	-1.94	58	36.63	37.65	-1.02	13.29	14.93	-1.64	89
ESTCOURT	2.06	3.47	-1.41	59		24.18		3.42	8.11	-4.69	42
LADYSMITH	1.51	3.50	-1.99	43	20.87	25.03	-4.16	3.76	8.64	-4.88	44
MELMOTH	4.32	4.16	+0.16	104	24.43	26.90	-2.47	9.37	10.30	-0.93	91
OTOBOTINI	0.79	2.87	-2.08	28	24.38	19.57	+4.81	4.02	6.53	-2.51	62
PIETERMARITZBURG	3.71	4.36	-0.65	85	23.02	30.36	-7.34	9.42	11.13	-1.71	85
STANGER	2.61	4.78	-2.17	55	29.17	35.44	-6.27	10.00	14.91	-4.91	67
UBOMBO	0.89	4.47	-3.58	20	30.62	29.71	+0.91	7.38	11.61	-4.23	64
WEENEN	2.57	3.63	-1.06	71	13.92	22.31	-8.39	3.69	7.98	-4.29	46
BASUTOLAND : BASOETOELAND:											
MAFETENG	1.40	3.06	-1.66	46	22.04	25.84	-3.80	2.44	7.54	-5.10	32
BUTHA BUTHE	1.85	4.24	-2.39	44	25.34	27.60	-2.26	4.07	9.75	-5.68	42
MOHALESHOEK	0.76	2.95	-2.19	26	26.79	24.20	+2.59	1.79	7.55	-5.76	24
QACHASNEK	1.10	3.87	-2.77	28	25.29	29.61	-4.32	3.76	9.44	-5.68	40
MOKHOTLONG	1.96	3.50	-1.54	56	15.34	17.98	-2.64	3.52	6.77	-3.25	52
SWAZILAND - SWASIELAND:											
[illegible]	3.35	6.80	-3.45	49	58.74	45.61	+13.13	11.35	15.84	-4.49	72

WEERKAART —— WEATHER MAP

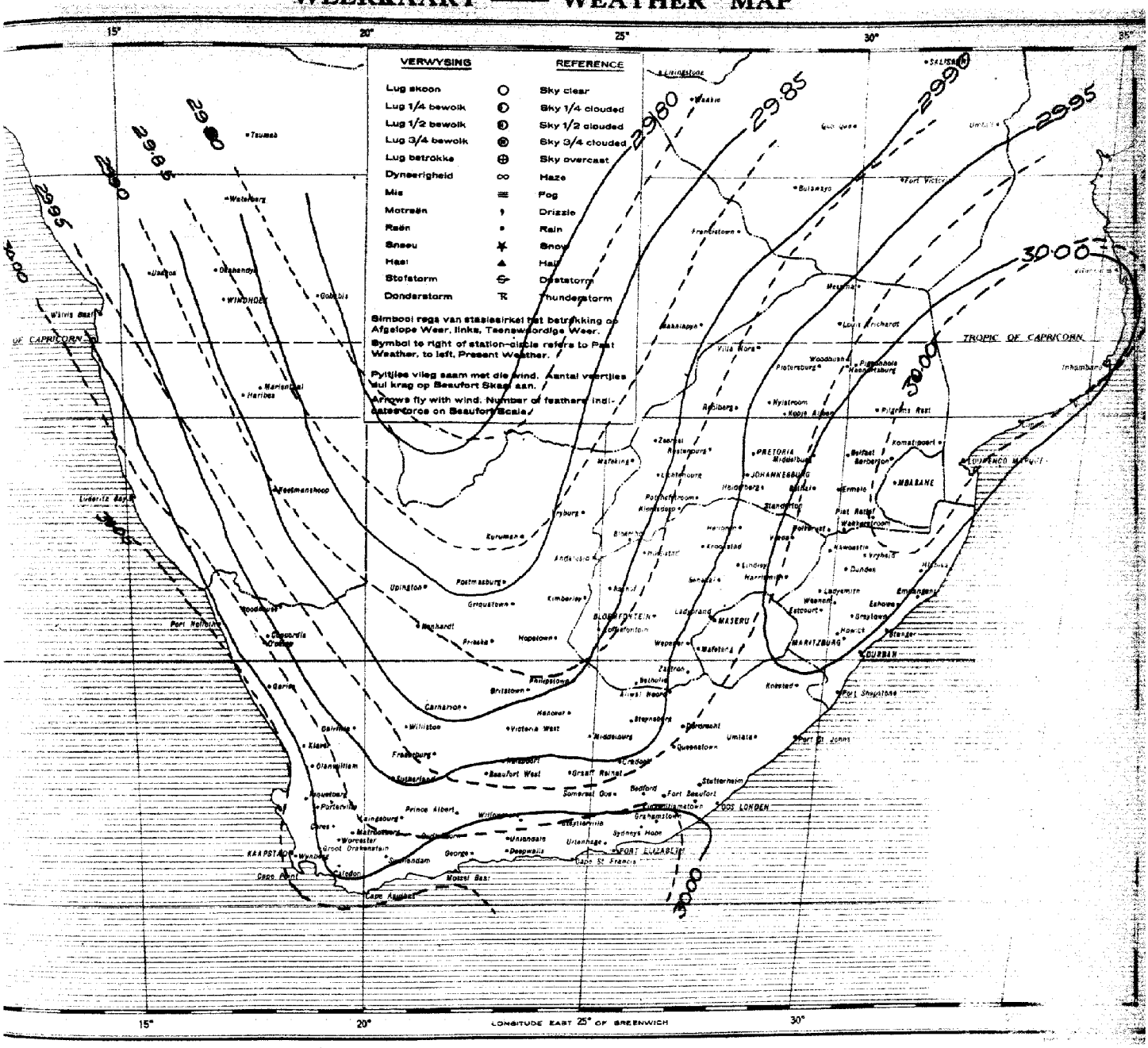


CHART I — KAART I.

NOVEMBER 1937 — Mean Atmospheric Pressure (at M.S.L.) at 8.30 a.m. The broken lines represent the normal distribution for November

NOVEMBER 1937 — Gemiddelde lugdruk (by seespieël) om 8.30 v.m. Die gebroke lyne dui die normale distribusie vir November aan.

WEERKAART —— WEATHER MAP

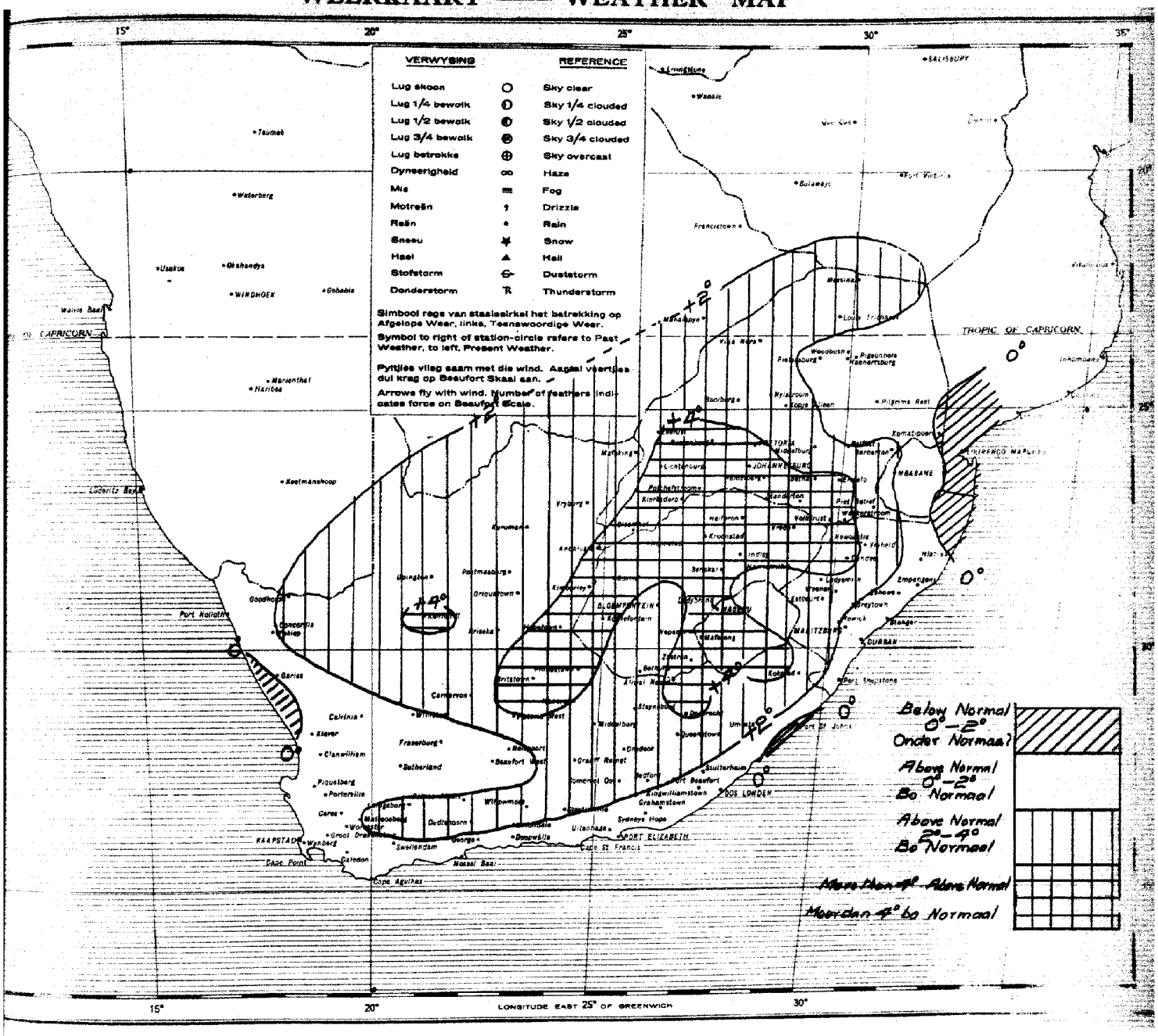


CHART II — KAART II.

NOVEMBER 1937 · Mean Temperature · departure from the normal in °F.

NOVEMBER 1937 · Gemiddelde Temperatuur · afwyking van die normaal in °F

WEERKAART —— WEATHER MAP

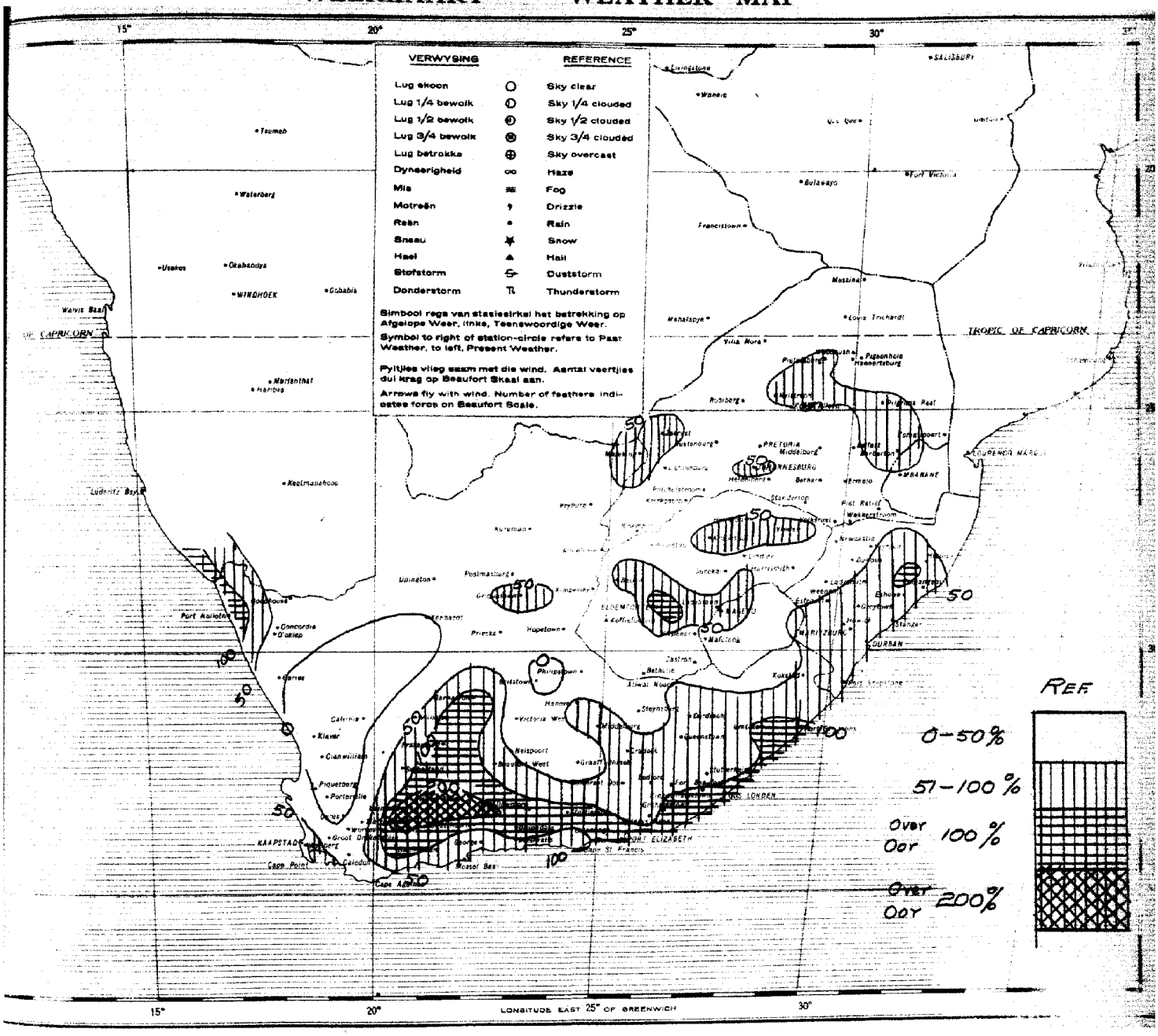


CHART III - KAART III

NOVEMBER 1937 - Precipitation shown as percentage of the normal.

NOVEMBER 1937 - Neerslag aangegee as persentasie van die normaal.

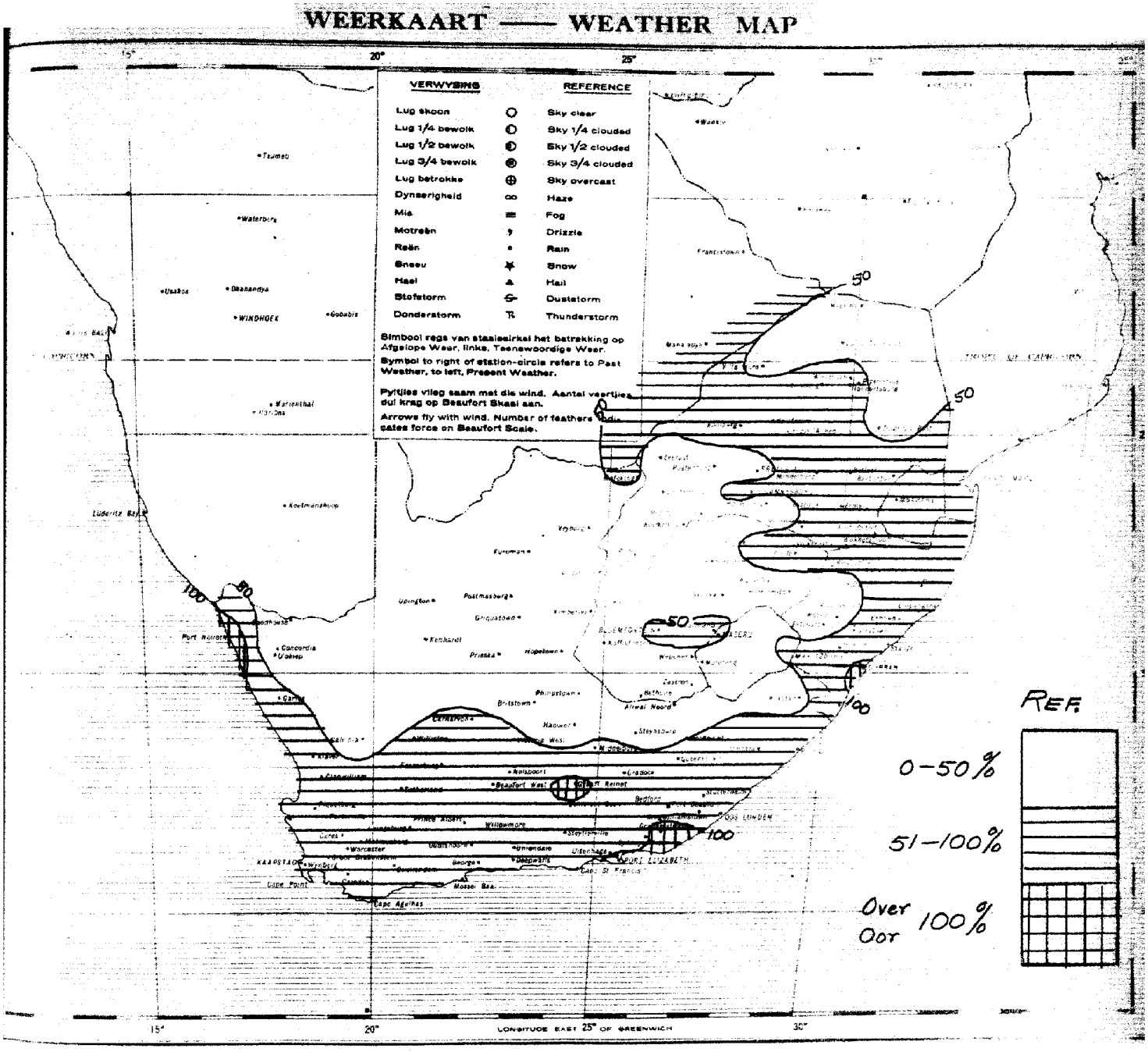


CHART IV — KAART IV.

SEASONAL PRECIPITATION — 1st July 1937 to 30th November 1937, shown as percentage of the normal.

SEISOEN-NEERSLAG — 1 Julie 1937 tot 30 November 1937, aangedui as persentasie van die normaal.

D I E U N I E V A N S U I D-A F R I K A.

DEPARTEMENT VAN BESPROEIING.

M A A N D E L I K S E W E E R V E R S L A G.

VAN DIE

WEERKUNDIGE KANTOOR.

DEEL XVIII | DESEMBER 1937 | NO. 12

ALGEMEEN:

'n Betreklike koel maand behalwe oor die westelike en suidwestelike Kaapprovinsie; dikwels betrokke weer met uitstekende reëns oor die grootste deel van die somer reënvalstreek; droogte gebreek, hoewel sekere distrikte nog te droog is; swaar buie het taamlik baie voorgekom en het skade veroorsaak in verskeie streke.

LUGDRUK:

Die gemiddelde lugdruk (sien Kaart I) was omtrent normaal oor die binneland van suidelike Afrika, maar was omtrent 0.05" bo normaal oor die suidoostelike en oostelike kusstreke en die oostelike Transvaal, sodat die drukgradient vanaf die oostelike en suidoostelike kuste na die binneland toe skerper was as gewoonlik. Goed uitgebeelde depressies, opgevolg deur antisiklones, het op ses geleenthede langs die kus verby getrek, terwyl die permanente laagdruk oor die binneland gereeld voorgekom het, hoewel oor die algemeen ietwat meer westelik (oor Suid-Wes-Afrika) as gewoonlik die geval is.

TEMPERATUUR:

Die gemiddelde temperatuur (sien Kaart II) was meestal onder normaal, behalwe oor die westelike en suidwestelike Kaapprovinsie en 'n nou streek langs die suidkus. Groot streke in die Transvaal, Vrystaat, Natal en die oostelike Kaapprovinsie het negatiewe afwykings van meer as 2°F. aangedui.

Die algemeen gemiddelde temperatuur vir die Unie as 'n geheel, soos bereken uit die gegewens van 'n aantal uitgekose stasies, was 69.1° of 1.3° onder normaal. Vir die Transvaal, Vrystaat, Natal en Kaapprovinsie elk apart geneem, was die gemiddelde temperatuur onder normaal by 1.9°, 1.3°, 2.8° en 0.6° respektiewelik.

Oor die algemeen het die gemiddelde maksima of dag-temperature groter negatiewe afwykings aangedui as die gemiddelde minima, of nag-temperature, wat waarskynlik aan die herhaalde betrokke weer en reënval toegeskrywe is. Vir die Unie as 'n geheel b.v. was die gemiddelde maksimum 80.1°, of 2.6° onder, waarteenoor die gemiddelde minimum 58.0°, of net 0.2°, onder normaal was.

Die volgende was sommige van die hoogste indiwiduele maksima wat in elke provinsie geregistreer is :- 108° te Clanwilliam (K.P.) op die 5de; 103.8° te Messina (Tvl) op die 18de; 99.4° te Maritzburg (Natal) op die 12de, en 95.9° te Bethulie (O.V.S.) op die 12de.

Sommige van die laagste minima in elke provinsie was :- 35° te Carnarvon (K.P.) op die 1ste; 39° te Belfast (Tvl) op die 9de; 45° te Dundee (Natal) op die 3de, en 40° te Harrismith (O.V.S.) op die 3de.

NEERSLAG:

Die distribusie van die neerslag word globaal aangedui op Kaart III. Oor

Oor die grootste gedeelte van die Unie het die neerslag die normaal oortref, en besonderlik oor die westelike binneland van die Kaapprovinsie waar party stasies van sewe tot tienmaal hul normale hoeveelhede ontvang het. Daar die gemiddelde maandelikse neerslag in hierdie afdeling egter klein is, is een swaar bui reën baiekeer voldoende om die maandelikse totaal heelwat bo die normaal te verhef.

Streke waar die reënval subnormaal was omvat : (1) die noordoostelike Transvaal met omtrent 80 tot 90% van die normaal; (2) 'n gedeelte van die Transkei, Basoetoeland en die sentrale en noordelike Vrystaat waar die neerslag van omtrent 70 tot 99% van die normaal varieër het; (3) gedeeltes van die suidelike Kaapse binneland rondom Uniondale en Matjesfontein, en (4) die suidwestelike Kaapprovinsie, Namaqualand en die noordwestelike Kaap waar die maandelikse neerslag oor die algemeen minder dan 50% van die normaal bedra het.

Word die provinsies as eenhede beskou, dan het die Transvaal, Natal en Kaapprovinsie surplusse aangetoon wat respektiewelik 43%, 68% en 59% van hul gemiddelde normale neerslag bedra het, terwyl die normaal net behaal was in die Vrystaat. As die Kaapprovinsie in somer- en winterreënvalstreke verdeel word, dui eersgenoemde 'n surplus van 61% en laasgenoemde 'n surplus van 34% aan. Vir die Unie as 'n geheel was daar 'n surplus van 43%.

Ongestadige weerkondiesies het byna dwarsdeur die maand oor die Transvaal en Natal geheers, terwyl daar oor die Vrystaat, die suidelike, oostelike en sentrale Kaap verspreide buie en donderstorms voorgekom het vernaamlik van die 3de tot 6de en 14de tot 23ste van die maand. Geisoleerde donderstorms het ook oor die noordelike grensgebiede van die Kaap voorgekom op die 2de, 3de, 5de, 6de, 14de tot 16de en 22ste tot 23ste. Vernaamlik in Natal, Transvaal en die suidoostelike en sentrale Kaapprovinsies het hier en daar dikwels swaar stort buie uitgesak wat baie riviere laat afkom het, en heelwat skade aan paaie, lande, brue, ens., veroorsaak het (sien ook Aantekeninge van Waarnemers).

HAEL:

Haelstorms was gerapporteer uit die sentrale en oostelike Kaapprovinsie, Basoetoeland, noordelike Natal, die noordelike Vrystaat en die sentrale en oostelike Transvaal. In die meeste gevalle was daar skade aan bome, groentetuine, ens. berokken (sien ook Aantekeninge).

DROOGTE:

Hoewel die droogte oor die grootste gedeelte van die Unie gebreek was na die oorvloedige reëns, is daar tog nog streke, nl. die distrikte Kroonstad, Ladybrand, Senekal, Brandfort, Zastron en Winburg in die Vrystaat, en O'okiep, Hopetown, Clanwilliam, Hanover, Britstown en Kuruman in die Kaapprovinsie, waar die neerslag baie lokaal was en daar nog droogte heers.

DIE VERSAMELDE NEERSLAG:

Die versamelde neerslag vanaf 1 Januarie 1937 d.w.s. vir die jaar 1937, word globaal aangedui op Kaart IV. Streke waar die jaarlikse neerslag bo normaal was, omvat (1) 'n klein gedeelte van die suidwestelike Kaapprovinsie; (2) die sentrale Kaapprovinsie, en (3) die noordwestelike, oostelike en gedeeltes van die sentrale Transvaal saam met die noordelike Natal en die Natalse kusstreek. Die streke wat die laagste persentasie (van 50 tot 75%) aandui, is (1) die noordelike Vrystaat en suidwestelike Transvaal; (2) die noordwestelike Kaap, gedeeltes van die noordelike grensgebiede en die oostelike binneland van die Kaapprovinsie, en (3) die suidelike Kaapse binneland van omtrent Laingsburg tot by Grahamstad.

Beskou ons die provinsies as eenhede, dan het die Kaapprovinsie en Vrystaat tekorte aangedui wat respektiewelik 13% en 16% van hulle gemiddelde normale jaarlikse neerslag bedra het, terwyl Natal 'n klein surplus van 3% gehad het. Oor die Transvaal as 'n geheel, het die jaarlikse neerslag net die normaal behaal. Die somerreënvalstreek van die Kaapprovinsie het 'n tekort van 17%, en die winterreënvalstreek 'n klein surplus van 1% aangetoon. Vir die Unie as 'n geheel was daar 'n tekort van 5%.

DIE SEISOEN-NEERSLAG:

Die seisoen-neerslag vanaf 1 Julie 1937 word op Kaart V aangedui. Elk apart beskou het die Transvaal, Vrystaat en Kaapprovinsie tekorte gehad wat respektiewelik 14%, 42% en 10% van hul gemiddelde normale reënval vir hierdie periode bedra, terwyl Natal 'n surplus van 2% aantoon. Die Kaapse somer- en winterreënvalstreke het onderskeidelik tekorte van 8% en 17% gehad. Vir die Unie as 'n geheel was daar vir hierdie tydperk 'n tekort van 14%.

U N I O N O F S O U T H A F R I C A.

DEPARTMENT OF IRRIGATION.

M O N T H L Y W E A T H E R R E P O R T.

OF THE

METEOROLOGICAL OFFICE.

VOL XVIII | DECEMBER 1937 | NO. 12

GENERAL:

A relatively cool month except over the western and southwestern Cape Province; frequent cloudy weather with excellent rains over the greater part of the summer rainfall area; drought broken, although certain districts still too dry; frequent heavy showers caused damage in several localities.

PRESSURE:

The mean atmospheric pressure (see Chart I) was about normal over the interior of South Africa, but exceeded the normal by about 0.05" along the southeastern and eastern coastal areas and the eastern Transvaal so that the pressure gradient from the east and southeast coasts towards the interior was steeper than usual. Well-defined depressions followed by anticyclones passed around the coast on six occasions, whilst the permanent depression over the interior was a regular feature although mostly situated more to the west (over South West Africa) than is usual.

TEMPERATURE:

Mean temperature (see Chart II) was mainly below normal except over the western Cape Province and over a narrow strip along the south coast. Large areas in the Transvaal, Free State, Natal and eastern Cape Province showed negative departures exceeding 2°F.

The general mean temperature for the Union as a whole, computed from data of a number of representative stations, was 69.1° or 1.3° below normal. For the Transvaal, Free State, Natal and Cape Province separately, the mean temperature was below normal by 1.9°, 1.3°, 2.8° and 0.6° respectively.

In general the mean maxima, or day temperatures, showed larger negative departures than the mean minima, or night temperatures, this being probably due to frequent cloudy weather and precipitation during the month. For the Union as a whole, for instance, the general mean maximum was 80.1° or 2.6° below, whilst the mean minimum was 58.0° or only 0.2° below normal.

The following were some of the highest individual maxima registered in each province:- 108° at Clanwilliam (C.P.) on the 5th; 103.8° at Messina (Tvl.) on the 18th; 99.4° at Maritzburg (Natal) on the 12th, and 95.9° at Bethulie (O.F.S.) on the 12th.

Some of the lowest minima in each province were:- 35° at Carnarvon (C.P.) on the 1st; 39° at Belfast (Tvl) on the 9th, 45° at Dundee (Natal) on the 3rd, and 40° at Harrismith (O.F.S.) on the 3rd.

PRECIPITATION:

The distribution of precipitation during this month is roughly shown on Chart III. Over the greater part of the Union, precipitation exceeded the normal, and especially so over the western interior of the Cape Province where some stations received from seven to ten times their normal amounts. Since, however, the average monthly rainfall for this part of the country is small, one occasional heavy shower will very often suffice to raise the monthly total at a station considerably above the normal.

Areas where the rainfall was subnormal comprise : (1) the northeastern Transvaal with approximately 80 to 90% of the average; (2) part of the Transkei, Basutoland and the central and northern Free State where the precipitation varied from about 70 to 99% of the normal; (3) parts of interior southern Cape around Uniondale and Matjesfontein, and (4) the southwestern Cape, Namaqualand and the northwestern Cape Province where the monthly precipitation was mostly less than 50% of the average.

Considering the provinces as units, the Transvaal, Natal and Cape Province showed surpluses amounting respectively to 43%, 68% and 59% of their mean average precipitation, whilst the Free State only just reached the normal. Dividing the Cape Province into summer and winter rainfall zones, the former showed a surplus of 61% and the latter a surplus of 34%. For the Union as a whole there was a surplus of 3%.

Unsettled weather conditions prevailed over the Transvaal and Natal almost throughout the month whilst over the Free State, southern, eastern and central Cape Province scattered showers and thunderstorms occurred mainly from the 3rd to 6th and 14th to 23rd. Some isolated thunderstorms also occurred over the northern borders of the Cape on the 2nd, 3rd, 5th, 6th, 14th to 16th and 22nd to 23rd. Isolated heavy showers occurred quite frequently, especially in Natal, Transvaal and southeast and centre Cape, causing flooding of rivers and considerable damage to roads, lands, bridges, etc. (See also Observers' Notes).

HAIL.

Hailstorms were reported from the centre and eastern Cape Province, Basutoland, northern Natal, northern Free State and the centre and eastern Transvaal. In most cases damage was done to trees, vegetable gardens, etc. (See also Observers' Notes).

DROUGHT:

Although the generally abundant rainfall was instrumental in breaking the

drought over the greater part of the Union, there still remain many areas, viz, the districts Kroonstad, Ladybrand, Senekal, Brandfort, Zastron and Winburg in the Free State, and O'Okiep, Hopetown, Clanwilliam, Hanover, Britstown and Kuruman in the Cape Province where precipitation has been extremely local, and where drought conditions still prevail.

THE CUMULATIVE PRECIPITATION:

The cumulative precipitation since 1st January 1937, i.e. for the calendar year, is depicted roughly on Chart IV. Areas where the annual rainfall was above normal comprise (1) a small portion of the southwest Cape; (2) the centre Cape and (3) the northwestern, eastern and parts of the centre Transvaal, together with northern Natal and the Natal coast. Areas showing the lowest percentages (from 50 to 75% of the normal) are situated in (1) the northern Free State and southwestern Transvaal; (2) the northwestern Cape, parts of the northern borders and the eastern interior of the Cape Province, and (3) the interior of the southern Cape Province from approximately Laingsburg to Grahamstown.

Considering the provinces as units, the Cape Province and Free State showed deficits amounting respectively to 13% and 16% of their mean normal annual precipitation; whilst Natal showed a small surplus of 3%. Over the Transvaal as a whole the mean annual rainfall just reached the normal. Dividing the Cape Province into summer and winter rainfall zones, the former showed a deficit of 17% and the latter a small surplus of 1%, and for the Union as a whole there was a deficit of 5%.

THE SEASONAL PRECIPITATION:

The seasonal precipitation since 1st July 1937 is shown on Chart V. Taking the provinces separately for this period, the Transvaal, Free State and Cape Province show deficits amounting respectively to 14%, 42% and 10% of their mean normal rainfall, whilst Natal showed a surplus of 2%. The Cape summer rainfall area shows a deficit of 8% and the winter rainfall zone a deficit of 17%. For the Union as a whole the precipitation for this period was deficient by 14%.

AANTEKENINGE VAN WAARNEMERS VIR DESEMBER 1937.
OBSERVERS' NOTES FOR DECEMBER 1937.

ALASKA (LOUIS TRICHARDT): Terrific wind on 1st December. Very dry and hot; grass wilting for lack of rain. I.G. Rudd.

BELVEDERE (PIETERSBURG): The month has been conspicuous for the absence of sun, nearly always clouded. E.Reineke.

CHESTER (PIETERSBURG): Splendid rains, veld has put on luxuriant growth. Most farmers busy ploughing. H.H. Wolff.

ARMOEDSVLAKTE (VRYBURG): Gusty winds between hours 11 a.m. to 4 p.m. on dates 4th December to 21st December. Also heavy accumulations of cumulus clouds between same dates. J.v.Heerden

POTCHEFSTROOM: The rainfall for this month has been low and disappointing being 3.50 inches on 13 days. The rainfall for December is the lowest for quite a number of years. The long period without rain, through the winter and early summer dried the soil out to such an extent that plant growth suffered unusually during December. B. Saayman.

CORONATION PARK (KRUGERSDORP): December has been a cool, wet month, being the wettest month since 1924. Rainfall 9.71 inches on 22 days. W. Webster.

RUSTENBURG (GOEWERMENTS PROEFPLAAS): Swaar haelstorm op 5de in Rustenburg en aangrensende plase - Arnoldstad, Watervalbo, Waterkloof en Kroondal waar ontsettende skades aangerig is aan tabakoeste. Weens aanhoudende reëns gedurende die res van die maand het baie van die tabak versuip. Reënval op Kroondal en omgewing was ongeveer 10 duim. Skades aan lemoenboorde egter gering. Verantw. Beampte.

BUFFELSPOORT (RUSTENBURG): (Citrus Cancer Experiment Station). Heavy rains on 13th to 15th and on 24th totalling 8.69 inches for 18 days; caused damage to tobacco plants by drowning. Subsequent heavy growth of weeds. Strong wind experienced on 8th but no damage done. Officer-in-Charge.

BENONI: At the beginning of the month the long drought experienced during the early part of this summer was broken. The total rainfall for the month being 8.22 inches for 22 days. This is the highest for a December month, the previous record for this month being 7.45 in 1916. Rain practically continued throughout month. Medical Officer of Health.

TOWOOMBA PASTURE RESEARCH (WATERBERG): The main feature of the month is the comparatively high rainfall of 11.24 inches for 17 days, against 4.33 inches for the same month the previous year. Roseauw.

UITLOOP (POTGIETERSRUST): This month has just been a reversal of November. 6.40 inches of rain being registered for 15 days. A.J. Darby.

LOSKOP IRRIGATION WORKS (MIDDELBURG, TVL): Temperatures varied between 93.4°F and 55.3°F; most summer weather prevailed with rain nearly every day, totalling 7.47 inches for 21 days. We had a few misty mornings. Resident Engineer.

MIDDELBURG (TVL): Copious rains throughout district. Rivers and spruits running; dams full; grazing plentiful everywhere. V.P. Rose.

ERMELO (EVERARD ST.): Country looking beautiful. Extensive rains in some parts of district and some hailstorms. R.N. Marillier.

RIETVLEI (ERMELO): Volop reën; min sonskyn. N.C. Steenkamp.

HLAMBANYANTI (SWAZILAND): Hail on 28th was about $\frac{3}{8}$" to $\frac{1}{2}$" in diameter and fell for 20 minutes with a gale of wind from north. It did slight damage to young mielies, vegetables, flowers and fruit. C.N.T. Jennings.

CHAMPAGNE (SWAZILAND): A month with many overcast days, threatening rain. Only 3.83 inches was registered on 22 days. The total rainfall for calendar year amounted to 35.59 inches or 14.62 inches less than for 1936. E.C. Boyce.

HLATIKULU (SWAZILAND): Rainfall for the month being 8.41 inches for 24 days. We had severe thunderstorms, coming up with misty rains that lasted for several days. Grass is plentiful and stock is in good condition. Assistant Commissioner.

O'KIEP: With only 4.11 inches for this year and only 0.34 inches in 5 months, shortage of water is very acute. During month thunder clouds gathered and dispersed very rapidly with no relief to water problem. H. Jones.

SEODIN (KURUMAN): Somerhitte heeltemal draaglik; saans en snags koel. Donderwolke wil nie saampak nie. D.A. Schonees.

HOPETOWN: Reënval vir die maand was 3.07 duim, maar onvoldoende omverskriklike droogte te breek. Alles weer net so droog en verdroog. Jan Blignaut.

FAURESMITH (VELD RESERVE): A favourable month with all average temperatures somewhat below normal and rainfall 0.80 inch in excess of it. Still far short on total for season, however, and for the whole of 1937 deficit of 0.85 inch. J. Potter.

KAREEFONTEIN (BLOEMHOF): A good month but local parts of district getting no rain. M.G. Wood

WEPENER: 2.74 inches of rain registered on 12 days; this has broken drought but still not sufficient. Thunderstorms with heavy downpours have been experienced in the district. W. Kamm.

LADYBRAND: Besonder droog. Boere sien uit na reën om ploeëry voort te sit. P.H. de Waal.

SUMMER CEREAL STATION (KROONSTAD): Die reënval was heelwat beter gedurende Desember maar as gevolg van die invloed van die lang droogte het die plantegroei maar stadig verbeter.
D.J.van den Berg.

MODDERPOORT : Rainfall below average, very disappointing as clouds would bank up only to be dispersed by a change of wind. Patrick Tone.

SENEKAL: The sky was most of the time overcast, but there was little rain. The district had more rain than local. Ds. D.S.Human.

TABORA (PETRUS STEYN): Thunder conditions on most days, but clouds never dense enough for good precipitation. Rain very patchy. A. Kern.

MOKHOTLONG (NATAL): Three people killed by lightning on November 27th and a week after two were stunned and burnt badly. District Commissioner.

LADYSMITH: Ongeveer 10 myl S.W. van die dorp het dit die 25ste besonder baie gereën. Gedurende 'n kort tydjie was alles in vloed. Daar was baie hael by. Beeste is weggevoer maar ander skade is nie rapporteer nie. C. Crause.

NEWCASTLE: Drought broken this month, with two heavy storms and days of continuous rain or drizzle. Total rainfall registered being 11.1 inches. On 31st strong gale blew for about 10 minutes; no damage done. Sister M. Lorentia.

EMERALD DALE: The total rainfall on 18 days was 6.55 inches. Very beautiful rains have fallen this month. The rain on the 12th, 16th and 23rd was in the nature of cloudbursts causing a lot of damage in the way of wash to cultivated lands. M. Anderson.

STRATHERN (NOTTINGHAM ROAD): Very little sun seen during the month. Total rainfall for year 27.20 inches. E. Smythe.

DUNDEE: A very pleasant month on the whole. Some very severe storms of wind and hail were experienced in district. I.K. Thorrold.

ISMONT (NATAL): Beneficial rains at last. Total for year 28.35 inches being over 11 inches below average. Bulk of maize crop planted. Stock picking up quickly. Col. Montgomery.

PIET RETIEF: Excellent rains have fallen throughout month - steady, soaking rains with no hail whatsoever. J. Werner.

PAULPIETERSBURG: Dull cloudy month with soft rains almost daily but total fall not quite up to average. Dr. Lipscomb.

HILLARY (NATAL): Mean maximum lowest recorded since records were commenced in 1907. Previous lowest recorded in December 1920 being 76.4°. Mean minimum only been lower on two previous Decembers, viz: 1935 (63.9°) and 1910 (63.8°). Hours of sunshine smallest since records began in 1913. Rainfall only twice exceeded since 1907, i.e. 10.78 inches in 1921 and 9.75 inches in 1912. H.A. Thorpe.

KINOCH FACTORY (NATAL): An absolute maximum of 87.0° on the 12th and an absolute minimum of 57.8° was registered on the 2nd. In general the month was warm and wet with large number of overcast days. The Manager.

DURBAN POINT: Freak temperatures were experienced during the month. Heavy rainfall and low amount of sunshine hours. The Port Captain.

CLANWILLIAM: Veld very dry - rain needed. J.A. Basson.

CALVINIA: Gedeelte van distrik het goed reën gekry op die 16de. Donderstorms op die datum en verskriklike hael. S.H. Kuhn.

WILLISTON: Bright days. Temperature rising. Afternoons windy. W.K. van der Spuy.

CARNARVON: Grootste gedeelte van maand word gekenmerk deur buitengewone koel weer en heelwat reën. Weer aangenaam sonder wind en laaste paar dae besonder warm. Crafford.

BEAUFORT WEST: Veld now much better though rain fell only in spots and not generally in district. Two very severe showers were experienced on the 6th and 20th. The latter did much damage to roads, houses, trees and railway line. Some live stock were also washed away.
S.J.P. Bosua.

NOOITGEDACHT (W.W.RAND): 14th - 9.30" - a great deal of damage done by floods, roads impassable and rivers higher than ever known. 14.81 inches on 14 days. M. Sanders.

RIETFONTEIN (WATERBERG): Crops late ploughing held up on account of heavy rains; grass looking A.1. 9.63 inches on 12 days. W.L.Maddocks.

OVERTON (ERMELO): The heaviest rainfall for December during the past 20 years. 9.72 inches on 22 days. P.G. Knight.

BUSBY: Ermelo River had a rise of 18 inches to 2 ft. only two or three times. Many farms to south had 10 to 12 inches. 7.30 inches on 26 days. G. Lunt.

PICARDY (STOCKENSTROOM): Very heavy rain in mountains - over 5 inches. River came down in high flood - highest since 1874 - citrus trees, pumphouses washed away on some farms. All bridges under water. Very heavy hail in mountains. 3.77 inches on 8 days. J.M. Kotze.

RUSTPAN (BOTHAVILLE): Droogte feitlik gebreek - pragtige reëns het eers die 6 Desember geval - veld groen en gesaaides baie jonk oor die algemeen. 6.30 duim op 10 dae. J.A.Geldenhuys.

KROMKUIL (SENEKAL): Die toestand van gesaaides lyk maar baie swak, daar is wel geplant mielies geplant maar as daar nie goeie reëns gou kom nie, sal die oeste treurig wees in die grootste deel van die distrik. Winterveld sal daar besonder min wees. 1.18 duim op 4 dae. A.J.J. de Villiers.

BRANDFORT: December has been unusually dry. Many farmers have not yet been able to plough and the rainfall has been scattered and not general. The position is becoming acute. 1.71 inches on 8 days. C. Mitchell.

FLAAUWKRAAL (ALBERT): No wheat crop this year. Mealie crop and feeding will be poor, not sufficient rain for continual ploughing. Cattle and small stock in fair condition. 2.17 inches on 7 days. C. Hoar.

DOMBIETERSFONTEIN (VICTORIA WES): Taamlik hael wat heelwat skade veroorsaak het aan vrugte en tuine; nie skade onder vee nie. 2.30 duim op 8 dae. G.W.A.v.Heerden.

DROOGEFONTEIN (HANOVER): Zeekoerivier in flood, first time for many years. Very hot and windy, very dry. Sheep poor. First time in three years this month that one of the big catchment dams is three-quarters full. 2.61 inches on 8 days. M.H. Lindsay.

MIDDLEDRIFT (KINGWILLIAMSTOWN): 17th a storm came from south with strong wind and downpour which lasted until midnight - from 5.15 p.m. Bridge over Keiskama River 8 ft. under water. Railway washed away by another storm. 3.69 inches on 7 days. J.G. Maker.

BUCKLANDS (HERBERT): Severe hailstorm over Bucklands Settlement - ruined all crops not already ruined by drought. Drought not broken. 1.73 inches on 4 days. A.C. Martin.

SOUTWATER (BRITSTOWN): Droogte op baie plekke gebreek, maar sommige het nog niks reën gekry nie. 1.66 duim op 5 dae. G.E. Visagie.

WOOLHOPE (KOMGHA): Dams are now replenished and rivers flowing. Country in splendid order. Stock in good condition. 6.40 inches on 13 days. T. Wright.

BANKFONTEIN (WILLISTON): Drought broken in many parts of district, though we have not had general rains yet. 1.33 inches on 6 days. C. Hodgson.

ENGLAND (KURUMAN): Dit het nog maar min gereën en die grootste gedeelte van die distrik is nog maar droog; dit is so warm dat die plekke waar dit gereën het, die veld alweer droog is. 2.31 duim op 3 dae. C.G.Geldenhuys.

KLIPKRAAL (HEILBRON): Four hailstorms within one hour, with hailstones six inches in circumference, with tremendous southwesterly winds, smashed three windows through gauze netting; made holes in two watertanks of 1000 gallons each; ruined garden and great damage to standing crops; killed one calf and one sheep. 6.25 inches on 11 days. I. Purves.

ELIZABETH (VREDE): 25ste Vinnige bui, baie reën en skade aan landerye en paaie; gesaaides sleg oor algemeen. 12.75 duim op 14 dae. W.A.Odendaal.

ZOETVELD (FRANKFORT): Harde haelbui die 31ste; baie skade aan mielies en lande baie verspoel. 8.27 duim op 10 dae. G. Kohler.

THE WILLOWS (STUTTERHEIM): Destructive hailstorm on 17th causing damage to fruit crop - hail the size of walnuts - 15 minutes. 8.80 inches on 19 days. T.H. Paddock.

PROSPECT (VREDE): In spite of nearly 4 inches of rain spread over 14 days, conditions are dry. There is great evaporation and moisture has never penetrated deeply into the soil. 3.95 inches on 14 days. T. Pitcairn.

SMYTHE (KUKUMAN): The drought in this part is terrible. Cattle and sheep are dying daily from poverty. 0.54 inch on 2 days. K. Pearce.

RAPIDIM (LADYBRAND): Die koringoes is swak. Baie ruspes in mielies - min geplant weens droogte. 3.13 duim op 8 dae. B. Louw.

BELLEVILLE (BARKLY EAST): The drought was broken from the 14th December when 6.65 inches fell on 8 days. Veld is beautiful and stock both large and small are in good condition. 7.40 inches on 10 days. S. Vorster.

TSOMO(TSOMO:) 16th Thunder hurricane, hail, rain and lightning. Trees uprooted, roofs blown away and gardens washed out. 6.03 inches on 10 days. P. Bellinglen.

KRANSKOP: Rain 1st and 2nd and from 10th to 30th. No sun for 23 days. 6.80 inches on 23 days. P.de Nysschen.

UFIOMI (BEDFORD): Severe storm broke on the afternoon of the 17th - did severe damage to canals, bridges and roads; just a little hail with it. Stock losses very severe. Much more rain needed as drought is not broken. 3.09 inches on 9 days. J. Vermaak.

MELROSE (BEDFORD): 17th 1.54 inches, higher up 4 inches. The Baviaans River came down in flood 12 to 15 feet at least, higher than in living memory; some farmers near here, living on the river for the past 50 years, have never seen anything like this. Much damage was done to irrigation waterworks on the farm Melrose; the intake wall at the entrance to the furrow which has stood for 40 years was completely washed away and the furrow blocked and silted up for 600 to 700 yards; also much fencing and a suspension bridge which has stood for 25 years was washed away. The river is a shambles, huge mimosa trees and poplars ruined and washed out. 3.13 inches on 9 days. C. Parker.

ZONDAGSFONTEIN (ZASTRON): Die koringoes is 'n totale mislukking behalwe onder besproeiing wat seer min is. 3.59 duim op 7 dae. C.R. Henning.

KRAGGASDRIFT (LAINGSBURG): Op party plekke in die distrik was die weer baie kwaai en oorstromings gepaard met verspoelings het voorgekom wat glad nie die geval hier was nie. 1.80 duim op 7 dae. L. Marais.

HAASFONTEIN (SMITHFIELD): Goed gereën die maand. Veld is goed vir vee dog geen water in damme. Die veld begin ook alweer wegkrimp. 3.73 duim op 7 dae. F.J. du Toit.

PONTMAIN - PITSENG (LERIBE): Hailstorms 20th and 21st. Crops completely destroyed. 4.90 inches on 12 days. Sister Marie du Calvaire.

WILDEBEESKOOI (BRITSTOWN): The driest year since 1927. Rainfall 1927 = 5.66 inches
1.21 inches on 7 days. Rainfall 1937 = 5.63 inches M.Bell

GROOTRIETVLEI (WAKKERSTROOM): 26th A hurricane which took roofs from houses and trees were falling down. 5.25 inches on 13 days. W.A. Schutte.

ROOIRIVIER (UNIONDALE): Die totale reënval vir 1937 is 7.36 duim. Die jaar is gekenmerk as een van die droogste bekend. Boerdery toestande was dwarsdeur die jaar baie kritiek. Koring- en mugteoeste was baie swak. 0.39 duim op 1 dag. W.G.Schaap, Jnr.

SAAIPLAAS (SUTHERLAND): Veld belowend - graan swak en erg beskadig deur hael en water. 2.39 duim op 5 dae. C.J. Nel, Jnr.

DE PUTTEN (BEAUFORT WEST): Thunderstorm with hail in the district but not over station. Drought broken, dams, sheep and fences washed away - estimate of damage £60. 4.80 inches on 7 days. J. Hamman.

WEGDRAAI (JACOBSDAL): Haelstorm - grootte soos duifeiers ander heelwat groter. 1.17 duim op 3 dae. J.C. Lamprecht.

SCHIMPERSVLEI (WINBURG): Baie warm en droog, toestand erger as in 1933. 1.91 duim op 6 dae. A. Seimons.

VICTORIA WEST: Beautiful rains fell over the best part of the district, some parts up to 2 inches; the drought, however, is completely broken. N. van Rensburg.

GRAAFF REINET: A good rainfall is the leading feature of this month, accompanied by light thunderstorms and a little hail on the 17th. Mother Superior.

GROOTFONTEIN SCHOOL OF AGRICULTURE (MIDDELBURG, C.P.): Drought broken. So much rain in such a short period (14th - 15th) has not been experienced here for very many years. A.J. Mackenzie.

CRADOCK: Beautiful rains during the month. Veld is green and a good crop of mealies is expected. M.R.van Heerden.

LOVEDALE: Rainfall was more than twice the rainfall of last December. No wheat sown in neighbourhood owing to late rains. C. Pilson.

QUEENSTOWN: Nice showers of rain at intervals throughout the month, totalling 2.85 inches. More rain badly needed. W. Everitt.

PORT SHEPSTONE: Weather during month unsettled, precipitation occurred almost daily, invariably starting late in the afternoon. Surrounding country beautiful and green. Lighthousekeeper.

MATROOSBERG: A warm month with welcome rains. B.R. Metelerkamp.

PARADYS (GEORGE): Moderate rainfall, very hot days and no strong winds; weather very promising sometimes. Govt. Forester.

HERMITAGE (ADDO): Although changeable, hot muggy days predominated, many overcast nights. E.D. Dixie.

THABA TSEKA: Not sufficient rain. All plants and even springs are drying up. It seems that a terrible drought is at hand.

LUG TEMPERATURE : DESEMBER 1937.
AIR TEMPERATURES: DECEMBER 1937.

STASIE STATION	MAXIMUM. Gem. Mean	Norm.	Versk. Diff.	MINIMUM Gem. Mean	Norm.	Versk. Diff.	MAAND. GEM. MONTHLY MEAN Gem. Mean	Norm.	Versk. Diff.	ABS. MAX.	DATUM DATE	ABS. MIN.	DATUM DATE
KAAPPROVINSIE:													
CAPE PROVINCE:													
ALIWAL NORTH	82.0	84.6	-2.6	53.5	54.5	-1.0	67.8	69.6	-1.8	94.0	12	44.0	2
BRITSTOWN		90.9			58.5			74.7					
CAPE L'AGULHAS	71.2	71.1	+0.1	61.9	59.8	+2.1	66.6	65.5	+1.1	75.0	26	56.0	4
CAPE TOWN	79.7	77.3	+2.4	60.5	58.6	+1.9	70.1	68.0	+2.1	92.0	2	53.8	12
CALA	74.8	74.5	+0.3	54.4	55.3	-0.9	64.6	64.9	-0.3	93.0	12	45.0	2
CARNARVON	83.4	87.5	-4.1	56.9	56.6	+0.3	70.2	72.1	-1.9	98.0	11	35.0	1
CERES	85.2	83.0	+2.2	57.3	53.9	+3.4	71.3	68.5	+2.8	97.0	5	50.0	13
CRADOCK	81.3	87.1	-5.8	55.5	55.3	+0.2	68.4	71.2	-2.8	97.0	12	43.0	2
CLANWILLIAM	94.2	89.1	+5.1	60.7	56.8	+3.9	77.5	73.0	+4.5	108.0	5	54.0	1
DEEPWALLS	70.8	72.7	-1.9	54.0	54.5	-0.5	62.4	63.6	-1.2	87.0	5	46.4	2
EAST LONDON	72.8	75.2	-2.4	61.3	62.7	-1.4	67.1	69.0	-1.9	79.0	16	54.0	2
GOODHOUSE		99.3			68.9			84.1					
GRAAFF REINET	82.6	87.4	-4.8	57.2	58.1	-0.9	69.9	72.8	-2.9	95.0	5	44.3	2
GRAHAMSTOWN		77.3			54.5			65.9					
GT. DRAKENSTEIN	84.2	82.6	+1.6	60.4	57.2	+3.2	72.3	69.9	+2.4	96.8	5	51.0	12
GROOTFONTEIN	79.1	85.7	-6.6	51.1	52.7	-1.6	65.1	69.2	-4.1	93.7	12	38.2	2
HOPETOWN	90.1	91.8	-1.7	60.2	60.5	-0.3	75.2	76.2	-1.0	102.0	12	52.0	2
IDUTYWA		76.7			54.9			65.8					
KENHARDT	94.5	94.7	-0.2	65.8	63.1	+2.7	80.2	78.9	+1.3	101.2	11	59.0	20
KIMBERLEY	88.7	89.9	-1.2	62.0	61.4	+0.6	75.4	75.7	-0.3	98.3	12	54.7	2
KINGWILLIAMSTOWN	77.7	82.5	-4.8	57.6	58.4	-0.8	67.7	70.5	-2.8	92.0	3	45.0	2
KLAVER	88.6	86.8	+1.8	60.8	58.5	+2.3	74.7	72.7	+2.0	103.0	8	55.2	7
KOKSTAD	71.1	77.5	-6.4	52.5	53.0	-0.5	61.8	65.3	-3.5	94.5	12	43.7	2
KURUMAN	88.6	89.7	-1.1	57.9	58.3	-0.4	73.3	74.0	-0.7	96.0	12	49.0	21
MAFEKING	82.5	87.6	-5.1	59.9	60.9	-1.0	71.2	74.3	-3.1	94.0	28	52.5	3
MOSSEL BAY	74.2	73.6	+0.6	61.6	61.0	+0.6	67.9	67.3	+0.6	88.0	2	58.0	2
NELSPOORT		87.3		55.9	57.2	-1.3		72.3				43.5	2
O'OKIEP	85.9	84.1	+1.8	59.0	56.5	+2.5	72.5	70.3	+2.2	97.2	8	48.0	21
OUDTSHOORN	85.3	87.4	-2.1	57.6	57.0	+0.6	71.5	72.2	-0.7	100.0	6	51.0	30
PORT ELIZABETH	74.4	73.9	+0.5	62.3	61.3	+1.0	68.4	67.6	+0.8	94.0	3	58.0	2
PORT NOLLOTH	66.3	66.2	-0.9	54.1	52.4	+1.7	59.7	59.3	+0.4	68.0	11	48.0	30
PORT ST. JOHNS	74.1	78.2	-4.1	64.0	64.4	-0.4	69.1	71.3	-2.2	81.0	23	57.0	2
POSTMASBURG	88.3	88.1	+0.2	62.1	61.8	+0.3	75.2	75.0	+0.2	96.0	11	55.3	24
PRIESKA	96.2	93.6	+2.6	63.3	64.7	-1.4	79.8	79.2	+0.6	107.0	11	53.0	2
QUEENSTOWN	79.8	84.1	-4.3	55.5	56.1	-0.6	67.7	70.1	-2.4	96.0	11	46.0	2
RIETPOORT		84.0			55.0			69.5					
SOMERSET EAST	78.6	82.5	-3.9	56.6	55.6	+1.0	67.6	69.1	-1.5	93.5	5	47.0	11
SUTHERLAND	78.0	80.6	-2.6	49.1	46.7	+2.4	63.6	63.7	-0.1	89.0	4	39.0	2
SYDNEYS HOPE	74.9	77.1	-2.2	54.7	56.0	-1.3	64.8	66.6	-1.8	91.0	5	47.0	2
UITENHAGE	79.0	81.8	-2.8	58.1	58.7	-0.6	68.6	70.3	-1.7	93.4	4	45.2	2
UMTATA	74.4	79.8	-5.4	55.8	58.2	-2.4	65.1	69.0	-3.9	90.0	6	46.0	2
UPINGTON	94.5	94.7	-0.2	66.9	65.7	+1.2	80.7	80.2	+0.5	102.3	11	60.4	21
VAN WYKSVLEI	91.8	92.2	-0.4	61.0	60.5	+0.5	76.4	76.4	0.0	96.0	15	54.0	2
VICTORIA WEST	81.9	85.8	-3.9	54.7	53.2	+1.5	68.3	69.5	-1.2	96.0	11	43.0	2
WARMOEDSVLAKTE	88.9	90.9	-1.0	57.7	60.1	-2.4	73.3	75.5	-2.2	98.1	22	47.0	21
WILLOWMORE		84.0			51.2			67.6					
NATAL:													
DUNDEE	77.4	81.9	-4.5	54.3	56.6	-2.3	65.9	69.3	-3.4	94.0	12	45.0	3
DURBAN POINT	78.1	80.0	-1.9	67.1	68.2	-1.1	72.6	74.1	-1.5	86.0	24	60.4	2
EMPANGENI	80.4	85.4	-5.0	64.7	65.7	-1.0	72.6	75.6	-3.0	96.0	12	57.0	2
ESHOWE	74.9	78.9	-4.0	60.9	62.3	-1.4	67.9	70.6	-2.7	97.1	12	52.3	3
EST COURT	77.8	81.4	-3.6	57.5	57.8	-0.3	67.7	69.6	-1.9	95.0	28	46.0	3
LADYSMITH	81.2	87.2	-6.0	58.6	60.3	-1.7	69.9	73.8	-3.9	98.1	12	48.0	3
PIETERMARITZBURG	74.8	80.5	-5.7	58.6	61.1	-2.5	66.7	70.8	-4.1	99.4	12	48.4	3
UTOBOTINI	84.7	88.3	-3.6	67.9	68.9	-1.0	76.3	78.6	-2.3	98.0	12	59.0	9
PORT SHEPSTONE	76.0	78.3	-2.3	64.8	66.1	-1.3	70.4	72.2	-1.8	83.0	17	57.0	2
STANGER		82.9			65.4			74.2					
TRYHEID	77.1	81.2	-4.1	56.6	57.6	-1.0	66.9	69.4	-2.5	94.0	12	45.8	2
VEENEN	81.0	88.8	-7.8	60.2	59.4	+0.8	70.6	74.1	-3.5	98.0	12	49.0	3

LUG TEMPERATURE : DESEMBER 1937 (VERVOLG).
AIR TEMPERATURES : DECEMBER 1937 (CONTD.)

STASIE STATION	MAXIMUM: Gem. Mean	Norm.	Versk. Diff.	MINIMUM: Gem. Mean	Norm.	Versk. Diff.	MAAND. GEM. MONTHLY MEAN. Gem. Mean	Norm.	Versk. Diff.	ABS.DATUM MAX.DATE		ABS.DATUM MIN.DATE	
TRANSVAAL:													
BARBERTON	77.5	82.7	-5.2	62.2	62.8	-0.6	69.9	72.8	-2.9	95.2	18	52.8	3
BELFAST	70.6	74.1	-3.5	51.1	50.1	+1.0	60.9	62.1	-1.2	80.0	28	39.0	9
CHRISTIANA		89.6			59.4			74.5					
ERMELO	74.8	77.4	-2.6	53.3	53.4	-0.1	64.1	65.4	-1.3	85.0	12	41.0	2
HEIDELBERG	78.4	81.8	-3.4	56.2	56.3	-0.1	67.3	69.1	-1.8	90.8	29	47.4	2
JOHANNESBURG	72.2	76.1	-3.9	54.4	55.2	-0.8	63.3	65.7	-2.4	85.3	29	44.9	3
KLERKSDORP	83.8	86.1	-2.3	59.6	60.2	-0.6	71.7	73.2	-1.5	94.8	28	54.5	3
KOMATIPOORT		92.2			68.4			80.3					
KOPJE ALLEEN	81.4	86.4	-5.0	61.2	62.0	-0.8	71.3	74.2	-2.9	96.0	[illegible]	50.3	3
LOUIS TRICHARDT	78.4	81.5	-3.1	61.9	61.0	+0.9	70.2	71.3	-1.1	93.0	[illegible]	52.0	3
MESSINA	87.3	90.7	-3.4	69.0	68.9	+0.1	78.2	79.8	-1.6	103.8	18	61.0	3
MIDDELBURG	75.6	81.3	-5.7	55.7	55.9	-0.2	65.7	68.6	-2.9	85.0	29	48.0	9
NYLSTROOM	80.6	84.4	-3.8	60.1	60.1	0.0	70.4	72.3	-1.9	93.0	[illegible]	50.0	3
PIETERSBURG	76.7	82.0	-5.3	59.1	59.2	-0.1	67.9	70.6	-2.7	88.4	[illegible]	49.2	7
PIET RETIEF	75.0	77.9	-2.9	57.1	57.5	-0.4	66.1	67.7	-1.6	89.0	12	46.4	2
PILGRIMS REST	75.9	78.7	-2.8	56.9	56.9	0.0	66.4	67.8	-1.4	90.5	18	44.0	5
POTCHEFSTROOM	82.1	85.6	-3.5	58.7	57.7	+1.0	70.4	71.7	-1.3	94.0	28	52.0	2
PRETORIA	79.2	83.6	-4.4	59.8	60.3	-0.5	69.5	72.0	-2.5	90.6	29	51.0	3
RUSTENBURG	82.0	87.2	-5.2	62.0	60.7	+1.3	72.0	74.0	-2.0	95.0	29	52.0	3
STANDERTON	75.0	80.6	-5.6	54.9	54.4	+0.5	65.0	67.5	-2.5	88.0	12	45.0	2
WAKKERSTROOM		75.7			52.2			64.0					
ZEERUST	85.6	86.2	-0.6	60.7	61.1	-0.4	73.2	73.7	-0.5	98.8	29	51.0	3
O.V.S. : O.F.S.													
BETHULIE	85.1	86.8	-1.7	55.2	56.5	-1.3	70.2	71.7	-1.5	95.9	12	51.3	30
BLOEMFONTEIN	83.1	86.2	-3.1	56.3	57.9	-1.6	69.7	72.1	-2.4	94.2	12	49.4	21
FAURESMITH	83.4	85.0	-1.6	55.9	57.1	-1.2	69.7	71.1	-1.4	93.7	12	44.2	2
HARRISMITH	76.6	74.8	+1.8	49.9	51.3	-1.4	63.3	63.1	+0.2	89.0	12	40.0	3
KROONSTAD	82.7	85.4	-2.7	55.8	57.9	-2.1	69.3	71.7	-2.4	92.0	12	48.0	2
LADYBRAND	81.0	80.9	+0.1	53.9	54.9	-1.0	67.5	67.9	-0.4	91.0	13	44.0	2
LINDLEY		82.7			55.1			68.9					
WEPENER	82.8	84.4	-1.6	55.6	55.8	-0.2	69.2	70.1	-0.9	93.6	12	46.2	2
BASOETOELAND : BASUTOLAND:													
BUTHA BUTHE	77.3	82.1	-4.8	53.3	53.6	-0.3	65.3	67.9	-2.6	88.0	28	41.0	2
MAFETENG	79.9	80.2	-0.3	54.4	55.6	-1.2	67.2	67.9	-0.7	90.0	12	45.0	2
MOHALESHOEK	81.3	82.9	-1.6	54.9	54.5	+0.4	68.1	68.7	-0.6	91.0	13	49.0	3
MOKHOTLONG	73.7	74.3	-0.6	46.8	48.1	-1.3	60.3	61.2	-0.9	83.0	12	32.0	2
QACHASNEK	72.4	73.9	-1.5	49.6	49.8	-0.2	61.0	61.9	-0.9	86.0	12	38.0	2
BETSJOEANALAND : BECHUANALAND:													
DIKGATLONG	86.5	90.3	-3.8	65.3	65.8	-0.5	75.9	78.1	-2.2	101.0	29	54.0	3
GABERONES	85.5	90.3	-4.8	61.8	61.9	-0.1	73.7	76.1	-2.4	99.0	1	54.0	3
MAHALAPYE	85.4	89.7	-4.3	65.0	60.6	+4.4	75.2	75.2	0.0	100.0	29	55.0	3
SWASIELAND : SWAZILAND:													
MBABANE	71.9	76.4	-4.5	57.3	57.3	0.0	64.6	66.9	-2.3	86.0	17	47.0	2
STEGI	74.4	80.9	-6.5	59.6	60.8	-1.2	67.0	70.9	-3.9	89.0	16	53.0	3

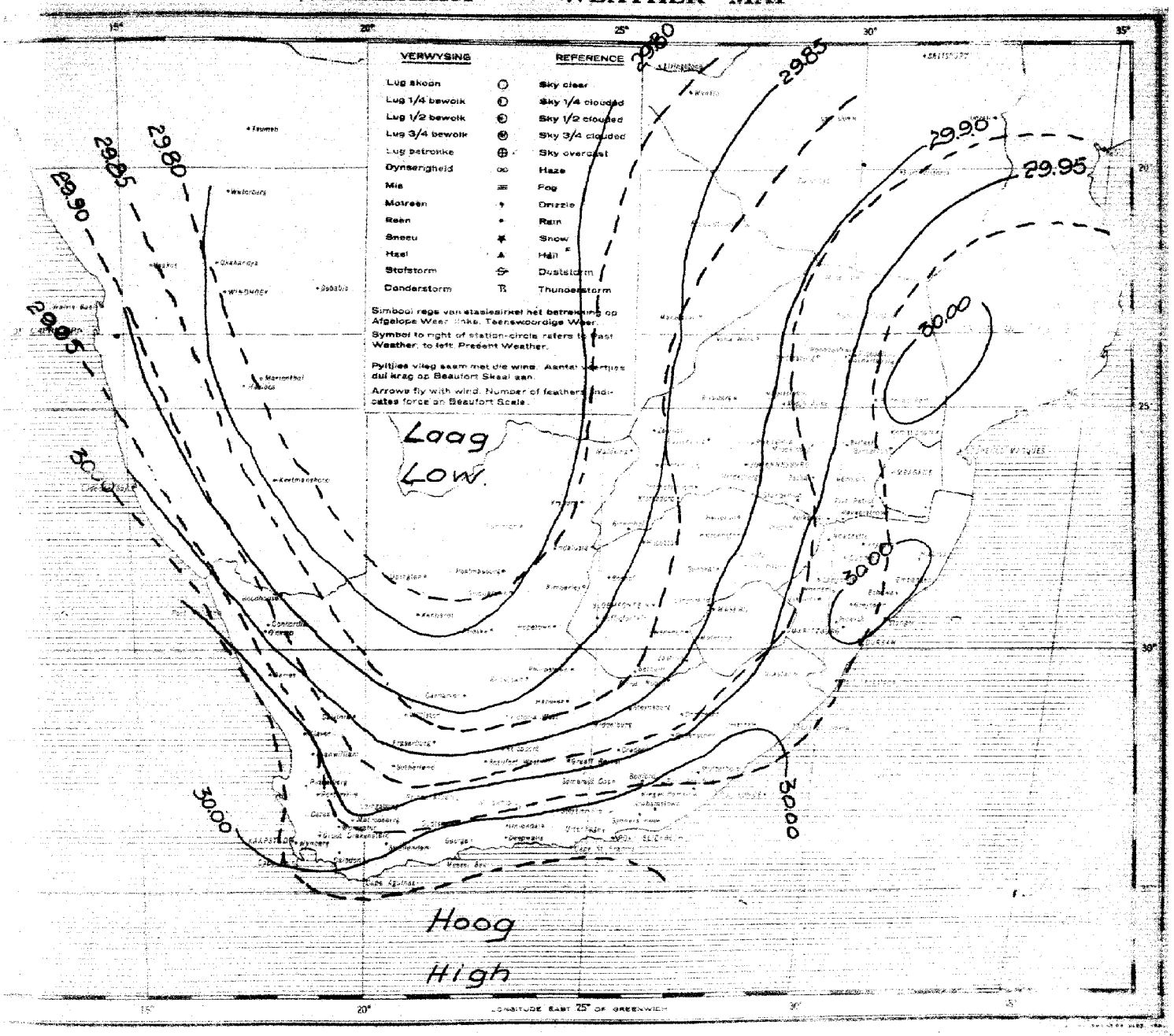
NEERSLAG - DESEMBER 1937.
RAINFALL - DECEMBER 1937.

STASIE STATION	DES. 1937 DEC.	NORM.	VERSK. DIFF.	%	VANAF 1.1.37 FROM	NORM.	VERSK. DIFF.	VANAF 1.7.37	NORM.	VERSK. DIFF.	SEISOEN % SEASONAL
KAAPPROVINSIE - SOMERREENVALSTREEK:											
CAPE PROVINCE - SUMMER RAINFALL AREA:											
ALIWAL NORTH	2.14	2.03	+0.11	105	13.23	18.98	-5.75	4.56	7.39	-2.83	62
BEAUFORT WEST	9.61	0.83	+8.78	157	12.72	9.26	+3.46	11.03	3.45	+7.58	319
BEDFORD	4.47	2.90	+1.57	154	20.78	27.46	-6.68	10.57	12.09	-1.52	87
BRITSTOWN	0.59	0.88	-0.29	67	6.91	10.96	-4.05	0.90	3.21	-2.31	28
CARNARVON	2.21	0.48	+1.73	460	7.93	7.80	+0.13	3.20	2.29	+0.91	139
EAST LONDON	5.52	3.12	+2.40	177	31.47	32.51	-1.04	17.93	16.18	+1.75	111
GEORGE	4.52	3.21	+1.31	141	31.13	34.12	-2.99	17.18	17.00	+0.18	101
GRAAFF REINET	3.43	1.48	+1.95	232	18.86	14.03	+4.83	8.77	6.12	+2.65	143
GRAHAMSTOWN	4.18	1.82	+2.36	230	19.01	21.34	-2.33	13.40	10.69	+2.71	125
GRIQUATOWN	0.97	1.37	-0.40	71	11.05	12.61	-1.56	1.89	3.84	-1.95	49
GROOTFONTEIN	3.10	1.48	+1.62	210	10.24	13.57	-3.33	5.09	5.15	-0.06	99
HANOVER	2.27	1.09	+1.18	208	6.55	14.00	-7.45	3.57	4.54	-0.97	79
HOPE TOWN	3.07	1.12	+1.95	274	10.33	12.21	-1.88	3.75	4.02	-0.27	93
KENHARDT	0.65	0.41	+0.24	158	4.66	5.70	-1.04	0.82	1.58	-0.76	52
KIMBERLEY	2.11	2.01	+0.10	105	13.48	16.60	-2.12	2.89	5.63	-2.74	51
KINGWILLIAMSTOWN	5.27	2.71	+2.56	194	19.25	24.98	-5.75	11.68	11.77	-0.09	99
KOKSTAD	3.23	4.48	-1.25	72	25.63	30.08	-4.45	7.37	13.74	-6.37	54
MATJESFONTEIN	0.24	0.32	-0.08	75	3.20	6.62	-3.42	1.93	2.82	-0.89	68
MACLEAR	5.39	5.27	+0.12	102	28.70	33.07	-4.37	10.37	14.37	-4.00	72
MAFEKING	5.72	3.49	+2.23	164	20.07	20.53	-0.46	8.47	8.90	-0.43	95
MOSSEL BAY	1.85	1.30	+0.55	142	14.09	17.00	-2.91	8.45	8.64	-0.19	98
PHILIPSTOWN	1.92	1.13	+0.79	170	8.22	13.06	-4.84	2.58	4.23	-1.65	61
PORT ELIZABETH	1.92	1.67	+0.25	115	21.00	22.73	-1.73	14.47	12.43	+2.04	116
PORT ST. JOHNS	4.71	5.37	-0.66	88	39.62	47.61	-7.99	17.56	23.33	-5.77	75
PRIESKA	1.06	0.79	+0.27	134	5.08	9.35	-4.27	1.35	2.55	-1.20	53
QUEENSTOWN	2.85	2.99	-0.14	95	13.98	22.31	-8.33	6.25	9.02	-2.77	69
SOMERSET EAST	5.84	2.49	+3.35	234	16.11	22.15	-6.04	10.42	9.98	+0.44	104
STEYNSBURG	4.17	1.74	+2.43	240	13.09	14.77	-1.68	5.92	5.47	+0.45	108
SWELLENDAM	3.28	2.66	+0.62	123	25.39	30.95	-5.56	13.45	15.30	-1.84	88
SYDNEYS HOPE	3.48	2.07	+1.41	168	15.17	22.79	-7.62	9.53	11.26	-1.73	85
UITENHAGE	3.87	1.51	+2.36	256	15.09	19.01	-3.92	10.28	9.74	+0.54	105
UMTATA	3.19	3.17	+0.02	101	21.34	25.65	-4.31	8.60	11.30	-2.70	76
UNIONDALE	0.18	0.75	-0.57	24	7.93	13.10	-5.17	5.67	6.34	-0.67	90
UPINGTON	0.00	0.63	-0.63	0	3.98	7.17	-3.19	0.41	1.88	-1.47	22
VICTORIA WEST	5.31	0.66	+4.65	805	10.63	9.05	+1.58	6.90	3.39	+3.51	203
VRYBURG	3.82	2.57	+1.25	148	20.64	18.94	+1.70	4.84	6.02	-1.18	80
KAAPPROVINSIE - WINTERREENVALSTREEK:											
CAPE PROVINCE - WINTER RAINFALL AREA:											
CALEDON	1.91	0.90	+1.01	212	18.64	21.11	-2.47	11.00	11.29	-0.29	97
CALVINIA	1.16	0.20	+0.96	580	5.68	8.16	-2.48	2.53	3.47	-0.94	73
CAPETOWN ROYAL OBS.	0.02	0.80	-0.78	3	27.63	24.65	+2.98	11.15	12.65	-1.50	88
CERES	0.74	1.14	-0.40	66	48.38	40.47	+7.91	18.79	21.97	-3.18	86
CLANWILLIAM	0.40	0.19	+0.21	210	7.04	8.59	-1.55	2.81	4.26	-1.45	66
GARIES	0.00	0.12	-0.12	0	3.51	5.14	-1.63	1.37	2.58	-1.21	53
GT. DRAKENSTEIN	0.11	0.88	-0.77	12	40.47	35.18	+5.29	15.28	18.27	-2.99	84
O'OKIEP	0.04	0.16	-0.12	25	4.11	6.66	-2.55	1.36	3.07	-1.71	44
PIQUETBERG	0.18	0.62	-0.44	29	15.30	19.97	-4.67	6.97	10.80	-3.83	65
PORT NOLLOTH	0.02	0.09	-0.07	22	2.16	2.37	-0.21	1.07	1.12	-0.05	95
SUTHERLAND	2.68	0.37	+2.31	724	11.54	9.09	+2.45	5.26	3.81	+1.45	138
WORCESTER	0.59	0.37	+0.22	159	11.84	12.11	-0.27	5.31	6.30	-0.99	84
BASOETOELAND : BASUTOLAND:											
MAFETENG	2.75	4.09	-1.34	67	24.79	29.93	-5.14	5.19	11.63	-6.44	45
BUTHA BUTHE	2.99	4.67	-1.68	64	28.23	32.27	-4.04	7.06	14.42	-7.36	49
MOHALESHOEK	3.92	3.70	+0.22	106	30.71	27.90	+2.81	5.71	11.25	-5.54	51
QACHASNEK	5.44	5.99	-0.55	91	30.73	35.60	-4.87	9.20	15.43	-6.23	60
MOKHOTLONG	2.67	3.30	-0.63	81	18.01	21.28	-3.27	6.19	10.07	-3.88	62
SWASIELAND : SWAZILAND:											
MBABANE	10.87	8.42	+2.45	129	69.61	54.03	+15.58	22.22	24.26	-2.04	92

NEERSLAG : DESEMBER 1937 (VERVOLG).
RAINFALL : DECEMBER 1937 (CONTD)

STASIE STATION	DES. 1937 DEC.	NORM.	VERSK. DIFF.	%	VANAF 1.1.37 FROM	NORM.	VERSK. DIFF.	VANAF 1.7.37 FROM	NORM.	VERSK. DIFF.	SEISOEN % SEASONAL.
TRANSVAAL:											
BARBERTON	8.80	4.68	+4.12	188	41.01	30.18	+10.83	14.15	13.49	+0.66	105
BELFAST	7.68	5.23	+2.45	147	34.59	31.16	+3.43	13.54	15.11	-1.57	90
BETHAL	12.15	4.74	+7.41	256	31.56	28.76	+2.80	17.25	14.51	+2.74	119
BLOEMHOF	3.28	2.11	+1.17	155	12.56	18.34	-5.78	3.74	6.59	-2.85	57
ELIM HOSPITAL	3.92	4.71	-0.79	83	26.33	31.31	-4.98	6.65	11.11	-4.46	60
ERMELO	7.15	4.87	+2.28	147	30.61	29.22	+1.39	12.01	15.61	-3.60	77
HAENERTSBURG	6.40	5.56	+0.84	115	41.54	37.10	+4.44	11.92	13.72	-1.80	87
HEIDELBERG	5.27	4.49	+0.78	117	21.92	28.05	-6.13	8.37	13.44	-5.07	62
JOHANNESBURG OBS.	8.45	4.73	+3.72	178	32.27	29.47	+2.80	13.33	13.55	-0.22	98
JOUBERT PARK	9.44	5.37	+4.07	176	38.23	32.60	+5.63	14.85	14.53	+0.32	102
KLERKSDORP		3.59				28.88			9.52		
KOMATIPOORT		3.80				25.78			9.07		
LICHTENBURG	4.49	3.65	+0.84	123	18.09	23.47	-5.38	5.90	9.49	-3.59	62
MESSINA	2.71	2.85	-0.14	95	10.23	14.24	-3.01	4.22	6.23	-2.01	68
MIDDELBURG	6.85	4.77	+2.08	143	23.55	28.90	-5.35	11.62	13.89	-2.27	84
NYLSTROOM	6.50	3.69	+2.81	176	25.76	24.45	+1.31	12.07	10.18	+1.89	118
PIETERSBURG	6.82	3.69	+3.13	185	25.08	20.52	+4.56	10.13	9.26	+0.87	109
PIET RETIEF	5.83	6.20	-0.37	94	37.33	35.58	+1.75	13.81	17.96	-4.15	77
PILGRIMS REST	5.69	5.37	+0.32	106	40.03	38.85	+1.18	9.94	14.25	-4.31	70
POTCHEFSTROOM	3.50	3.93	-0.43	89	14.61	23.76	-9.15	5.06	10.41	-5.35	49
PRETORIA	6.61	4.42	+2.19	150	27.52	28.28	-0.76	10.59	13.08	-2.49	81
ROODEBERG	5.87	3.59	+2.28	163	23.76	23.23	+0.53	10.14	10.25	-0.11	99
RUSTENBURG	6.38	4.09	+2.29	156	21.44	25.52	-4.08	8.84	11.02	-2.18	80
STANDERTON	7.81	4.64	+3.17	168	24.84	29.58	-4.74	12.79	14.56	-1.77	88
VILLA NORA	4.69	3.20	+1.49	146	20.55	17.53	+3.02	6.65	7.41	-0.76	90
WAKKERSTROOM	6.41	4.84	+1.57	132	33.04	30.90	+2.14	13.90	15.44	-1.54	90
WOODBUSH	12.70	10.56	+2.14	120	76.04	68.03	+8.01	22.92	25.47	-2.55	90
ZEERUST	6.05	3.72	+2.33	163	17.47	23.20	-5.73	8.20	9.55	-1.35	86
O.V.S. : O.F.S.:											
BETHULIE	4.11	2.20	+1.91	187	11.79	18.54	-6.75	4.82	6.37	-1.55	76
BLOEMFONTEIN	1.71	2.25	-0.54	76	18.30	20.77	-2.47	5.14	7.48	-2.34	69
BOSHOF	2.18	2.09	+0.09	104	18.08	18.27	-0.19	3.51	6.82	-3.31	52
FAURESMITH	2.78	1.80	+0.98	154	14.28	14.53	-0.25	3.69	6.52	-2.83	57
HARRISMITH	4.74	4.46	+0.28	106	20.31	29.40	-9.09	7.03	14.30	-7.27	49
KROONSTAD	2.73	3.70	-0.97	74	16.14	23.32	-7.18	5.87	10.69	-4.82	55
LADYBRAND	2.90	3.57	-0.67	81	26.44	27.42	-0.98	8.74	12.09	-3.35	72
WINBURG	2.59	2.69	-0.10	96	21.11	21.89	-0.78	4.45	8.97	-4.52	50
WEPENER	2.74	3.78	-1.04	73	20.79	25.96	-5.17	5.48	10.50	-5.02	52
NATAL:											
DUNDEE	5.72	5.24	+0.48	109	31.07	32.05	-0.98	9.63	14.98	-5.35	64
DURBAN	9.91	5.16	+4.75	192	45.65	45.08	+0.57	26.20	21.18	+5.02	124
EMPANGENI	13.28	4.37	+8.91	304	49.91	42.02	+7.89	26.57	19.30	+7.27	138
ESTCOURT	6.67	4.66	+2.01	143		28.84		10.09	12.77	-2.68	79
LADYSMITH	7.24	4.81	+2.43	150	28.11	29.84	-1.73	11.00	13.45	-2.45	82
MELMOTH	6.75	4.57	+2.18	147	31.18	31.47	-0.29	16.12	14.87	+1.25	108
~~OTOBOTINI~~ *	~~5.32~~	~~3.39~~	~~+1.93~~	~~157~~	~~29.70~~	~~32.96~~	~~+6.74~~	~~9.34~~	~~9.92~~	~~-0.58~~	~~94~~
PIETERMARITZBURG	7.11	5.70	+1.41	125	30.13	36.06	-5.93	16.53	16.83	-0.30	98
UBOMBO	12.90	5.39	+7.51	239	43.52	35.10	+8.42	20.28	17.00	+3.28	119
VRYHEID	9.17	6.10	+3.07	150		34.16			16.74		
WEENEN	5.57	4.03	+1.54	138	19.49	26.34	-6.85	9.26	12.01	-2.75	77
BETSJOEANALAND : BECHUANALAND:											
MAHALAPYE	7.34	2.73	+4.61	269	22.09	16.94	+5.15	10.84	6.79	+4.05	159
DIKGATLONG	5.72	3.10	+2.62	184	18.03	16.93	+1.10	8.78	6.87	+1.91	128
GABERONES	5.97	3.40	+2.57	175	23.03	19.80	+3.23	8.81	8.09	+0.72	109
* Otobotini	12.62	3.39	+9.23	372	37.66	22.96	+14.04	16.64	9.92	+6.72	168

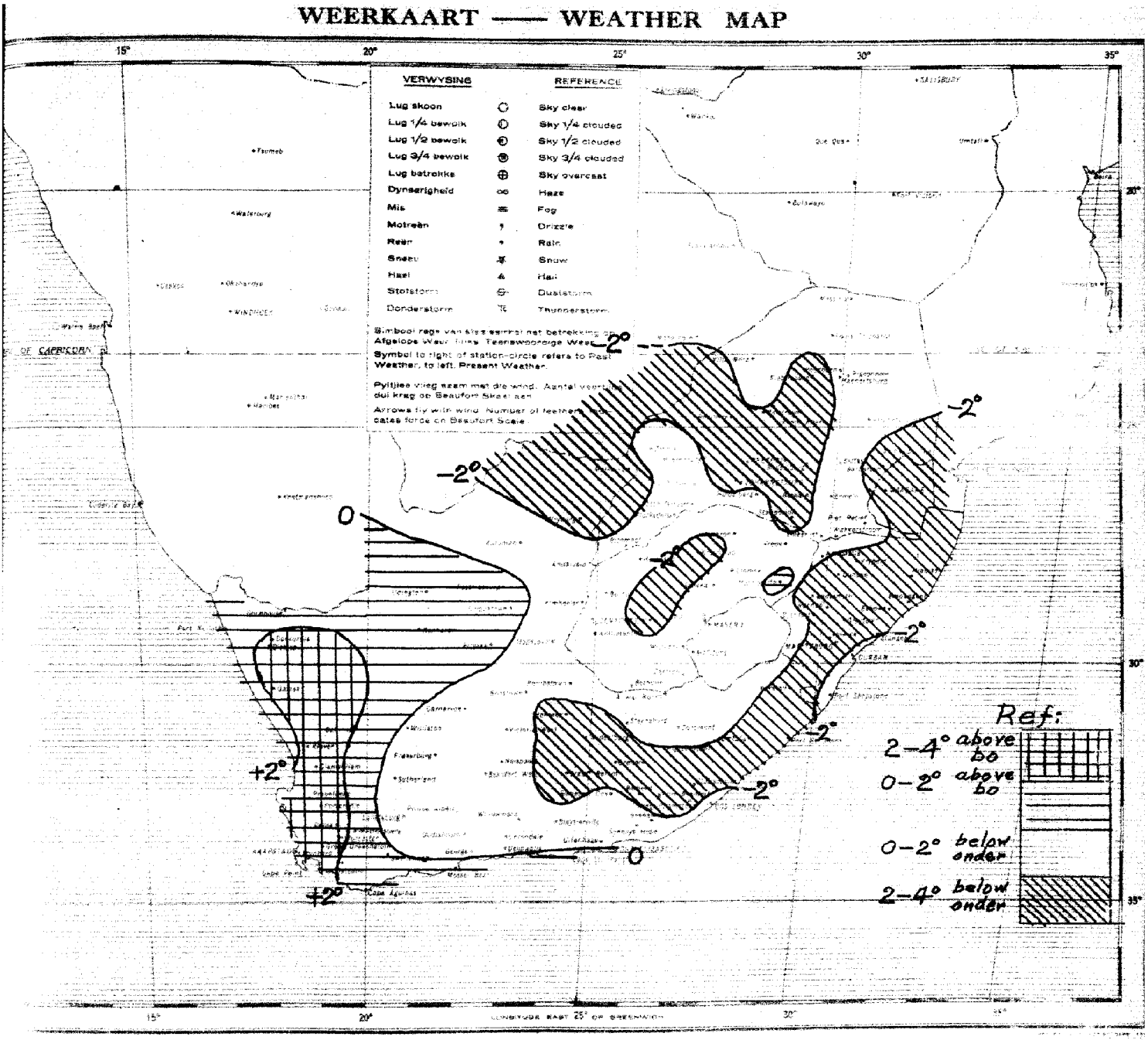
WEERKAART —— WEATHER MAP



Kaart I — Chart I

December 1937 - Gemiddelde lugdruk (by seespieël) om 8.30 v.m
Die gebroke lyne dui die normale distribusie vir Desember aan.

December 1937 - Mean atmospheric pressure (at M.S.L.) at 8.30 am.
The broken lines represent the normal distribution for December.

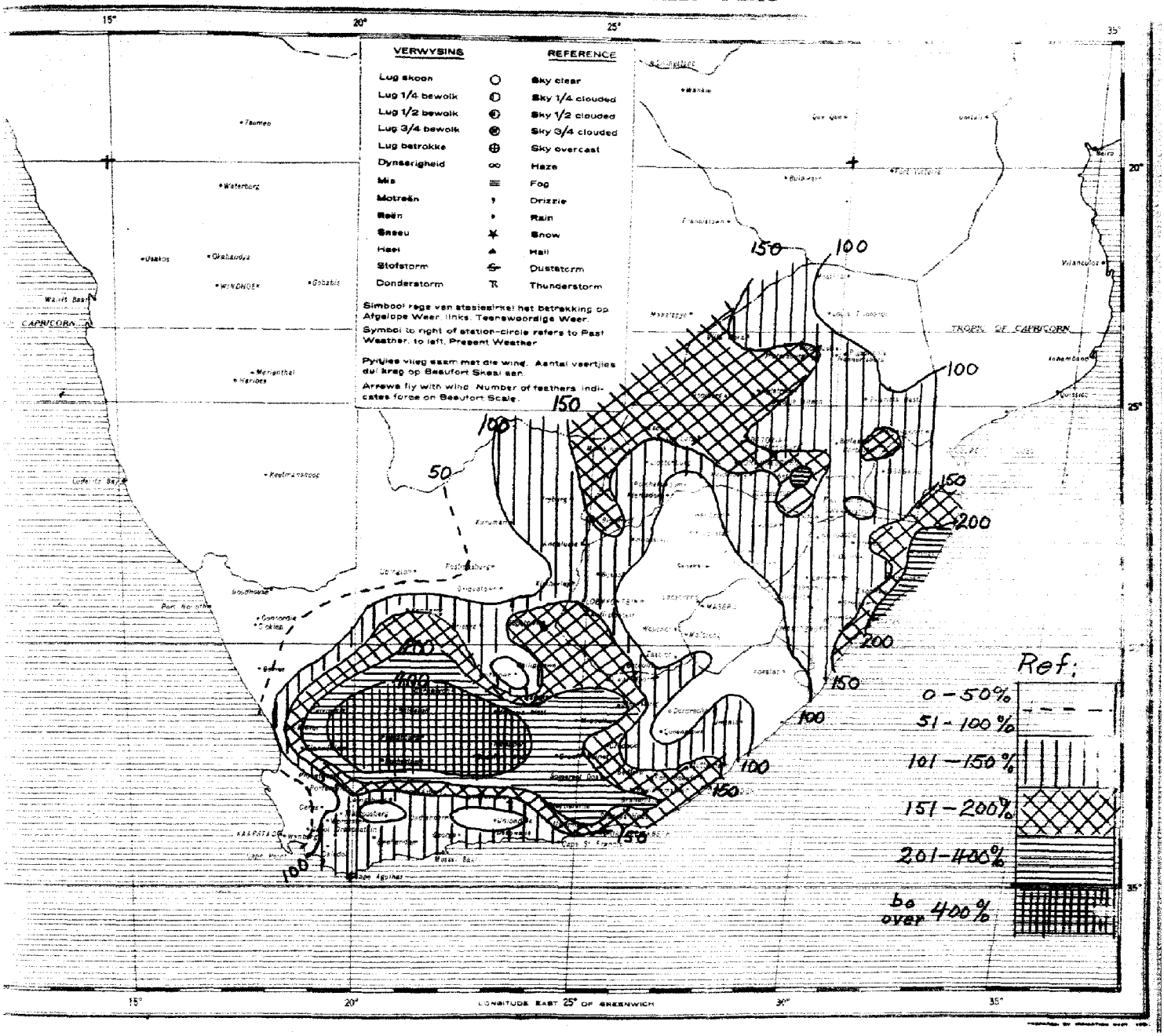


Kaart II Chart II

Desember 1937 – Gemiddelde Temperatuur – afwyking van die Normaal in °F

December 1937 – Mean Temperature – departure from the Normal in °F

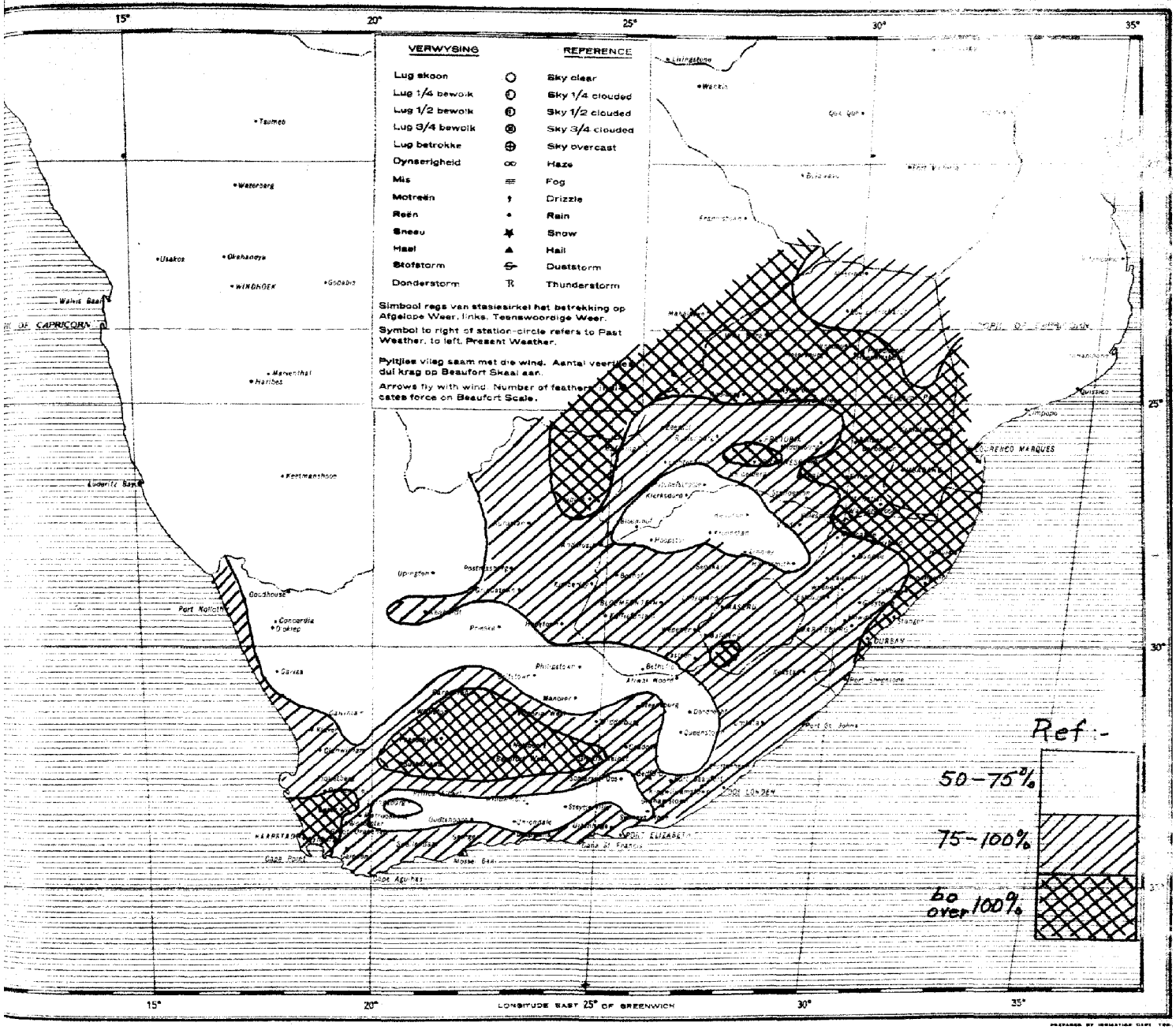
WEERKAART —— WEATHER MAP



Kaart III Chart III

Desember 1937 – Neerslag aangegee as persentasie van die Normaal
December 1937 – Precipitation shown as percentage of the Normal.

WEERKAART —— WEATHER MAP

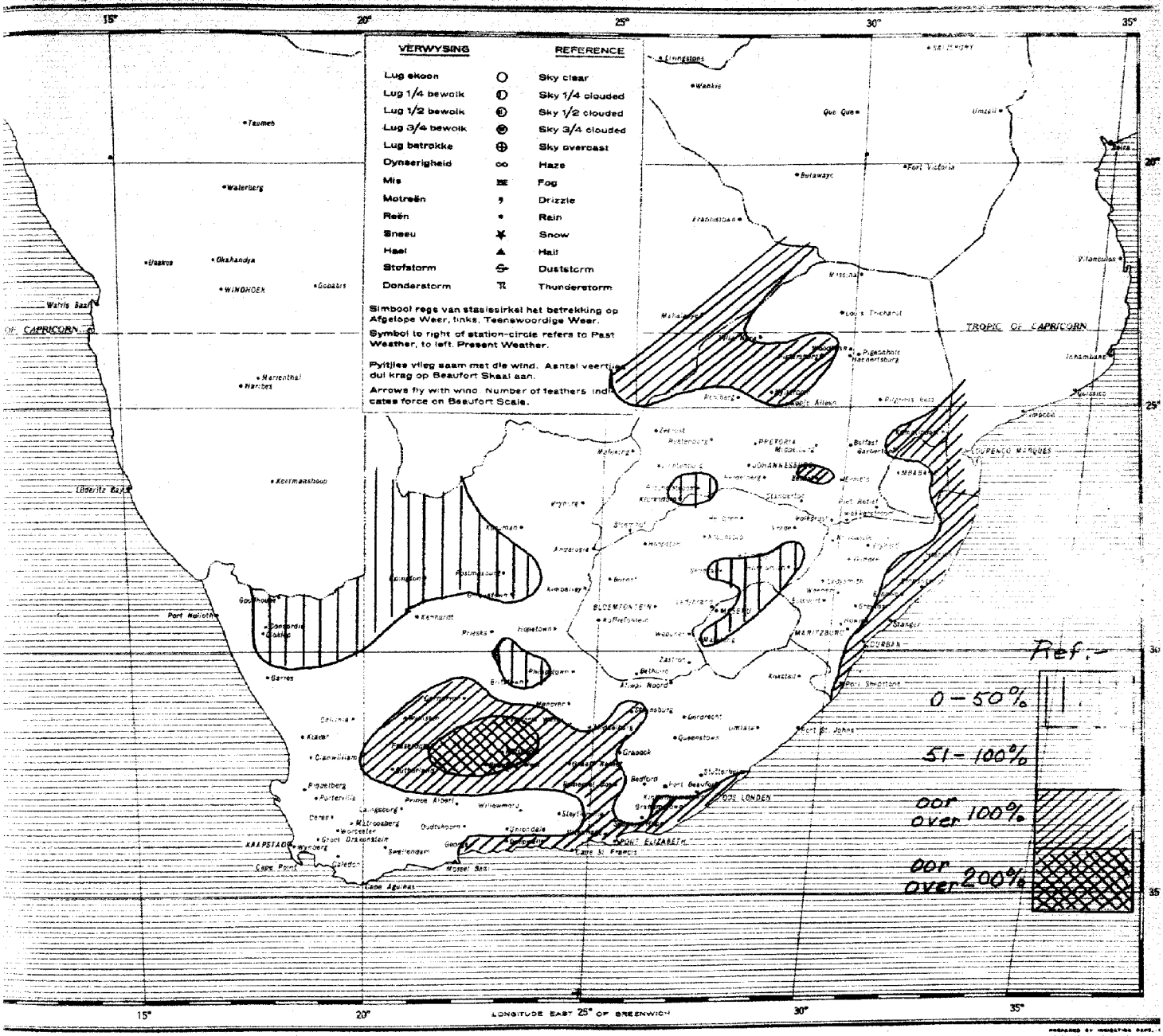


Kaart IV Chart IV

Jaarlikse Neerslag 1937 – aangedui as persentasie van die Normaal

Annual Precipitation 1937– shown as percentage of the Normal.

WEERKAART —— WEATHER MAP



Kaart V Chart V

Seisoen-Neerslag – 1 Julie tot 31 Desember 1937, aangedui as persentasie van die Normaal.

Seasonal Precipitation – 1st July to 31st December 1937, shown as percentage of the Normal.

UNION OF SOUTH AFRICA.

DEPARTMENT OF IRRIGATION.

MONTHLY WEATHER REPORT
OF THE
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NOVEMBER, 1936.

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