

COMMONWEALTH OF AUSTRALIA.

Tasmanian Divisional Office, Bureau of,
~~XMETEOROLOGICAL BUREAU~~ Meteorology.

BCX 107 F, G.P.O., HOBART.

16th May, 19 57.

TELEPHONE ~~4212~~

B2834.

Dr. Reber,
Physics Dept,
University of Tasmania.
HOBART, Tasmania.

Thunderstorm Data - August, 1956 - March, 1957.

Dear Dr. Reber,

1. Please find enclosed copies of thunderstorm data supplied to the Electricity Supply Association of Australia for the period August, 1956 to March, 1957.
2. Copies of the summary supplied at the end of each month will be forwarded to you as they become available.

Yours faithfully,

J. C. Langford
(J. C. LANGFORD),
A/g. Deputy Director.

| Date | Station | Details | Reason if evident. |
|--------------------|-----------------|---|---|
| November. 2nd. | St. Helens. | Lightning to S.E. distant. | Weak frontal passage. |
| November. 10th | St. Helens. | Thunder hear at Station 1040 and in afternoon to West. | Weak frontal passage |
| November. 22nd. | St. Helens. | Lightning & Rain & thunder 2000 to 2300 to South East. | Weak frontal passage. |
| | Flinders Is. | Storms on East coast of island 2100 to 2359 | |
| November. 24th | St. Helens. | Thunder storm at 1630 Lightning 2200 & 2359 to South East. | pronounced frontal passage |
| | Flinders Is. | Thunder overhead - lasting one hour at 1600- active lightning | 1500/1800 EST E ? |
| | Tasman Is. | Lightning to North approximately 30 mls <i>miles</i> | |
| | C. Sorell. | Thunder heard to NW for ½ hr appr. 10 mls <i>miles</i> | |
| | C. Bruny. | Storm at Station 1830 some damage to electrical equipment. | |
| | Redpa. | Thunder at 1400 to W and S.W. | |
| | Waratah | Thunder to S.W. distant at 1600 last- ing 10 minutes. | |
| | Low Head | Thunder to S.E. at 1530 | |
| | Devonport East. | Thunder to N.E. for about 15 minutes at 1520 | |
| | Cambridge | Distant lightning to N.W. & W.N.W. at 2050 | |
| | Maatsuyker | Thunder to S.W. | |
| | Wynyard | Thunder to N.W. at 1430 | |
| November 25th | Launceston | Thunder at 1345 | Strong unstable S.W. stream. |

Missing returns from Eddystone, Swansea, Oatlands & Zeehan have been requested.

Thunder Storm Return - November 1956

Thunderstorm Data - Tasmania - August, 1956.

| <u>Date.</u> | <u>Station.</u> | <u>Details.</u> | <u>Reason, if evident.</u> | |
|--------------|-----------------|--|-------------------------------|-----|
| 6th | Devonport. | Thunder heard to N.W. at sea. | - | |
| 7th | Lanceston. | Thunder heard to N.W. at 2120. | Frontal Passage. | |
| | Tasman Is. | Thunder heard to North at 0445. | " " " | |
| 8th | Waratah. | Thunder from S.E. for about $\frac{1}{2}$ hour at 0600. | " " | |
| | Stanley. | Thunder heard from storm to S.W. 0300 to 0500. | " " | |
| | Flinders Is. | Thunder to West of station. | " " | |
| 9th. | Western Junct. | Thunder from storm to West at 1150. | Fronts and Cyclonic Activity. | |
| | Low Head. | Thunder at 1155 to N.W. of station preceded by hail-storm (short duration). | | " " |
| | Redpa. | Thunder for $\frac{1}{4}$ hour at 0245 and between 1000 and 1100 to West (short duration). | | " " |
| | Eddystone Pt. | Thunder heard from West at 1800. | | " " |
| | Wynyard. | Thunder heard from N.W. at 1015. | | " " |
| | Swan Is. | Lightning and little Thunder to South and West at 1930. | | " " |
| 10th. | Currie. | Thunder heard to N.W. 1015. | | -- |
| 13th. | Devonport. | Lightning to North 2300. | Frontal passages. | |
| | Waratah: | Thunder from S.E. and heavy rain 0630 - 0900. | | " " |
| | Hobart. | Lightning to South at 2045. | | " " |
| | Zeehan. | Thunder & Lightning from 0800. | | " " |
| | Redpa. | Thunder to W.S.W. 0400 | | " " |
| | Tasman Is. | Lightning to S.E. 2030. | | " " |
| | Maatsuyker Is. | Thunder to N.W. at 1100. | " " | |

Thunderstorm Data (contd).

| <u>Date.</u> | <u>Station.</u> | <u>Details.</u> | <u>Reason if evident.</u> |
|--------------|-----------------|---|------------------------------|
| 14th | Devonport. | Lightning at 0700 & 1000 | Frontal Passages. |
| | Launceston. | Loud thunder to N.W. 0945. | " " |
| | Flinders Is. | Thunder at station with rain and hail. | " " |
| | Cape Sorell. | Thunderstorm observed to N.W. | " " |
| | Western Junct. | Thunder to N.E. and rain squalls 0820 to 0930. | " " |
| | Tasman Is. | Lightning seen to S.W. 0000. | " " |
| | Low Head. | Thunder heard with hail and lightning for 20 minutes at 0550 and of short duration at 0815. | " " |
| | Zeehan. | Thunder heard from storms to West. | " " |
| | Eddystone Pt. | Faint thunder to West 1050. | " " |
| | Redpa. | Thunder to Northwest from 0740 to 0810. | " " |
| | Maatsuyker.Is. | Thunder to N.W. at 1100. | " " |
| 23rd. | Cape Bruni. | Very loud and prolonged thunder heard about 4 miles to N.N.E. at 1845. | Strong unstable S.W. stream. |
| | Eddystone Pt. | Lightning seen to East at 1930. | ---- |
| 24th. | Redpa. | Thunder to N.W. from 1115 to 1200. | " " |
| | Tasman Is. | Thunder heard to S.W. about 0000 | Frontal passage. |
| 27th. | Maatsuyker Is. | Thunder to Northwest at 0445. | " " |
| 29th. | Devonport. | Thunder from distant storm to North at 1700. | ----- |
| | Stanley. | Thunder from storm from N.W. 1215 to 1300. | ----- |
| | Low head. | Thunder to N.W. with hail at 1600. | ----- |

Weather Bureau,
Hobart, Tas.

Thunderstorm Data - Tasmania.

September, 1956.

| Date. | Station. | Details. | Reason, if evident. |
|-------|-------------------|--|--|
| 7th. | St. Helens. | Thunder heard to West from 1730 to 1800. | Cyclonic activity, complex low in Bass Strait. |
| | Eddystone Pt. | Lightning to East at 2030. | - |
| 10th | Western Junction. | Thunder to N.E. faint to moderate. | Unstable southeasterly stream. |
| 22nd | St. Helens. | Faint thunder to S.W. and distant lightning at 1535. | Weak frontal passage. |

Thunderstorm Data - Tasmania.

October, 1956.

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|------|----------------|--|------------------|
| 2nd | St Helens. | Possible thunder 2300/0100. | Unknown. |
| 10th | Maatsuyker Is. | Faint thunder to East 0815. | |
| | Low Head. | Lightning distant & lightning likely to damage property at 1900. | Frontal Passage. |
| | Flinders Is. | Thunder at 1600 overhead. | " " |
| | Stanley. | Lightning to N.W. at night. | " " |
| 11th | Low Head. | Heavy thunder at 0550 | |
| | Launceston. | Thunder faintly to N.W. at 1445. | |
| 13th | Cape Sorell. | Thunder to N.W. about 10 miles for approx. 15 minutes, 2015. | Frontal passage. |

| | | |
|--|---|--------------------------------|
| 14th Flinders Is. Low Head. | Thunder overhead at 0300. Distant lightning at 0300. | Frontal passage. " " |
| 18th Low Head. | Thunder to S.E. 1400-1800. | Cyclonic Activity. |
| 21st Maatsuyker Is. | Loud thunder to N.W. at 1800. | Frontal passage. |
| 22nd. Low Head. Eddystone Pt. Swan Is. | Lightning at a distance to North. Thunder to West 2220. Very severe thunderstorm to South at 2330 | Frontal Passage. " " " " |
| 23rd. Tasman Is. Low Head. Flinders. Is. | Lightning to East of station. Lightning at distance to North. Lightning likely to damage property at the station 0300 | Frontal passage. " " " " |

Thunderstorm Data - Tasmania.

November, 1956

| | | |
|---|---|--|
| 2nd. St. Helens. | Ligthning to SE. distant. | Weak frontal passage. |
| 10th. St. Helens. | Thunder heard at Station 1040 and in afternoon to west. | " " " |
| 22nd. St. Helens. Flinders. Is. | Lightning & Rain & thunder 2000 to 2300 to South Hobart. Storms on East coast of island 2100 to 2359 | " " " |
| 24th. St. Helens. Flinders Is. Tasman Is. C. Sorell C. Bruny. Redpa. Waratah. | Thunder storm at 1630 Lightning 2200 & 2359 to Southeast. Thunder overhead - lasting one hour at 1600 - active lightning. Lightning to North approx. 30 miles. Thunder heard to N.W. for $\frac{1}{2}$ hours approx. 10 miles. Storm at Station 1830 some damage to electrical equip. Thunder at 1400 to W. & S.W. Thunder to S.W. distant at 1600 lasting 10 minutes. | Pronounced frontal passage. 1500/1800K. |

(3).

| <u>Date.</u> | <u>Station.</u> | <u>Details.</u> | <u>Reason, if evident.</u> |
|---|---------------------|---|-----------------------------------|
| 24th. | Low Head. | Thunder to Southeast at 1530. | |
| | Devonport. East. | Thunder to Northeast for about 15 minutes at 1520. | |
| | Cambridge. | Distant lightning to Northwest & Westnorthwest at 2050. | |
| | Maaysuyker | Thunder to Southwest. | |
| | Wynyard. | Thunder to Northwest at 1430. | |
| 25th | Launceston. | Thunder at 1345. | Strong unstable Southwest stream. |
| Missing returns from Eddystone, Swansea, Oatlands and Zeehan have been requested. | | | |

Thunderstorm Data - Tasmania. December, 1956.

| | | | |
|-------|--------------|---|------------------|
| 2nd. | Stanley | Slight Thunderstorm at 1520 to West. | Frontal Passage. |
| | Redpa | Distant thunder at 1400 to West and Southwest. | " " |
| 15th. | Flinders Is. | Thunder (slight) at 1500. | " " |
| 19th. | Tasman Is. | Lightning to East at 2100 at considerable distance. | " " |
| 24th. | Cambridge | Lightning to Southeast 2300 to midnight (distant). | " " |
| 25th | Cambridge: | Lightning to Southeast 0001 to 0100. Lightning to North and Northeast of station. 0001. | " " |
| 26th | Swansea. | Lightning at 1440. | " " |

Missing returns from Zeehan, Maatsuyker, Cape Sorell and Western Junction are being requested.

Supplementary Reports - November - Swansea & Eddystone. - Nil return at Oatlands.

| | | | |
|-------|---------------|--|-----------------------|
| 2nd. | Eddystone Pt. | Lightning to Southeast 2030. | Frontal Passage. |
| 3rd. | Eddystone Pt. | Thunder to Northwest at 1330. | Cyclonic Activity. |
| 4th. | Eddystone Pt. | Lightning to Northeast at 1830. | Cyclonic Activity. |
| 5th. | Swansea. | Thunderstorm with hail date doubtful. | |
| 22nd. | Eddystone Pt. | Lightning to South 2000 | |
| | Swansea. | Thunderstorm with hail at 1600. | Weak frontal passage. |
| 24th. | Eddystone | Thunder at 1630. Light- ning to East later. | Frontal passage. |

Thunderstorm data - January, 1957.

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|--|-------------|--|----------------------------------|
| 6th | Hobart. | Thunder at 1805 short shower. | Frontal Passage |
| | Springs. | Thunder at 1745 from Northwest and hail short. | Frontal Passage. |
| 23rd. | Maatsuyker. | Thunder at 2100. | Frontal passage. |
| 24th. | Cambridge. | Lightning to far North- east at 005K. | Frontal passage. |
| 26th. | Cambridge. | Lightning to South and Southeast 0001 to 0200K. | Frontal passage. |
| Supplementary Reports - December, 1956. - Maatsuyker. Island and Western Junction | | | |
| 7th | Maatsuyker. | Faint thunder to the East. | Frontal Passage. |
| 19th | Maatsuyker. | Thunder to West 2100- 2200. | Strong Southwest circulation. |
| 20th. | Maatsuyker. | Loud thunder to West. | Some minor frontal passages. |
| 21st. | Maatsuyker. | Faint thunder to East. | |

Thunderstorm Data. - February, 1957.

| <u>Date.</u> | <u>Station.</u> | <u>Details.</u> | <u>Reason if evident.</u> |
|--------------|-----------------|---|-------------------------------------|
| 2nd. | Springs. | Thunder to Northwest at 1515. | Frontal Passage. |
| | Swansea. | Thunder to Nor-Nor-west about 10 miles at 1.55 (am on 3rd). | " " |
| | Oatlands. | Thunder to North at 1600 | " " |
| | Flinders Is. | Storm on Eastern half of Island (brief) 2000. | " " |
| | Tasman Is. | Thunder few miles to West (loud) at 1625. | " " |
| | Cambridge. | Slight thunder at 1600. | " " |
| | Capo Bruny. | Thunder at 1300. | " " |
| | Hobart. | Thunderstorm with heavy rain at 1530. | " " |
| 3rd. | Maatsuyker | Thunder at 1500 to South (possibly on 2nd). | Unstable South to Southwest stream. |
| 6th. | Redpa | Thunder at 1100 moving East to West to 1345. | Strong Northeast stream. |
| | Stanley | Thunder during the afternoon. | " " |
| | Low Head. | Thunder to North at 0100 | " " |
| | Wynyard. | Thunder to East at 1530. | " " |
| 7th | Springs. | Thunder to Northwest at 1220. | ----- |
| 10th. | Flinders Is. | Brief storm at 1200 | Frontal Passage. |
| | Eddystone Pt. | Thunder distant to West 1200 to 1230. | " " |
| 14th | Zeehan. | Thunder to South-South-West distant continuing 4 hours at 2100. | " " |
| | Redpa. | Thunder moving Northwest to Southeast 2015 to 2345. | " " |
| | Stanley. | Lightning only, moving Nor-Nor-west to Southwest. | " " |
| | Cambridge. | Lightning West 2200. | " " |
| | Maatsuyker | Thunder to Southwest (faint) at 2000. | " " |
| 15th. | St. Helens. | Thunder distant from Northeast direction at 1310. | " " |
| | Flinders Is. | Thunder 1300/1400. | " " |
| 24th. | Maatsuyker. | Thunder to West at 1930. | unstable Southwest stream. |

| <u>Date.</u> | <u>Station.</u> | <u>Details.</u> | <u>Reason if evident.</u> |
|--------------|-----------------|---|---------------------------|
| 27th. | Maatsuyker. | Thunder faintly to west at 1100. | |
| 28th. | Springs. | Lightning to East 2000 | Frontal Passage. |
| | St. Helens. | Thunder from North at 1235 - no lightning observed. | " " |
| | East Devonport. | Thunder to Northeast at 0930. | " " |
| | Low Head. | Local Thunder to North-east at 0900 to 0920. | " " |
| | Cambridge. | Lightning distant to East-North-East at 2200K. | " " |
| | Cape Bruny. | Thunder to West about 6 miles at 1400. | " " |
| | Eddystone. | Thunder moving Northwest to Southeast 1230 to 1250. | " " |

Supplementary Nil returns from Low Head and Currie for January, 1957.

Thunderstorm Return - March, 1957.

Weather Bureau,
HOBART, Tasmania.

16th May, 1957.

| <u>Date.</u> | <u>Station.</u> | <u>Details.</u> | <u>Reason if evident.</u> |
|--------------|----------------------------|--|---|
| 1st. | Low Head. | Lightning to N.E. distant 1930. | Strong N.E. circulation. |
| | Flinders Is. | Thunder heard to East of Island - 3 hour duration, 2300. | |
| | St. Helens, | Faint thunder from N.E. during the night. 2000. | |
| 2nd. | Low Head. | Lightning to N.E. distant 0630. | " |
| | Swan Island. | Thunder to East at 0300. | |
| 7th. | Stanley, | Thunder at 0100 from S.E. lasting $\frac{1}{2}$ hour. | Frontal Passage. |
| | Cape Sorell. | Thunder to West faint. | |
| | Zeehan. | Thunder at 0620 for 15 mms. about 3 miles to N.E. moving inland. | |
| | Low Head. | Thunder to N.E. at 0545 and 1000 to 1115. | |
| 8th. | The Springs. Cambridge. | Thunder at 1445 to N.W. Thunderstorm to W. moving To S.E. at 1545. | Strong pre frontal Northerly stream. |
| 13th. | Flinders Is. | Thunder overhead at 2100 1 hour duration. | |
| 30th. | Hobart. | Thunderstorm in Bruny Is. area visible for some hours after dark. | Frontal passage. |
| | Cambridge. | Distant storm severe lightning to S.E. 1900/2100. | " " |
| | The Springs. | Vivid Lightning from East at 1930. | |
| | Cape Bruny. | Thunderstorm overhead from S.W. - 1715. | |
| 31st. | Low Head. | Distant thunder to E. at 2000. | Cyclonic activity in Eastern Bass Strait. |
| | St. Helens. | Thunder from N.W. ceasing approximately 2300. | |

Missing data from Eddystone, for March has been requested.

To all observers :

The thunderstorm map for Tasmania, for 1956, is attached for the information of Observers. It will be noticed that two figures are shown adjacent to the place names. The first figure is the progressive annual average for three years, and the second figure refers to the year 1956. The histograms show the monthly distribution of thunderstorm days at typical centres throughout the State.

This information is being studied together with data on the number and severity of lightning strokes to ground so as to provide reliable information which will be of considerable importance in the design of electricity transmission systems.

The contribution of Observers throughout Tasmania is appreciated by the Committee responsible for the work in this State, who look forward to your continued interest and support. The new form (Form A/1956) provides columns for all relevant information, and Observers' remarks in each column are helpful in studying the results. It is particularly important that a return should be submitted for every month, even if no thunder is heard.

(M.R. Dunster)
Chairman
State Lightning Committee

RSR/CJC.
3/4/57.