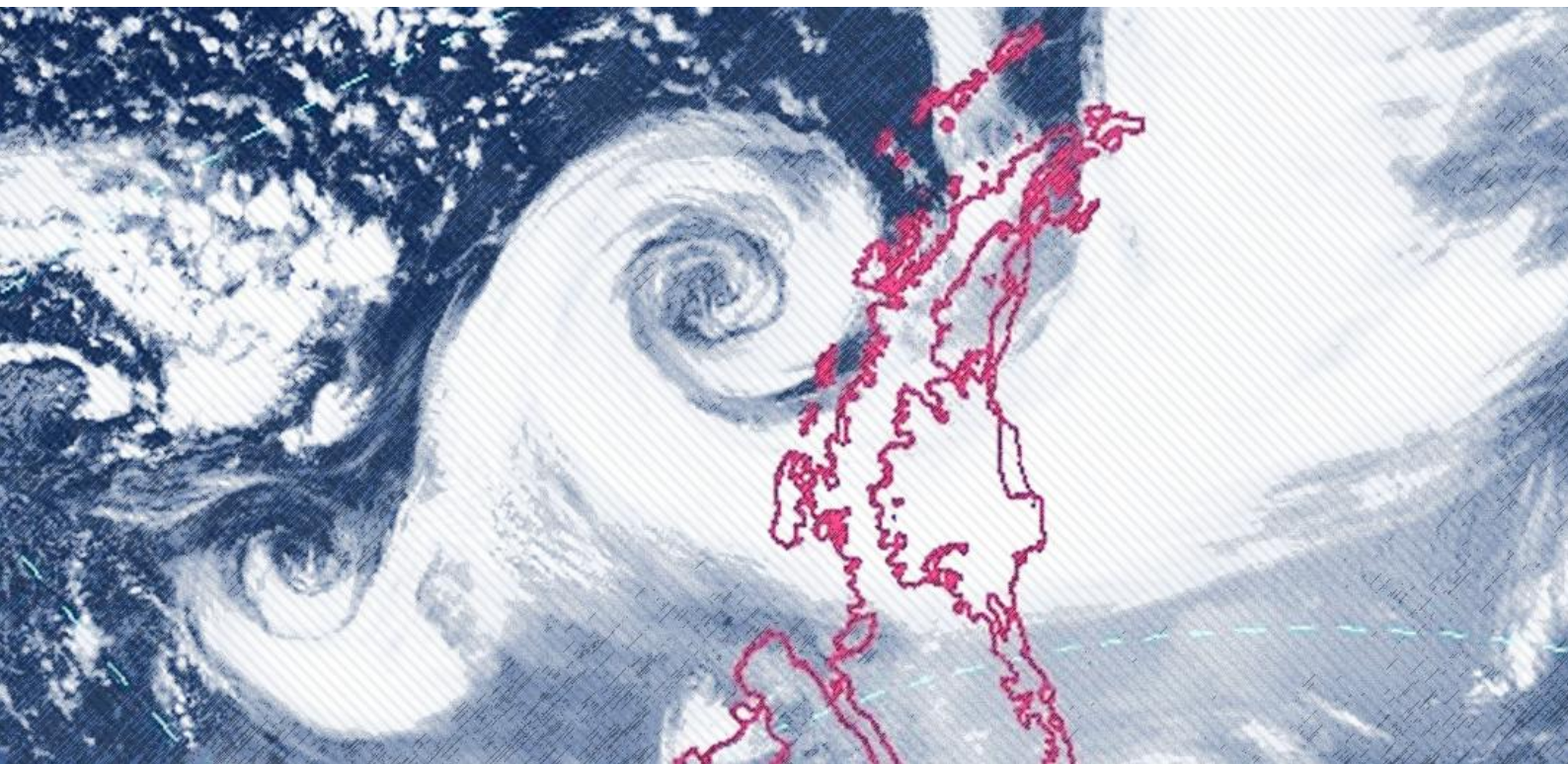




WORLD
ENVIRONMENTAL
CONSERVANCY

MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT



By Romao, M. and Pires, L. B. M.



MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT

By Romao, M. and Pires, L. B. M.

SEPTEMBER 2020

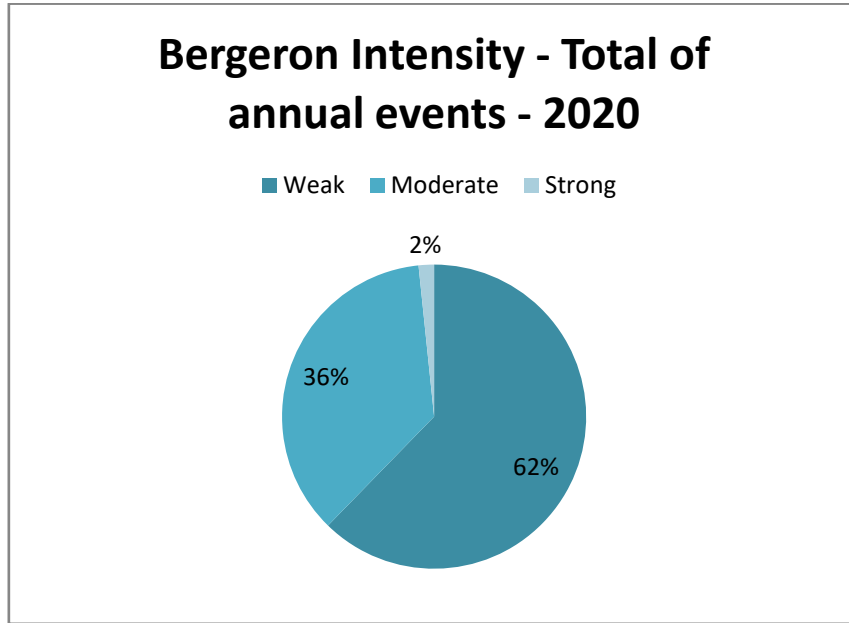
During this month, 10 events were registered among the 13 research stations located on the coast of the Antarctic utilized as references for the monitoring of bomb cyclones. The stations affected by cyclones this month were: Frei, Casey, Syowa, Palmer, Marambio, Neumayer and Davis. There was a increase (15%) in the number of cyclones in comparison to the same month of the previous year (2019).

STATISTICS OF THE MONTH

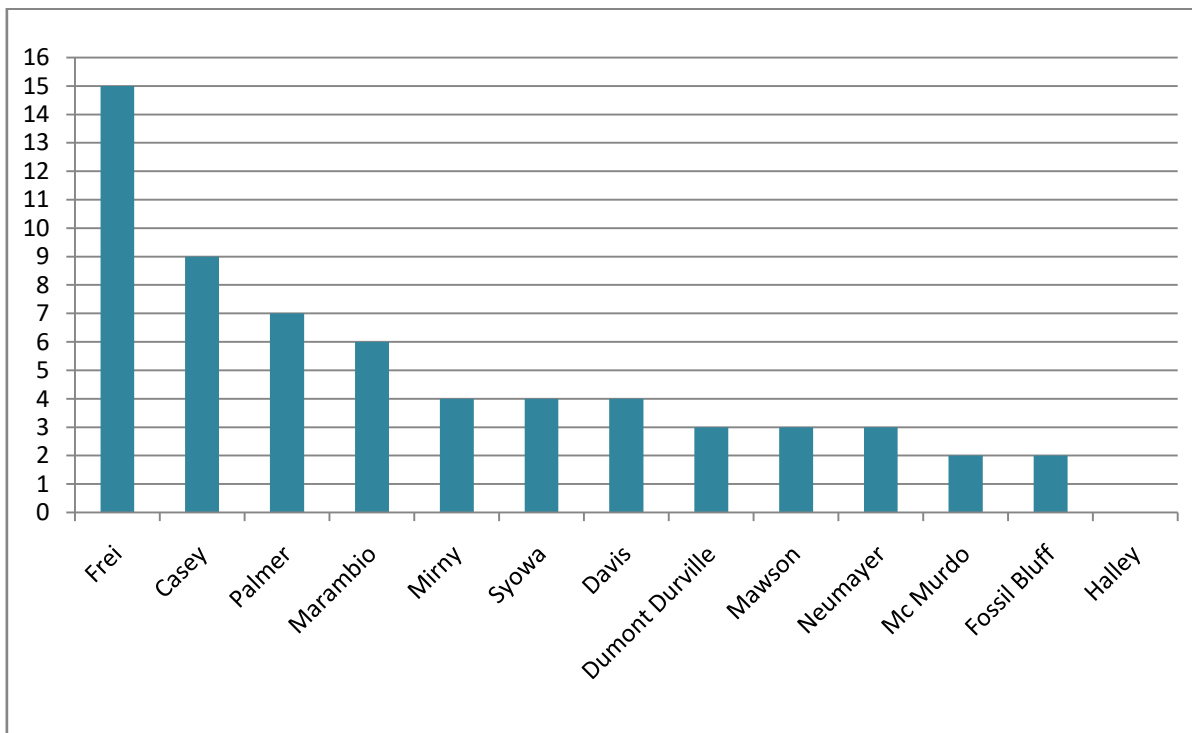
| CLASSIFICATION | BERGERON SCALE | INTENSITY | TOTAL OF CASES REGISTERED IN THE MONTH |
|----------------|----------------|-----------|--|
| B1 | 1 a 1.2 | Weak | 05 |
| B2 | 1.3 a 1.8 | Moderate | 05 |
| B3 | > 1.8 | Strong | 00 |

| HIGHEST PRESSURE DROP | LOWEST RECORDED PRESSURE | HIGHEST SUSTAINED WIND |
|-----------------------|--------------------------|------------------------|
| -44.3 hPa/24h | 933.1 hPa | 41.5 m/s |
| Palmer | Palmer | Casey |
| Sep. 14 | Sep. 14 | Sep. 09 |

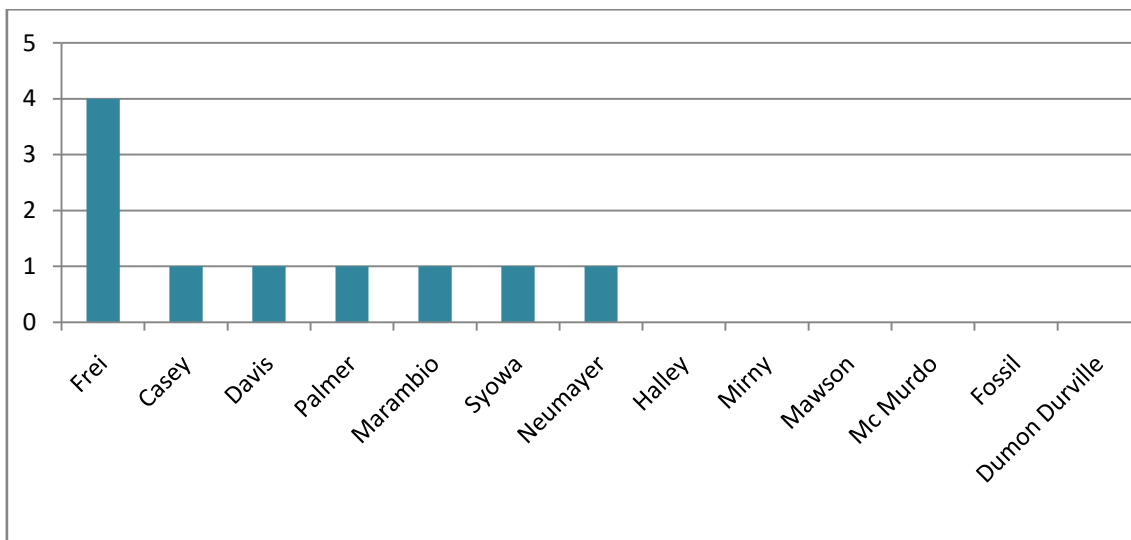
BERGERON INTENSITY TOTAL OF ANNUAL EVENTS IN 2020



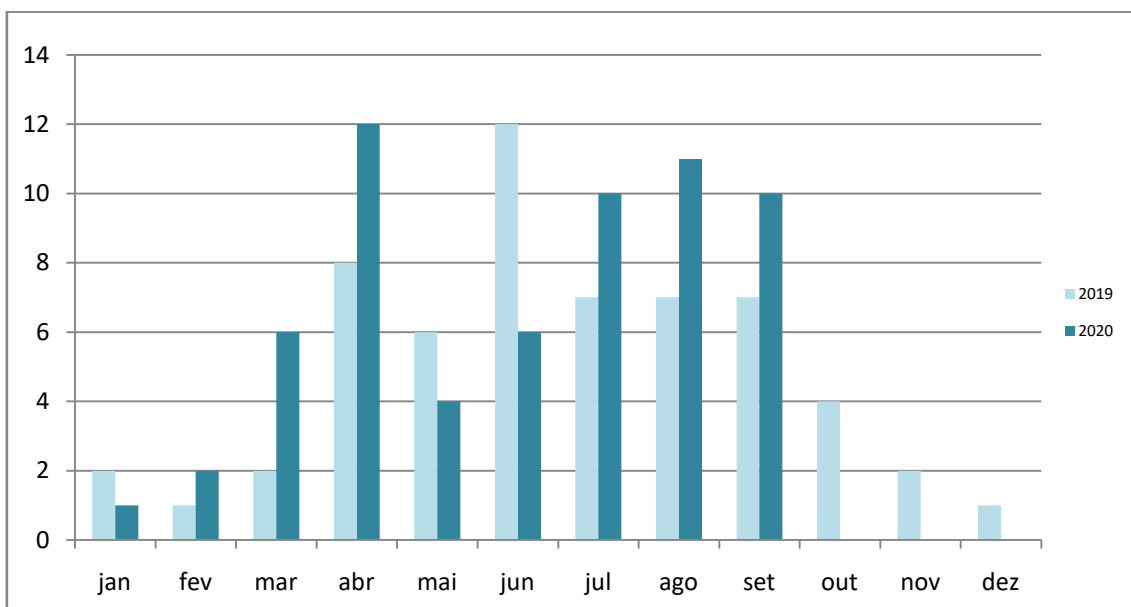
TOTAL OF EVENTS REGISTERED BY STATION IN 2020



TOTAL OF EVENTS REGISTERED IN EACH STATION IN THE MONTH OF SEP/2020

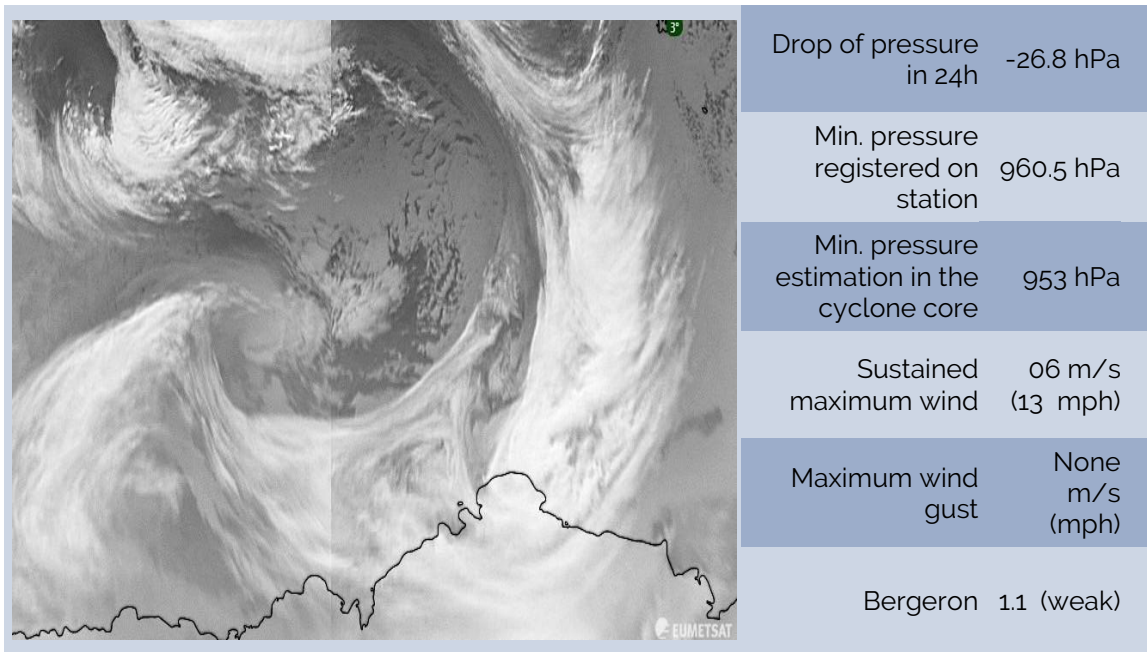


TOTAL EXPLOSIVE CYCLONES IN THE ANTARCTIC



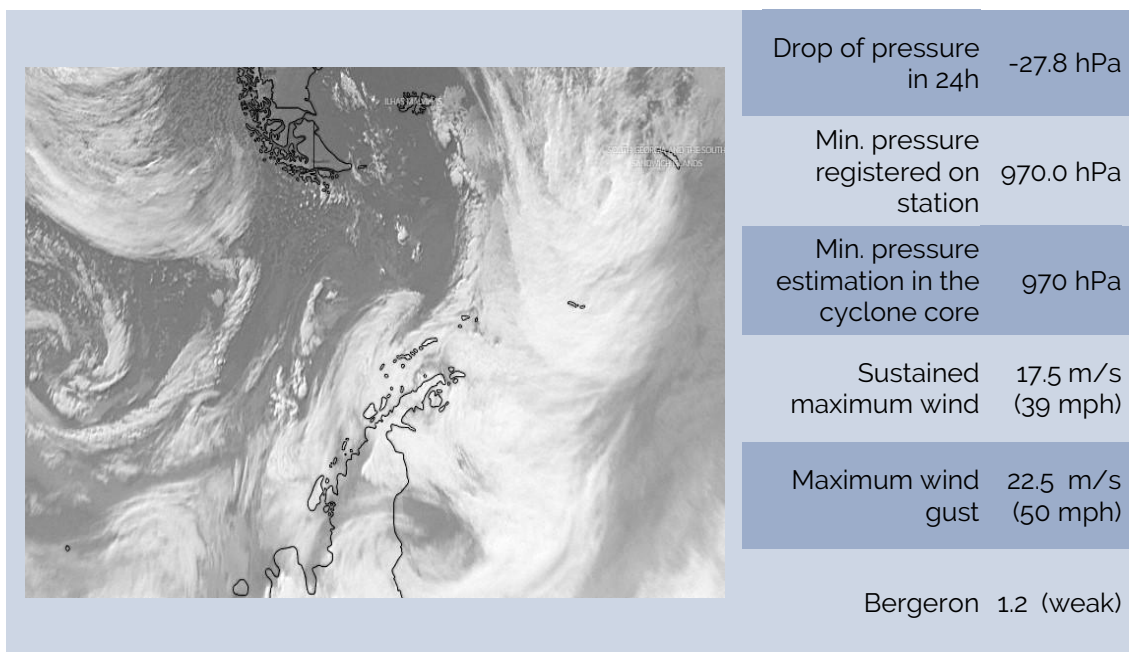
BOMB CYCLONE N°53/2020- DATE: SEP./08/2020

LOCAL: SYOWA STATION – WMO 89532 (OPERATED BY JAPAN)



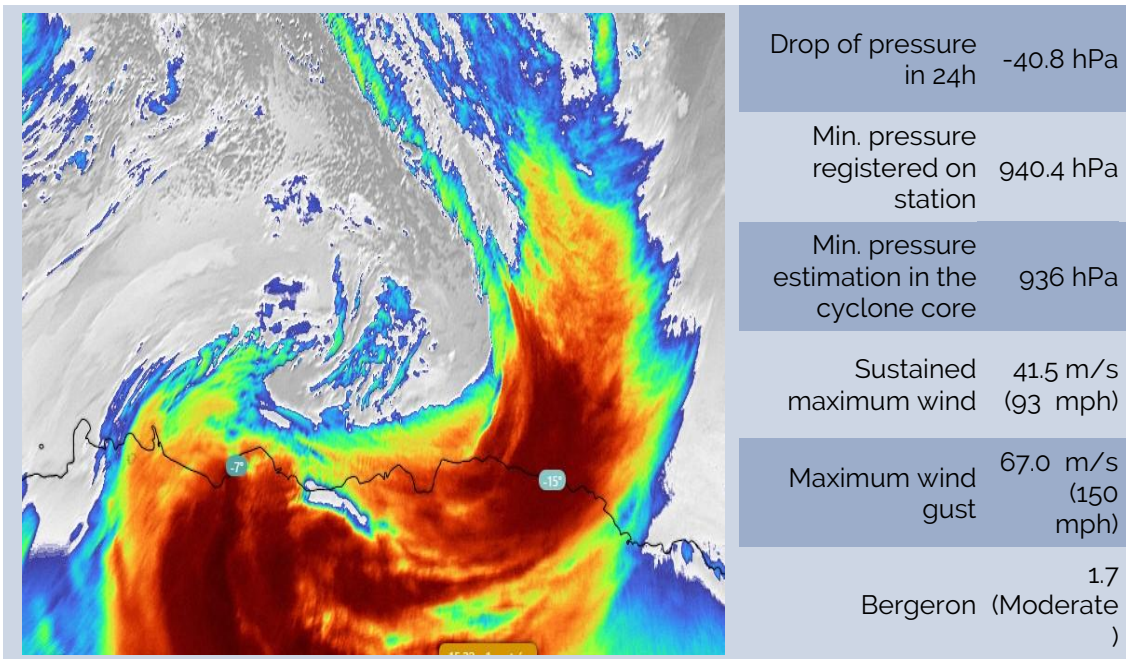
BOMB CYCLONE N°54/2020- DATE: SEP./09/2020

LOCAL: FREI STATION – WMO 89056 (OPERATED BY CHILE)



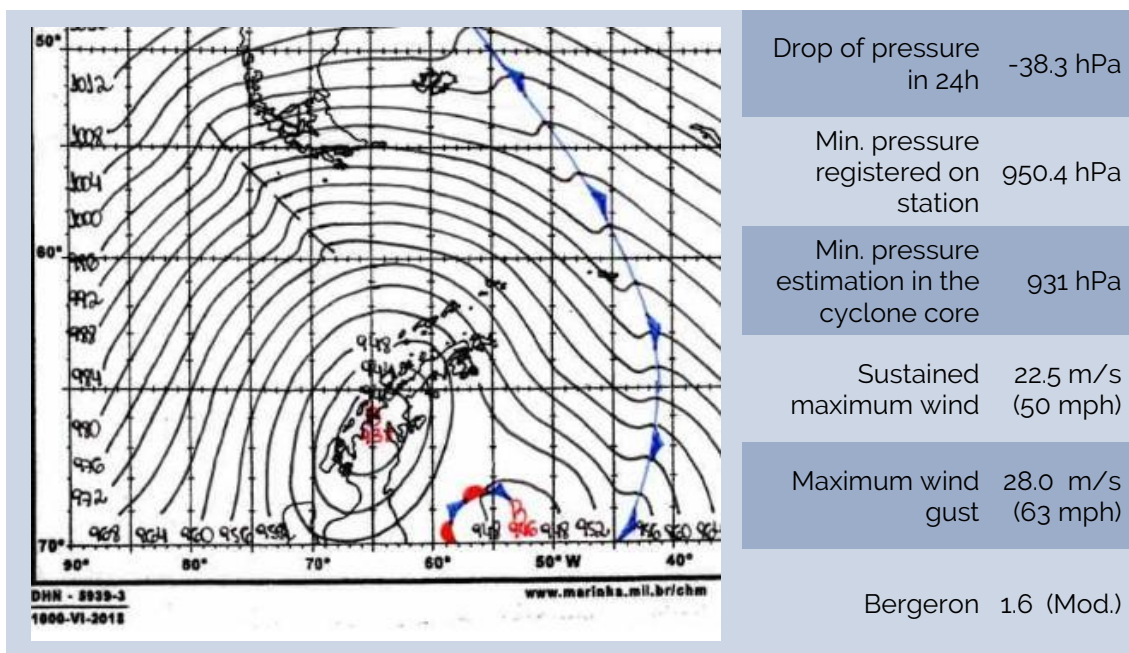
BOMB CYCLONE N°55/2020- DATE: SEP./09/2020

LOCAL: CASEY STATION – WMO 89611 (OPERATED BY AUSTRALIA)



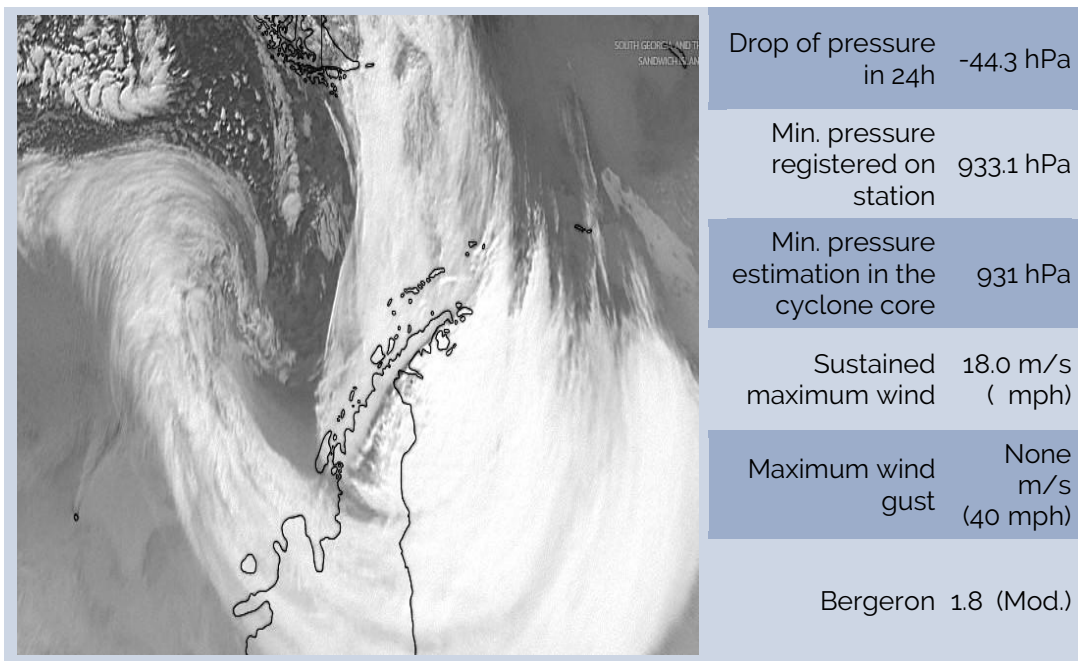
BOMB CYCLONE N°56/2020- DATE: SEP./14/2020

LOCAL: FREI STATION – WMO 89056 (OPERATED BY CHILE)



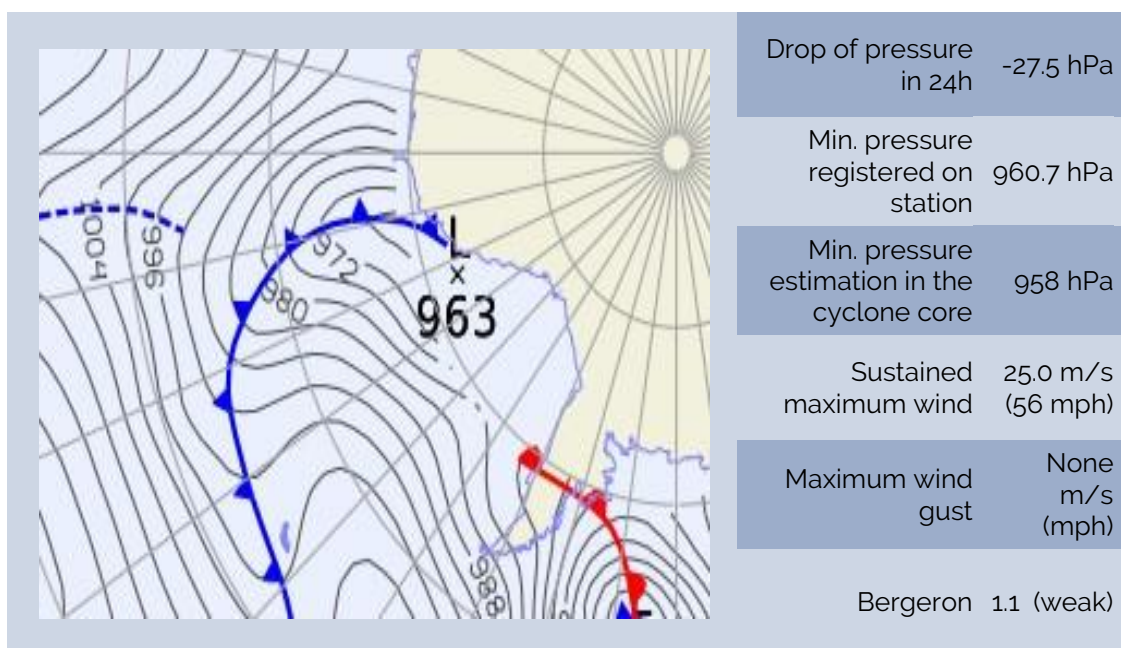
BOMB CYCLONE N°57/2020- DATE: SEP./14/2020

LOCAL: PALMER STATION – WMO 89061 (OPERATED BY U.S.A.)



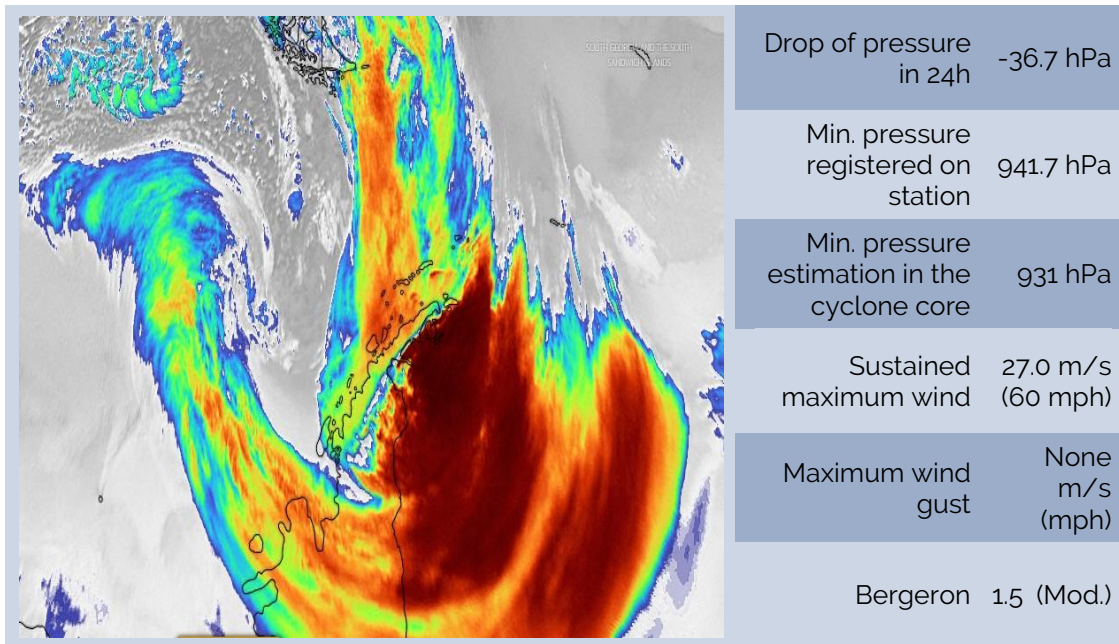
BOMB CYCLONE N°58/2020- DATE: SEP./14/2020

LOCAL: NEUMAYER STATION – WMO 89022 (OPERATED BY GERMANY)



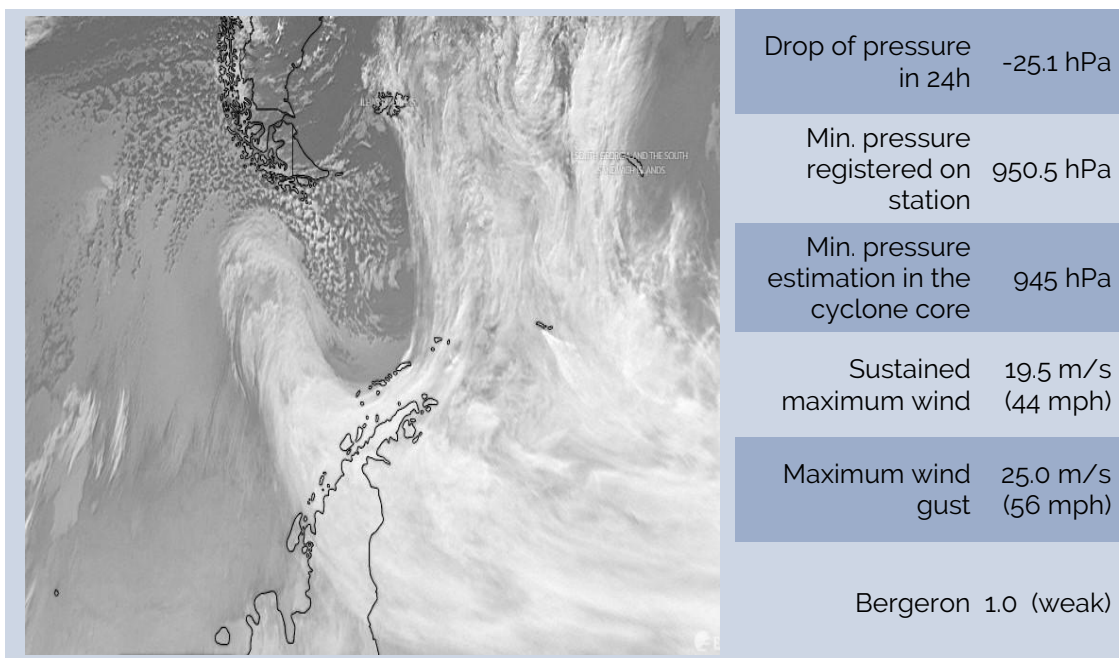
BOMB CYCLONE N°59/2020- DATE: SEP./15/2020

LOCAL: MARAMBIO STATION – WMO 89055 (OPERATED BY ARGENTINA)



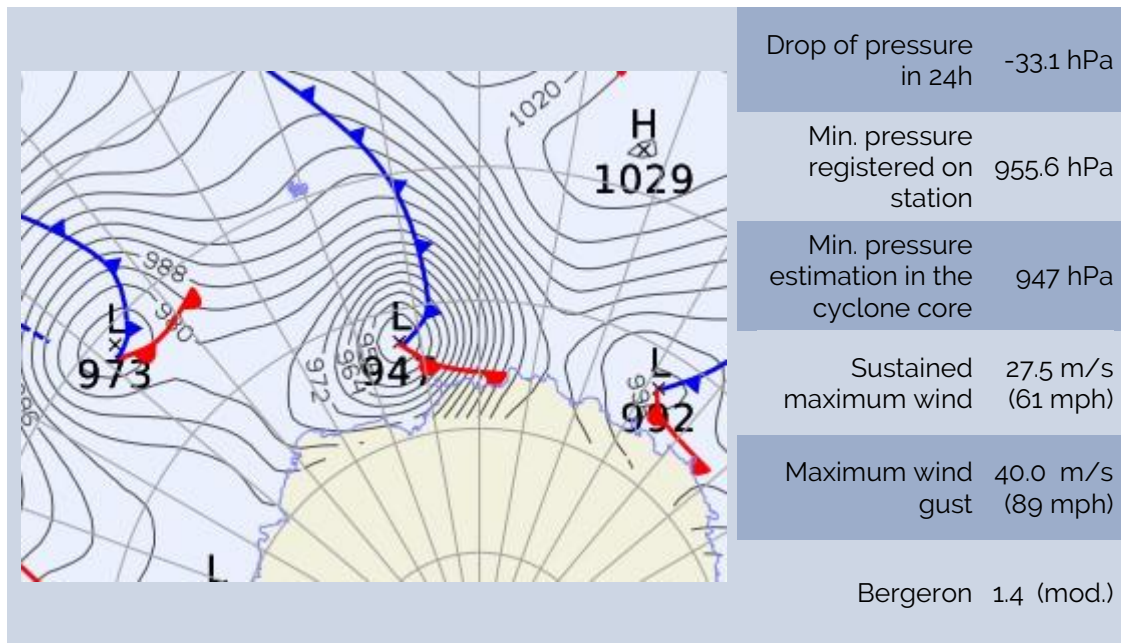
BOMB CYCLONE N°60/2020- DATE: SEP./17/2020

LOCAL: FREI STATION – WMO 89056 (OPERATED BY CHILE)



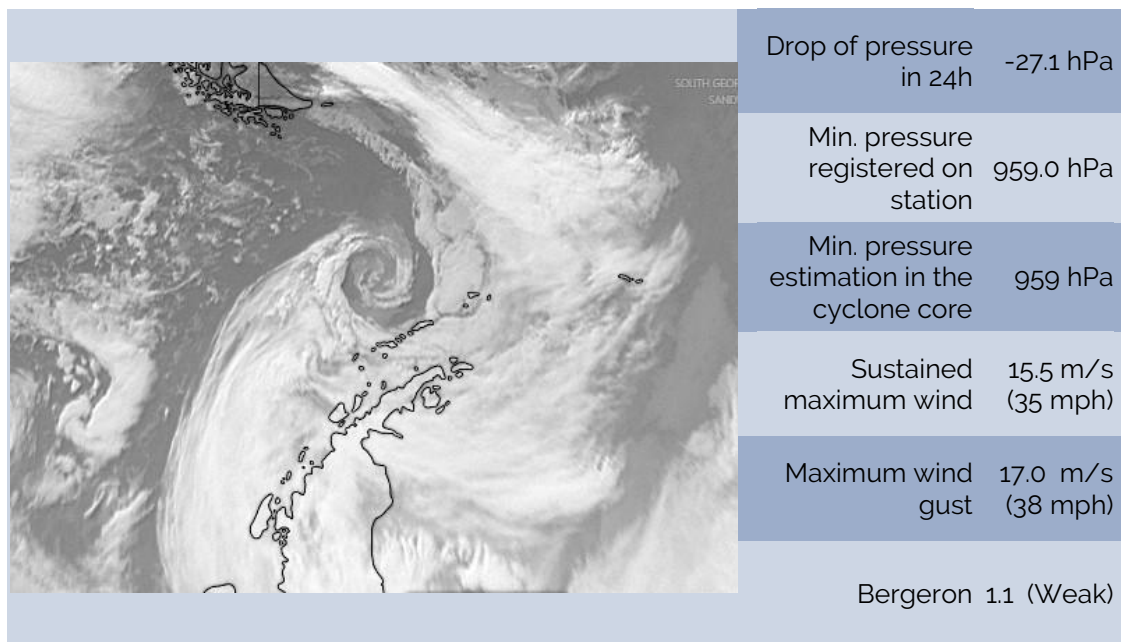
BOMB CYCLONE N°61/2020- DATE: SEP./23/2020

LOCAL: DAVIS STATION – WMO 89571 (OPERATED BY AUSTRALIA)



BOMB CYCLONE N°62/2020- DATE: SEP./24/2020

LOCAL: FREI STATION – WMO 89056 (OPERATED BY CHILE)



VIDEOS

Explosive Cyclone (Bomb Cyclone) in Casey antarctic station - Sep/09/2020

<https://youtu.be/QbXfTmBIEWQ>

Explosive Cyclone (Bomb Cyclone) in Frei antarctic station - Sep/24/2020

<https://youtu.be/T7eeqeZNDLk>

SOURCES

<https://worldview.earthdata.nasa.gov>

<http://www.bom.gov.au>

<https://data.aad.gov.au>

<http://www.smn.gov.ar>

<http://meteoarmada.directemar.cl>

<https://www.marinha.mil.br/chm/chm/dados-do-smm-cartas-sinoticas>