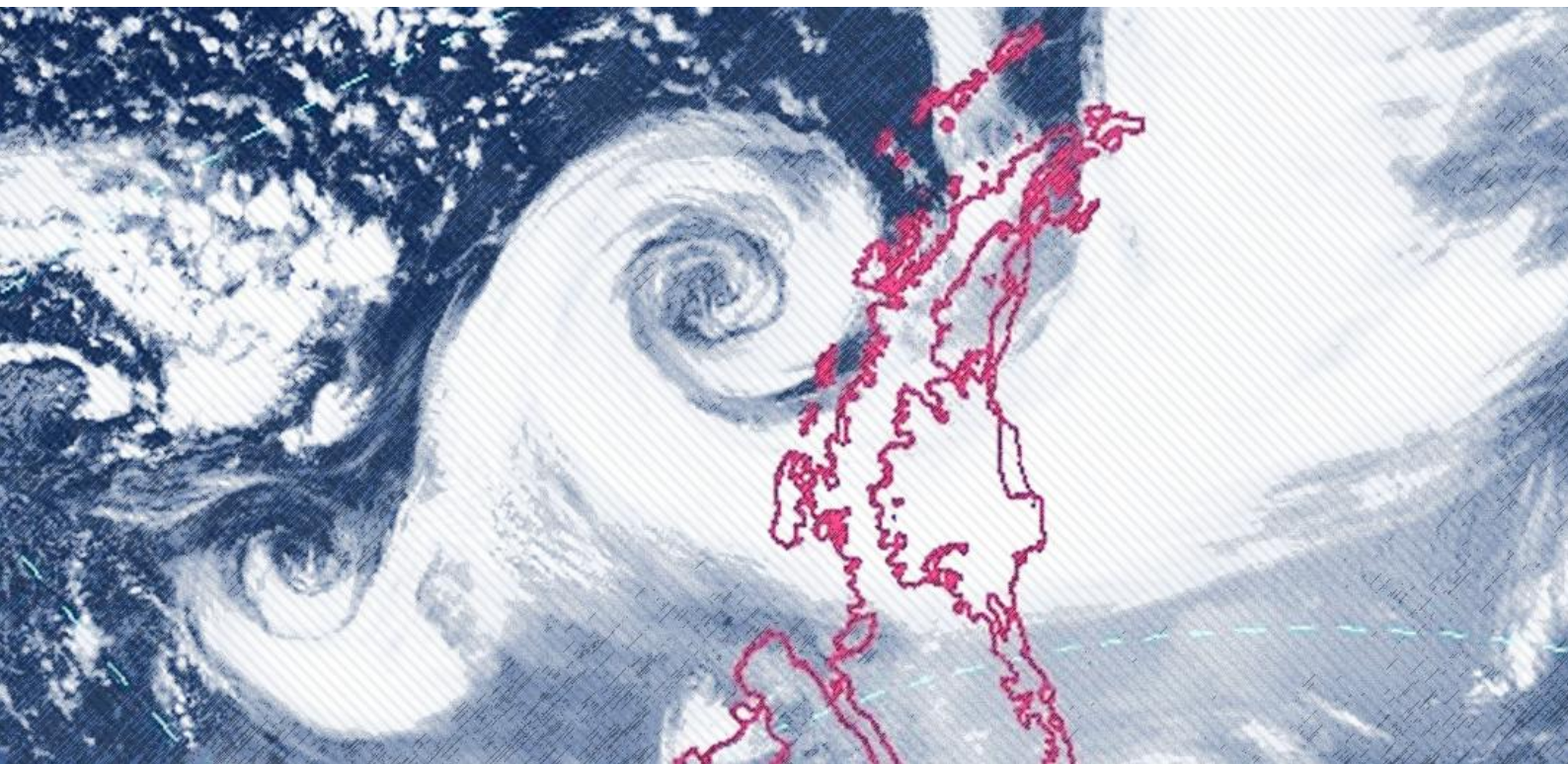




WORLD
ENVIRONMENTAL
CONSERVANCY

MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT



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



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JUNE 2021

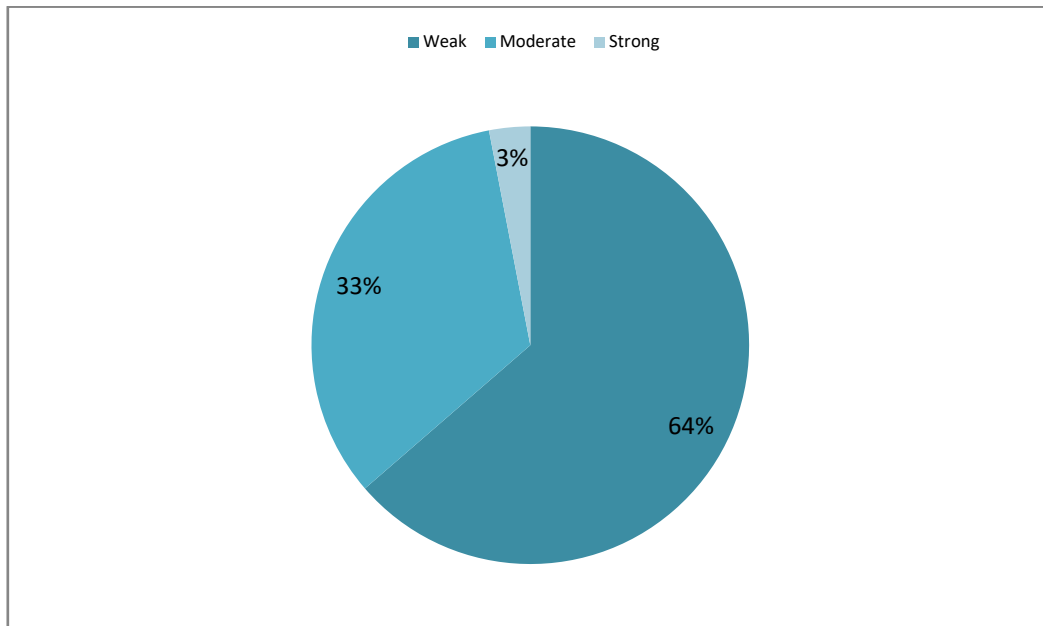
During this month, 09 events were registered among the 13 research stations located on the coast of the Antarctic utilized as references for the monitoring of bomb cyclones. The stations affected by cyclones this month were: Dumont D'Urville, Casey, Syowa, Fossil Bluff, Frei, Neumayer and Mirny. There was a significant increase (50%) in the number of cyclones in comparison to the same month of the previous year (2020).

STATISTICS OF THE MONTH

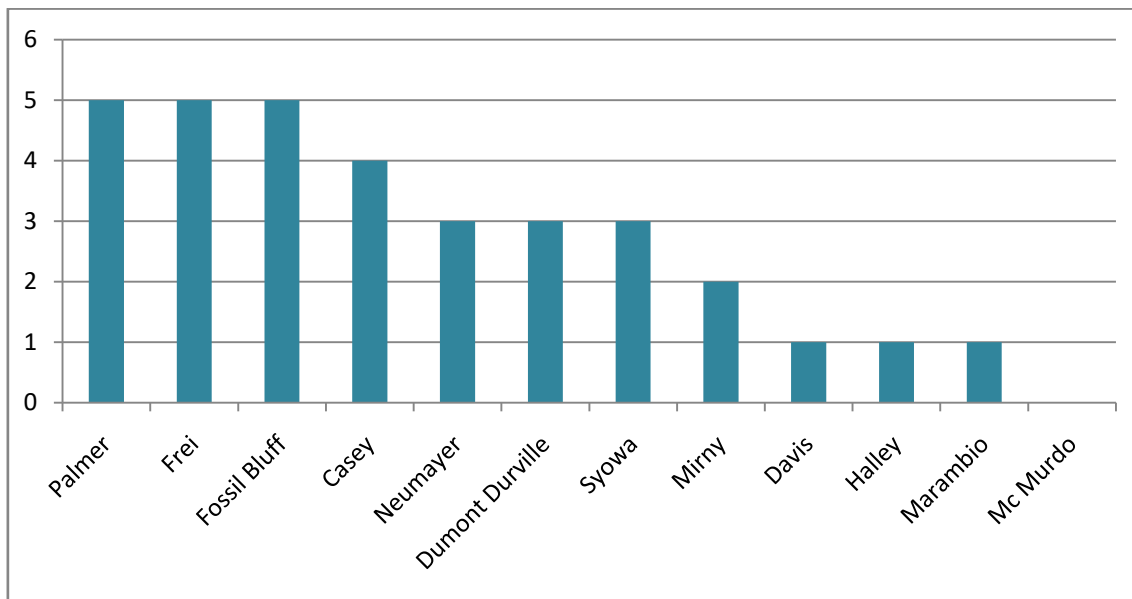
CLASSIFICATION	BERGERON SCALE	INTENSITY	TOTAL OF CASES REGISTERED IN THE MONTH
B1	1 a 1.2	Weak	05
B2	1.3 a 1.8	Moderate	03
B3	> 1.8	Strong	01

HIGHEST PRESSURE DROP	LOWEST RECORDED PRESSURE	HIGHEST SUSTAINED WIND
-44.7 hPa/24h	948.6 hPa	37.5 m/s
Syowa Station	Syowa Station	Casey Station
Jun. 18	Jun. 18	Jun. 07

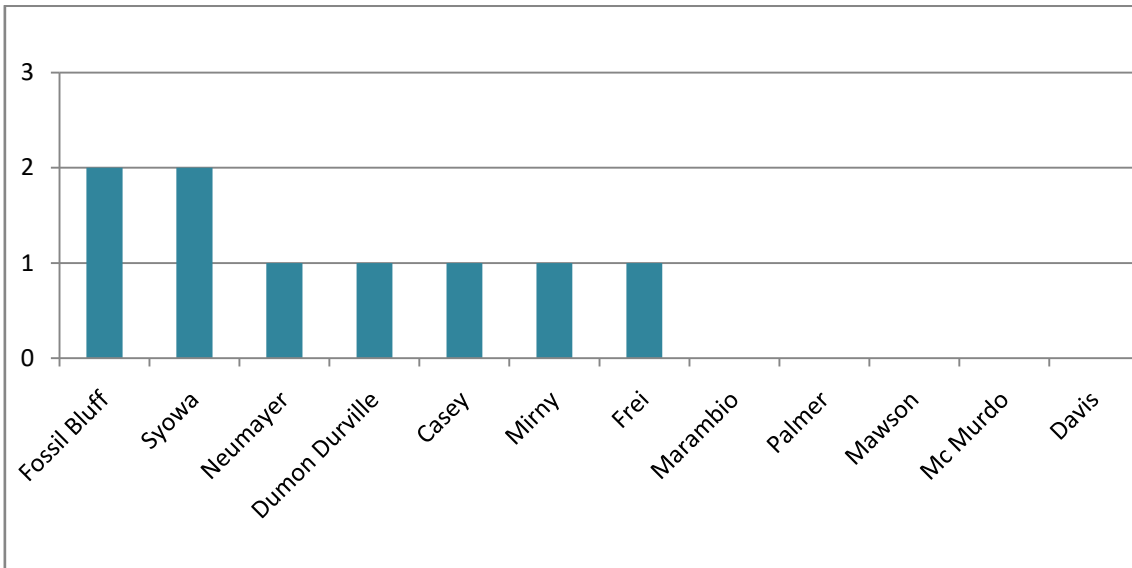
BERGERON INTENSITY TOTAL OF ANNUAL EVENTS IN 2021



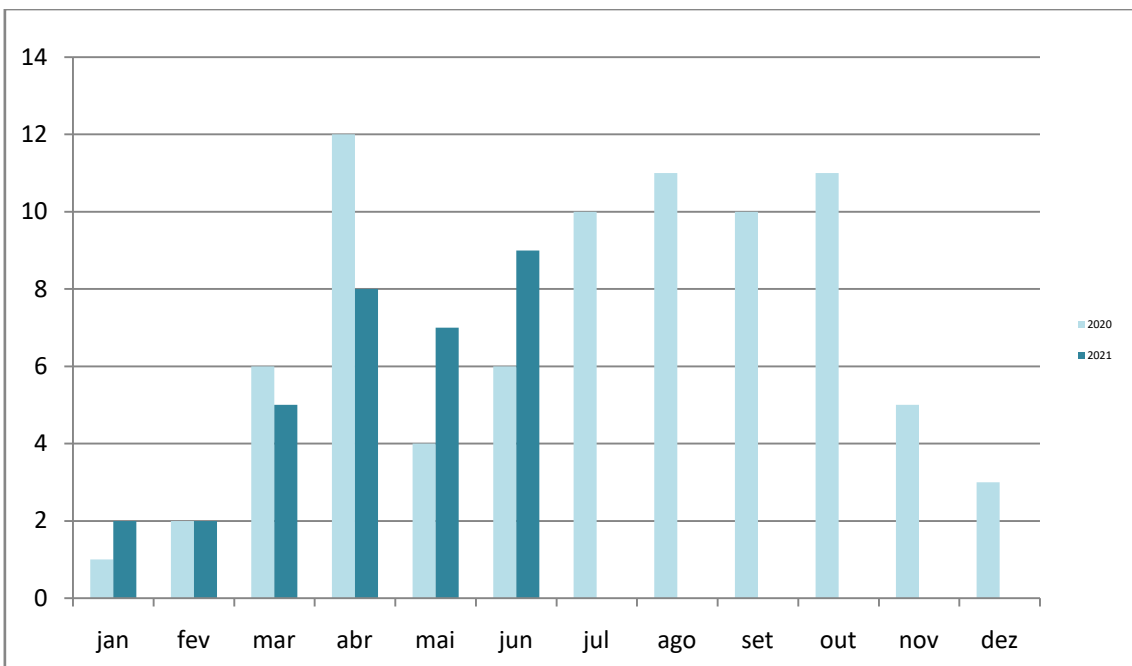
TOTAL OF EVENTS REGISTERED BY STATION IN 2021



TOTAL OF EVENTS REGISTERED IN EACH STATION IN THE MONTH OF JUNE/2021

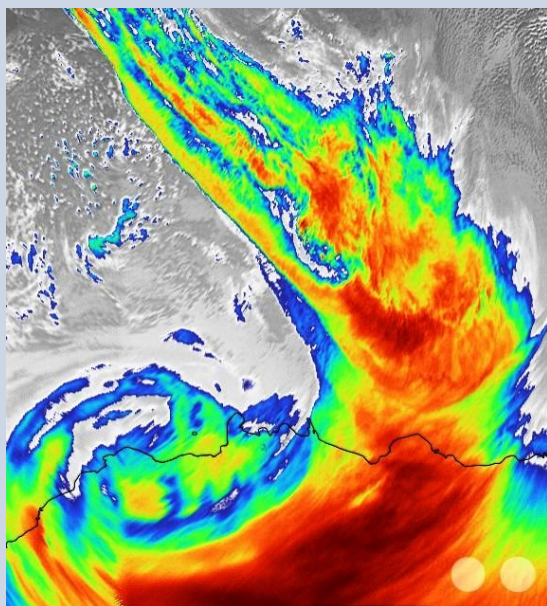


TOTAL EXPLOSIVE CYCLONES IN THE ANTARCTIC



BOMB CYCLONE N°25/2021- DATE: JUN/07/2021

LOCAL: MIRNY STATION – WMO 89592 (OPERATED BY RUSSIA)



Drop of pressure in 24h -41.7 hPa

Min. pressure registered on station 960.0 hPa

Min. pressure estimation in the cyclone core 939 hPa

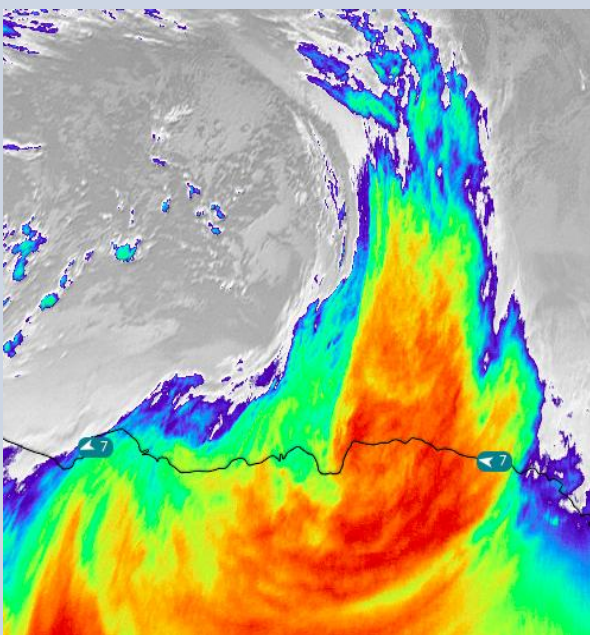
Sustained maximum wind 15.0 m/s

Maximum wind gust 19.0 m/s

Bergeron 1.7 (Mod.)

BOMB CYCLONE N°26/2021- DATE: JUN/07/2021

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



Drop of pressure in 24h -30.0 hPa

Min. pressure registered on station 969.9 hPa

Min. pressure estimation in the cyclone core 953 hPa

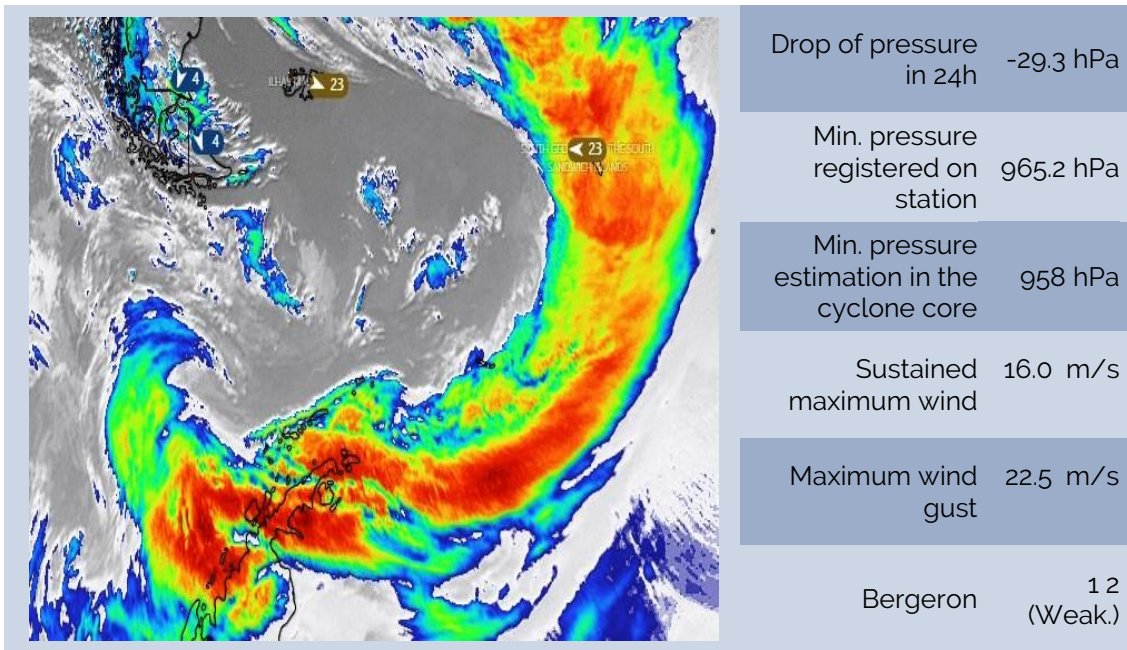
Sustained maximum wind 37.5 m/s

Maximum wind gust 43.0 m/s

Bergeron 1.3 (Mod.)

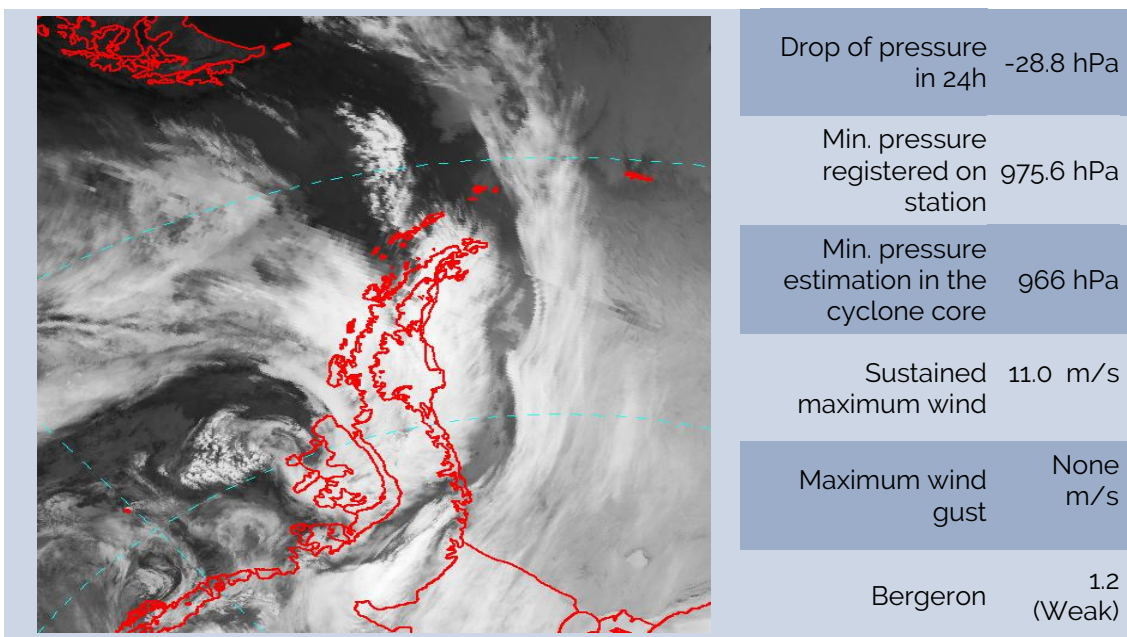
BOMB CYCLONE N°27/2021 - DATE: JUN/09/2021

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



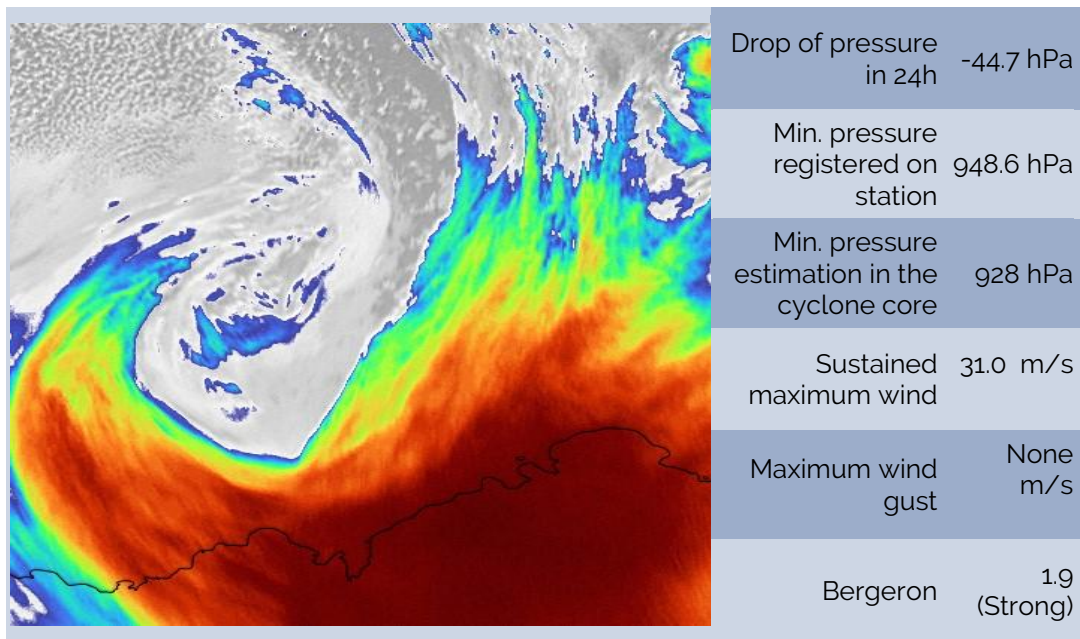
BOMB CYCLONE N°28/2021 - DATE: JUN/16/2021

LOCAL: FOSSIL BLUFF STATION – WMO 89065 (OPERATED BY U.K.)



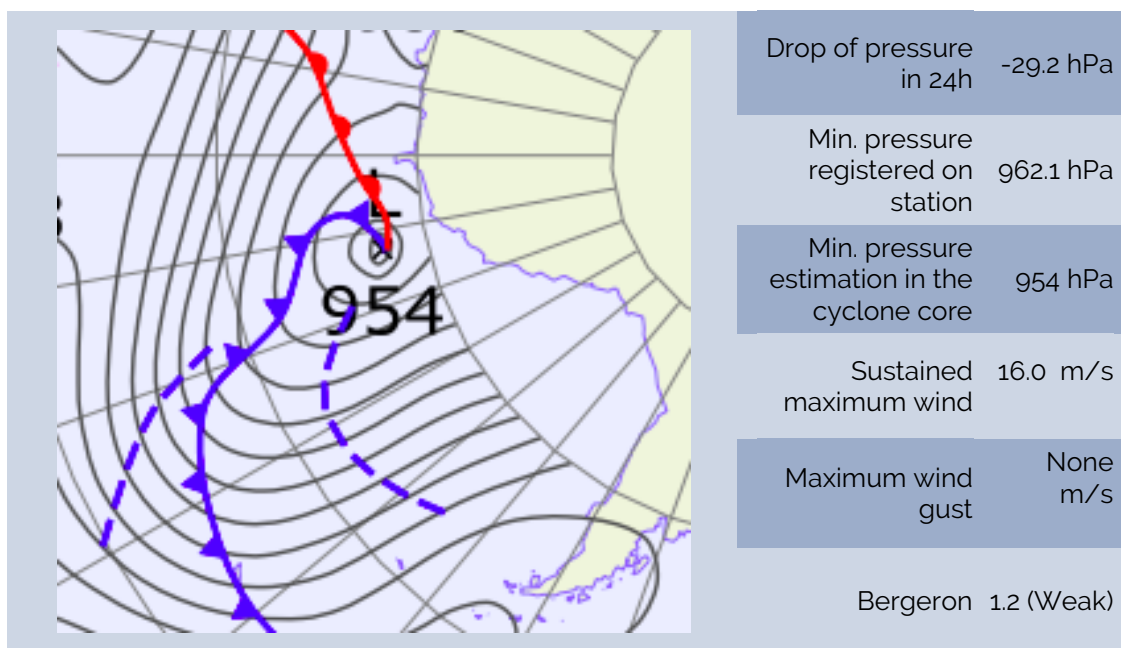
BOMB CYCLONE N°29/2021- DATE: JUN/18/2021

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



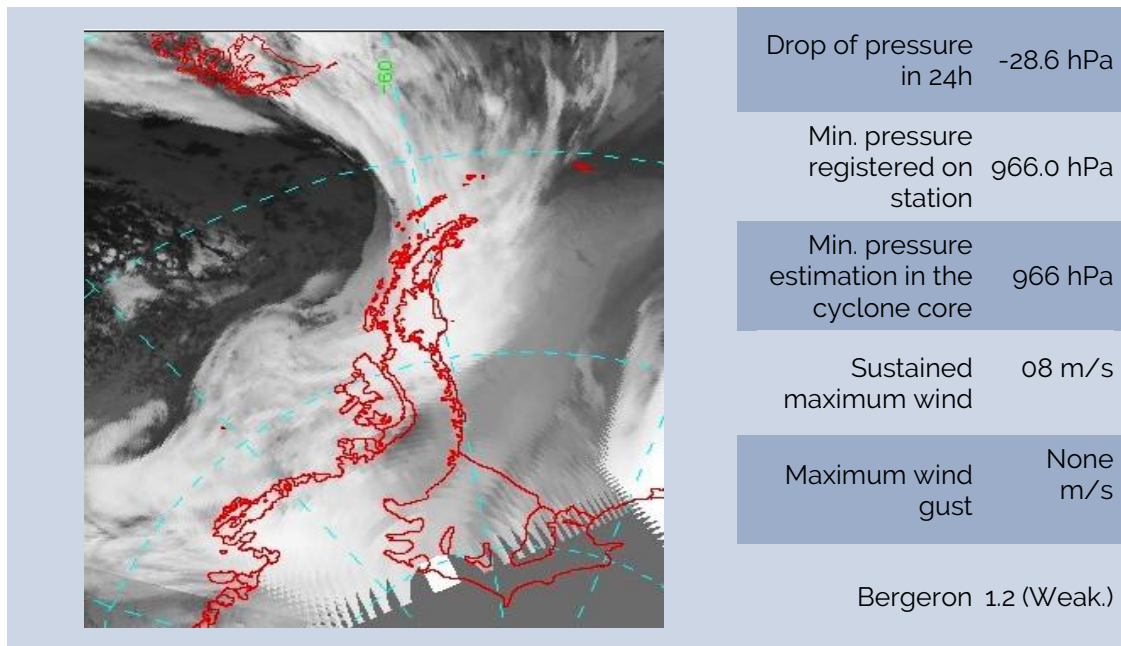
BOMB CYCLONE N°30/2021- DATE: JUN/18/2021

LOCAL: NEUMAYER STATION – WMO 89002 (OPERATED BY GERMANY)



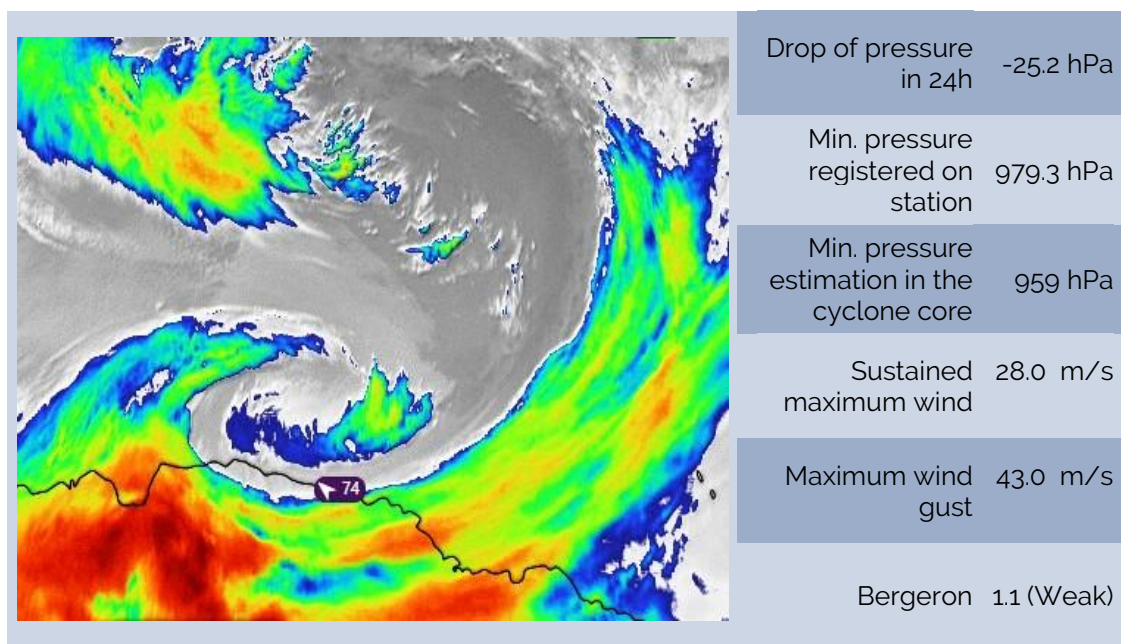
BOMB CYCLONE N°31/2021- DATE JUN/27/2021

LOCAL: FOSSIL BLUFF STATION – WMO 89065 (OPERATED BY U.K.)



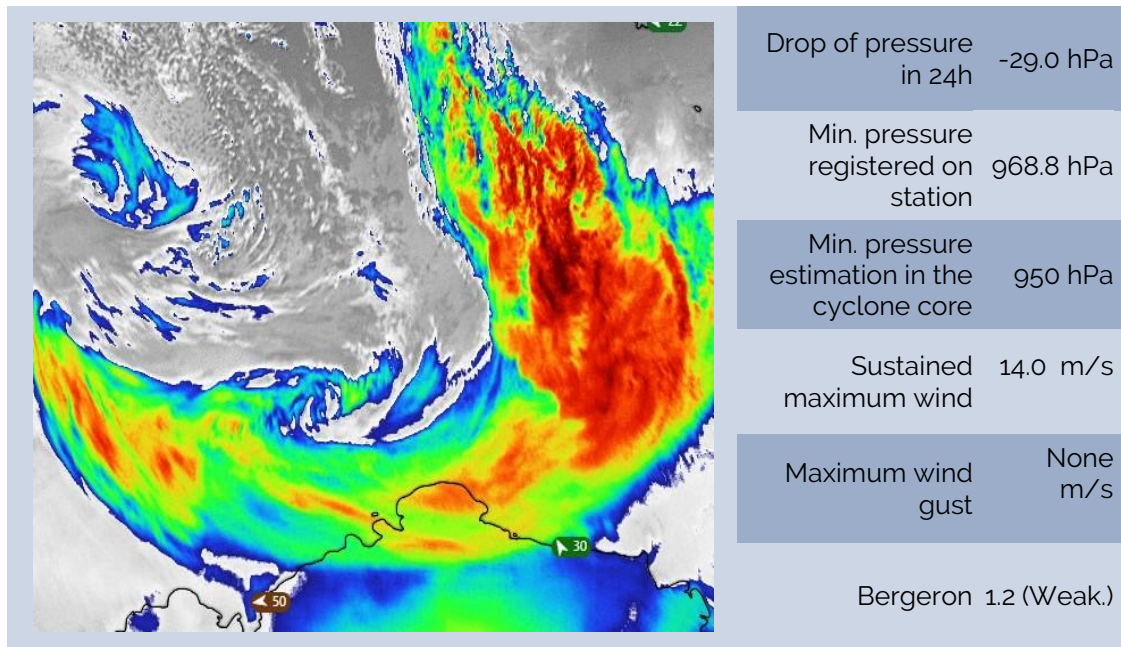
BOMB CYCLONE N°32/2021- DATE JUN/29/2021

LOCAL: DUMONT D'URVILLE STATION – WMO 89642 (OPERATED BY FRANCE)



BOMB CYCLONE N°33/2021- DATE JUN/29/2021

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



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>