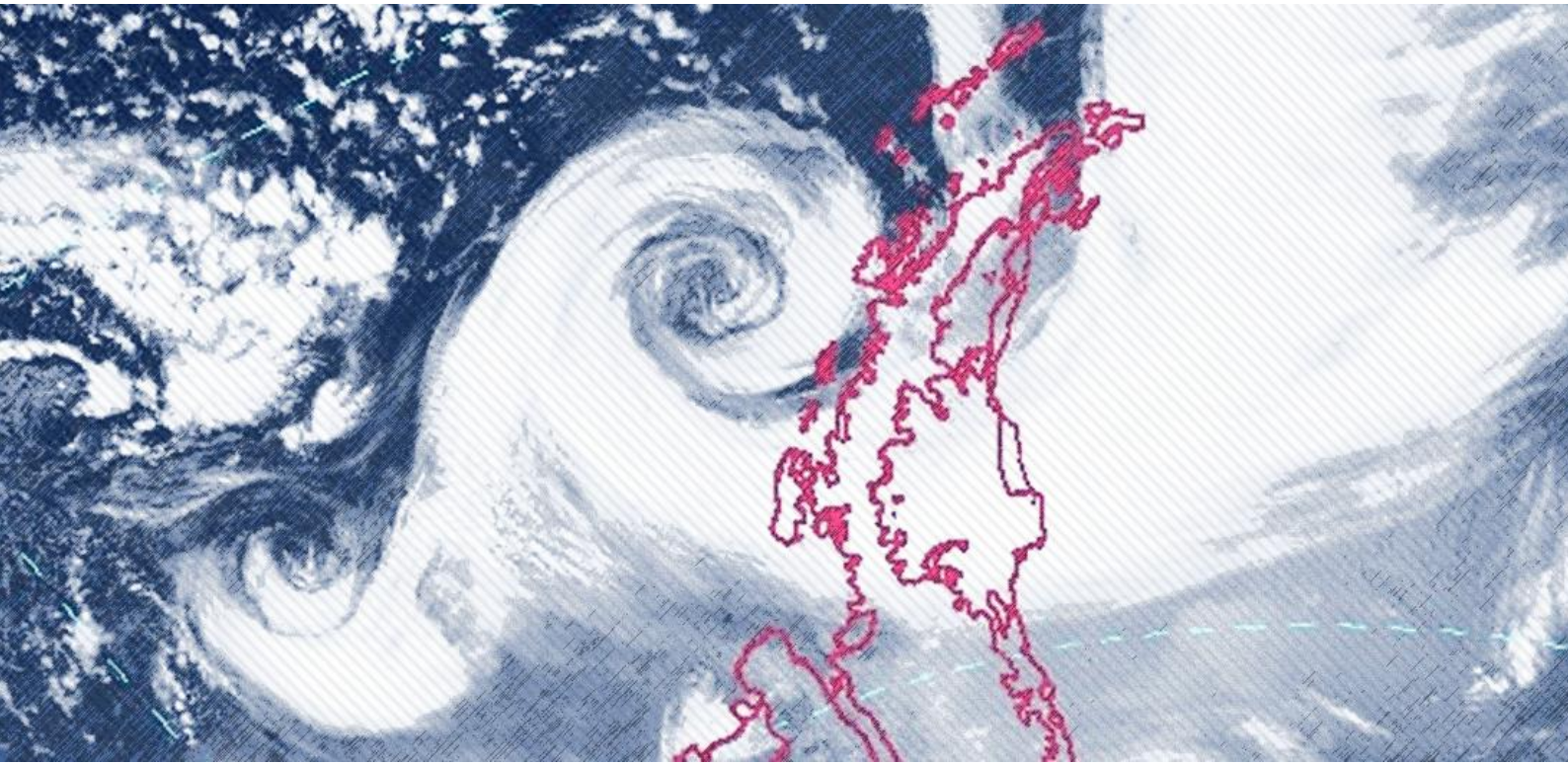




WORLD
ENVIRONMENTAL
CONSERVANCY

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.

AUGUST 2021

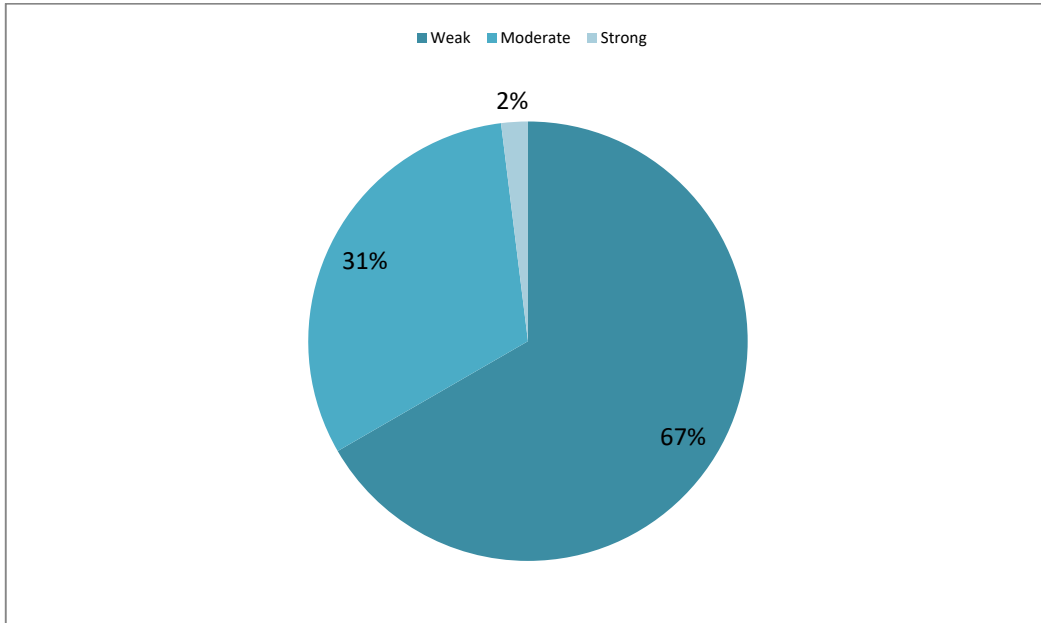
During this month, 09 events were registered among the 13 research stations located on the coast of the Antarctic utilized as references for the monitoring of bomb cyclones. The stations affected by cyclones this month were: Marambio, Dumont D'Urville, Casey, Neumayer, Frei, Mirny and Palmer. There was a decrease (18%) in the number of cyclones in comparison to the same month of the previous year (2020).

STATISTICS OF THE MONTH

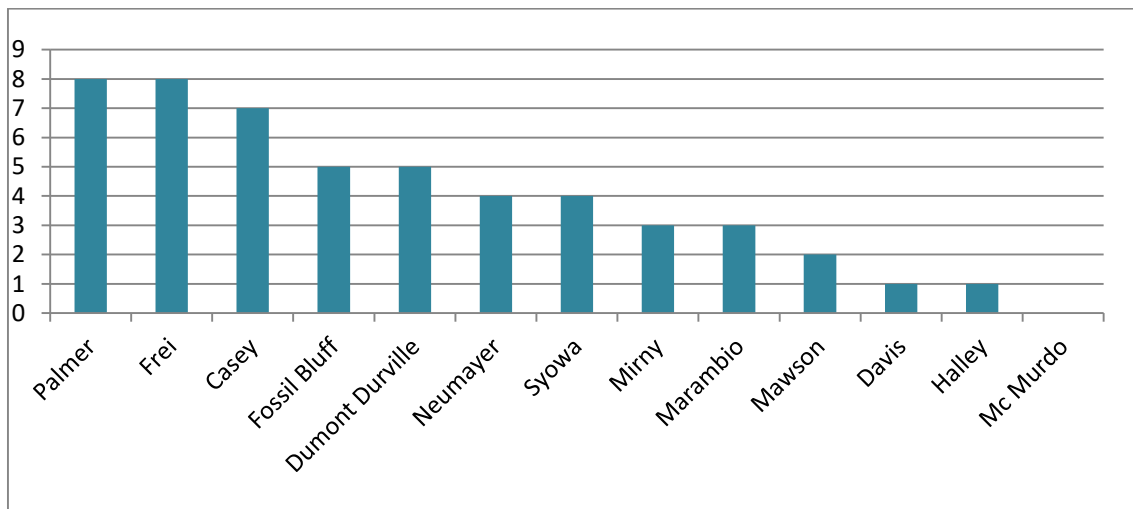
CLASSIFICATION	BERGERON SCALE	INTENSITY	TOTAL OF CASES REGISTERED IN THE MONTH
B1	1 a 1.2	Weak	06
B2	1.3 a 1.8	Moderate	03
B3	> 1.8	Strong	00

HIGHEST PRESSURE DROP	LOWEST RECORDED PRESSURE	HIGHEST SUSTAINED WIND
-32.1 hPa/24h	937.7 hPa	44.0 m/s
Neumayer Station	Neumayer Station	Casey Station
Aug. 13	Aug. 13	Aug. 26

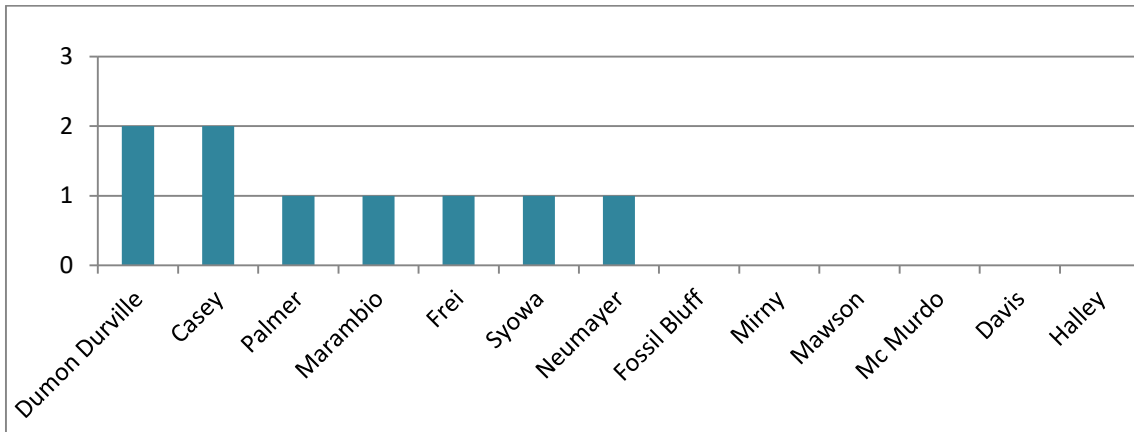
BERGERON INTENSITY TOTAL OF ANNUAL EVENTS IN 2021



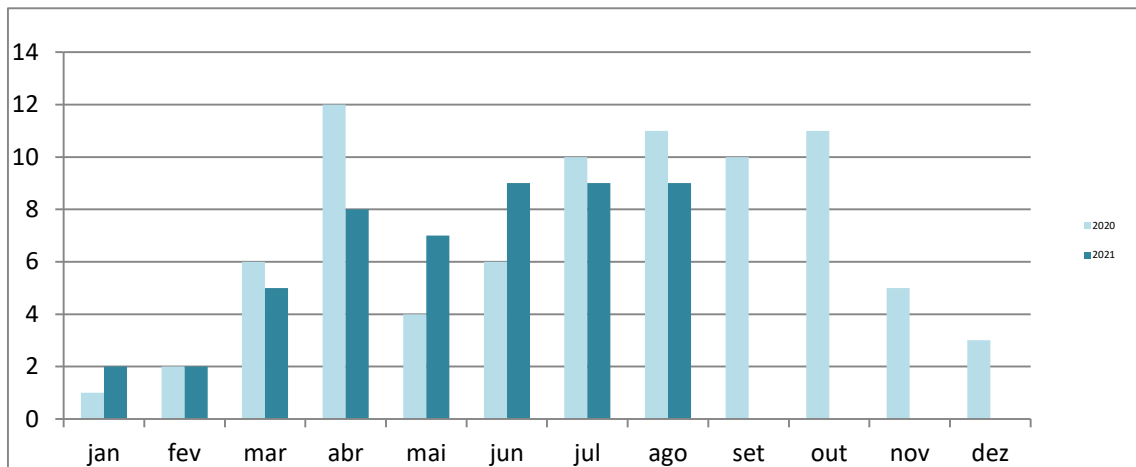
TOTAL OF EVENTS REGISTERED BY STATION IN 2021



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

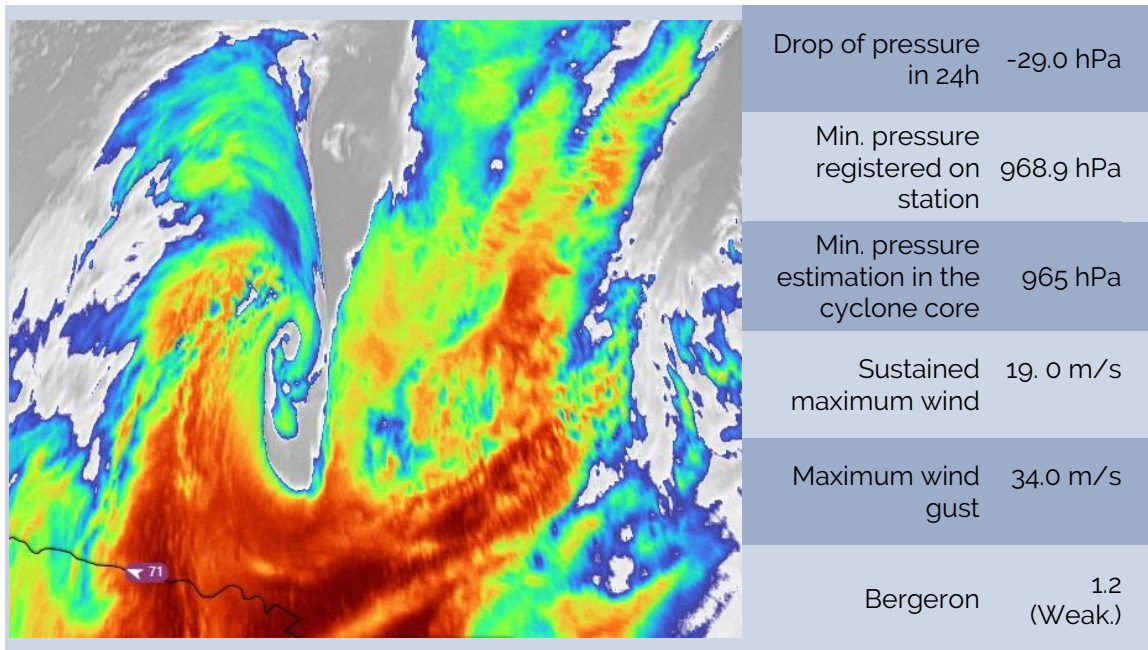


TOTAL EXPLOSIVE CYCLONES IN THE ANTARCTIC



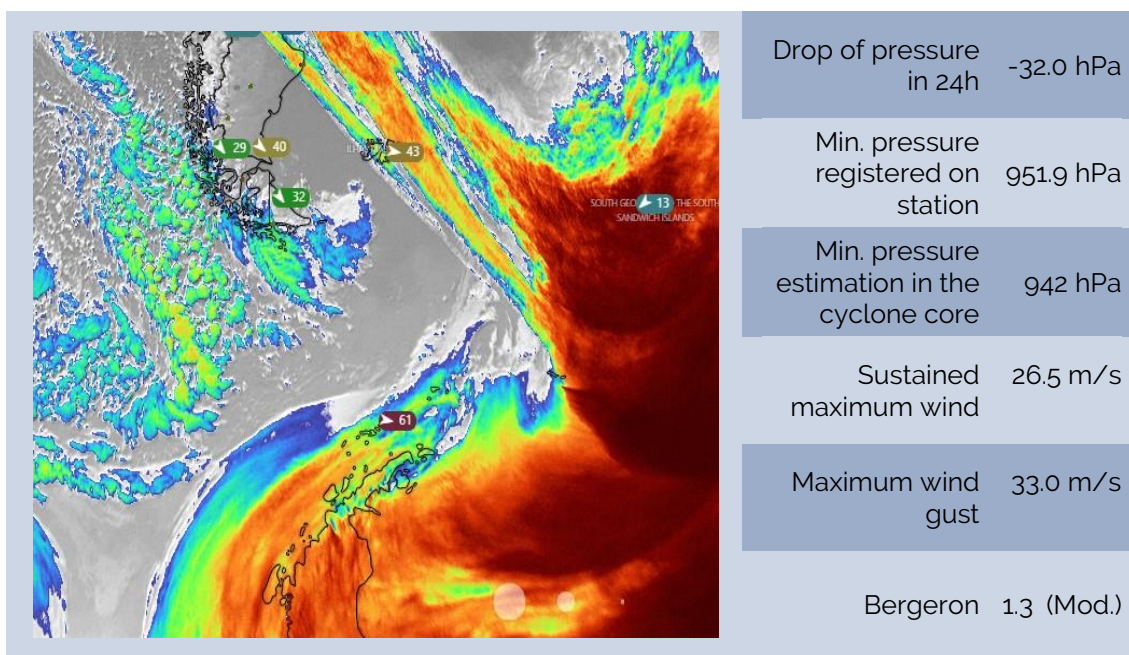
BOMB CYCLONE N°43/2021- DATE: AUG./01/2021

LOCAL: DUMONT D'URVILLE STATION – WMO 89 (OPERATED BY FRANCE)



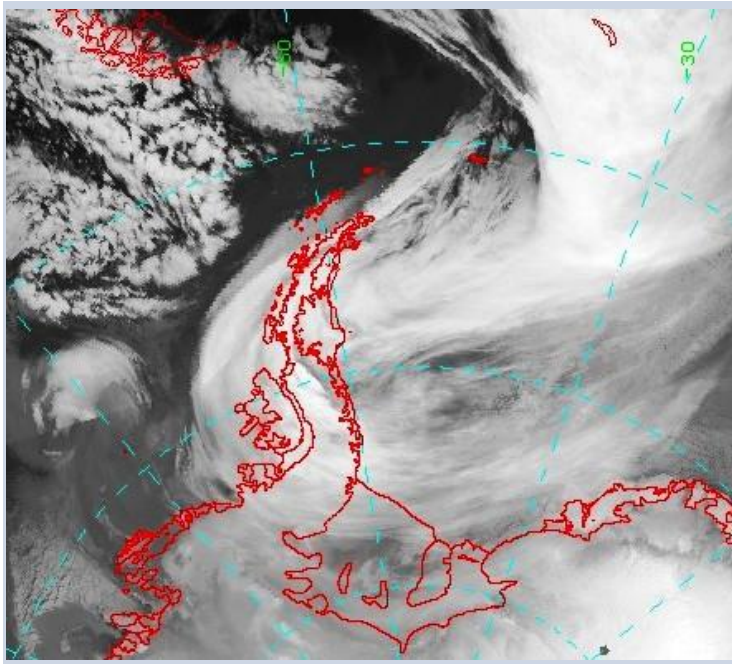
BOMB CYCLONE N°44/2021- DATE: AUG./06/2021

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



BOMB CYCLONE N°45/2021- DATE: AUG./06/2021

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



Drop of pressure in 24h -29.2 hPa

Min. pressure registered on station 956.2 hPa

Min. pressure estimation in the cyclone core 942 hPa

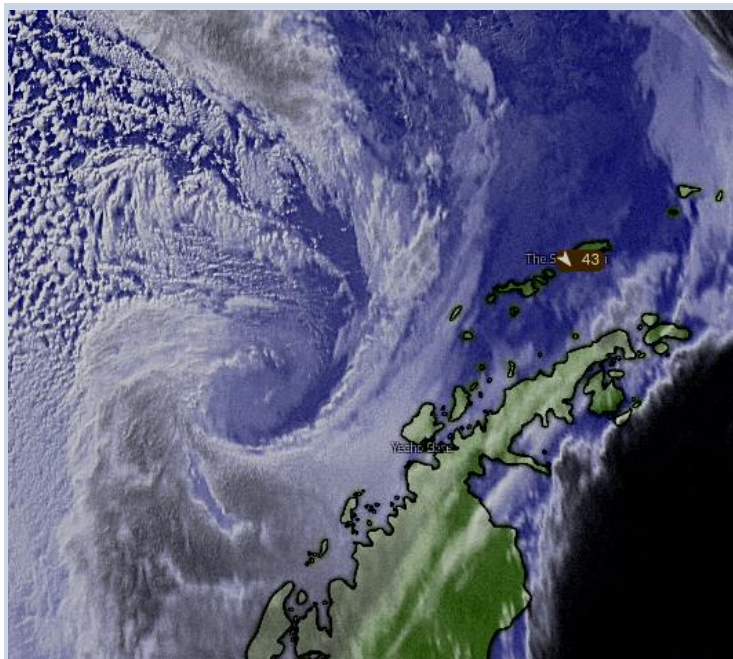
Sustained maximum wind 20.0 m/s

Maximum wind gust None m/s

Bergeron 1.2 (Weak.)

BOMB CYCLONE N°46/2021 - DATE: AUG./10/2021

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



Drop of pressure in 24h -29.0 hPa

Min. pressure registered on station 939.9 hPa

Min. pressure estimation in the cyclone core 940 hPa

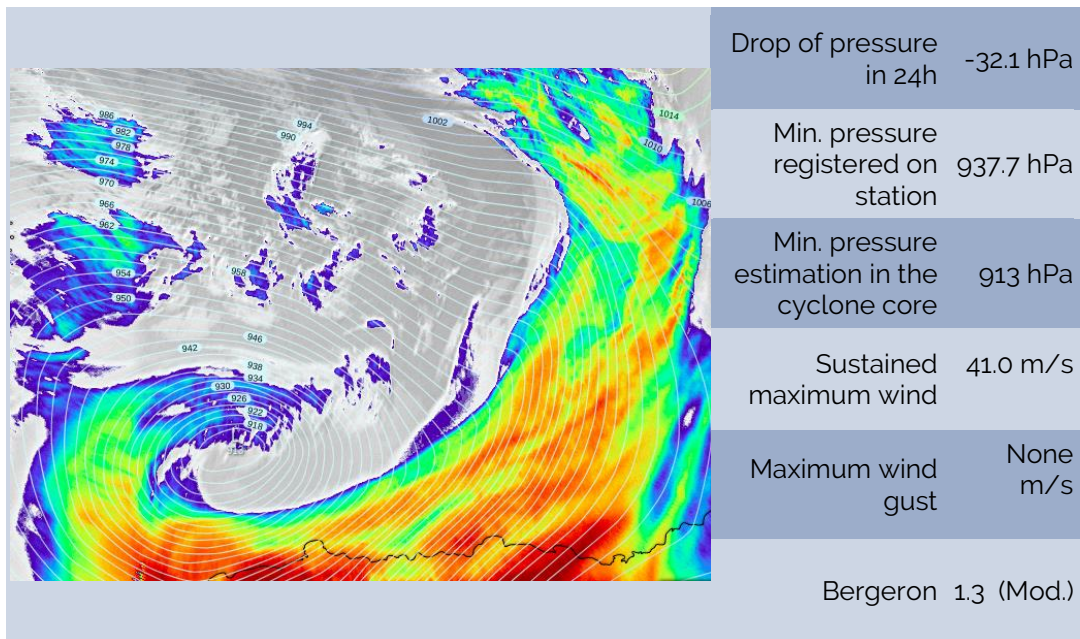
Sustained maximum wind 20.0 m/s

Maximum wind gust None m/s

Bergeron 1.2 (Weak.)

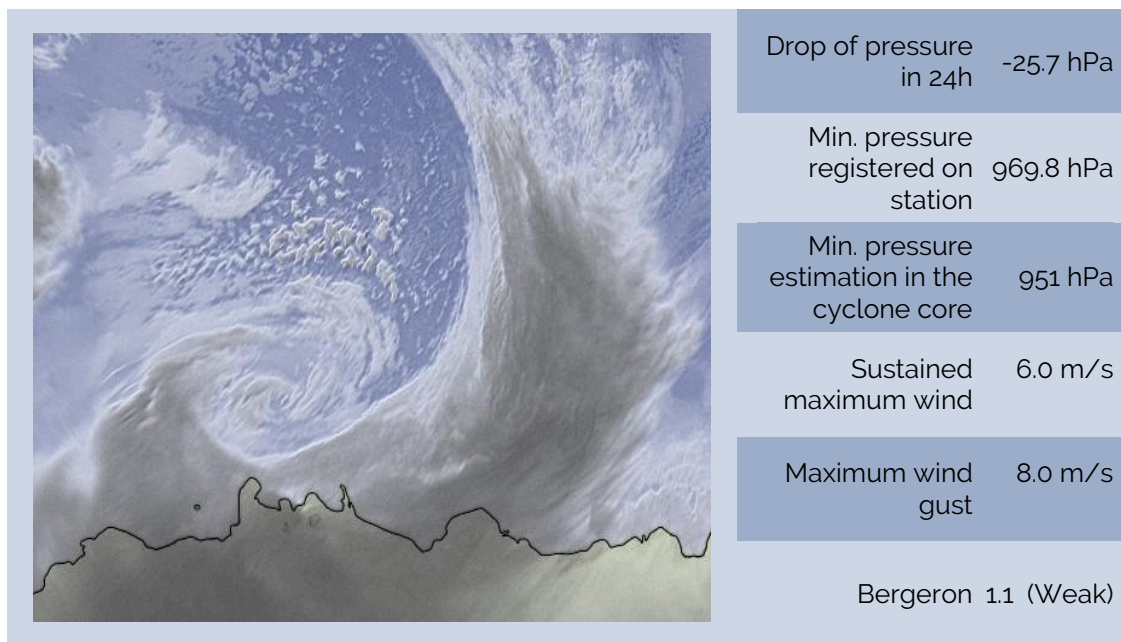
BOMB CYCLONE N°47/2021- DATE: AUG./13/2021

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



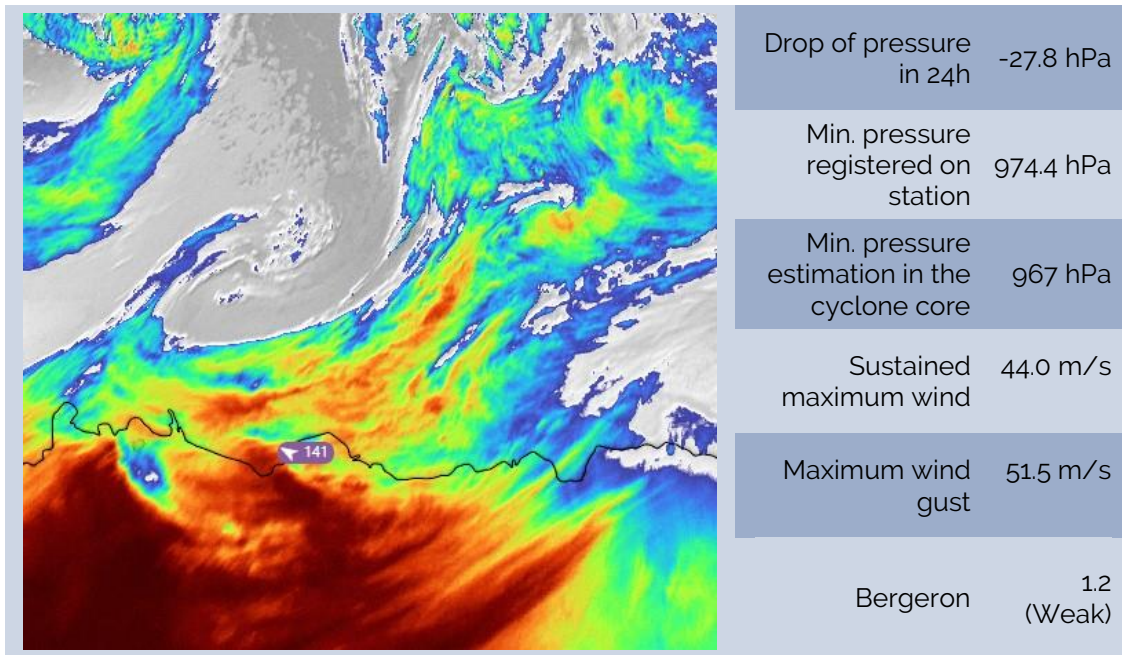
BOMB CYCLONE N°48/2021- DATE: AUG./22/2021

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



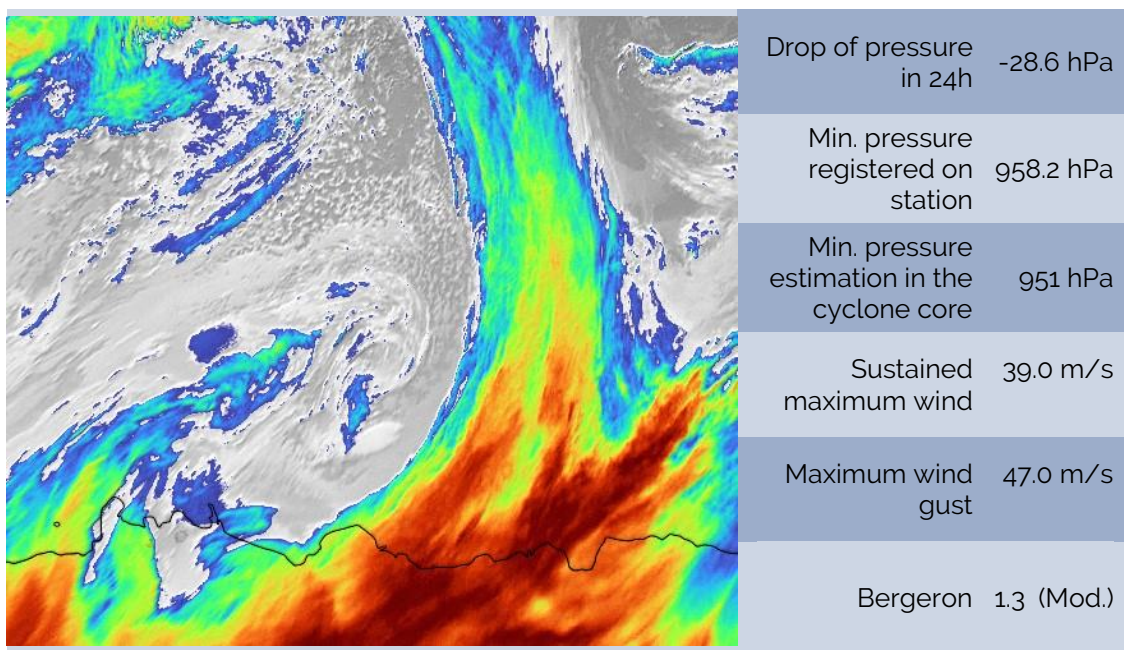
BOMB CYCLONE N°49/2021- DATE: AUG./26/2021

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



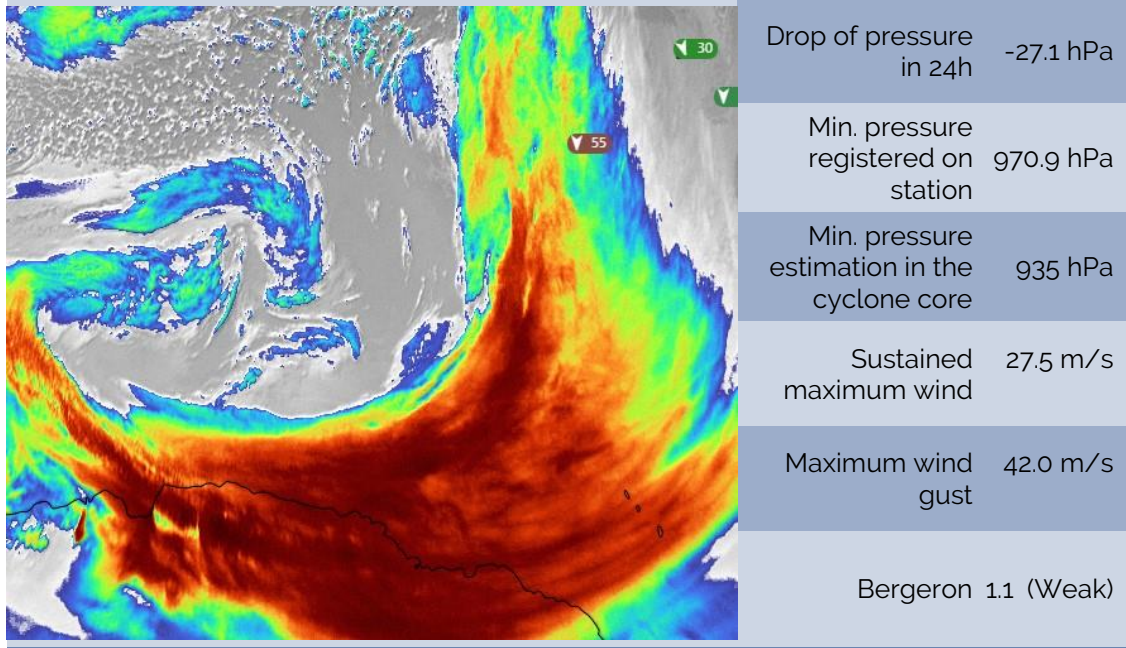
BOMB CYCLONE N°50/2021- DATE: AUG./28/2021

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



BOMB CYCLONE N°51/2021- DATE: DATE: AUG./31/2021

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



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>