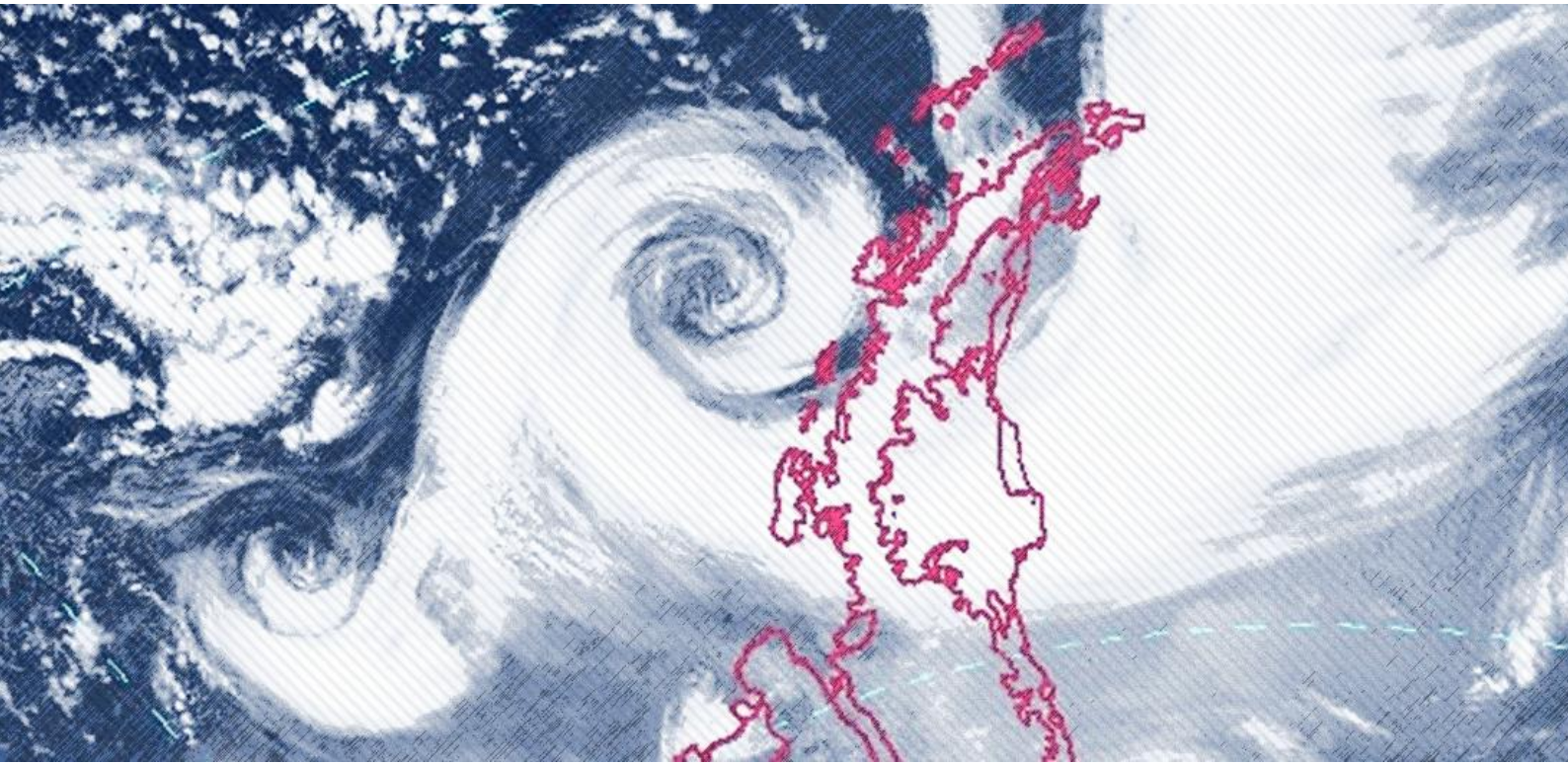




WORLD
ENVIRONMENTAL
CONSERVANCY

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

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OCTOBER 2021

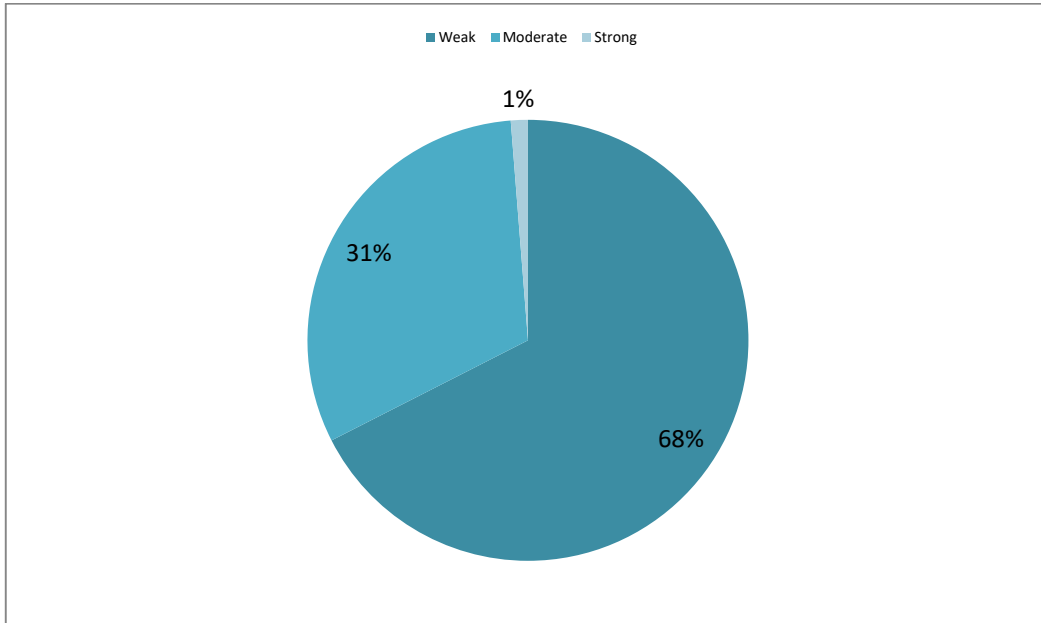
During this month, 17 events were registered among the 13 research stations located on the coast of the Antarctic utilized as references for the monitoring of bomb cyclones. The stations affected by cyclones this month were: Marambio, Fossil Bluff, Neumayer, Syowa, Casey, Davis, Mawson, Frei, Halley and Palmer. There was a increase (54%) in the number of cyclone s in comparison to the same month of the previous year (2020).

STATISTICS OF THE MONTH

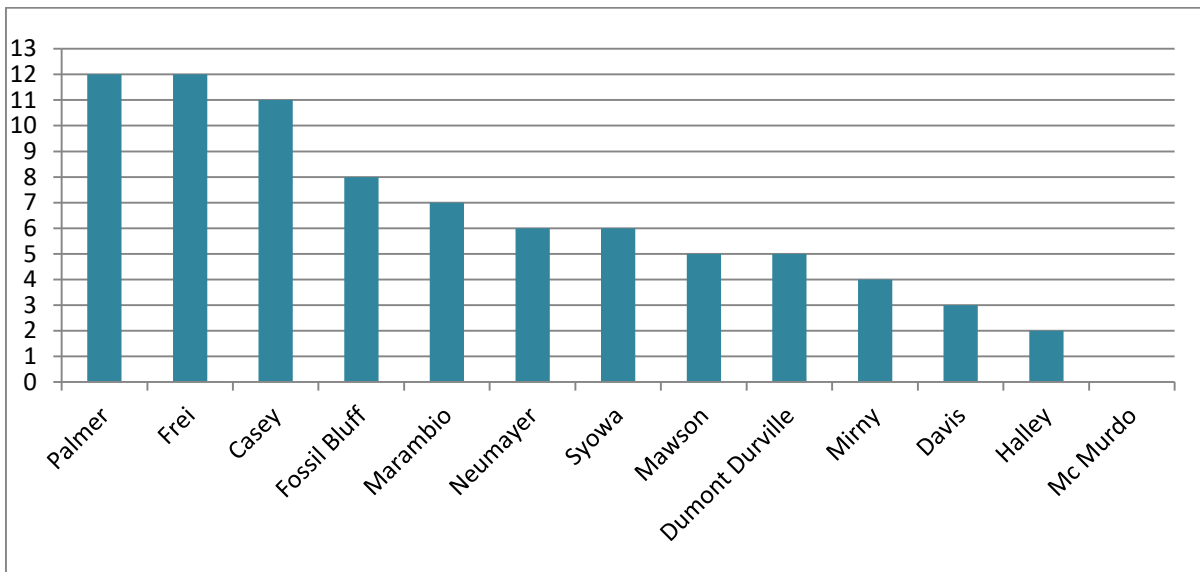
CLASSIFICATION	BERGERON SCALE	INTENSITY	TOTAL OF CASES REGISTERED IN THE MONTH
B1	1 a 1.2	Weak	11
B2	1.3 a 1.8	Moderate	06
B3	> 1.8	Strong	00

HIGHEST PRESSURE DROP	LOWEST RECORDED PRESSURE	HIGHEST SUSTAINED WIND
-42.8 hPa/24h	941.7 hPa	43.0 m/s
Davis Station	Neumayer Station	Casey Station
Oct. 25	Oct. 26	Oct. 02

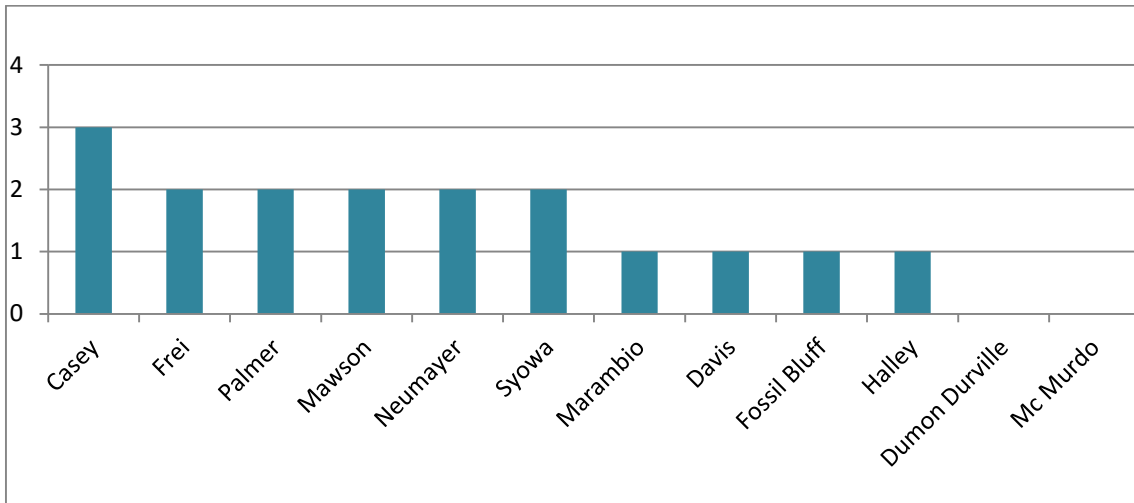
BERGERON INTENSITY TOTAL OF ANNUAL EVENTS IN 2021



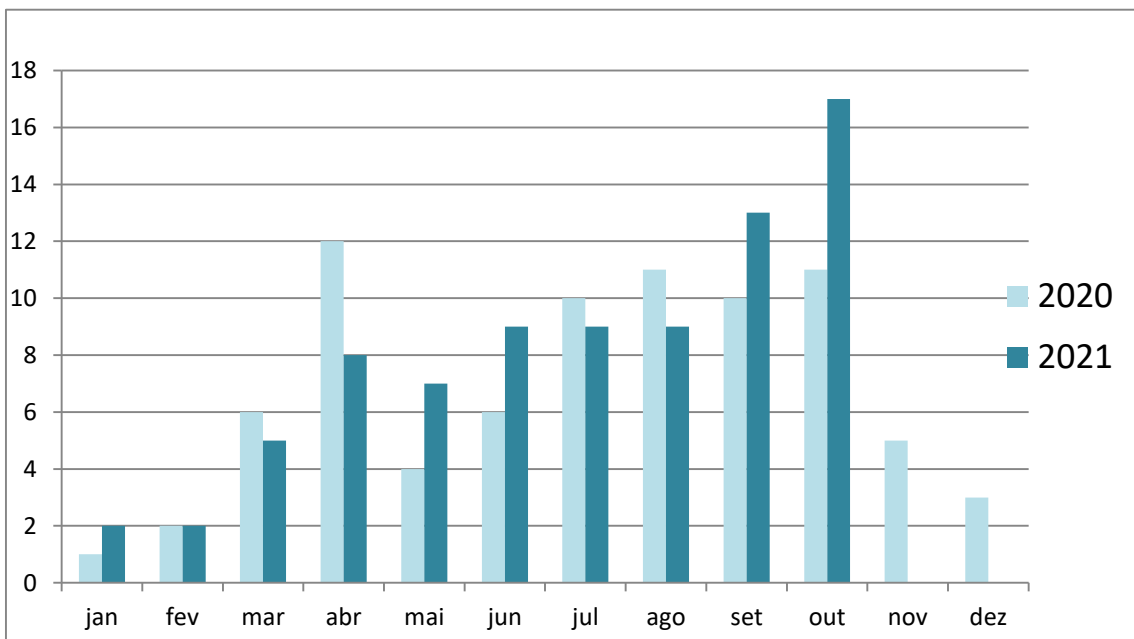
TOTAL OF EVENTS REGISTERED BY STATION IN 2021



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

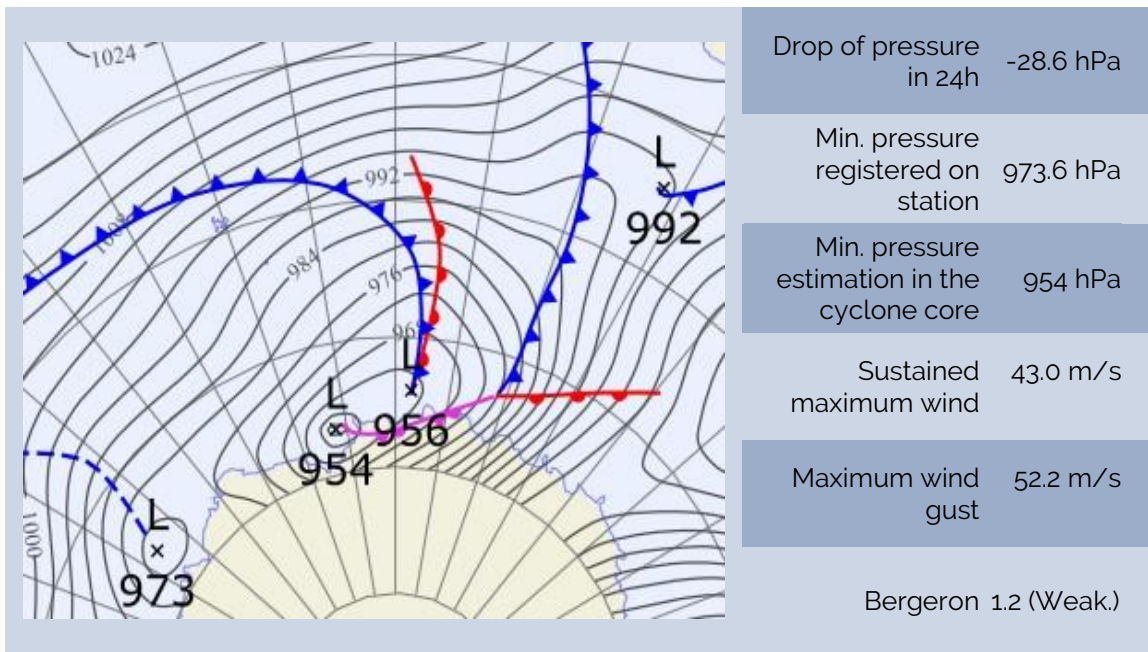


TOTAL EXPLOSIVE CYCLONES IN THE ANTARCTIC



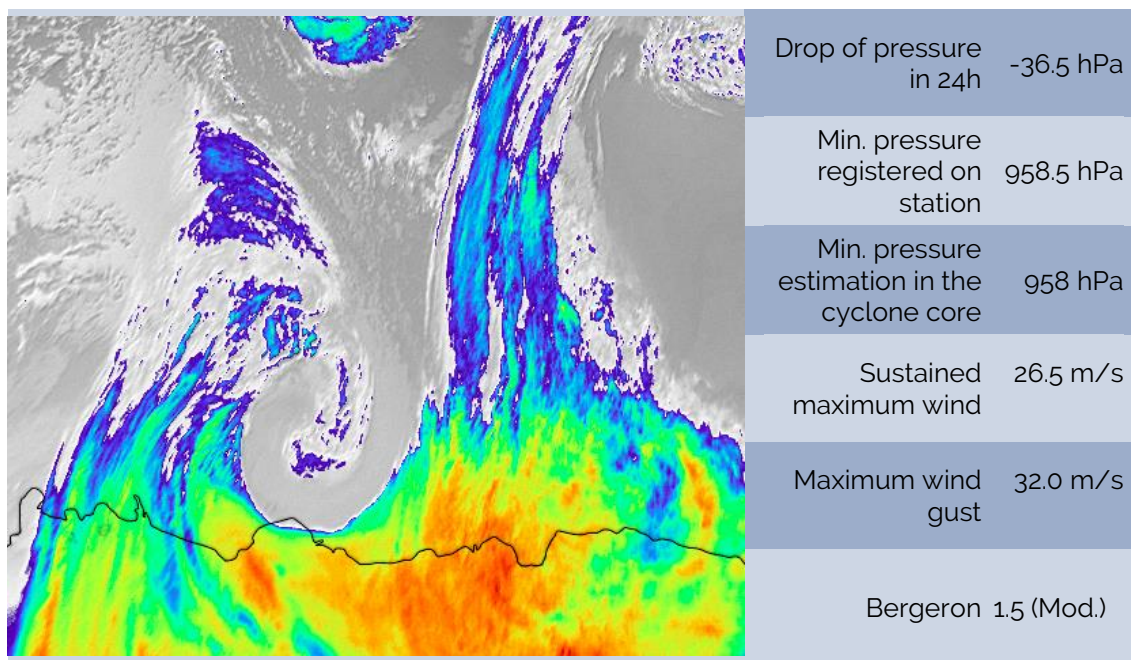
BOMB CYCLONE N°65/2021- DATE: OCT./02/2021

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



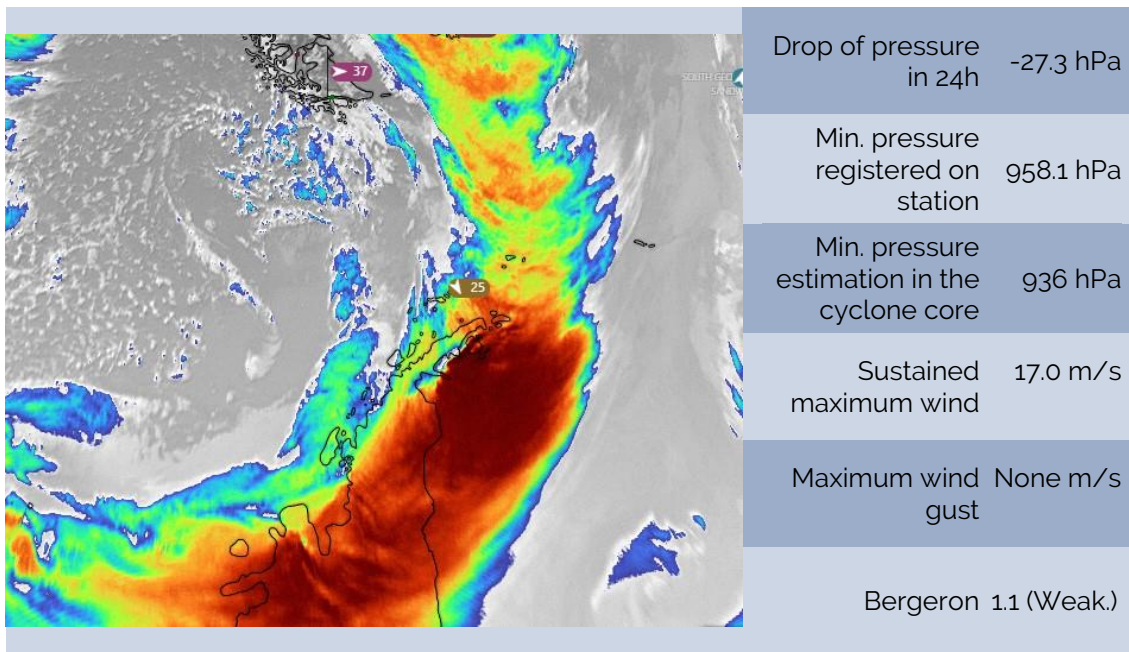
BOMB CYCLONE N°66/2021- DATE: OCT./04/2021

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



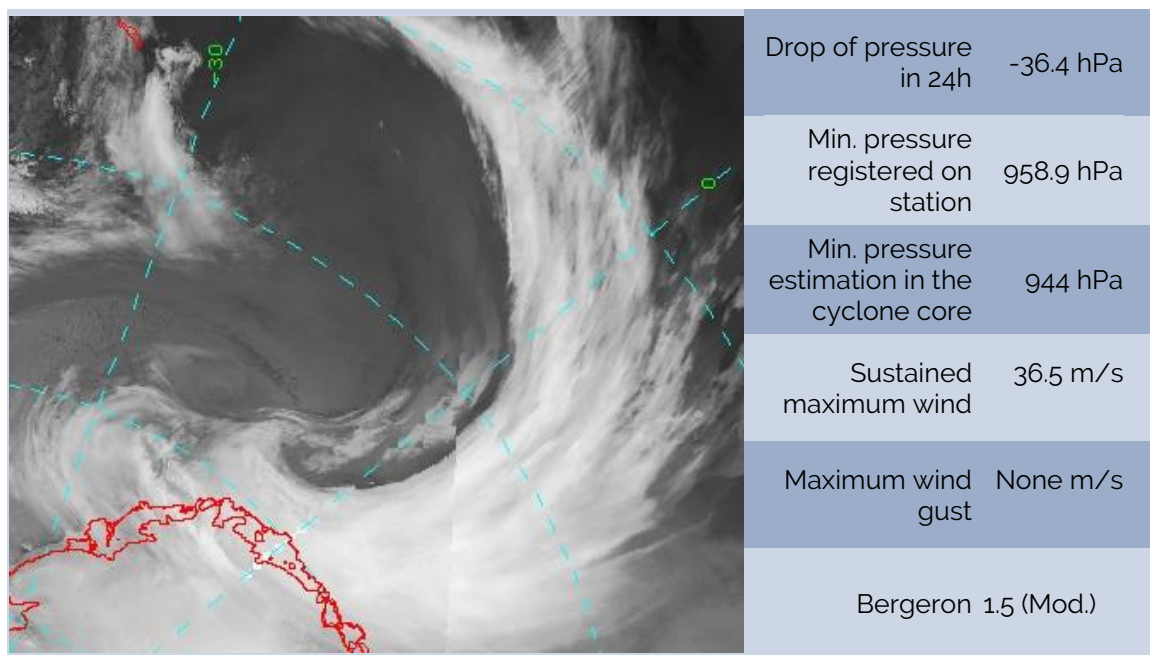
BOMB CYCLONE N°67/2021- DATE: OCT./08/2021

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



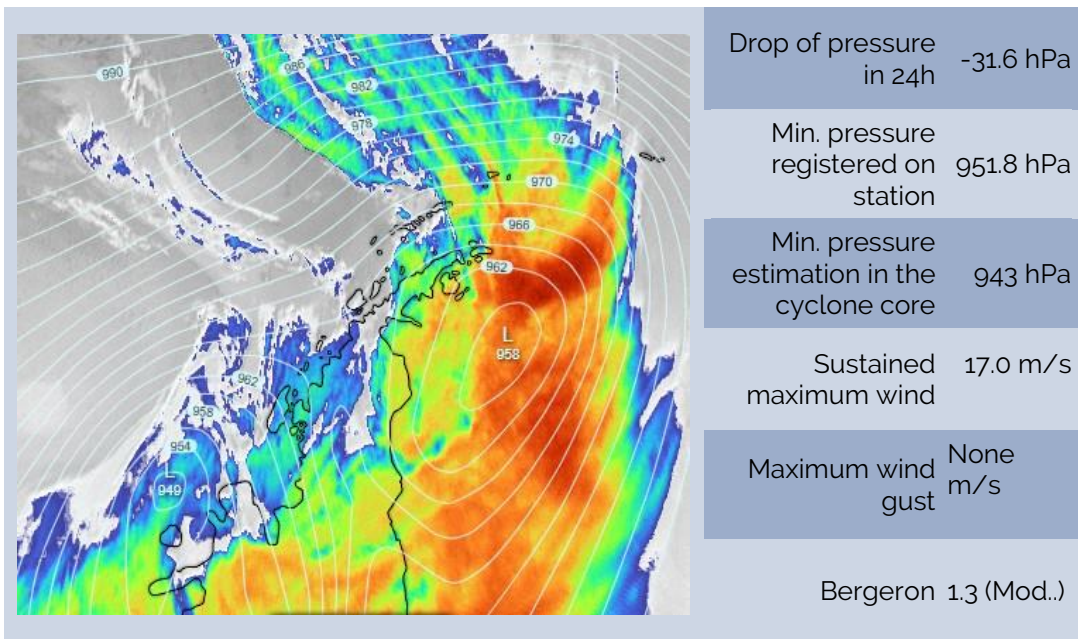
BOMB CYCLONE N°68/2021 - DATE: OCT./17/2021

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



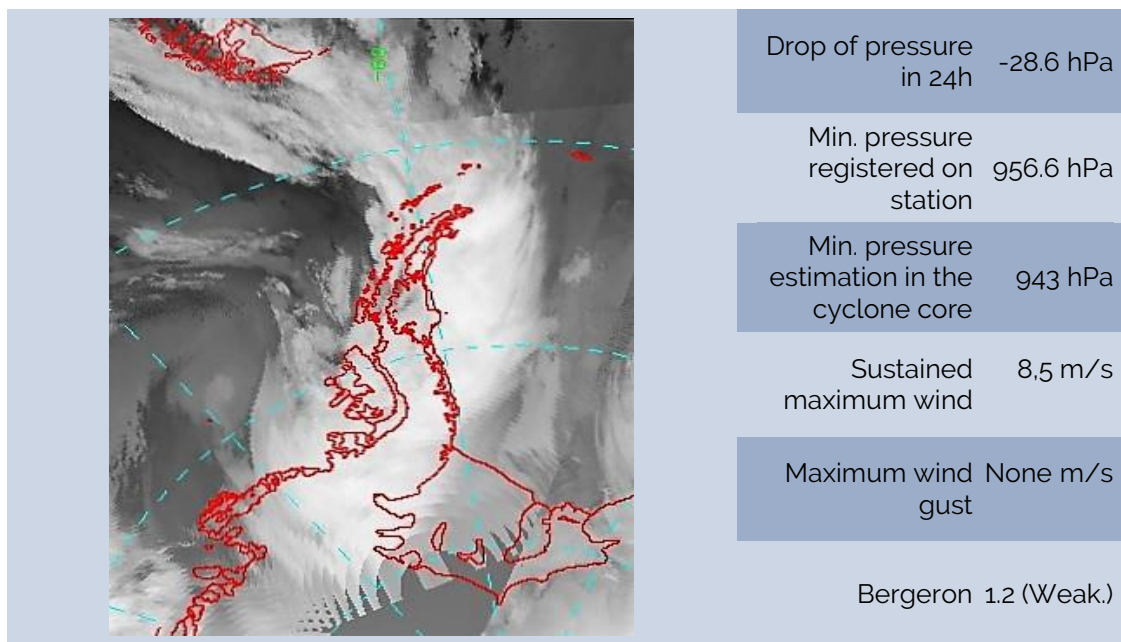
BOMB CYCLONE N°69/2021- DATE: OCT./18/2021

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



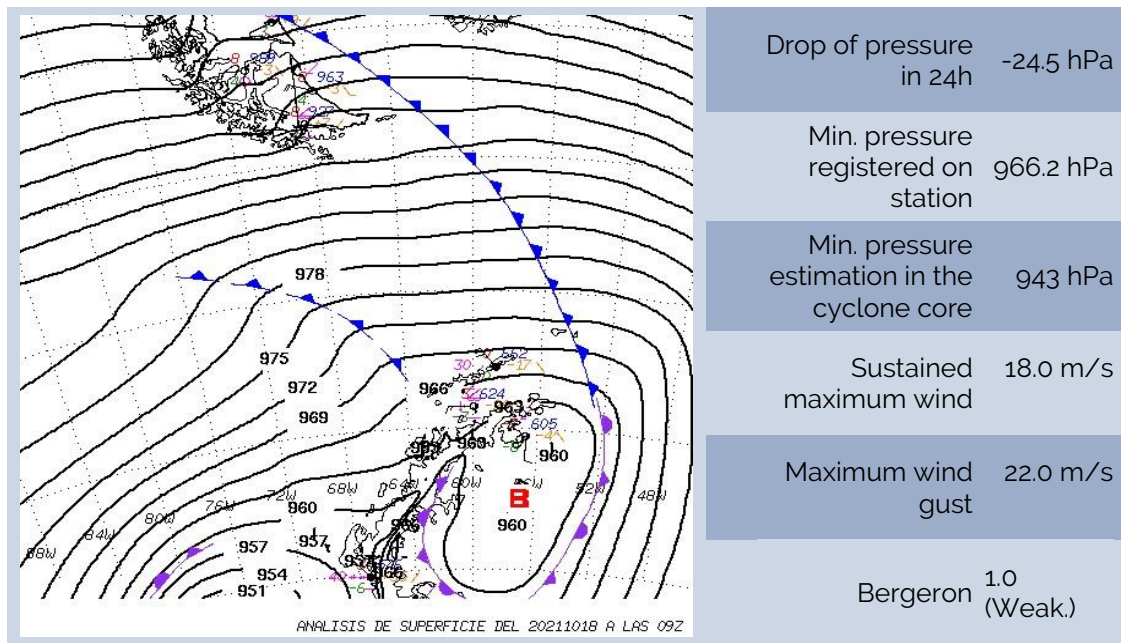
BOMB CYCLONE N°70/2021- DATE: OCT./18/2021

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



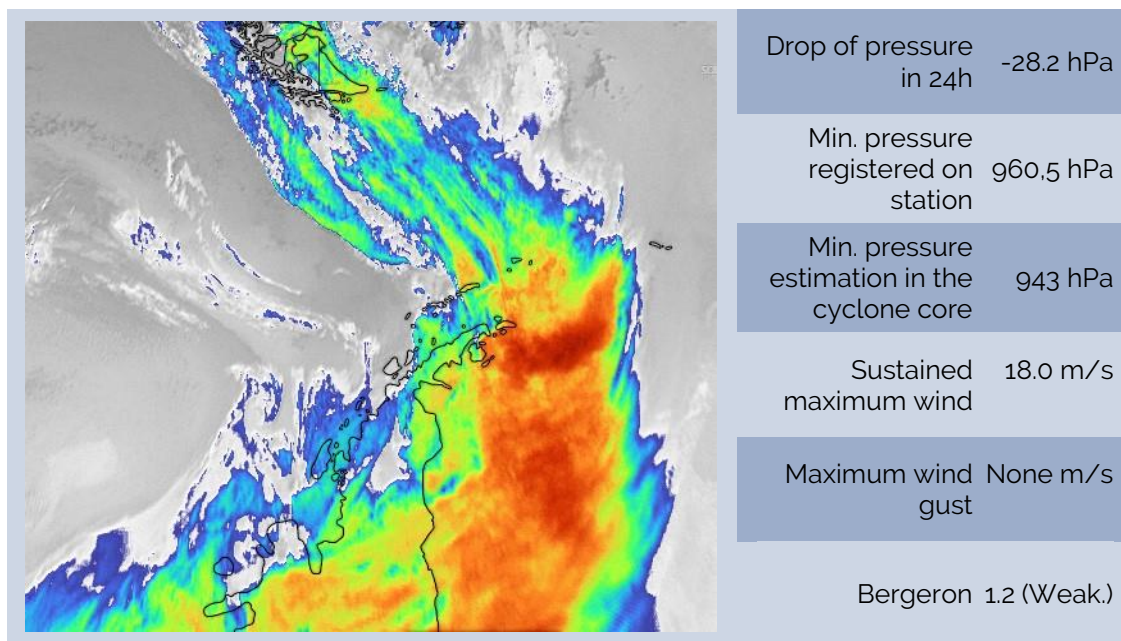
BOMB CYCLONE N°71/2021- DATE: OCT./18/2021

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



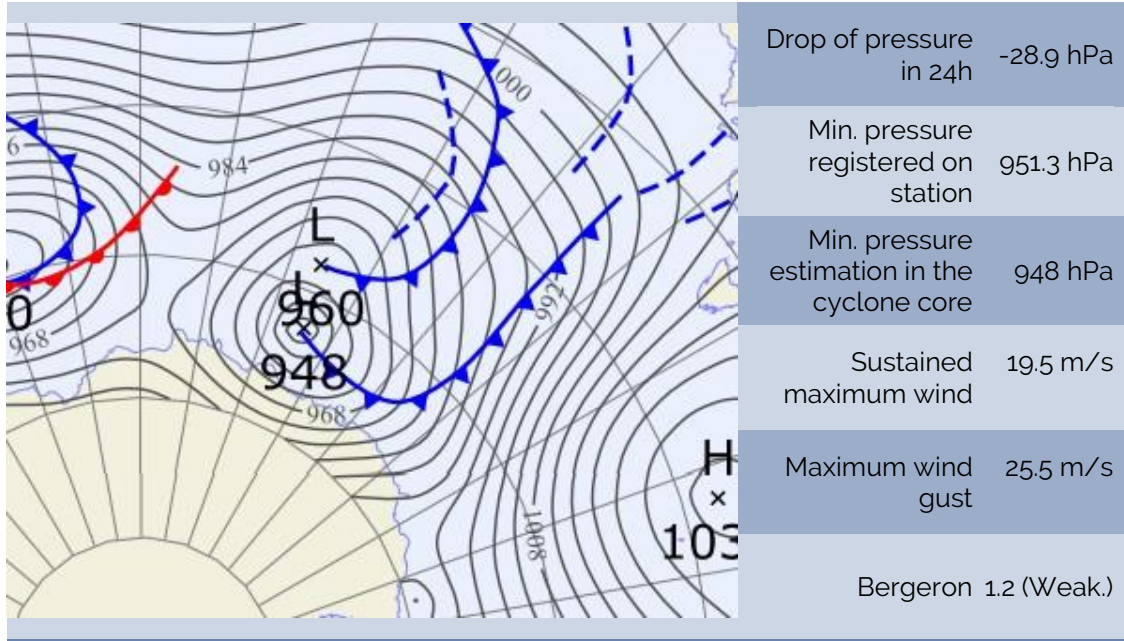
BOMB CYCLONE N°72/2021- DATE: OCT./18/2021

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



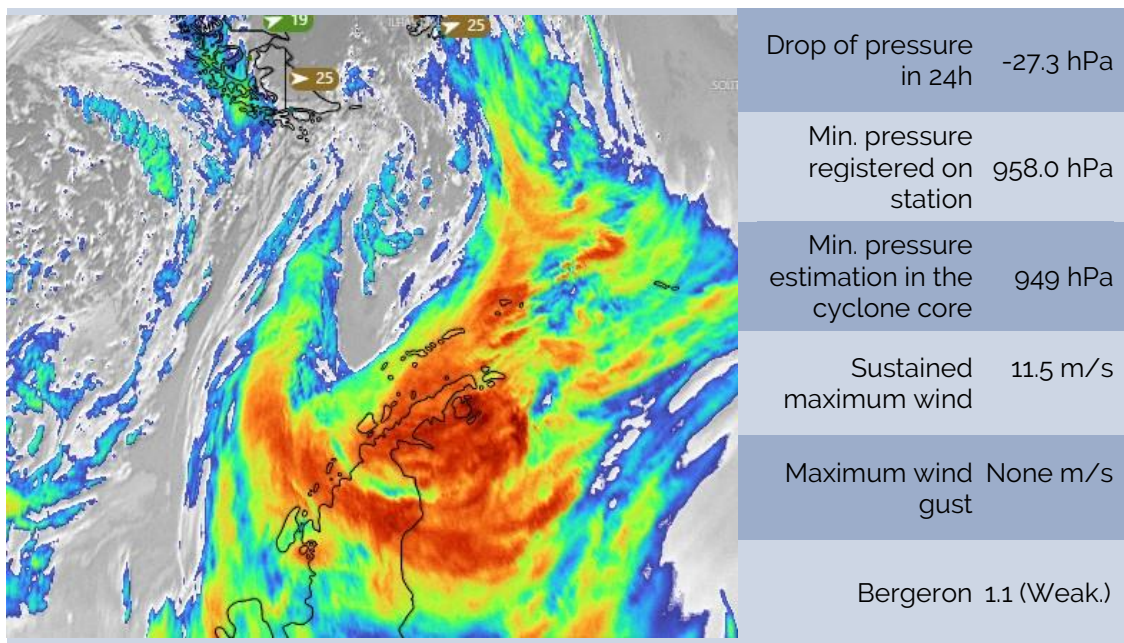
BOMB CYCLONE N°73/2021- DATE: OCT./21/2021

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



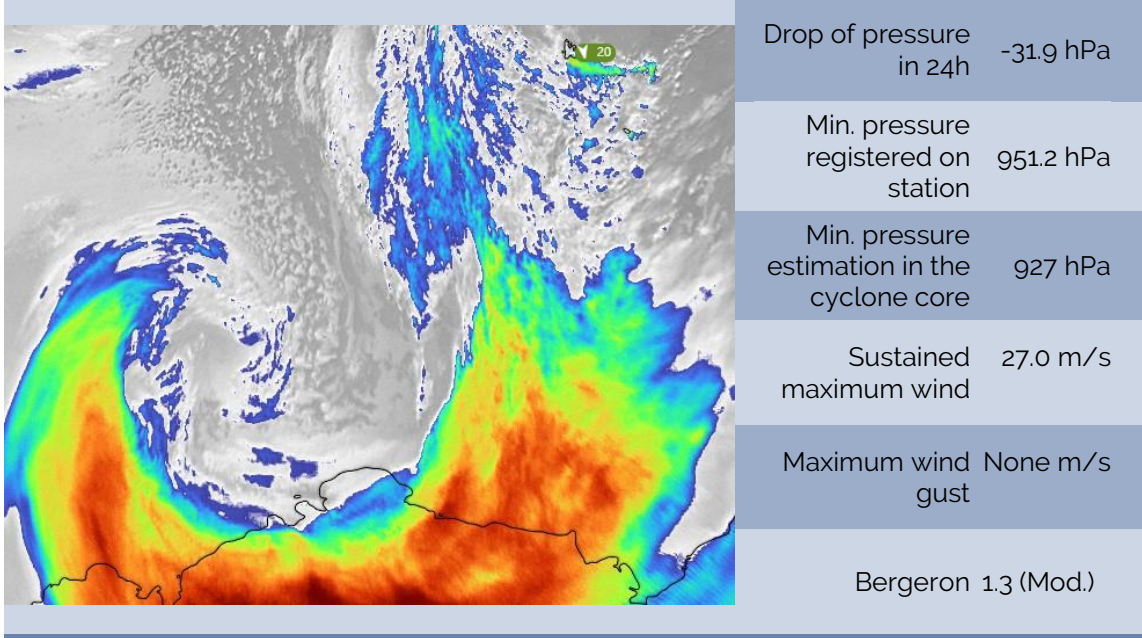
BOMB CYCLONE N°74/2021- DATE: OCT./23/2021

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



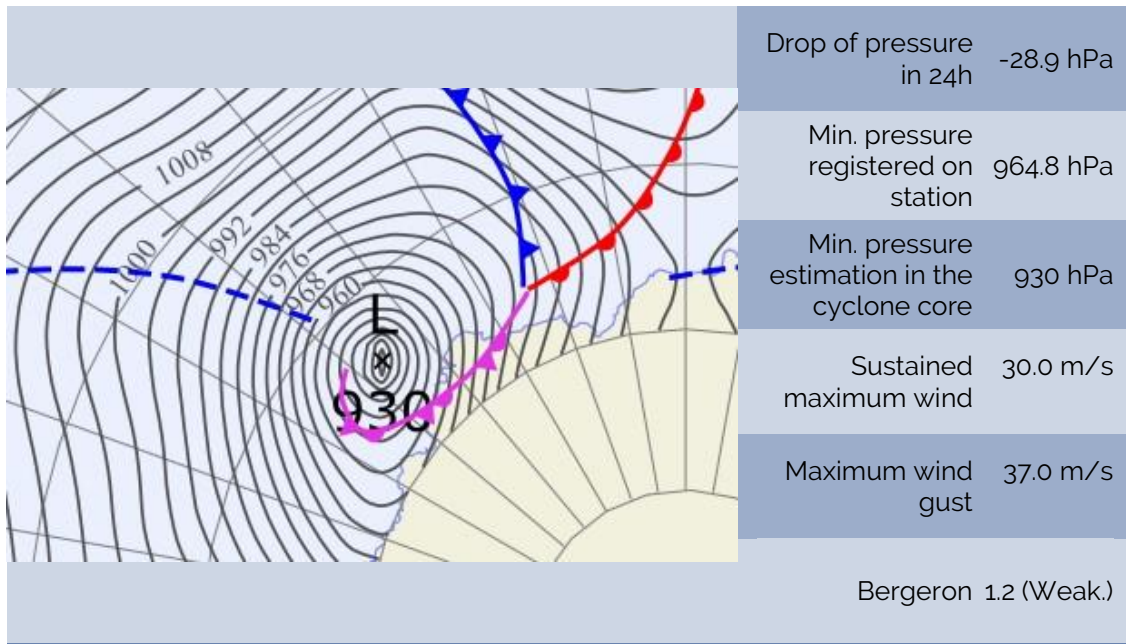
BOMB CYCLONE N°75/2021- DATE: OCT./24/2021

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



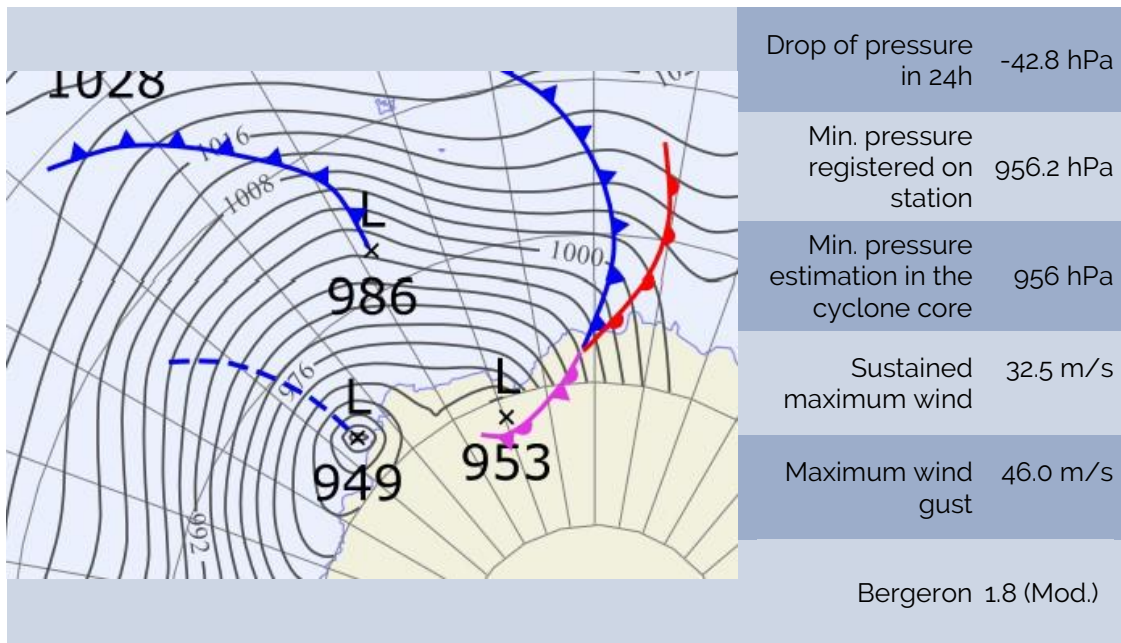
BOMB CYCLONE N°76/2021- DATE: OCT./25/2021

LOCAL: MAWSON STATION – WMO 89 (OPERATED BY AUSTRALIA)



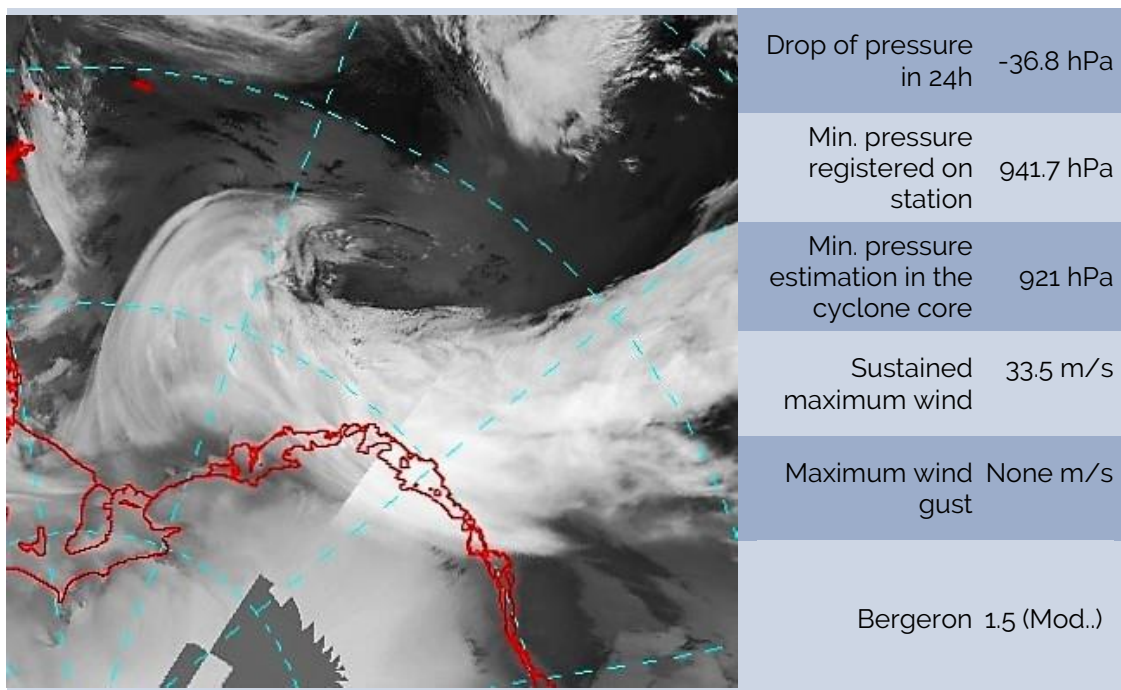
BOMB CYCLONE N°77/2021- DATE: OCT./25/2021

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



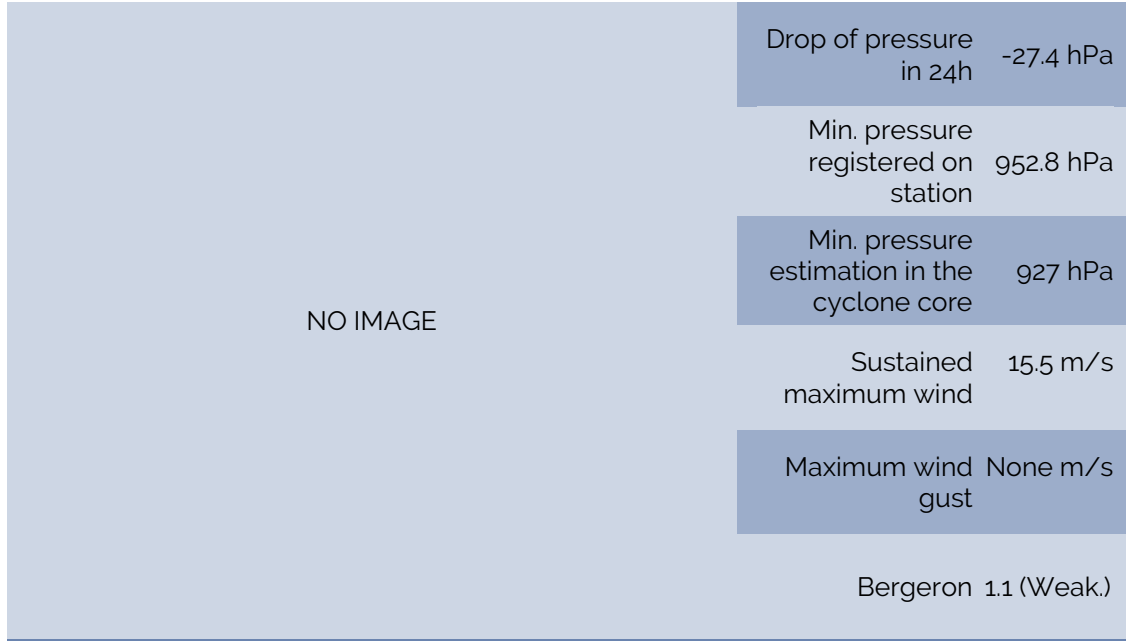
BOMB CYCLONE N°78/2021- DATE: OCT./26/2021

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



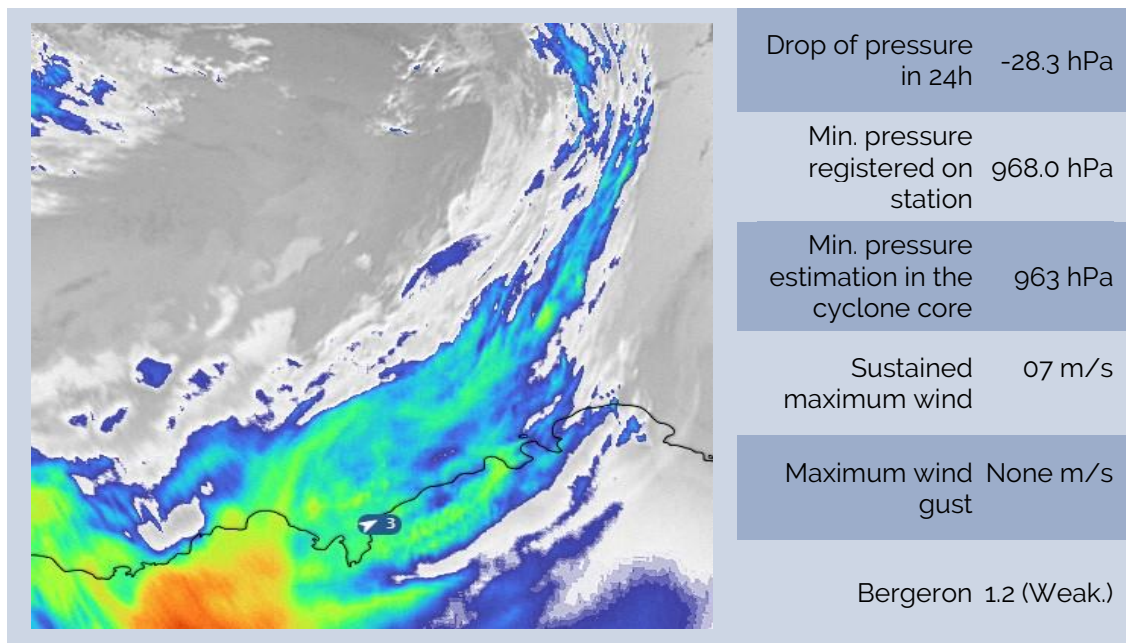
BOMB CYCLONE N°79/2021- DATE: OCT./26/2021

LOCAL: HALLEY STATION – WMO 89022 (OPERATED BY U.K.)



BOMB CYCLONE N°80/2021- DATE: OCT./29/2021

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



BOMB CYCLONE N°81/2021- DATE: OCT./29/2021

LOCAL: MAWSON STATION – WMO 89564 (OPERATED BY AUSTRALIA)

NO IMAGE	Drop of pressure in 24h	-26.5 hPa
	Min. pressure registered on station	972.8 hPa
	Min. pressure estimation in the cyclone core	963 hPa
	Sustained maximum wind	19.5 m/s
	Maximum wind gust	23.0 m/s
	Bergeron	1.1 (Weak.)

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>

GFS Model Forecast

AMRDC, SSEC, UW-Madison

www.windy.com