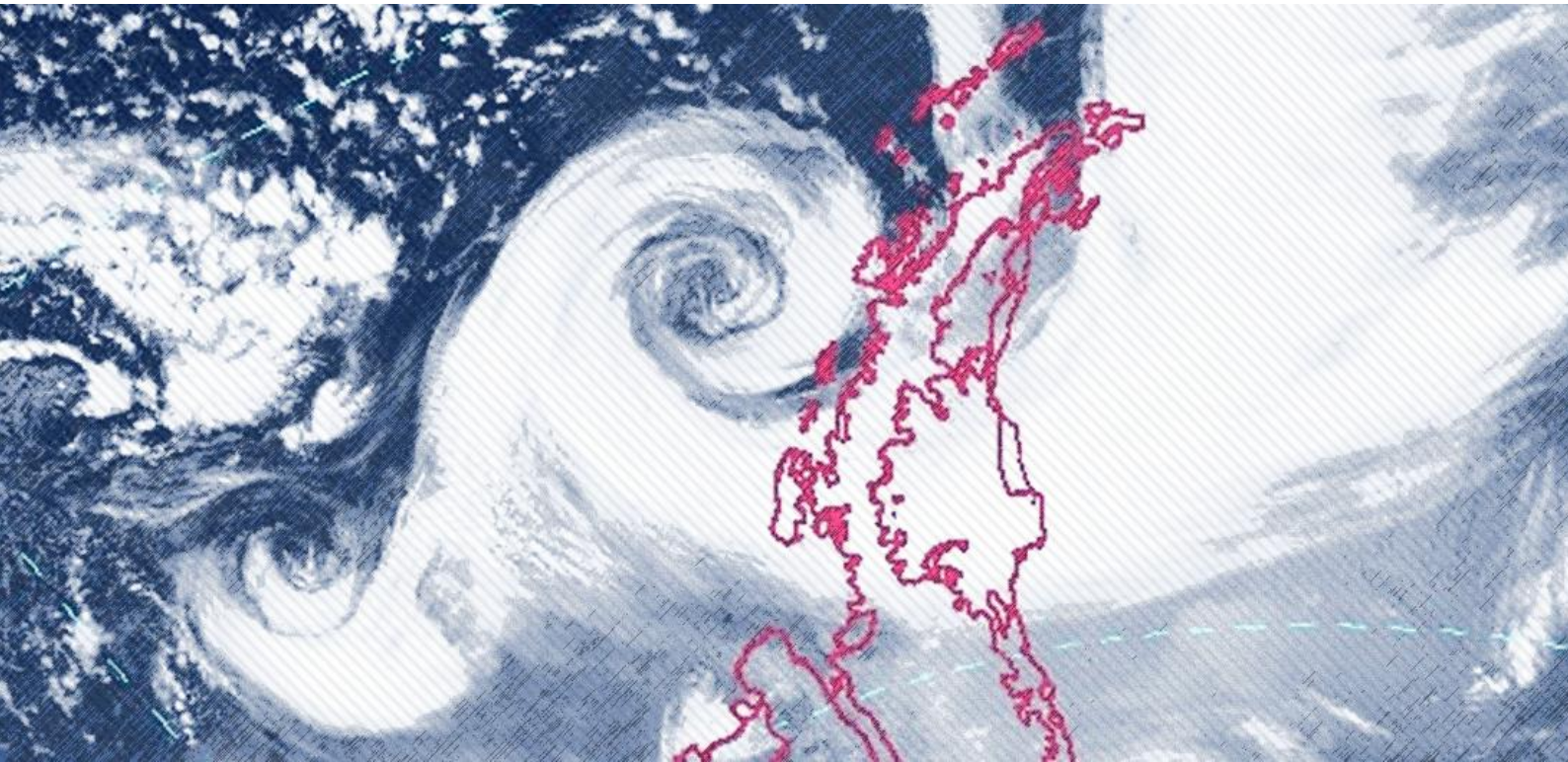




WORLD
ENVIRONMENTAL
CONSERVANCY

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

OCTOBER 2022

During this month, only 23 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 hit by a cyclone this month was Fossil Bluff, Davis, Syowa, Mirny, Dumont D'Urville, Casey, Mawson, Marambio, Palmer and Frei. Of these 23 events 03 of them reached the level of an Antarctic hurricane.

TOTAL OF EVENTS REGISTERED IN STATIONS IN OCTOBER

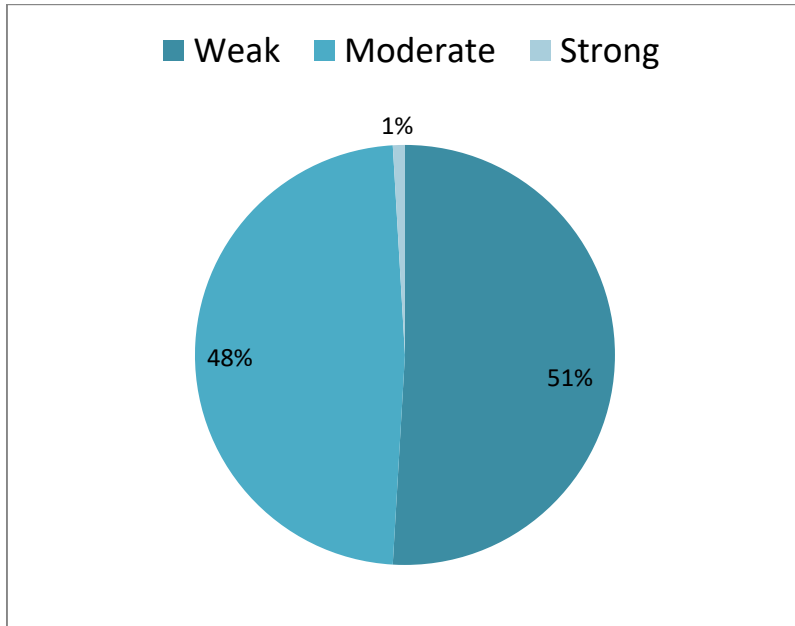
2017	2018	2019	2020	2021	2022
5	9	4	11	18	23

STATISTICS OF THE MONTH: OCTOBER 2022

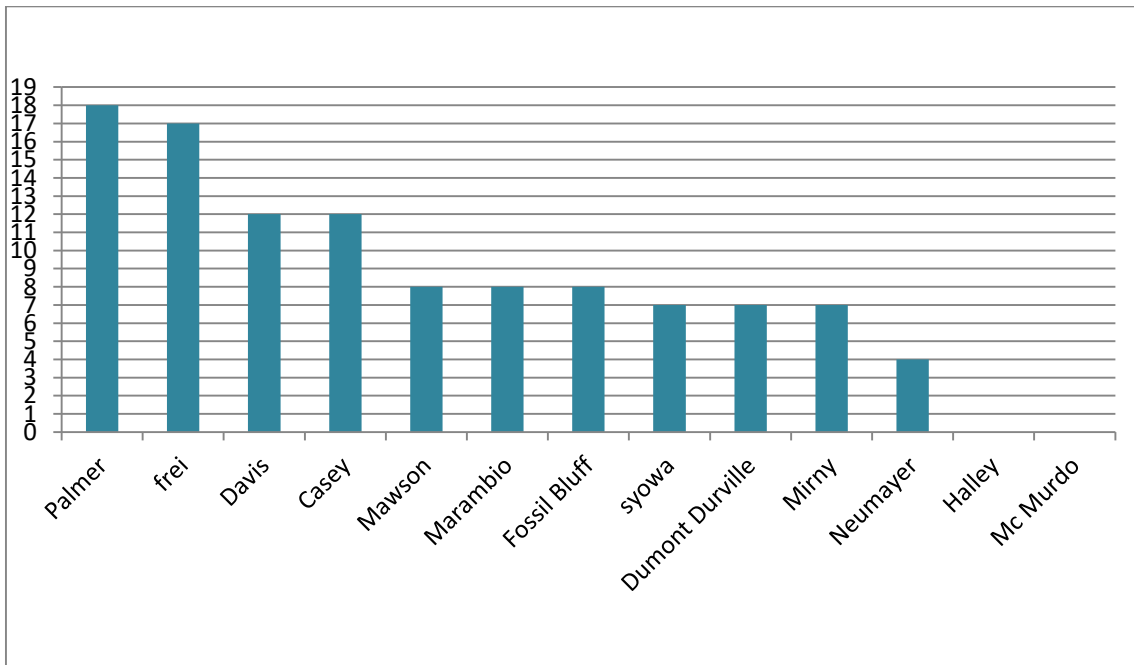
CLASSIFICATION	BERGERON SCALE	INTENSITY	TOTAL OF CASES REGISTERED IN THE MONTH
B1	1 a 1.2	Weak	10
B2	1.3 a 1.8	Moderate	13
B3	> 1.8	Strong	00

HIGHEST PRESSURE DROP	LOWEST RECORDED PRESSURE	HIGHEST SUSTAINED WIND
-41.9 hPa/24h	929.6 hPa	37.5 m/s
Dumont d'Urville station	Palmer station	Casey station
Oct. 07	Oct. 09	Oct. 12

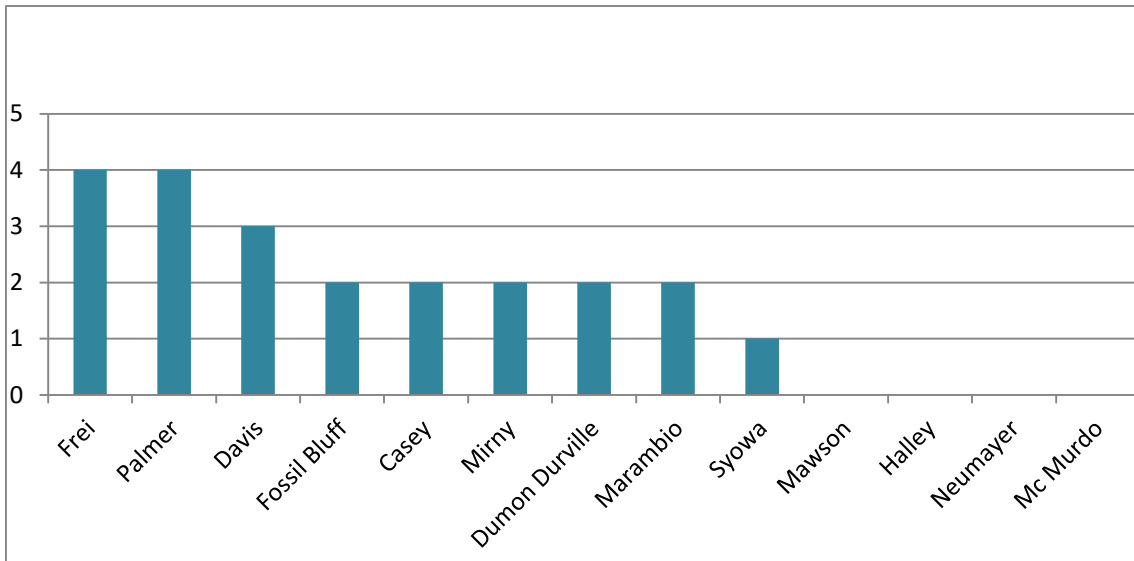
BERGERON INTENSITY TOTAL OF ANNUAL EVENTS IN 2022



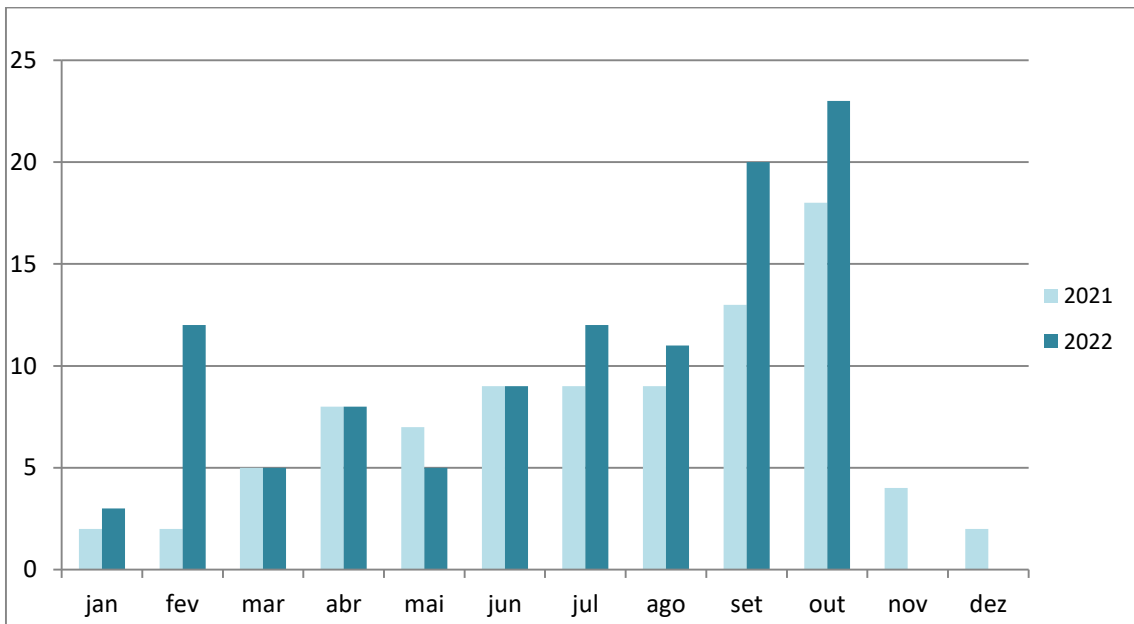
TOTAL OF EVENTS REGISTERED BY STATION IN 2022



TOTAL OF EVENTS REGISTERED IN EACH STATION IN THE MONTH OF OCTOBER/2022



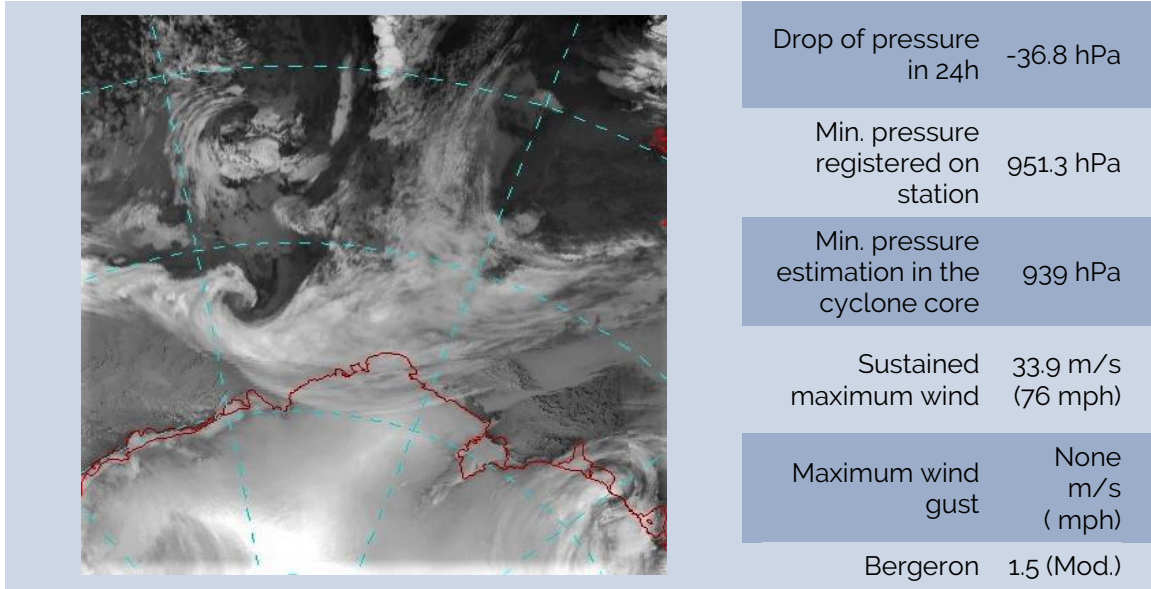
TOTAL EXPLOSIVE CYCLONES IN THE ANTARCTIC



BOMB CYCLONE N°84/2022 - DATE: OCT./04/2022

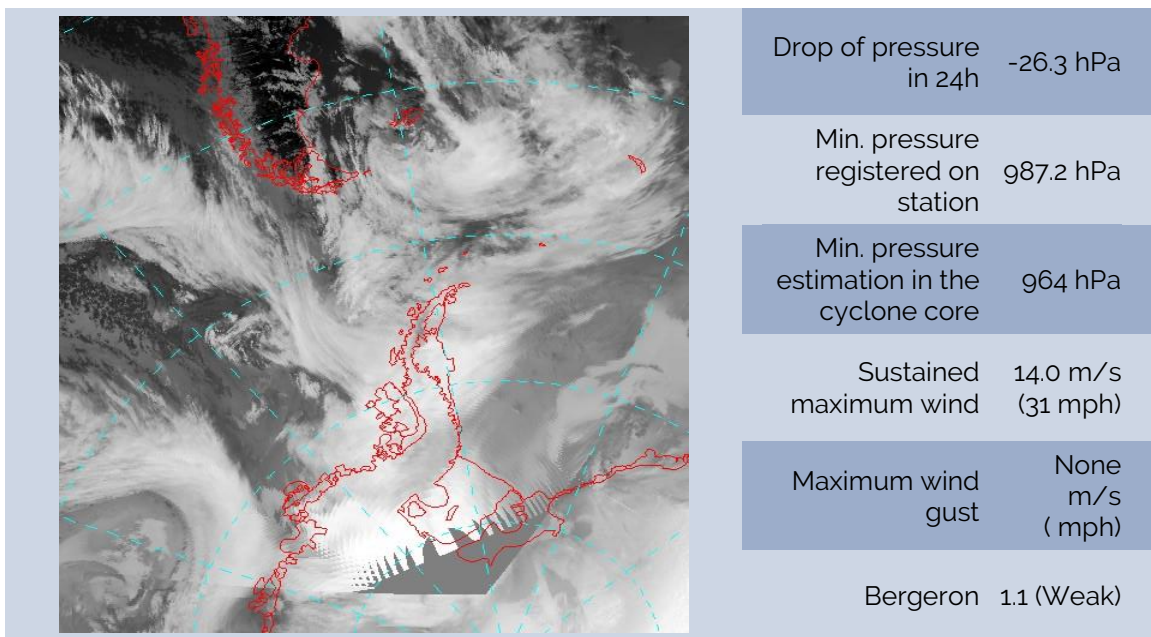
(ANTARCTIC HURRICANE CAT-1)

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



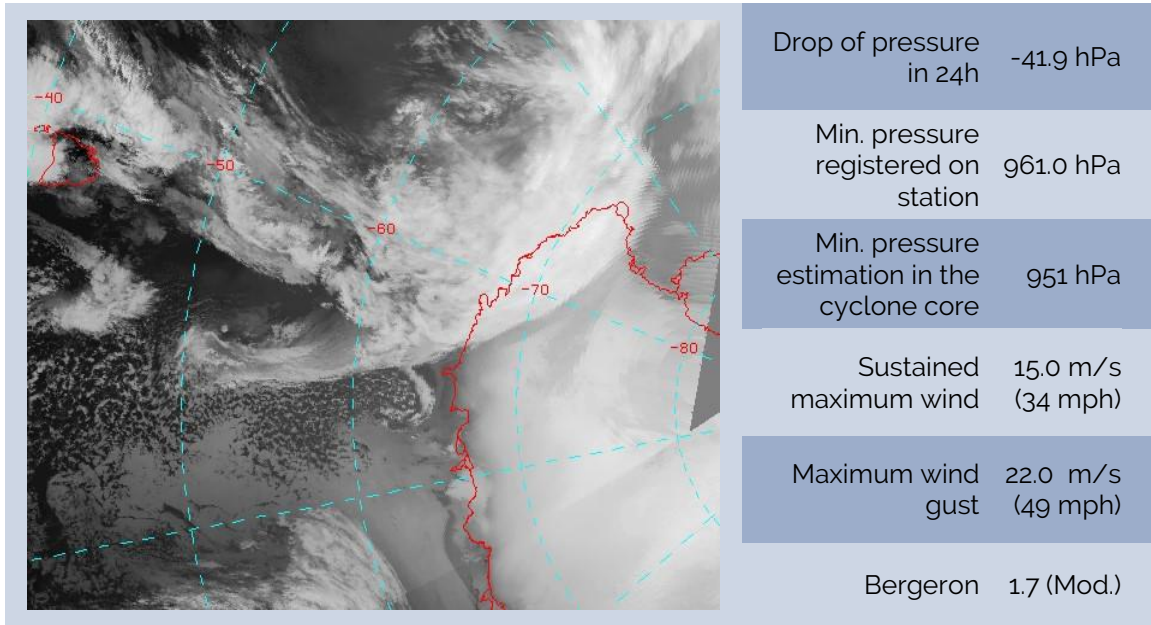
BOMB CYCLONE N°85/2022 - DATE: OCT./05/2022

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



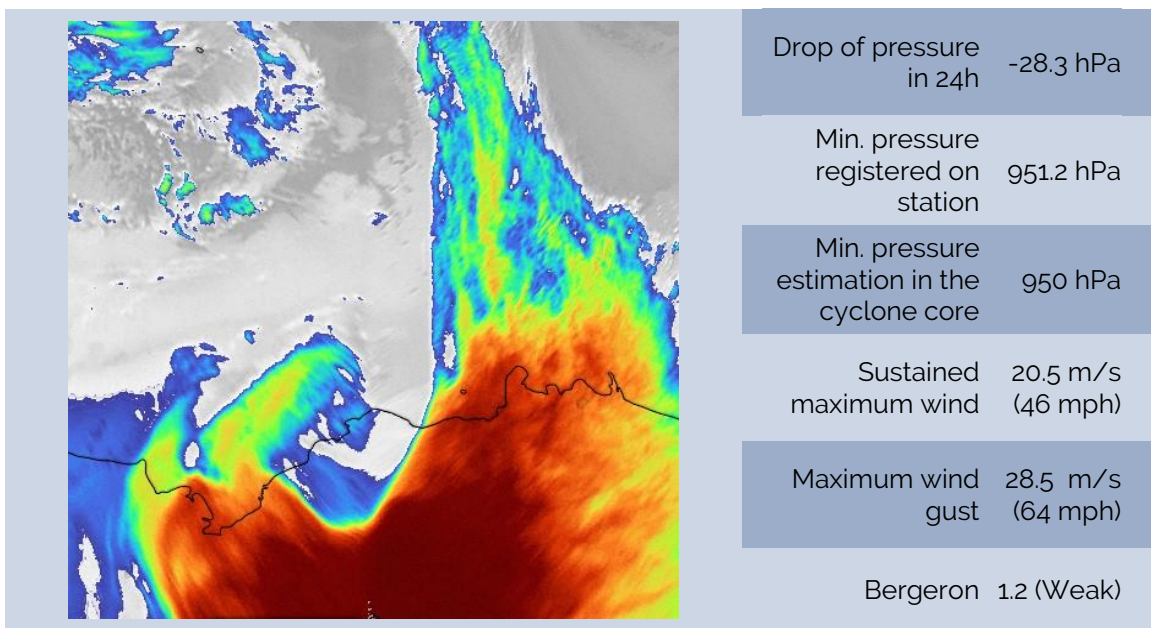
BOMB CYCLONE N°86/2022 - DATE: OCT./07/2022

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



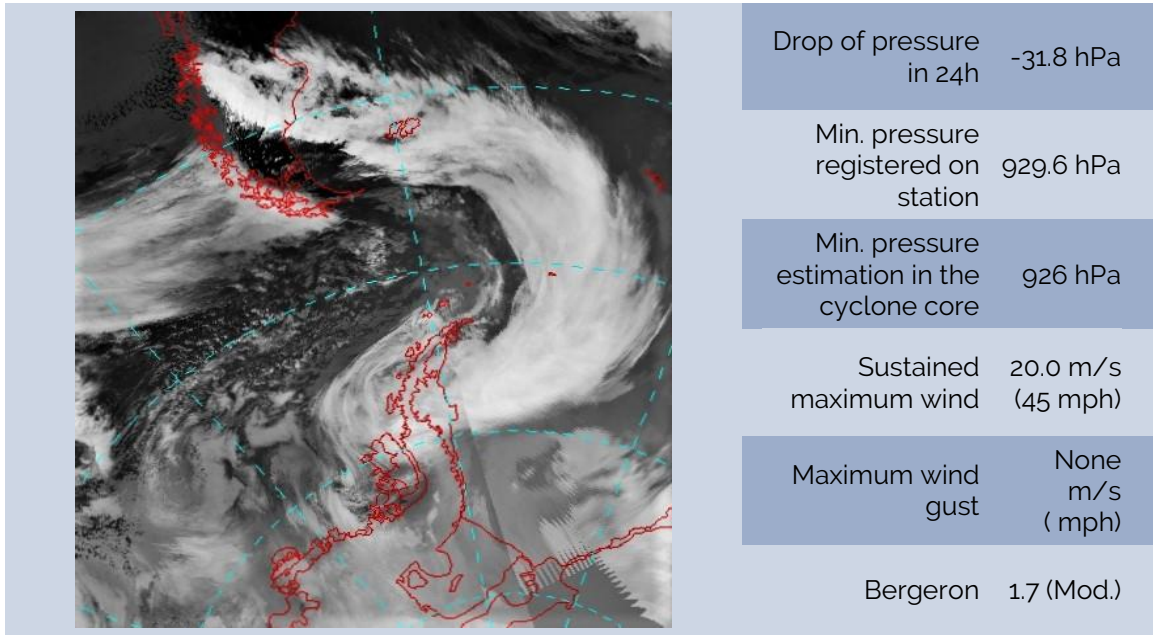
BOMB CYCLONE N°87/2022 - DATE: OCT./09/2022

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



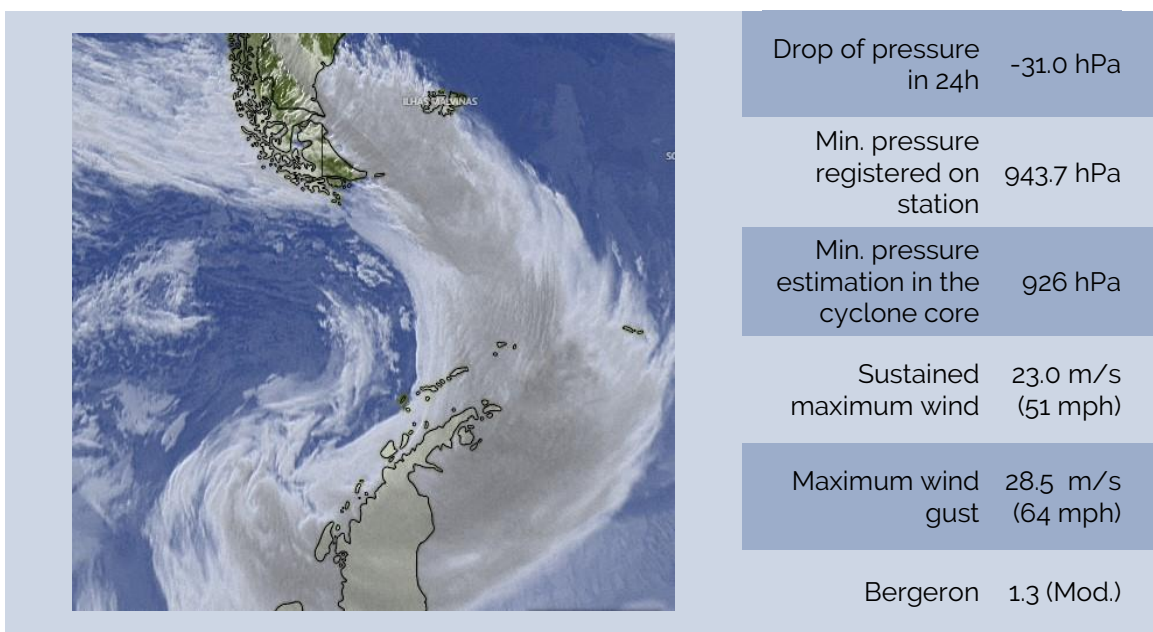
BOMB CYCLONE N°88/2022 - DATE: OCT./09/2022

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



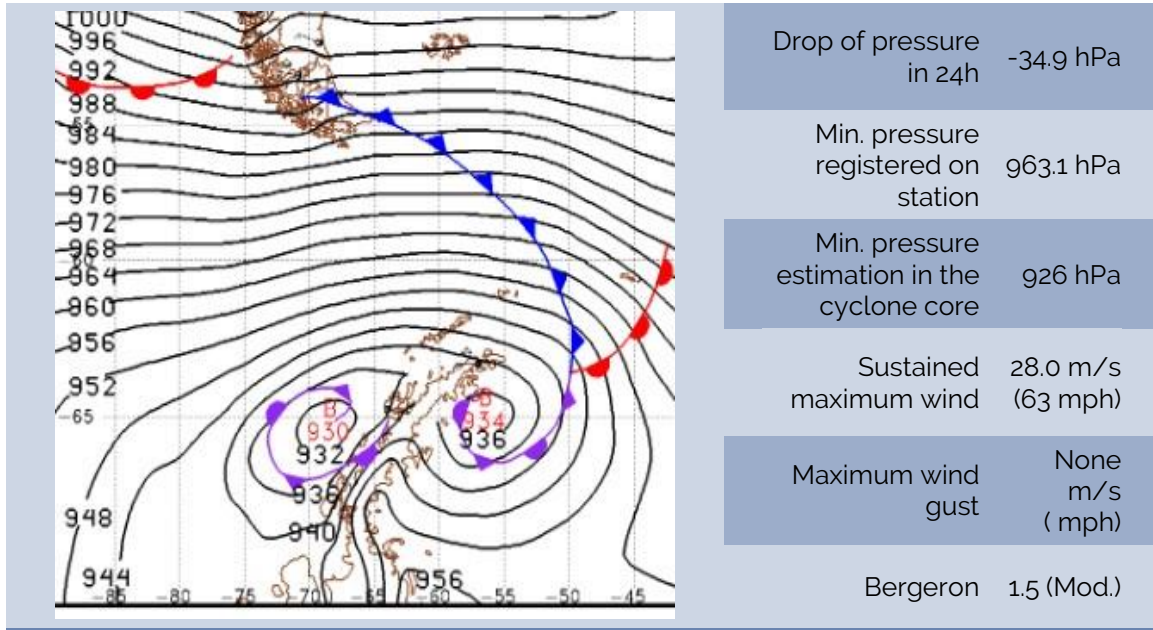
BOMB CYCLONE N°89/2022 - DATE: OCT./09/2022

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



BOMB CYCLONE N°90/2022 - DATE: OCT./09/2022

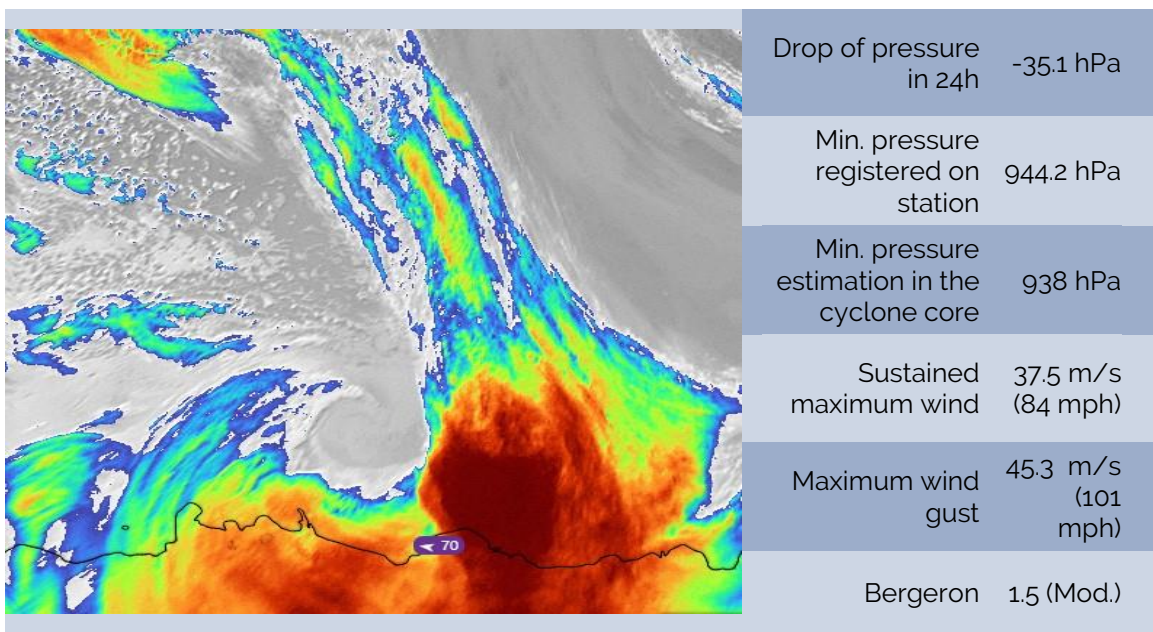
LOCAL: MARAMBIO STATION – WMO 89055 (OPERATED BY ARGENTINA)



BOMB CYCLONE N°91/2022 - DATE: OCT./12/2022

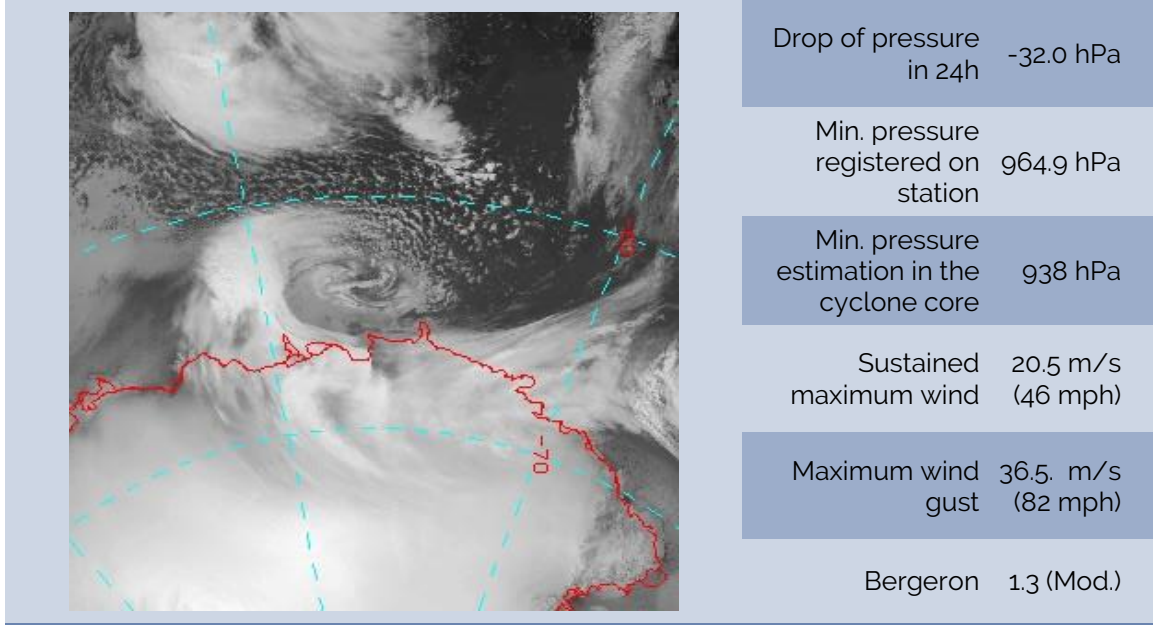
(ANTARCTIC HURRICANE CAT-1)

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



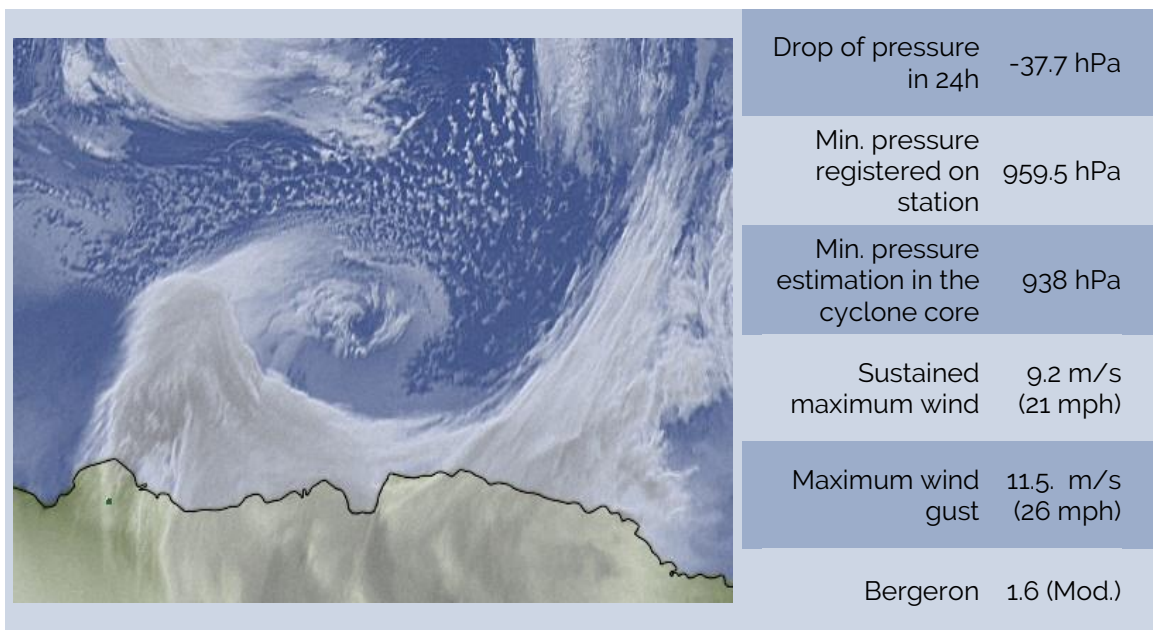
BOMB CYCLONE N°92/2022 - DATE: OCT./14/2022

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



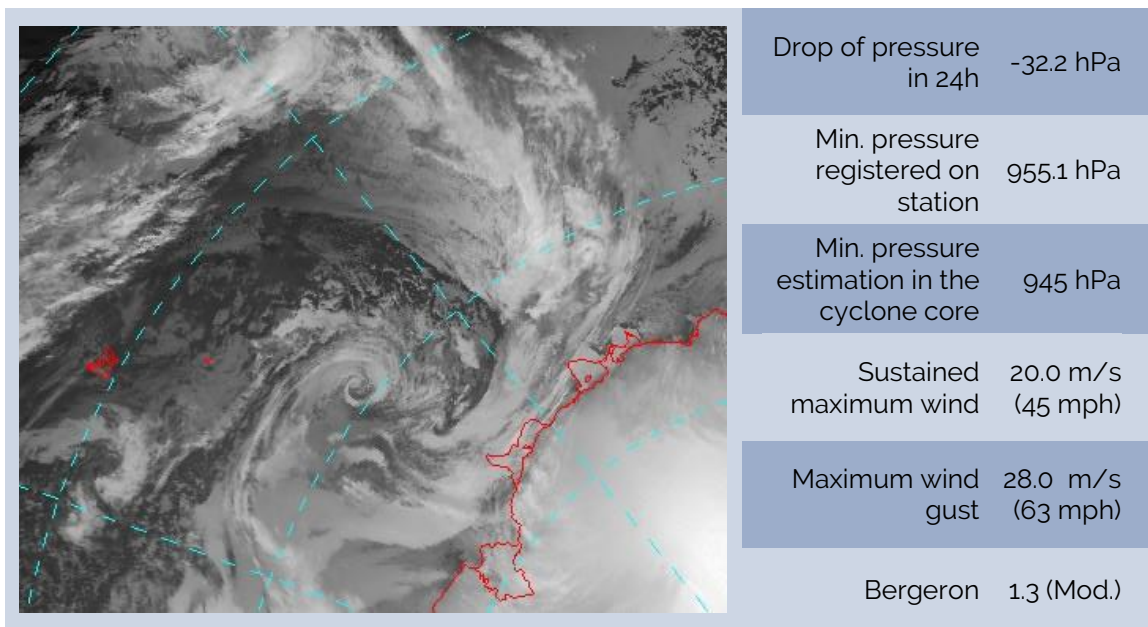
BOMB CYCLONE N°93/2022 - DATE: OCT./15/2022

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



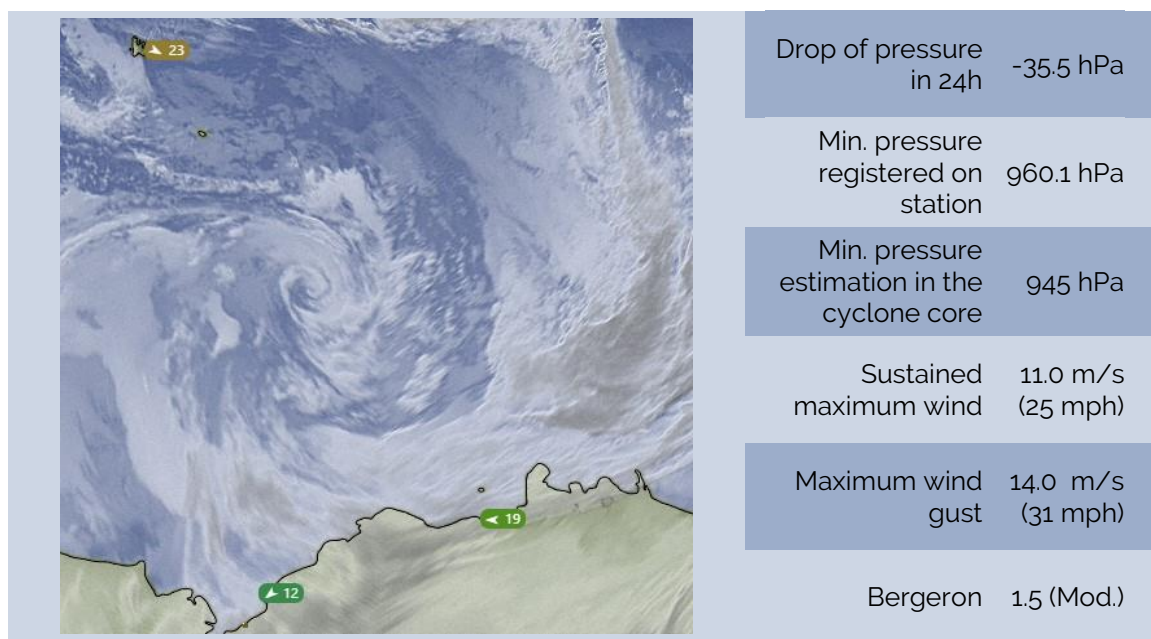
BOMB CYCLONE N°94/2022 - DATE: OCT./15/2022

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



BOMB CYCLONE N°95/2022 - DATE: OCT./15/2022

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



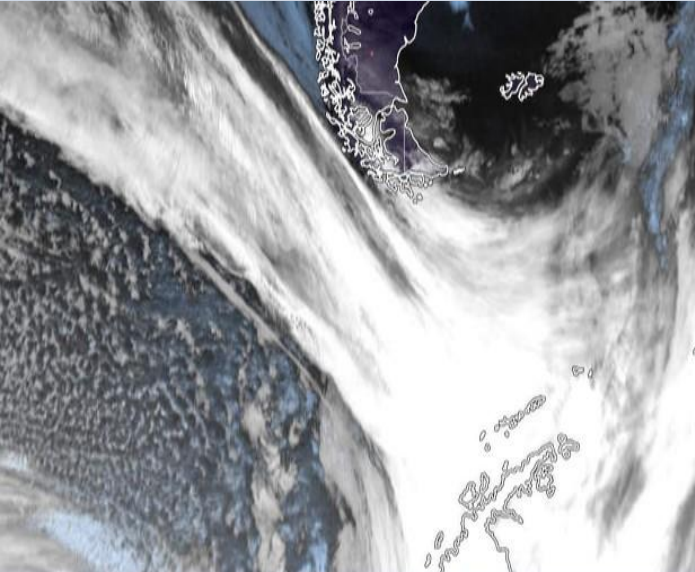
BOMB CYCLONE N°96/2022 - DATE: OCT./17/2022

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

NO IMAGE	Drop of pressure in 24h	-30.9 hPa
	Min. pressure registered on station	943.1 hPa
	Min. pressure estimation in the cyclone core	903 hPa
	Sustained maximum wind	18.5 m/s (41 mph)
	Maximum wind gust	None m/s (mph)
	Bergeron	1.3 (Mod.)

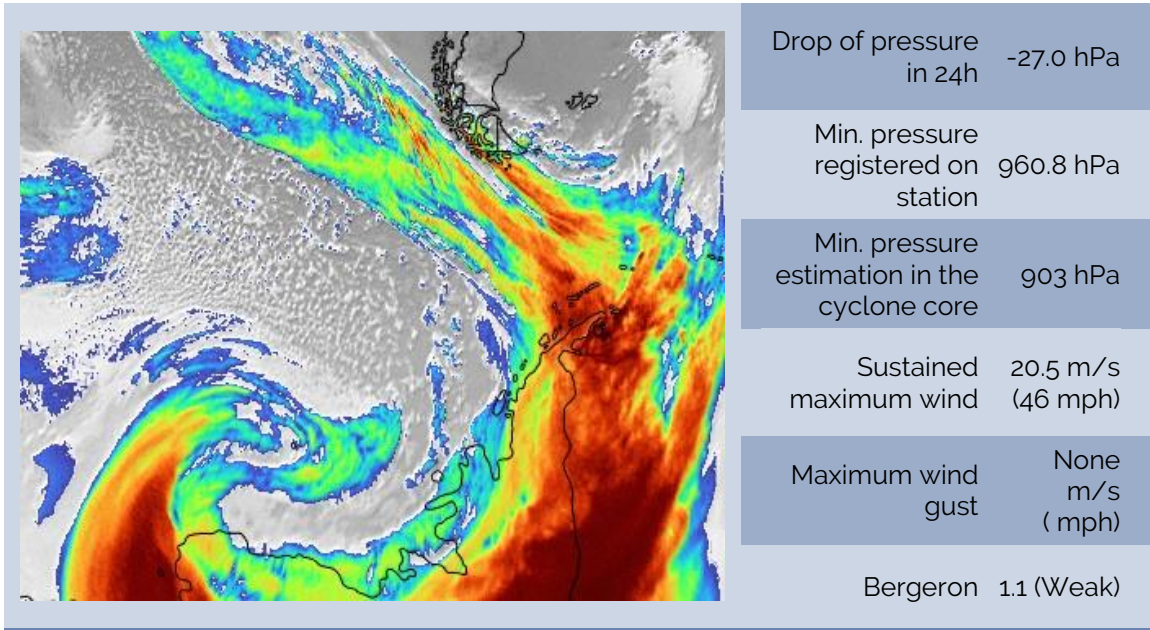
BOMB CYCLONE N°97/2022 - DATE: OCT./17/2022

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

	Drop of pressure in 24h	-24.2 hPa
	Min. pressure registered on station	970.3 hPa
	Min. pressure estimation in the cyclone core	903 hPa
	Sustained maximum wind	24.9 m/s (56 mph)
	Maximum wind gust	46.3 m/s (104 mph)
	Bergeron	1.0 (Weak)

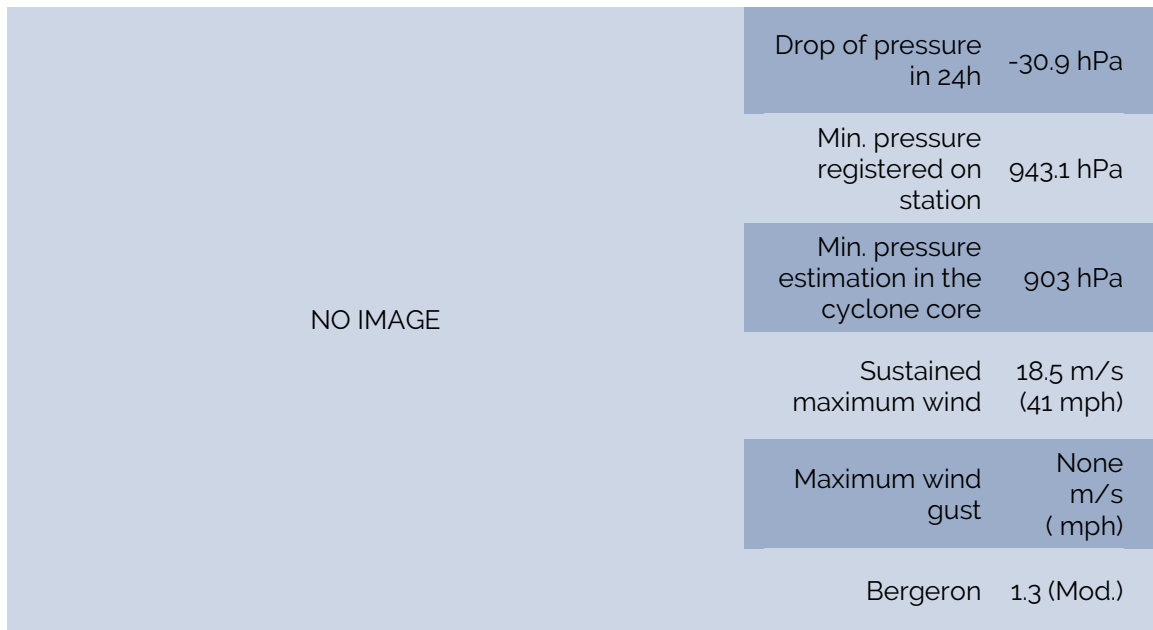
BOMB CYCLONE N°98/2022 - DATE: OCT./17/2022

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



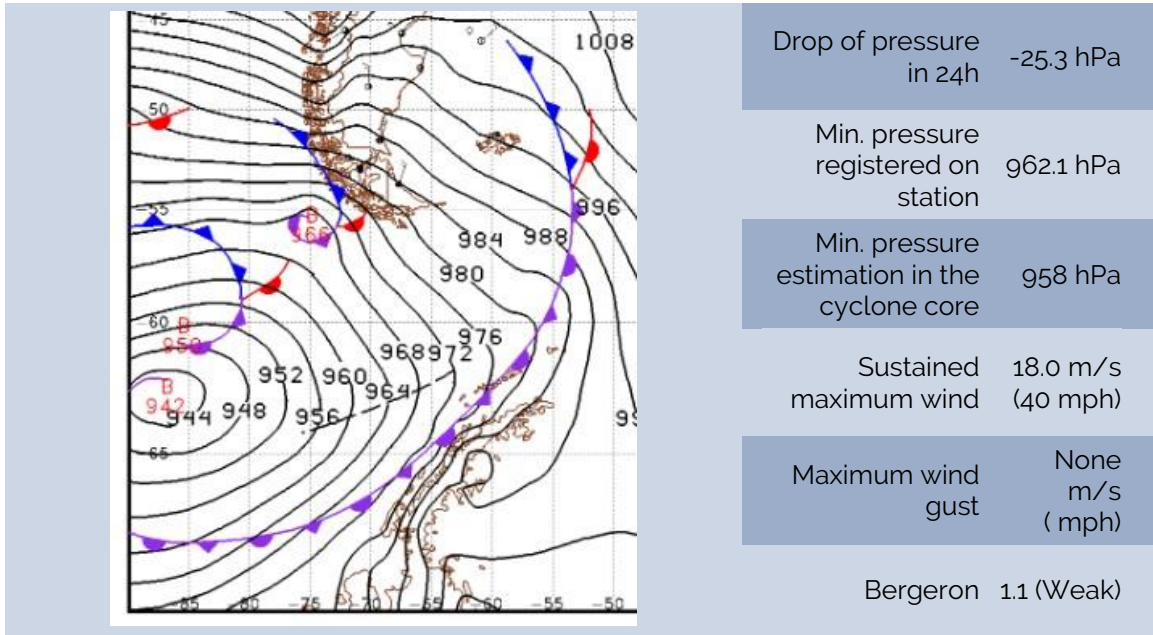
BOMB CYCLONE N°99/2022 - DATE: OCT./17/2022

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



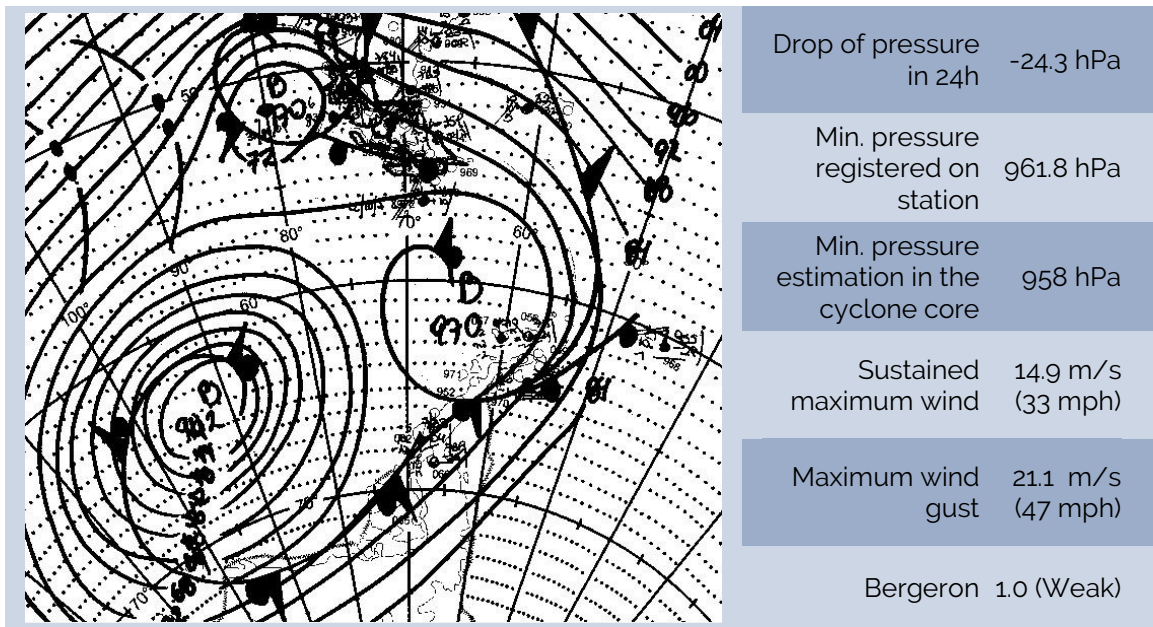
BOMB CYCLONE N°100/2022 - DATE: OCT./27/2022

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



BOMB CYCLONE N°101/2022 - DATE: OCT./27/2022

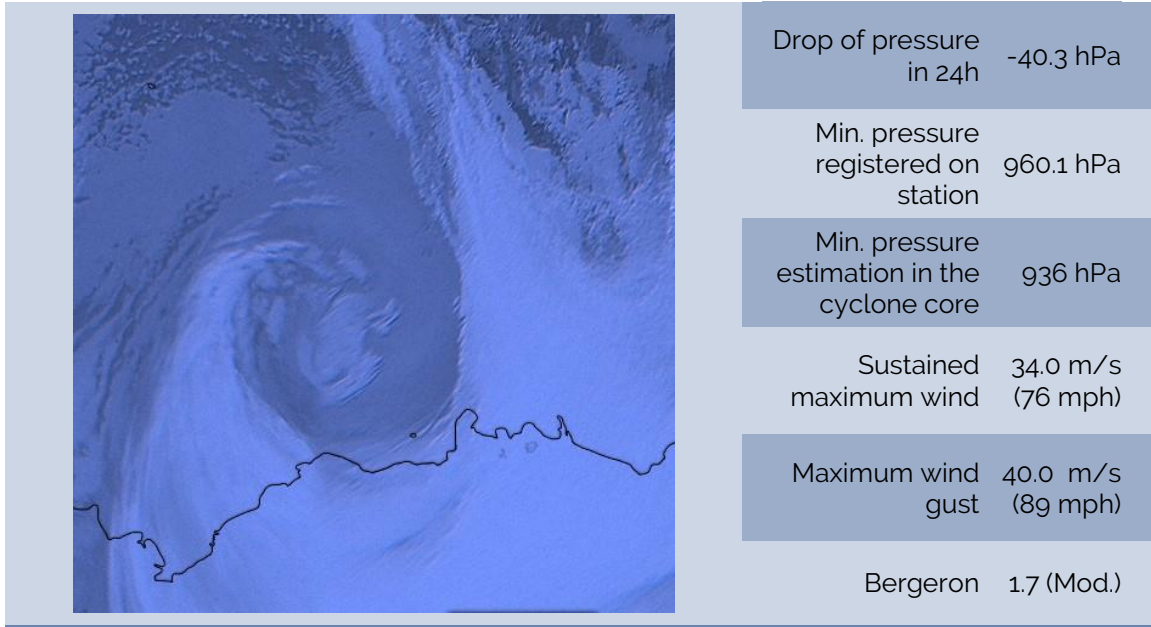
LOCAL: FREI STATION – WMO 89056 (OPERATED BY CHILE)



BOMB CYCLONE N°102/2022 - DATE: OCT./31/2022

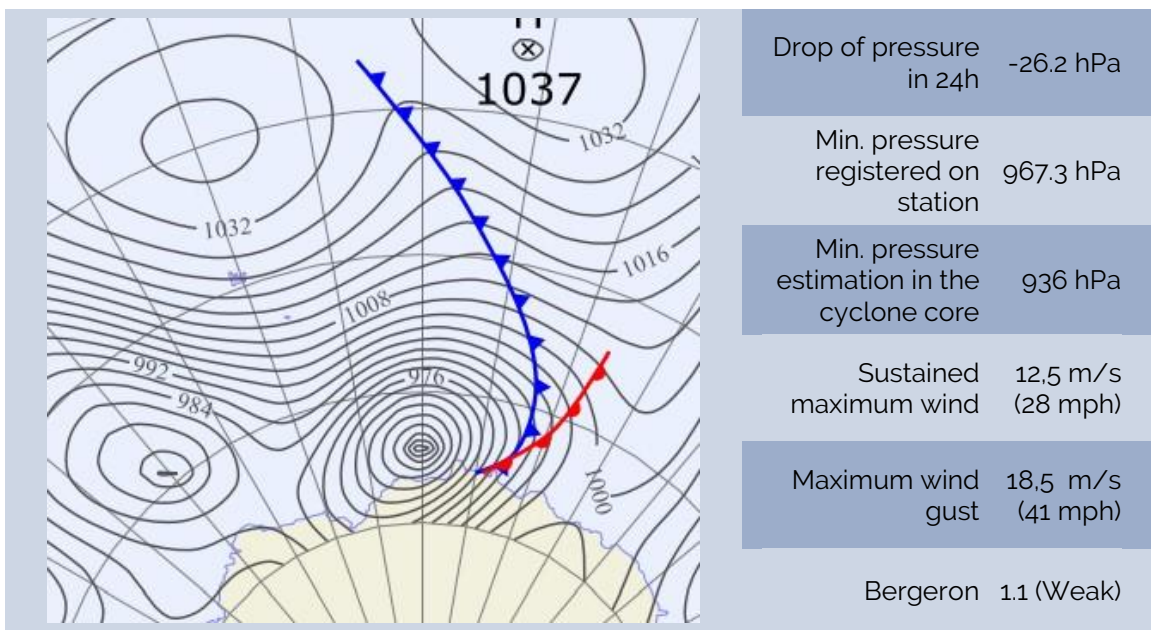
(ANTARCTIC HURRICANE CAT-1)

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



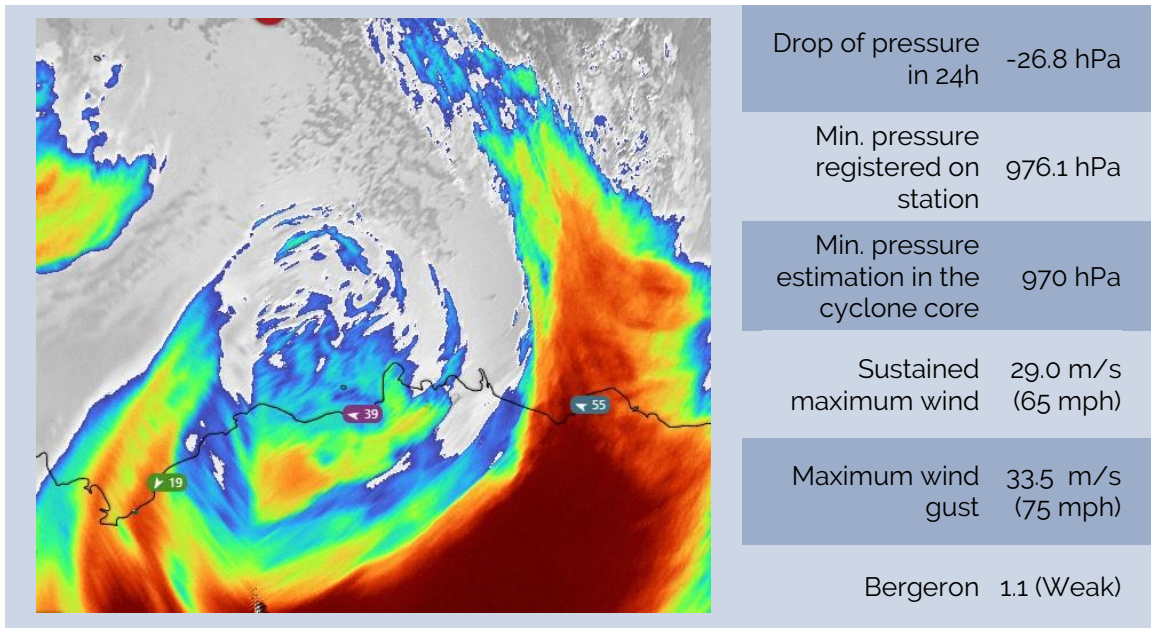
BOMB CYCLONE N°103/2022 - DATE: OCT./31/2022

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



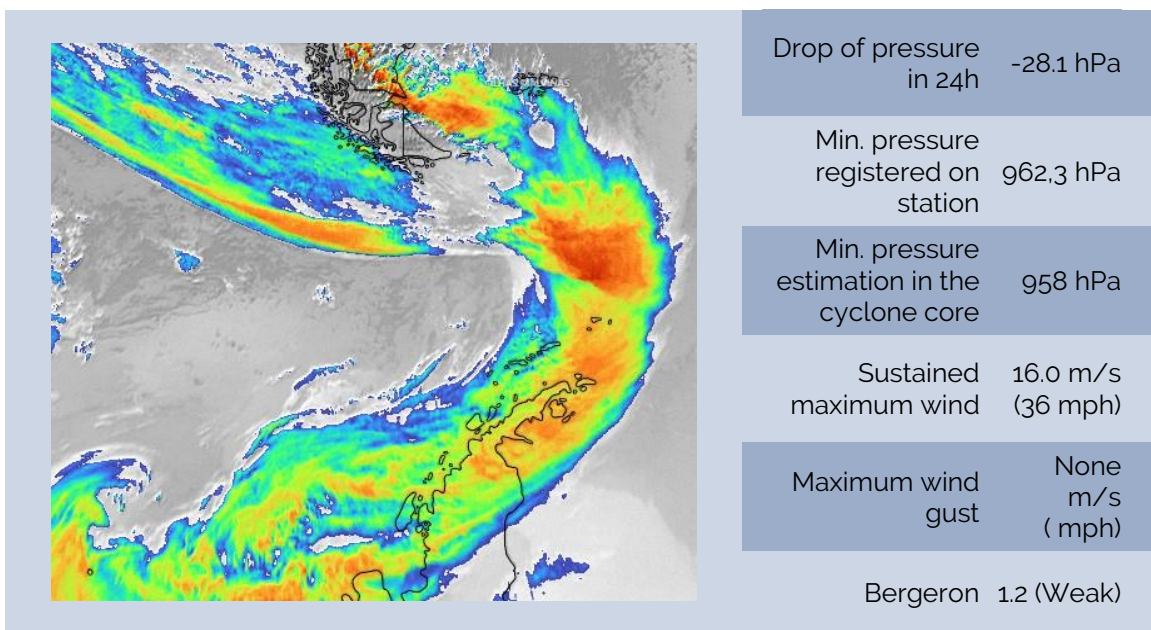
BOMB CYCLONE N°104/2022 - DATE: OCT./31/2022

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



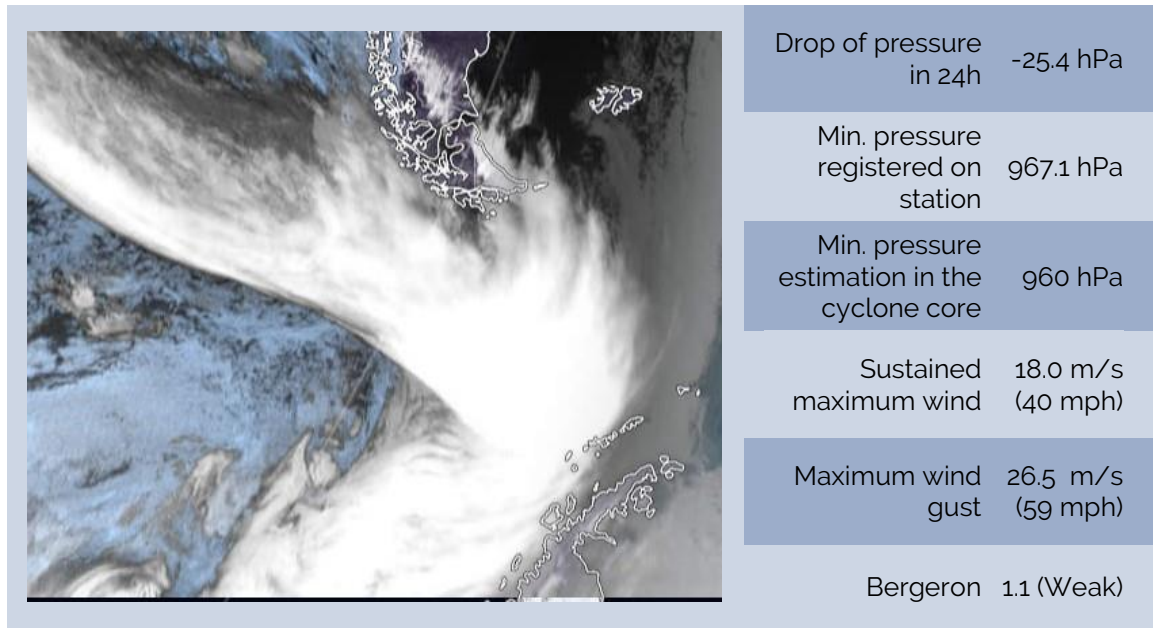
BOMB CYCLONE N°105/2022 - DATE: OCT./31/2022

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



BOMB CYCLONE N°106/2022 - DATE: OCT./31/2022

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



SOURCES

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

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

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

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