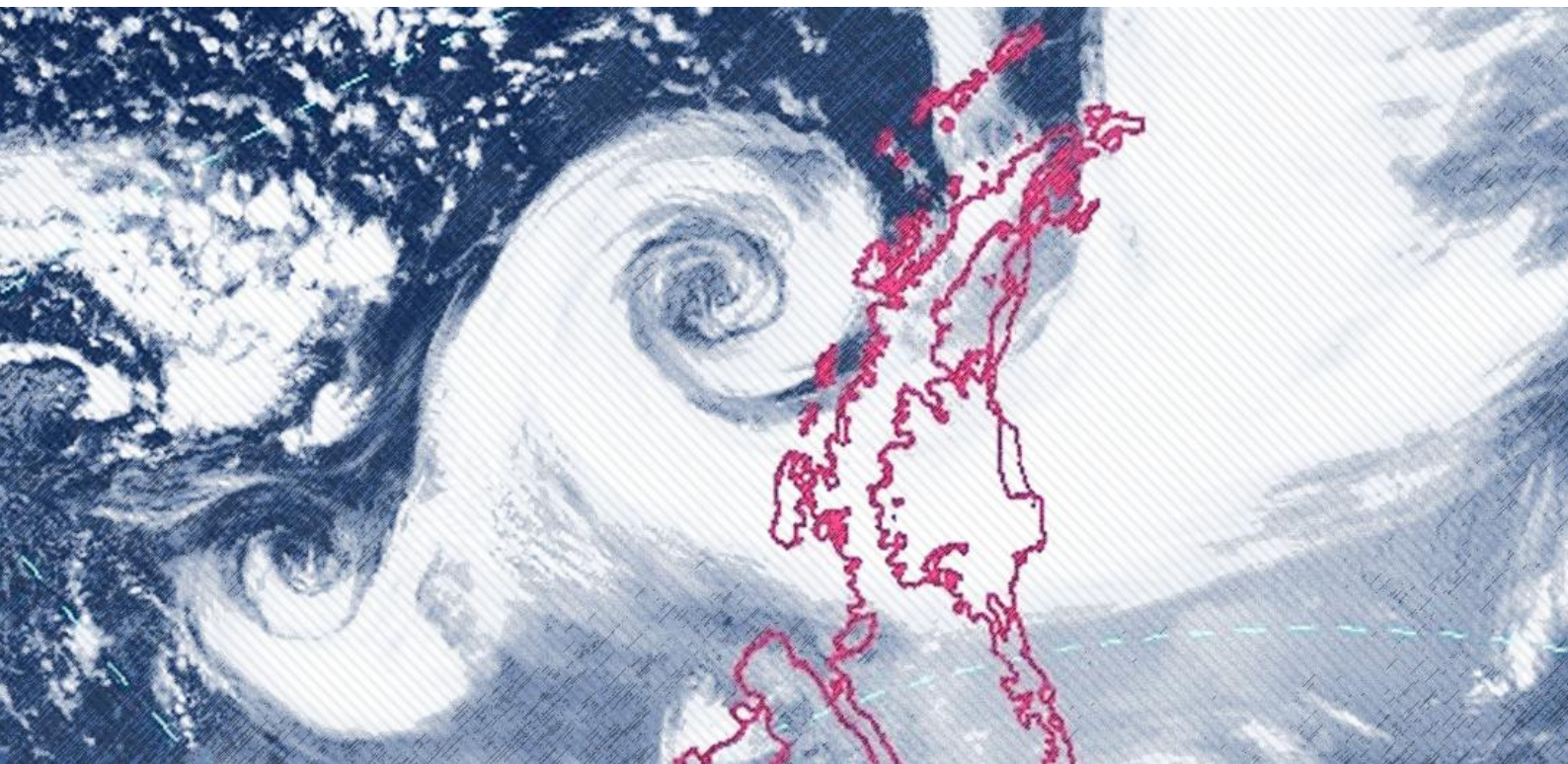




WORLD
ENVIRONMENTAL
CONSERVANCY

MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT



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



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APRIL 2020

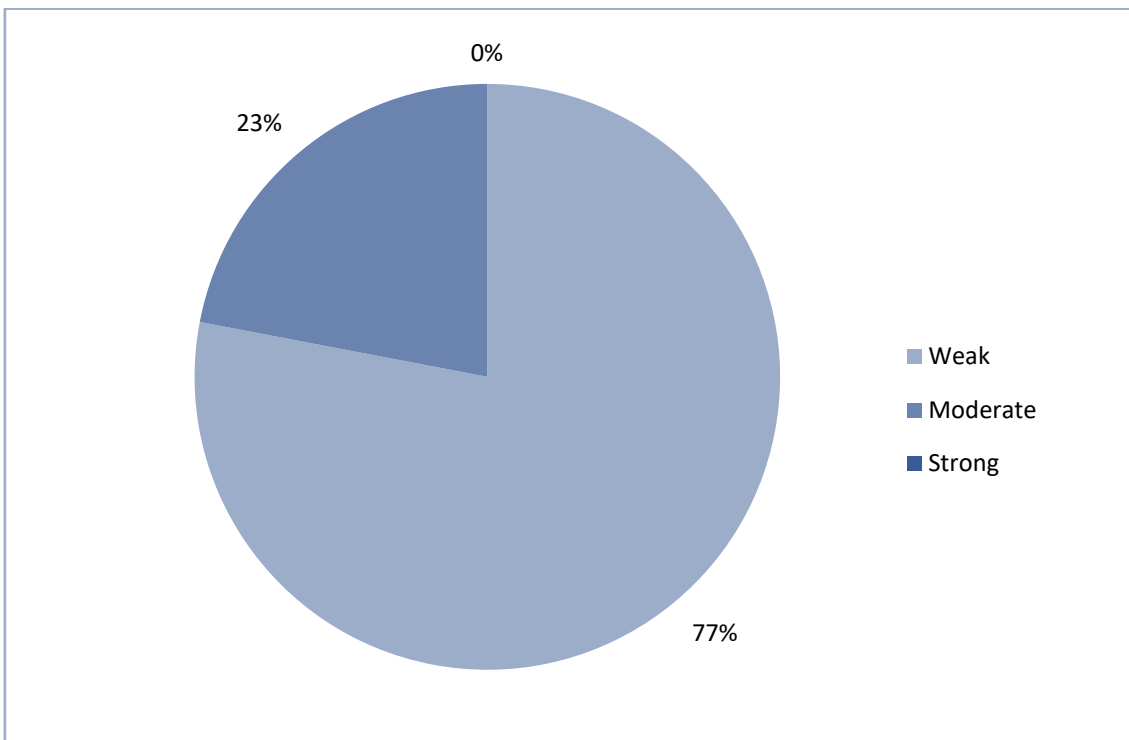
During this month, 12 events were registered among the 13 research stations located on the coast of the Antarctic utilized as references for the monitoring of bomb cyclones. The stations affected by cyclones this month were: Frei, Casey, McMurdo, Fossil Bluff, Palmer, Marambio, Syowa and Mirny. There was a significant increase (50%) in the number of cyclones in comparison to the same month of the previous year (2019).

STATISTICS OF THE MONTH

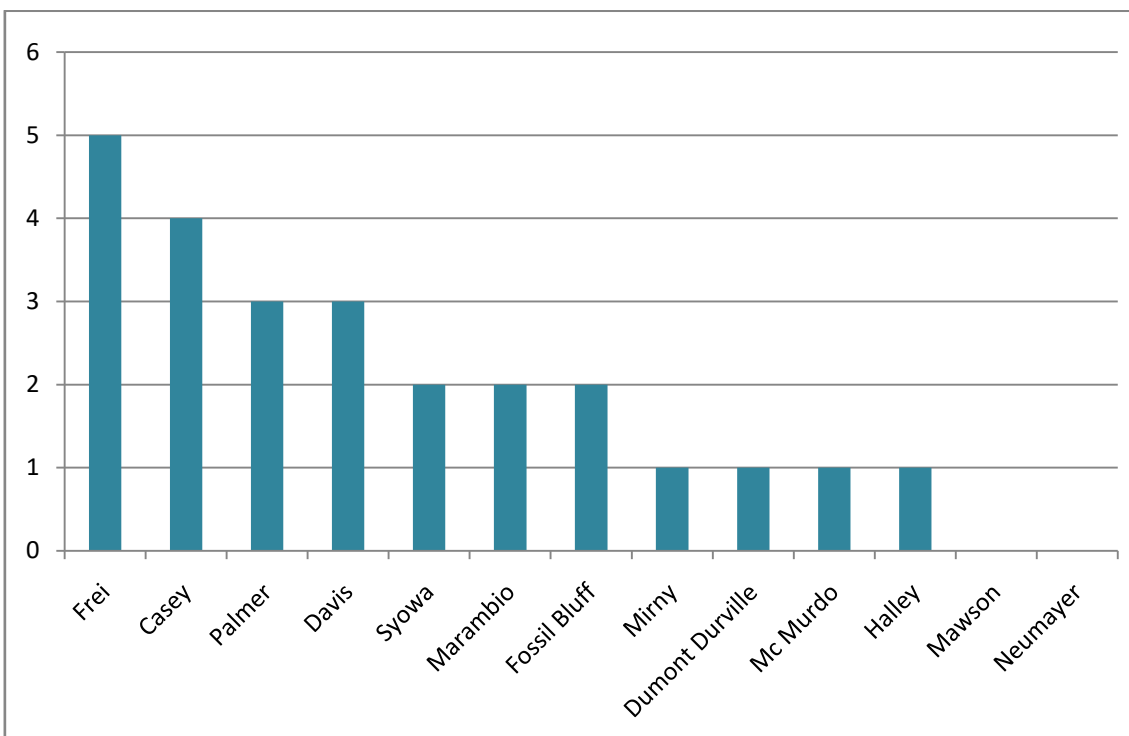
CLASSIFICATION	BERGERON SCALE	INTENSITY	TOTAL OF CASES REGISTERED IN THE MONTH
B1	1 a 1.2	Weak	09
B2	1.3 a 1.8	Moderate	03
B3	> 1.8	Strong	00

HIGHEST PRESSURE DROP	LOWEST RECORDED PRESSURE	HIGHEST SUSTAINED WIND
-33.8 hPa/24h	959.9 hPa	42.0 m/s
Casey	McMurdo	Casey
April 13rd	April 18th	April 13rd

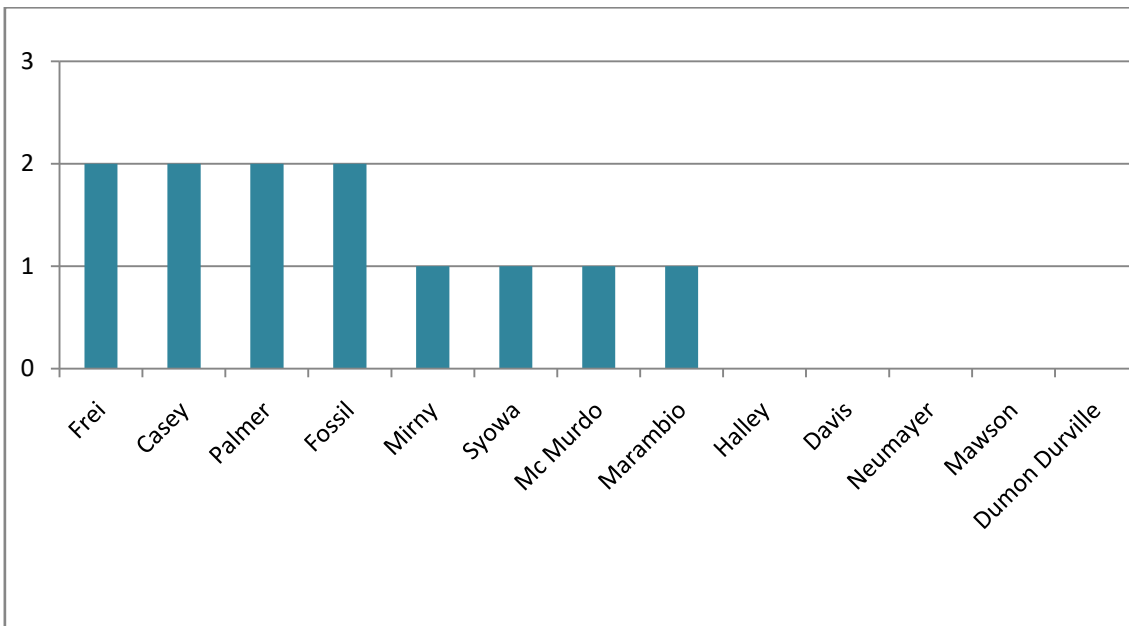
BERGERON INTENSITY TOTAL OF ANNUAL EVENTS IN 2020



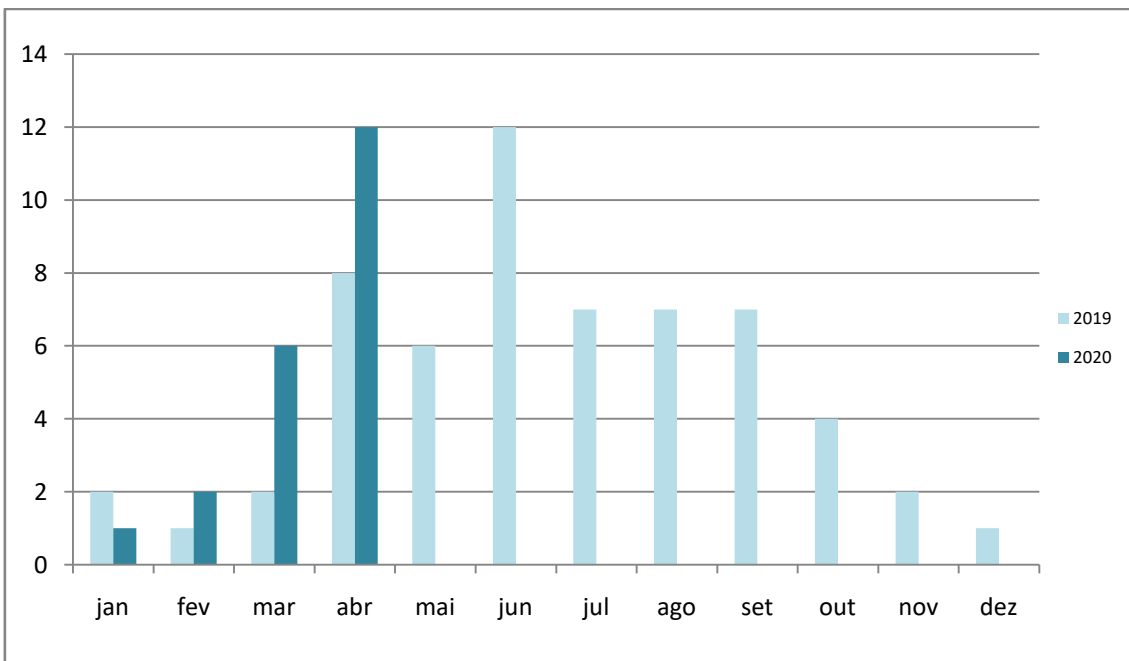
TOTAL OF EVENTS REGISTERED BY STATION IN 2020



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

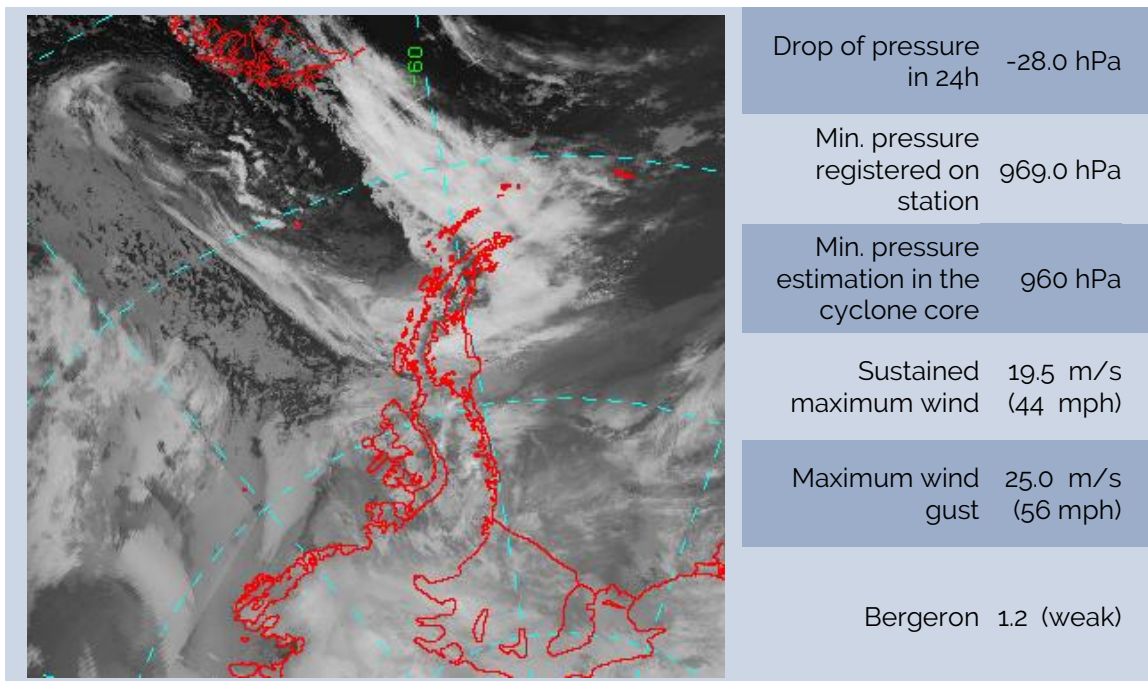


TOTAL EXPLOSIVE CYCLONES IN THE ANTARCTIC



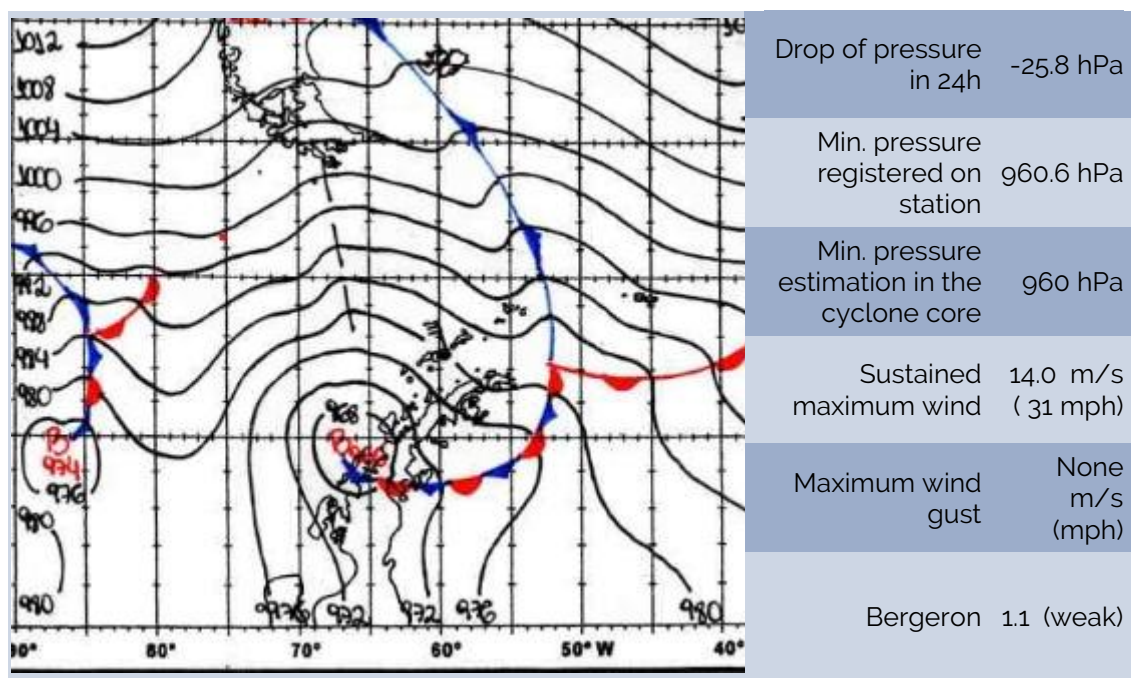
BOMB CYCLONE N°10/2020- DATE: APR/10/2020

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



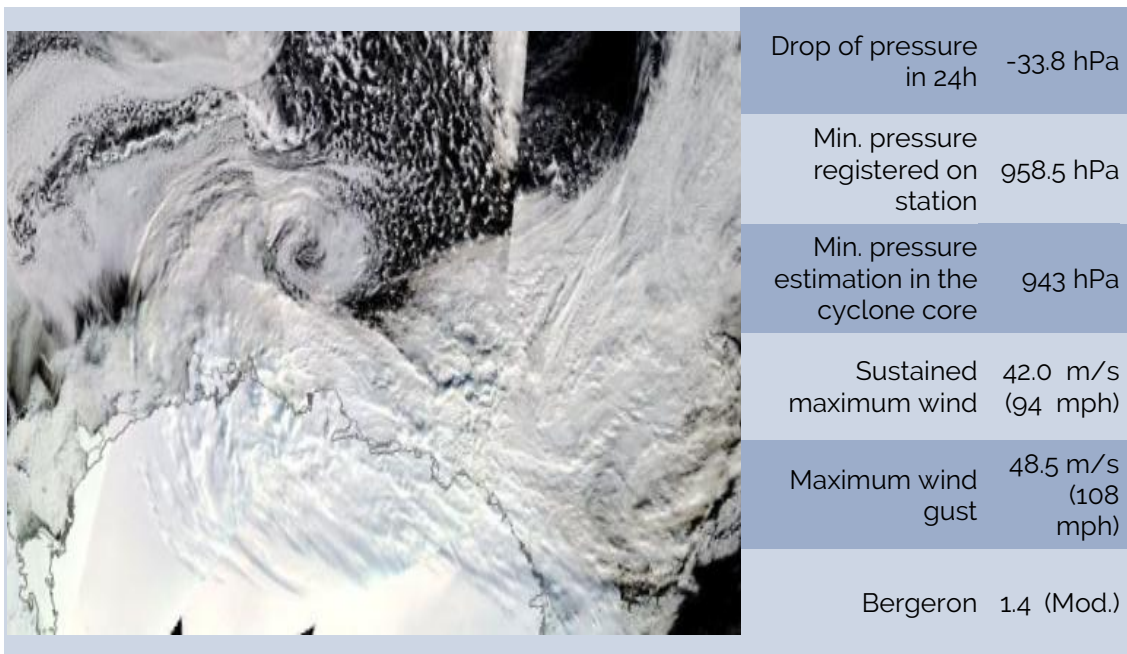
BOMB CYCLONE N°11/2020- DATE: APR/10/2020

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



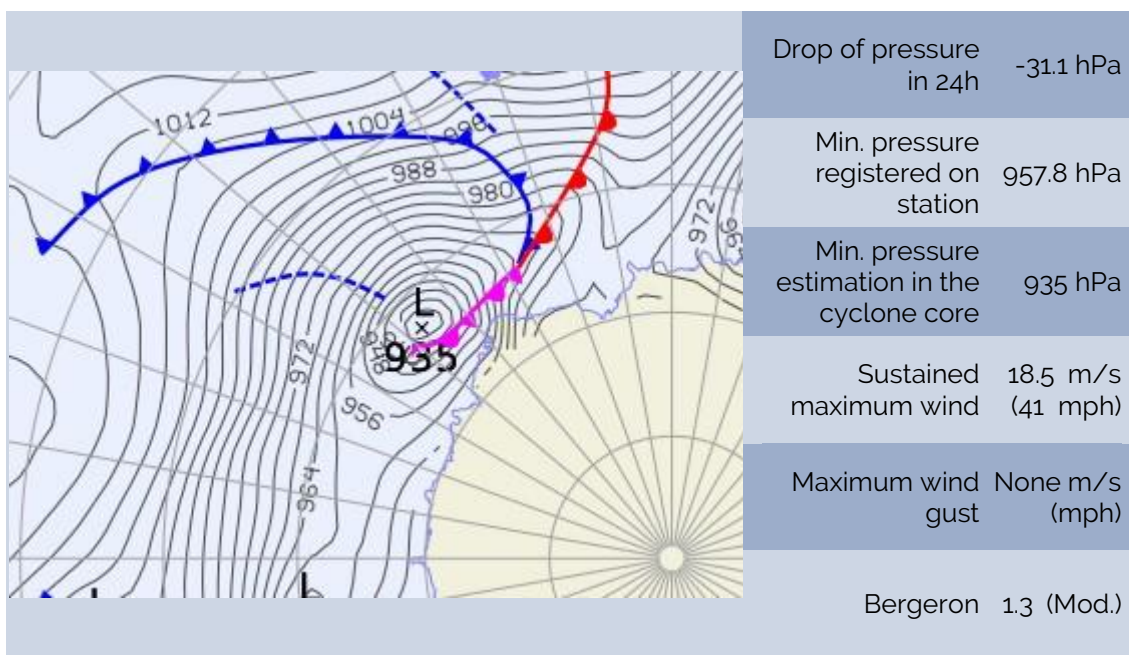
BOMB CYCLONE N°12/2020 - DATE: APR/13/2020

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



BOMB CYCLONE N°13/2020 - DATE: APR/14/2020

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



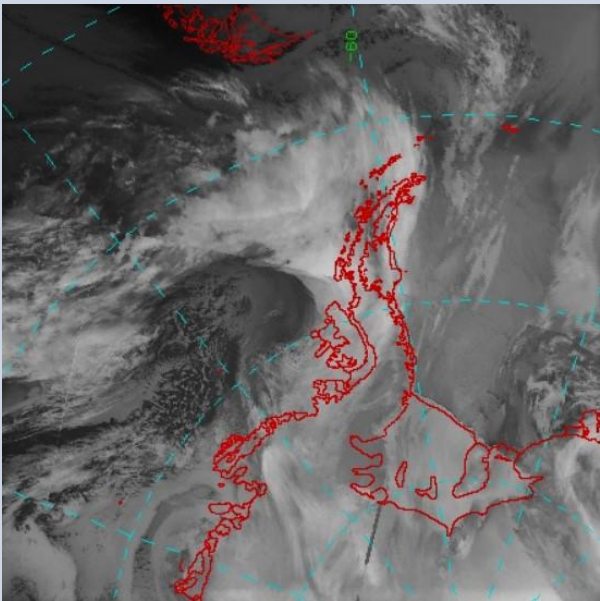
BOMB CYCLONE N°14/2020- DATE: APR/18/2020

LOCAL: MC MURDO STATION – WMO 89664 (OPERATED BY U.S.A.)

NO IMAGE	Drop of pressure in 24h	-29.2 hPa
	Min. pressure registered on station	959.9 hPa
	Min. pressure estimation in the cyclone core	956 hPa
	Sustained maximum wind	15.0 m/s (34 mph)
	Maximum wind gust	None m/s (mph)
	Bergeron	1.2 (weak)

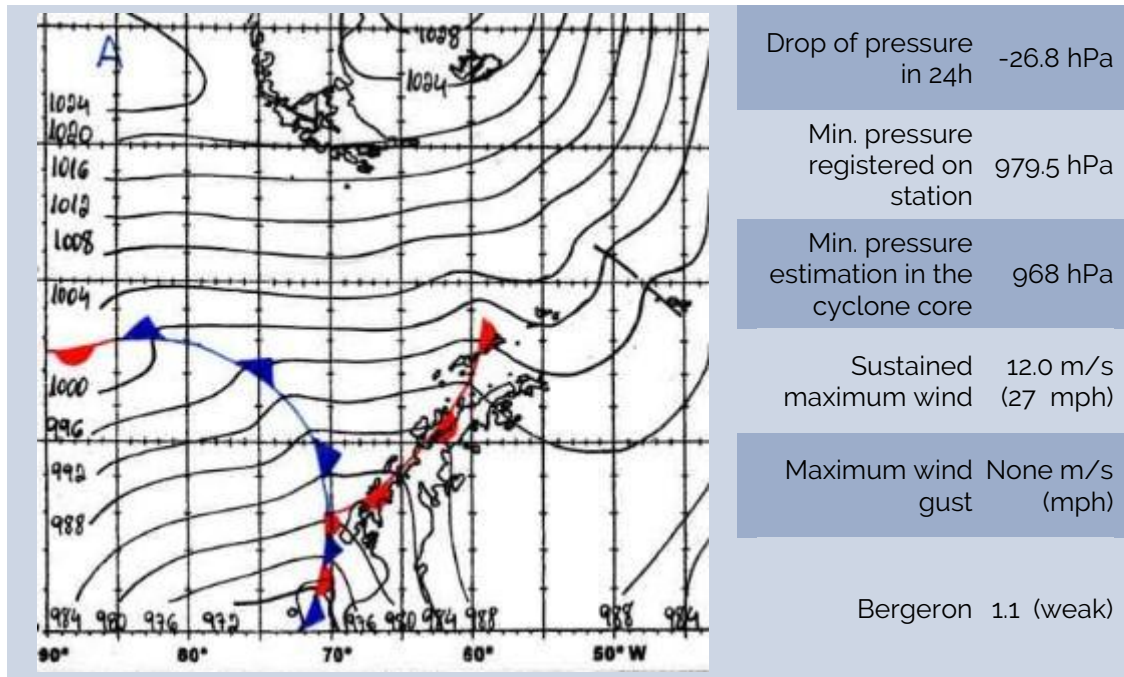
BOMB CYCLONE N°15/2020- DATE: APR/26/2020

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

	Drop of pressure in 24h	-29.3 hPa
	Min. pressure registered on station	971.4 hPa
	Min. pressure estimation in the cyclone core	968 hPa
	Sustained maximum wind	13.5 m/s (30 mph)
	Maximum wind gust	None m/s (mph)
	Bergeron	1.2 (weak)

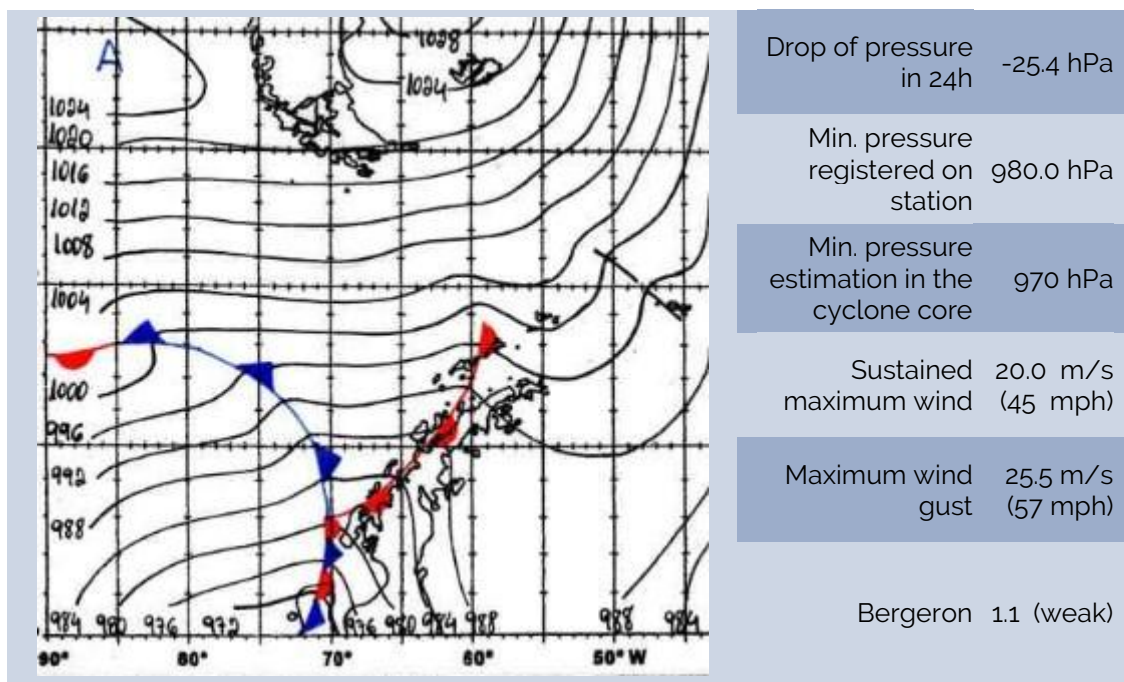
BOMB CYCLONE N°16/2020- DATE: APR/26/2020

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



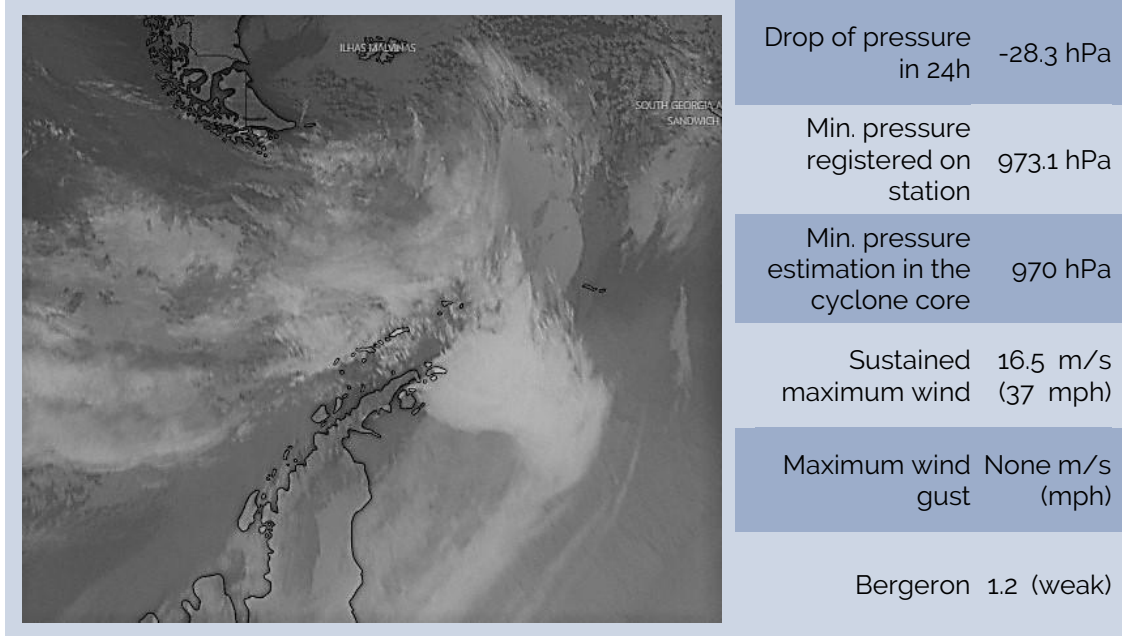
BOMB CYCLONE N°17/2020- DATE: APR/26/2020

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



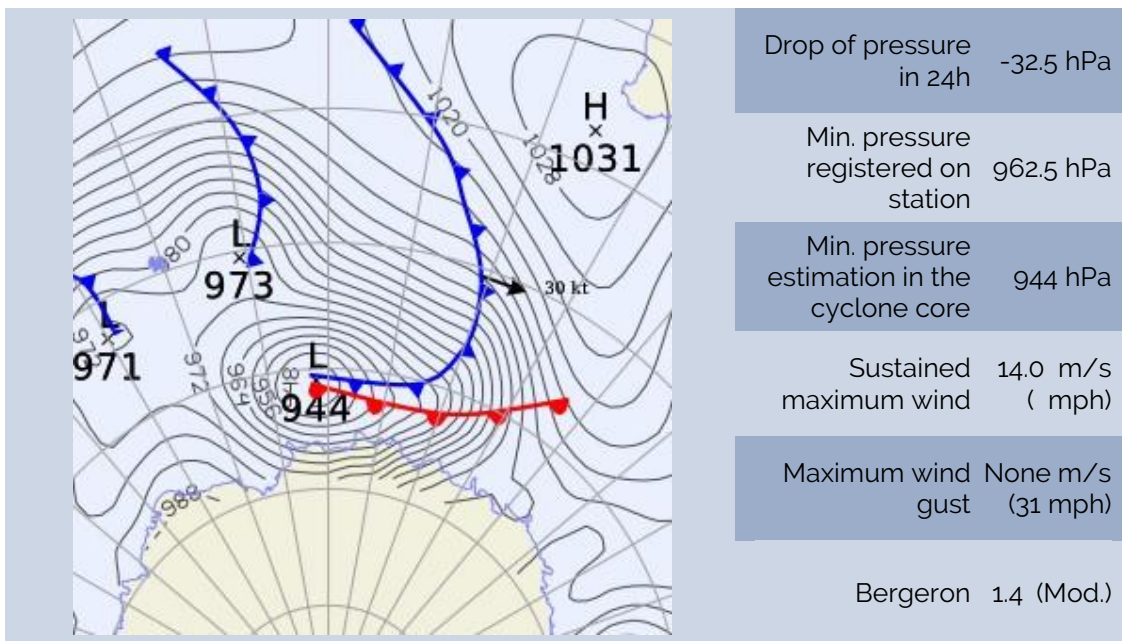
BOMB CYCLONE N°18/2020- DATE: APR/26/2020

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



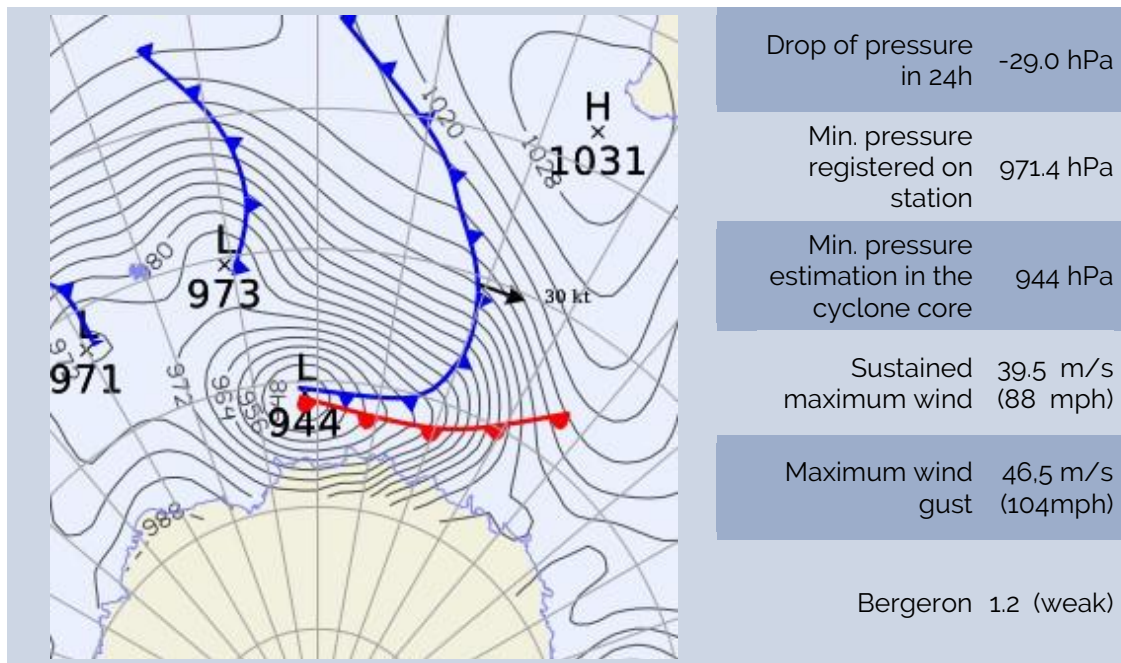
BOMB CYCLONE N°19/2020- DATE: APR/29/2020

LOCAL: MIRNY STATION – WMO 89532 (OPERATED BY RUSSIA)



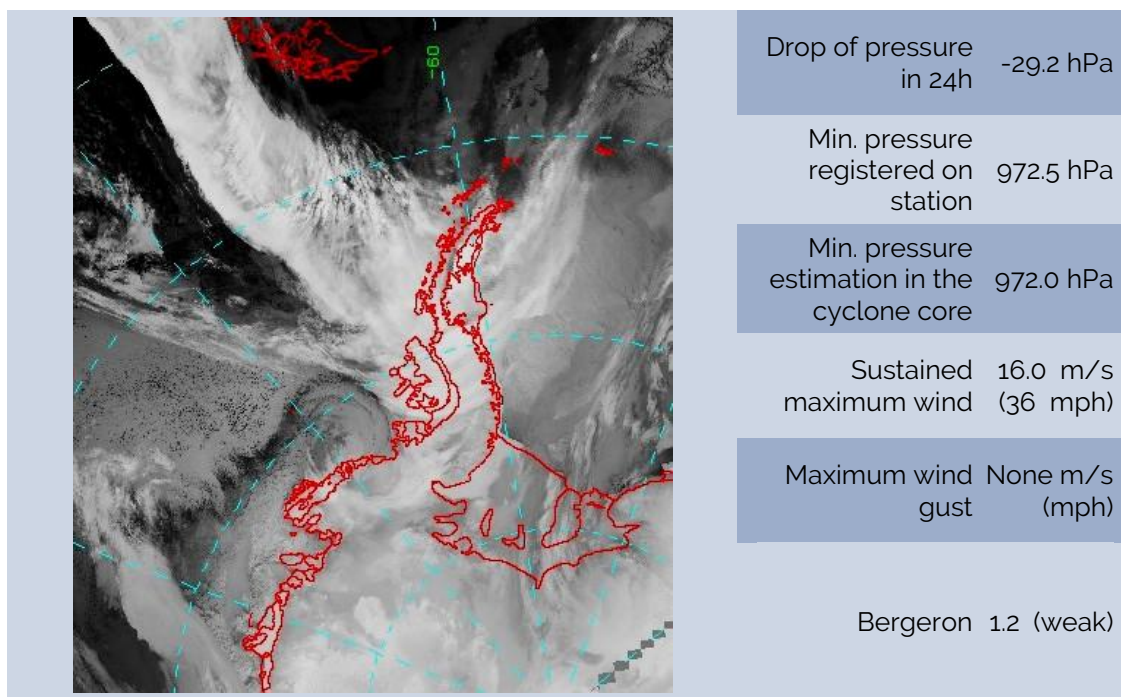
BOMB CYCLONE N°20/2020- DATE: APR/29/2020

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



BOMB CYCLONE N°21/2020- DATE: APR/29/2020

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



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>