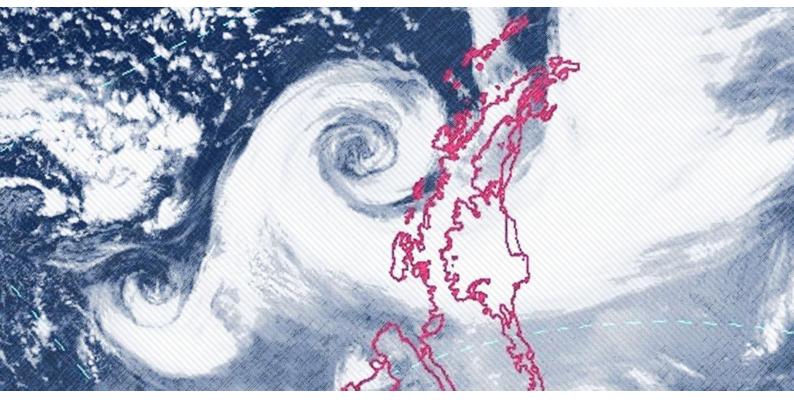


MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT



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



MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT

MAY 2024

During this month, 11 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 Palmer, Frei, Mawson, McMurdo, Marambio, Fossil Bluff and Dumont D'Urville. The cyclone that hit Mawson reached the category of Antarctic Hurricane AH-1.

TOTAL OF EVENTS REGISTERED IN STATIONS IN APRIL

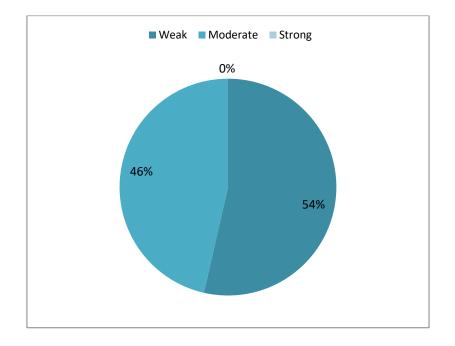
2017	2018	2019	2020	2021	2022	2023	2024
10	08	06	04	07	05	10	11

STATISTICS OF THE MONTH: MAY 2024

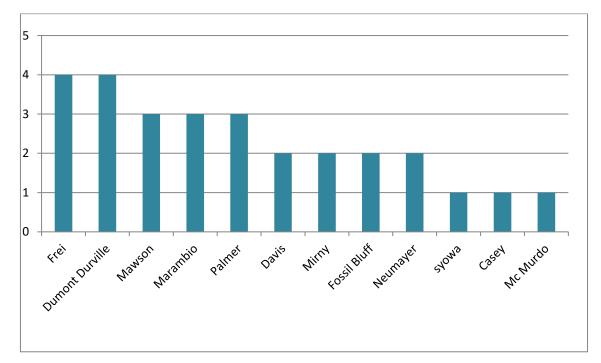
CLASSIFICATION	BERGERON SCALE	INTENSITY	TOTAL OF CASES REGISTERED IN THE MONTH
B1	1 a 1.2	Weak	06
B2	1.3 a 1.8	Moderate	05
B3	> 1.8	Strong	00

HIGHEST PRESSURE DROP	LOWEST RECORDED PRESSURE	HIGHEST SUSTAINED WIND
-36.6 hPa/24h	953.8 hPa	35.0 m/s
Marambio Station	McMurdo Station	Mawson Station
May 18	May 05	May 27

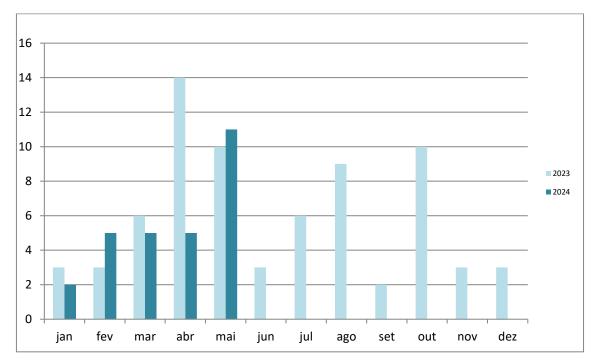
BERGERON INTENSITY TOTAL OF ANNUAL EVENTS IN 2024



TOTAL OF EVENTS REGISTERED BY STATION IN 2024



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TOTAL EXPLOSIVE CYCLONES IN THE ANTARCTIC

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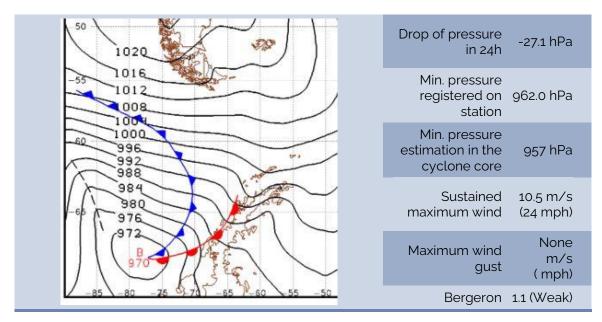
BOMB CYCLONE N°16/2024 - DATE: MAY/05/2024

Drop of pressure -36.4 hPa in 24h Min. pressure registered on 953.8 hPa station Min. pressure estimation in the 938 hPa cyclone core Sustained 21.0 m/s maximum wind (47 mph) None Maximum wind m/s gust (mph) 80 Bergeron 1.5 (Mod.)

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

BOMB CYCLONE Nº17/2024 - DATE: MAY/11/2024

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



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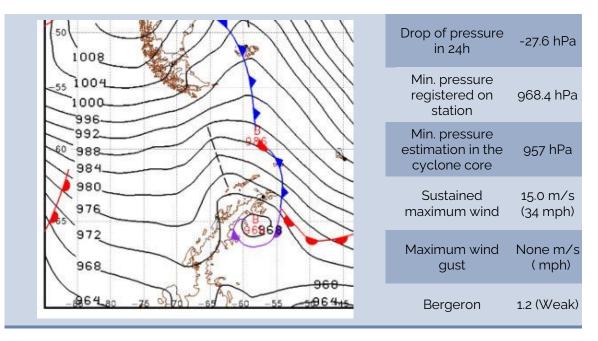
BOMB CYCLONE N°18/2024 - DATE: MAY/11/2024

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

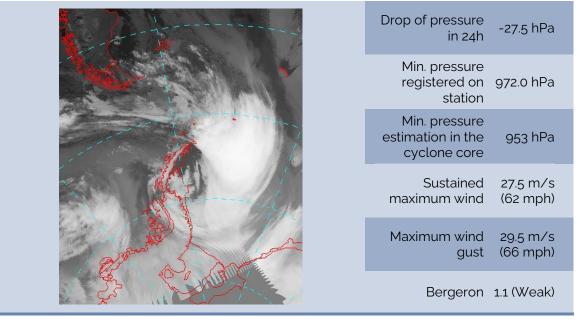
Drop of pressure in 24h	-30.4 hPa
Min. pressure registered on station	961.8 hPa
Min. pressure estimation in the cyclone core	957 hPa
Sustained maximum wind	21.0 m/s (47 mph)
Maximum wind gust	None m/s (mph)
Bergeron	1.3 (Mod.)

BOMB CYCLONE Nº19/2024 - DATE: MAY/11/2024

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



BOMB CYCLONE N°20/2024 - DATE: MAY/18/2024



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

BOMB CYCLONE N°21/2024 - DATE: MAY/18/2024

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

	Drop of pressure in 24h	-36.6 hPa
	Min. pressure registered on station	963.4 hPa
	Min. pressure estimation in the cyclone core	953 hPa
	Sustained maximum wind	23.0 m/s (51 mph)
6.500	Maximum wind gust	None m/s (mph)
	Bergeron	1.5 (Mod.)

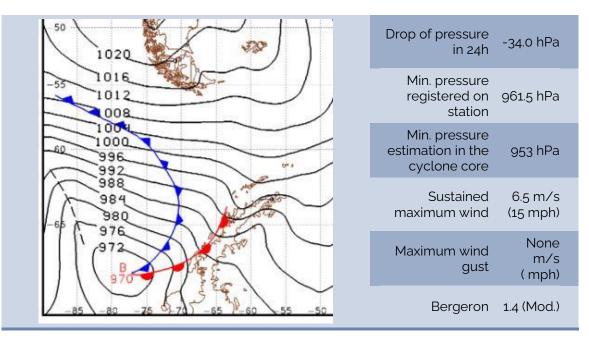
BOMB CYCLONE N°22/2024 - DATE: MAY/18/2024

	Drop of pressure in 24h	-30.0 hPa
	Min. pressure registered on station	973.4 hPa
	Min. pressure estimation in the cyclone core	953 hPa
	Sustained maximum wind	19.0 m/s (43 mph)
and the second second	Maximum wind gust	None m/s (mph)
S CLARK	Bergeron	1.3 (Mod.)

LOCAL: PALMER STATION - WMO 89 (OPERATED BY U.S.A.)

BOMB CYCLONE N°23/2024 - DATE: MAY/18/2024

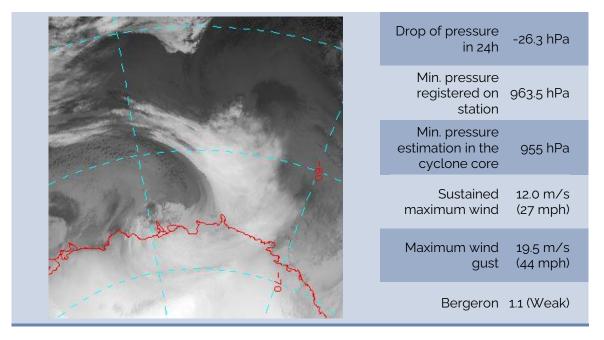
LOCAL: FOSSIL BLUFF STATION - WMO 89065 (OPERATED BY U.K.)



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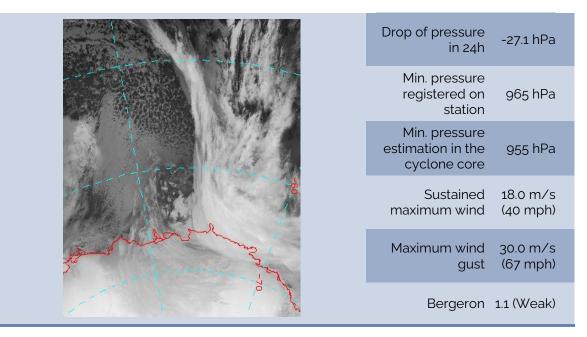
BOMB CYCLONE N°24/2024 - DATE: MAY/19/2024

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



BOMB CYCLONE N°25/2024 - DATE: MAY/22/2024

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



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BOMB CYCLONE N°26/2024 - DATE: MAY/27/2024 - AH-1

LOCAL: MAWON STATION - WMO 89564 (OPERATED BY AUSTRALIA)

Drop of pressure in 24h	-25.0 hPa
Min. pressure registered on station	955.1 hPa
Min. pressure estimation in the cyclone core	953 hPa
Sustained maximum wind	35.0 m/s (78 mph)
Maximum wind gust	49.0 m/s (110 mph)
Bergeron	1.1 (Weak)

SOURCES

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