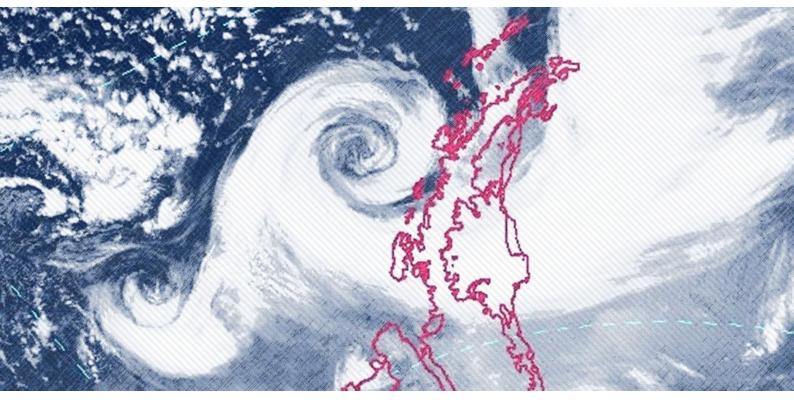


MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT



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



MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT

MARCH 2024

During this month, only 05 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 Frei, Mirny, Mawson, Syowa and Dumon D'Urville. <u>The cyclone that hit</u> <u>Mawson on the 17th reached the category of Antarctic Hurricane AH-1</u>.

TOTAL OF EVENTS REGISTERED IN STATIONS IN MARCH

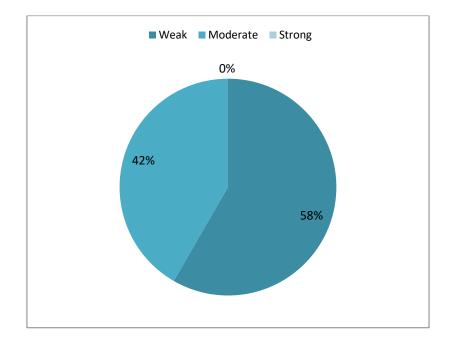
2017	2018	2019	2020	2021	2022	2023	2024
07	06	02	06	05	05	06	05

STATISTICS OF THE MONTH: MARCH 2024

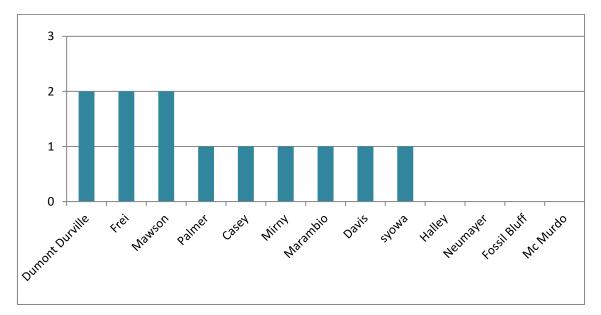
CLASSIFICATION	BERGERON SCALE	INTENSITY	TOTAL OF CASES REGISTERED IN THE MONTH
B1	1 a 1.2	Weak	03
B2	1.3 a 1.8	Moderate	02
B3	> 1.8	Strong	00

HIGHEST PRESSURE DROP	LOWEST RECORDED PRESSURE	HIGHEST SUSTAINED WIND
-34.1 hPa/24h	956.1 hPa	34.0 m/s
Dumont D'Urville Station	Mirny Station	Mawson Station
Mar. 05	Mar. 03	Mar. 17

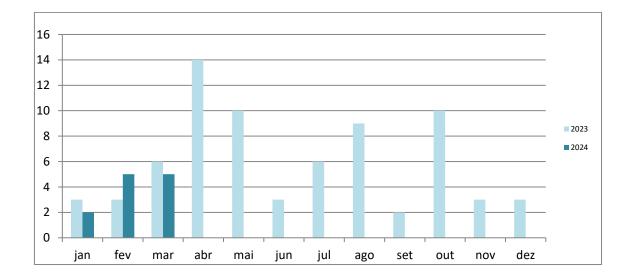
BERGERON INTENSITY TOTAL OF ANNUAL EVENTS IN 2024



TOTAL OF EVENTS REGISTERED BY STATION IN 2024



MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT – World Environmental Conservancy



TOTAL EXPLOSIVE CYCLONES IN THE ANTARCTIC

MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT – World Environmental Conservancy

BOMB CYCLONE N°06/2024 - DATE: MAR./03/2024

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

	Drop of pressure in 24h	-26.8 hPa
	Min. pressure registered on station	956.1 hPa
	Min. pressure estimation in the cyclone core	939 hPa
	Sustained maximum wind	32.0 m/s (72 mph)
A dear and a dear and a dear a d	Maximum wind gust	42.0m/s (94 mph)
	Bergeron	1.0 (Weak)

BOMB CYCLONE N°07/2024 - DATE: MAR./05/2024

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

	Drop of pressure in 24h	-34.1 hPa
	Min. pressure registered on station	960.1 hPa
The states and the st	Min. pressure estimation in the cyclone core	952 hPa
	Sustained maximum wind	25.5 m/s (57 mph)
	Maximum wind gust	41.0m/s (92 mph)
	Bergeron	1.4 (Mod.)

BOMB CYCLONE N°08/2024 - DATE: MAR./17/2024

(ANTARCTIC HURRICANE CAT-1)

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

	Drop of pressure in 24h	-25.0 hPa
	Min. pressure registered on station	970.2 hPa
Tank 2	Min. pressure estimation in the cyclone core	944 hPa
	Sustained maximum wind	34.0 m/s (76 mph)
	Maximum wind gust	44.5 m/s (100 mph)
	Bergeron	1.1 (Weak)

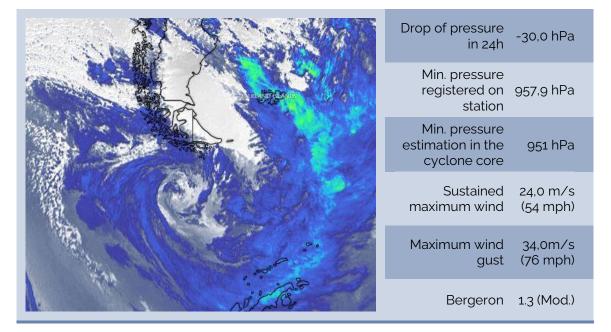
BOMB CYCLONE N°09/2024 - DATE: MAR./23/2024

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

	Drop of pressure in 24h	-28.2 hPa
	Min. pressure registered on station	961.6 hPa
	Min. pressure estimation in the cyclone core	940 hPa
	Sustained maximum wind	24.0 m/s (54 mph)
11 Same	Maximum wind gust	None m/s (mph)
	Bergeron	1.2 (Weak)

BOMB CYCLONE N°10/2024 - DATE: MAR./29/2024

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



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

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