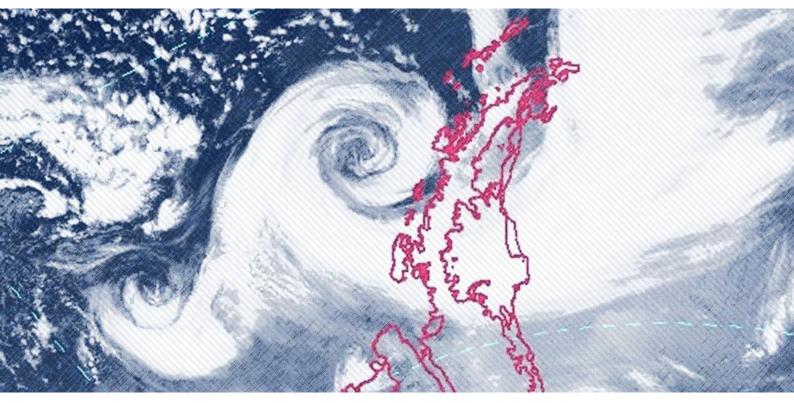


MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT



NOVEMBER 2021

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



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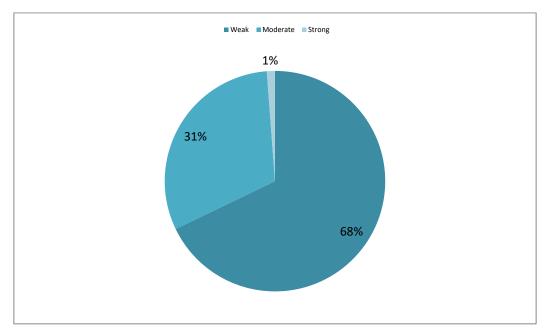
NOVEMBER 2021

During this month, 04 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, Mawson, Dumont D'Urville and Fossil Bluff. There was a decrease (20%) in the number of cyclones in comparison to the same month of the previous year (2020).

STATISTICS OF THE MONTH

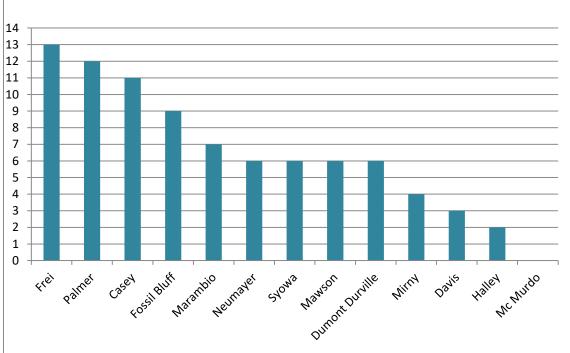
CLASSIFICATION	BERGERON SCALE	INTENSITY	TOTAL OF CASES REGISTERED IN THE MONTH
B1	1 a 1.2	Weak	03
B2	1.3 a 1.8	Moderate	01
B3	> 1.8	Strong	00

HIGHEST PRESSURE DROP	LOWEST REGISTERED PRESSURE	HIGHEST SUSTAINED WIND	
-33.1 hPa/24h	951.7 hPa	34.5 m/s	
Fossil Bluff Station	Fossil Bluff Station	Mawson Station	
Nov. 10	Nov. 10	Nov. 13	

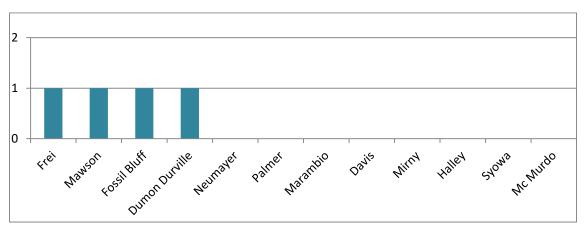


BERGERON INTENSITY TOTAL OF ANNUAL EVENTS IN 2021



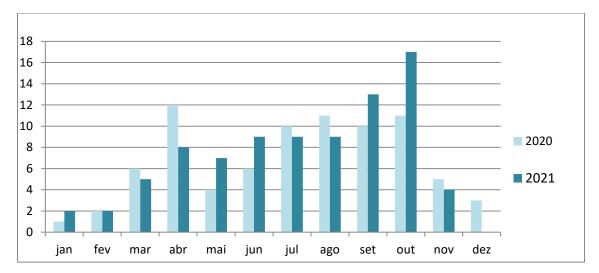


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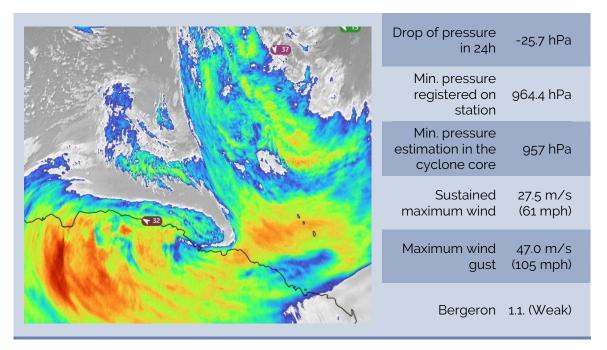


TOTAL OF EVENTS REGISTERED IN EACH STATION IN THE MONTH OF NOV./2021

TOTAL EXPLOSIVE CYCLONES IN THE ANTARCTIC



BOMB CYCLONE N°82/2021 - DATE: NOV./03/2021



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

BOMB CYCLONE N°83/2021 - DATE: NOV./10/2021

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

	Drop of pressure in 24h	-33.1 hPa
	Min. pressure registered on station	951.7 hPa
	Min. pressure estimation in the cyclone core	939 hPa
	Sustained maximum wind	None m/s (mph)
S C C C	Maximum wind gust	None m/s (mph)
and the second s	Bergeron	1.4. (Mod.)

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BOMB CYCLONE N°84/2021 - DATE: NOV./13/2021

	Drop of pressure in 24h	-25.7 hPa
	Min. pressure registered on station	957.4 hPa
954	Min. pressure estimation in the cyclone core	954 hPa
	Sustained maximum wind	34.5 m/s (77 mph)
	Maximum wind gust	47.0 m/s (105 mph)
131111924	Bergeron	1.1. (Weak)

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

BOMB CYCLONE Nº85/2021 - DATE: NOV./17/2021

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

Sum are	Drop of pressure in 24h -24.4 hPa
	Min. pressure registered on 961.6 hPa station
	Min. pressure estimation in the g56 hPa cyclone core
	Sustained 16.5 m/s maximum wind (37 mph)
	Maximum wind 20.0 m/s gust (45 mph)
a share a second	Bergeron 1.0 (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

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