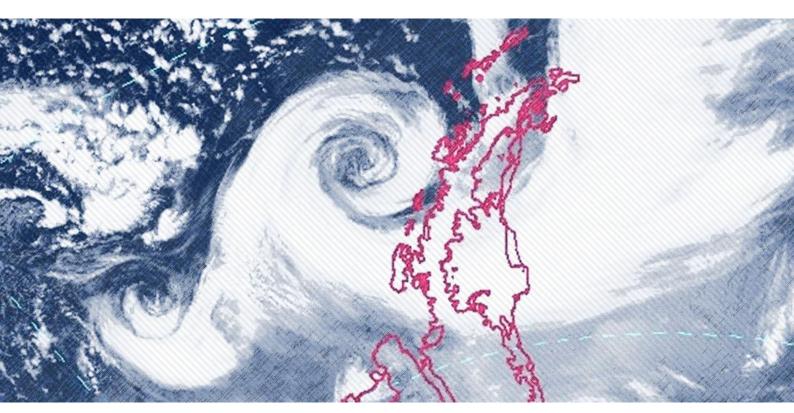


# MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT



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



# MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT

### MARCH 2022

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, Dumont D'Urville, Palmer and Davis.

#### TOTAL OF EVENTS REGISTERED IN STATIONS IN MARCH

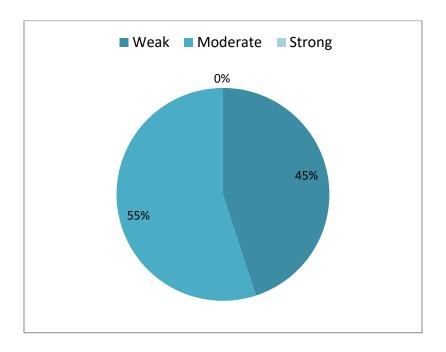
2017	2018	2019	2020	2021	2022
07	06	02	06	05	05

#### STATISTICS OF THE MONTH: MARCH 2022

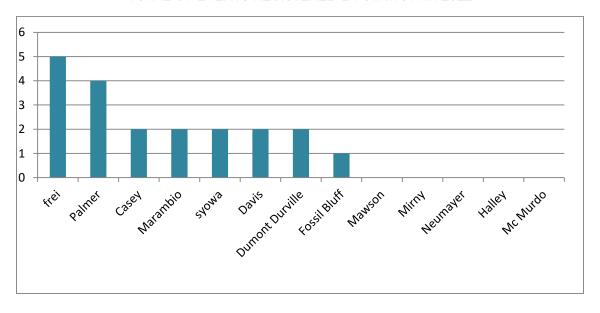
CLASSIFICATION	BERGERON SCALE	INTENSITY	TOTAL OF CASES REGISTERED IN THE MONTH
B1	1 a 1.2	Weak	04
B2	1.3 a 1.8	Moderate	01
В3	> 1.8	Strong	00

HIGHEST PRESSURE DROP	LOWEST RECORDED PRESSURE	HIGHEST SUSTAINED WIND	
-37.5 hPa/24h	955 hPa	32.0 m/s	
Dumont D'Urville Station	Palmer Station	Dumont D'Urville Station	
Mar. 04	Mar. 21	Mar. 04	

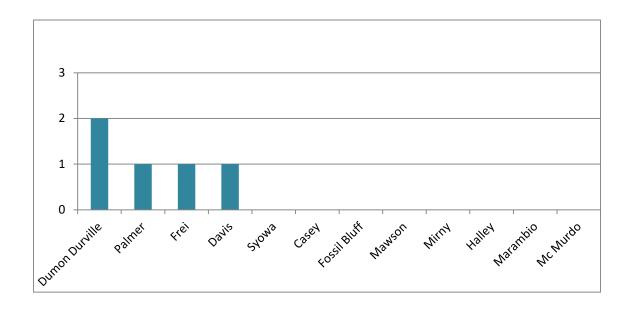
#### BERGERON INTENSITY TOTAL OF ANNUAL EVENTS IN 2022



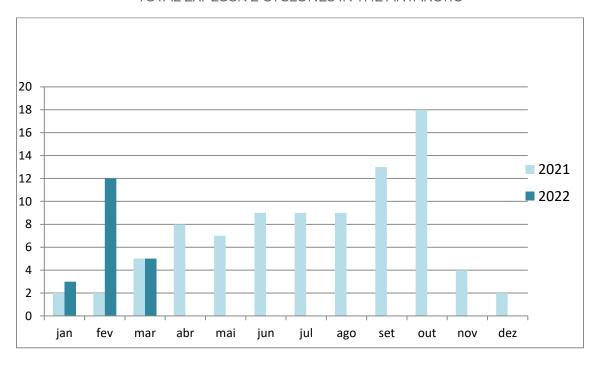
#### TOTAL OF EVENTS REGISTERED BY STATION IN 2022



#### TOTAL OF EVENTS REGISTERED IN EACH STATION IN THE MONTH OF MARCH/2022

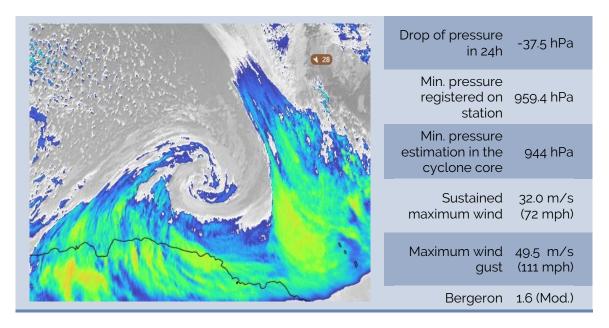


#### TOTAL EXPLOSIVE CYCLONES IN THE ANTARCTIC



# BOMB CYCLONE N°14/2022- DATE: MAR./04/2022

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



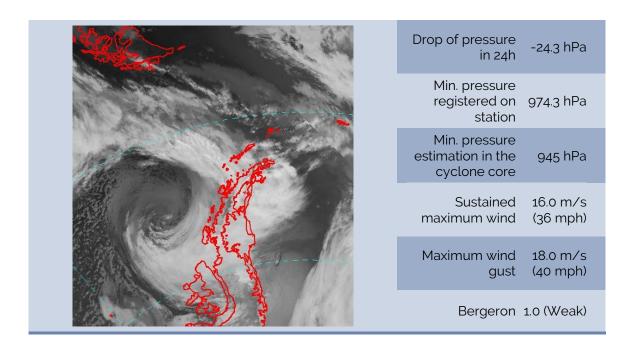
BOMB CYCLONE N°15/2022- DATE: MAR./18/2022

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

	Drop of pressure in 24h	-26.2 hPa
	Min. pressure registered on station	979.5 hPa
NO IMAGE	Min. pressure estimation in the cyclone core	970 hPa
	Sustained maximum wind	12.5 m/s (28 mph)
	Maximum wind gust	21.0 m/s (47 mph)
	Bergeron	1.1 (Weak)

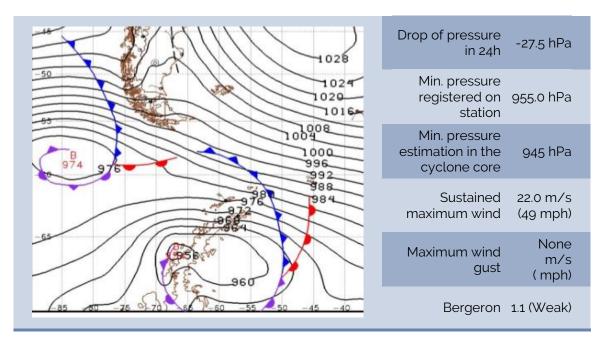
## BOMB CYCLONE N°16/2022- DATE: MAR./21/2022

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



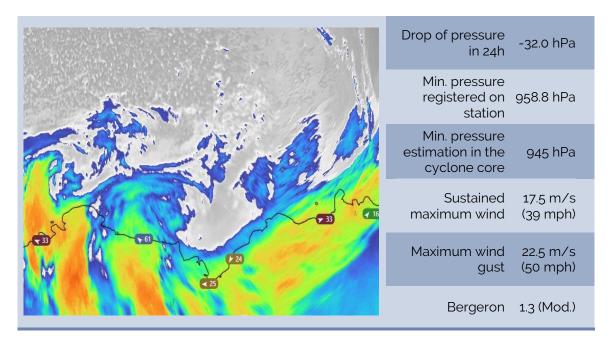
#### BOMB CYCLONE N°17/2022- DATE: MAR./21/2022

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



# BOMB CYCLONE N°18/2022- DATE: MAR./22/2022

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



#### 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