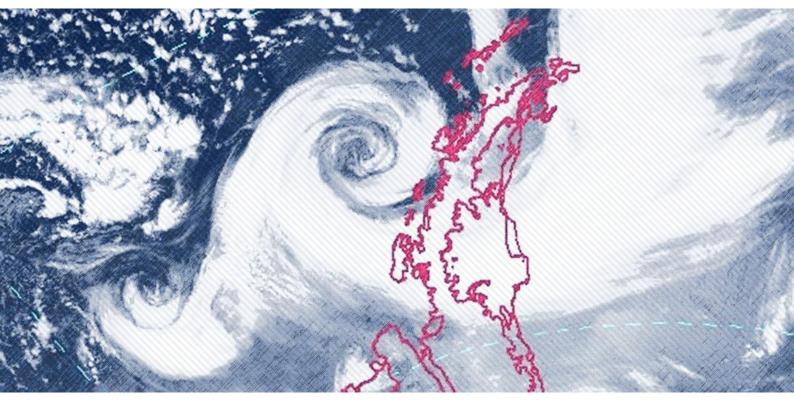


MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT



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



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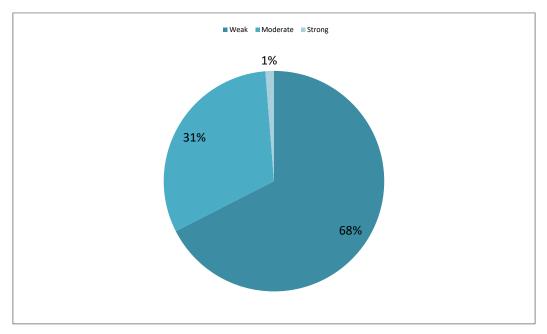
OCTOBER 2021

During this month, 17 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: Marambio, Fossil Bluff, Neumayer, Syowa, Casey, Davis, Mawson, Frei, Halley and Palmer. There was a increase (54%) in the number of cyclone s in comparison to the same month of the previous year (2020).

STATISTICS OF THE MONTH

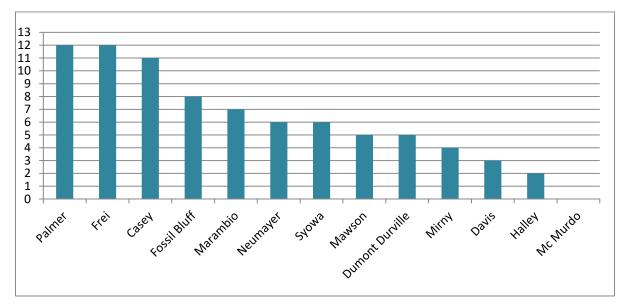
CLASSIFICATION	BERGERON SCALE	INTENSITY	TOTAL OF CASES REGISTERED IN THE MONTH
B1	1 a 1.2	Weak	11
B2	1.3 a 1.8	Moderate	06
B3	> 1.8	Strong	00

HIGHEST PRESSURE DROP	LOWEST RECORDED PRESSURE	HIGHEST SUSTAINED WIND
-42.8 hPa/24h	941.7 hPa	43.0 m/s
Davis Station	Neumayer Station	Casey Station
Oct. 25	Oct. 26	Oct. 02

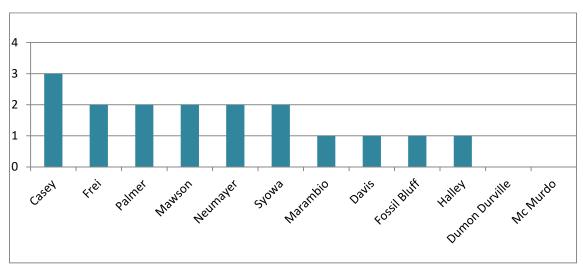


BERGERON INTENSITY TOTAL OF ANNUAL EVENTS IN 2021

TOTAL OF EVENTS REGISTERED BY STATION IN 2021

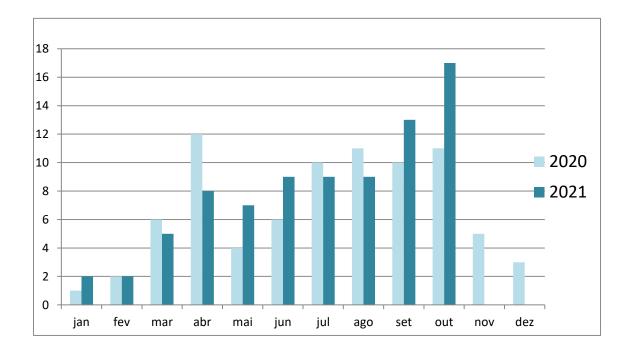


MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT - World Environmental Conservancy



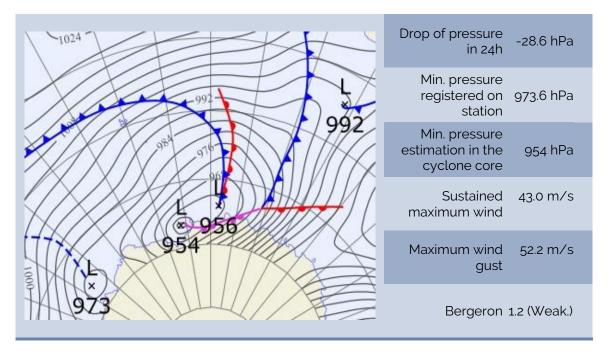
TOTAL OF EVENTS REGISTERED IN EACH STATION IN THE MONTH OF OCTOBER/2021

TOTAL EXPLOSIVE CYCLONES IN THE ANTARCTIC



BOMB CYCLONE N°65/2021- DATE: OCT./02/2021

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



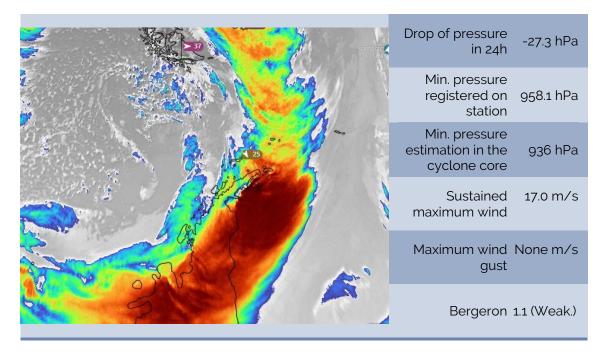
BOMB CYCLONE N°66/2021- DATE: OCT./04/2021

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

	Drop of pressure in 24h	-36.5 hPa
	Min. pressure registered on station	958.5 hPa
	Min. pressure estimation in the cyclone core	958 hPa
AND	Sustained maximum wind	26.5 m/s
And the second s	Maximum wind gust	32.0 m/s
	Bergeron	1.5 (Mod.)

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

BOMB CYCLONE N°67/2021- DATE: OCT./08/2021



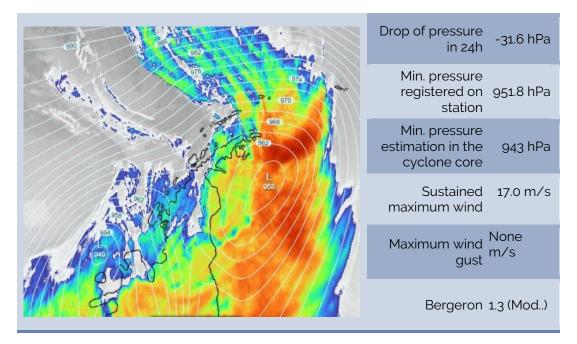
LOCAL: PALMER STATION - WMO 89061 (OPERATED BY U.S.A.)

BOMB CYCLONE Nº68/2021 - DATE: OCT./17/2021

LOCAL: NEUMAYER STATION - WMO 89002 (OPERATED BY GERMANY)

	Drop of pressure in 24h	-36.4 hPa
	Min. pressure registered on station	958.9 hPa
	Min. pressure estimation in the cyclone core	944 hPa
the All Mark	Sustained maximum wind	36.5 m/s
at solling	Maximum wind gust	None m/s
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Bergeron	1.5 (Mod.)

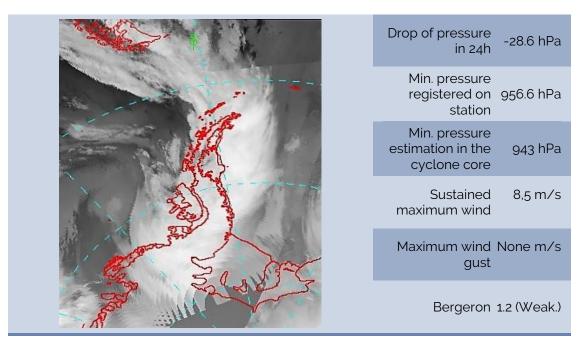
BOMB CYCLONE N°69/2021- DATE: OCT./18/2021



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

BOMB CYCLONE Nº70/2021- DATE: OCT./18/2021

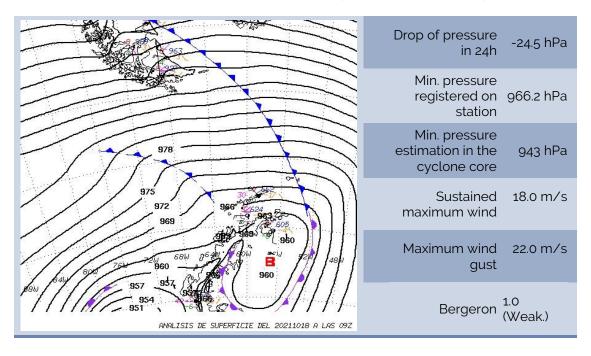
LOCAL: PALMER STATION - WMO 89061 (OPERATED BY U.S.A.)



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

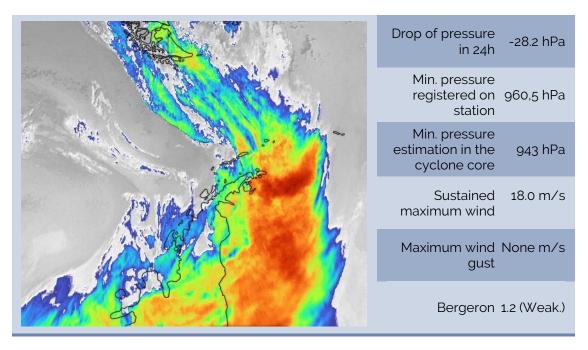
BOMB CYCLONE N°71/2021- DATE: OCT./18/2021

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

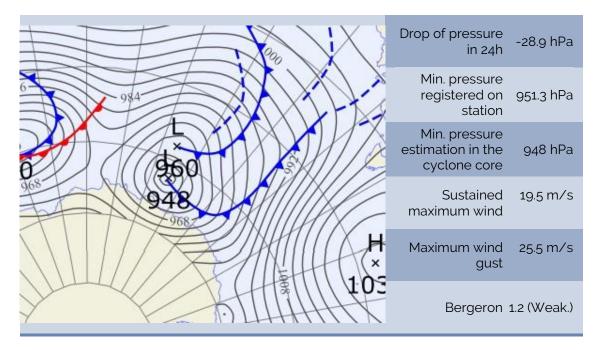


BOMB CYCLONE N°72/2021- DATE: OCT./18/2021

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



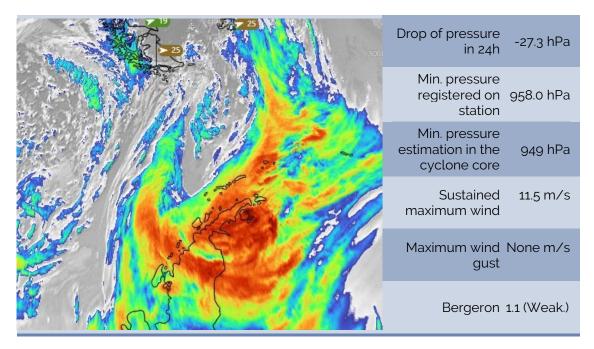
BOMB CYCLONE N°73/2021- DATE: OCT./21/2021



LOCAL: CASEY STATION - WMO 89611 (OPERATED BY AUSTRLIA)

BOMB CYCLONE Nº74/2021- DATE: OCT./23/2021

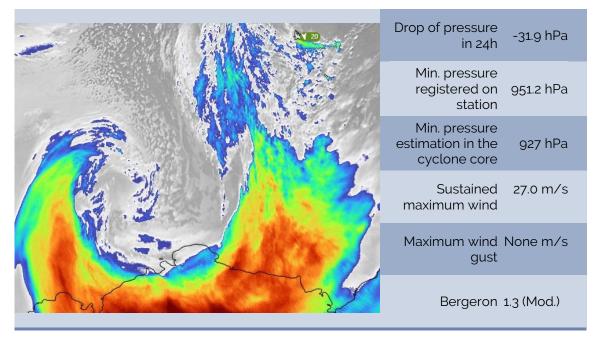
LOCAL: FREI STATION - WMO 89056 (OPERATED BY CHILE)



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

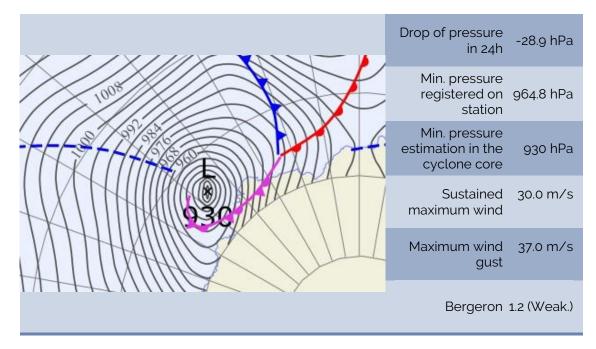
BOMB CYCLONE N°75/2021- DATE: OCT./24/2021

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



BOMB CYCLONE Nº76/2021- DATE: OCT./25/2021

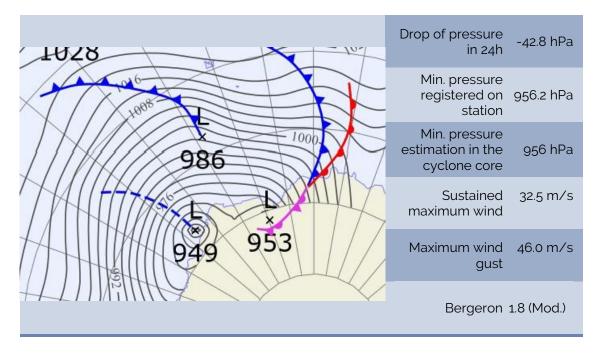
LOCAL: MAWSON STATION - WMO 89 (OPERATED BY AUSTRALIA)



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

BOMB CYCLONE N°77/2021- DATE: OCT./25/2021

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



BOMB CYCLONE Nº78/2021- DATE: OCT./26/2021

LOCAL: NEUMAYER STATION - WMO 89002 (OPERATED BY GERMANY)

	Drop of pressure in 24h	-36.8 hPa
	Min. pressure registered on station	941.7 hPa
	Min. pressure estimation in the cyclone core	921 hPa
	Sustained maximum wind	33.5 m/s
JAC - Carlo Carlo	Maximum wind gust	None m/s
	Bergeron :	1.5 (Mod)

BOMB CYCLONE Nº79/2021- DATE: OCT./26/2021

	Drop of pressure in 24h	-27.4 hPa
	Min. pressure registered on station	952.8 hPa
NO IMAGE	Min. pressure estimation in the cyclone core	927 hPa
	Sustained maximum wind	15.5 m/s
	Maximum wind gust	None m/s
	Bergeron	1.1 (Weak.)

LOCAL: HALLEY STATION - WMO 89022 (OPERATED BY U.K.)

BOMB CYCLONE N°80/2021- DATE: OCT./29/2021

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

the the	Drop of pressure in 24h -28.3 hPa
	Min. pressure registered on 968.0 hPa station
and the second sec	Min. pressure estimation in the g63 hPa cyclone core
and set the	Sustained 07 m/s maximum wind
	Maximum wind None m/s gust
	Bergeron 1.2 (Weak.)

BOMB CYCLONE N°81/2021- DATE: OCT./29/2021

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

	Drop of pressure in 24h	-26.5 hPa
	Min. pressure registered on station	972.8 hPa
NO IMAGE	Min. pressure estimation in the cyclone core	963 hPa
	Sustained maximum wind	19.5 m/s
	Maximum wind gust	23.0 m/s
	Bergeron	1.1 (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