

MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT

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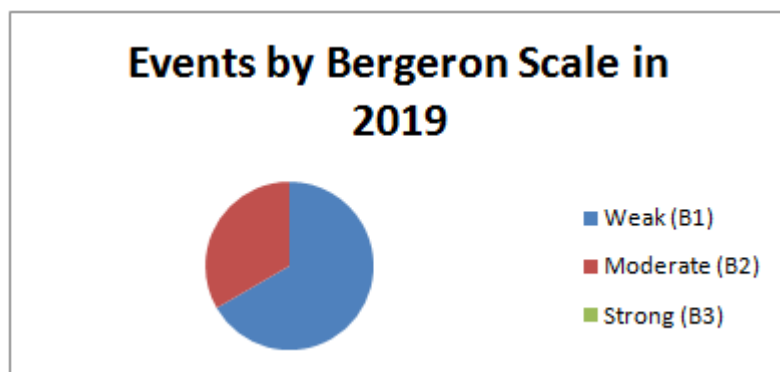
MARCH 2019

During this month, 03 events were recorded among the 13 research stations located on the coast of the Antarctic utilized as references for the monitoring of bomb cyclones. The stations that were affected by cyclones this month were: Frei and Palmer. The most intense cyclone recorded was no. 04/2019 at the Frei station on the 25th with sustained winds of up to 15.5 m/s (35 mph). The cyclone with the lowest recorded atmospheric pressure at sea level was no. 05/2019 at the Palmer station, with values reaching 962.2 hPa.

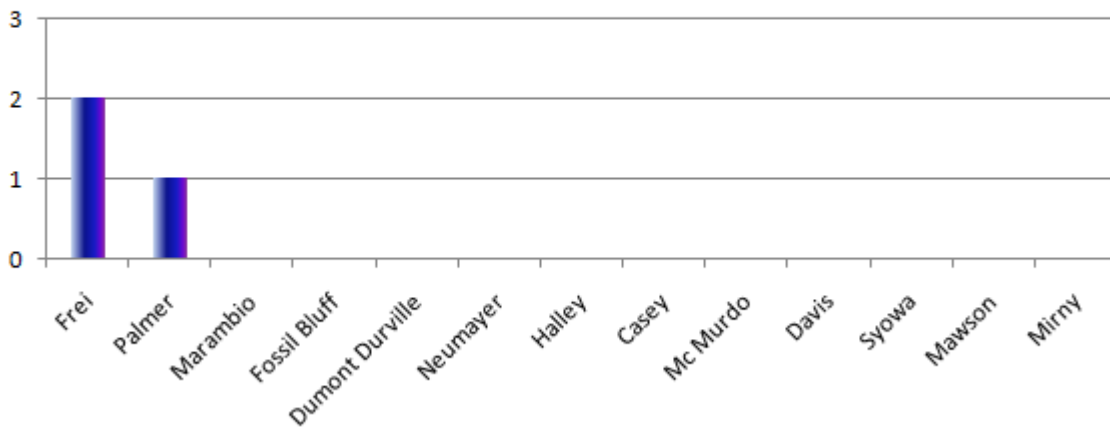
STATISTICS OF THE MONTH

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	00
B3	>1.8	Strong	00

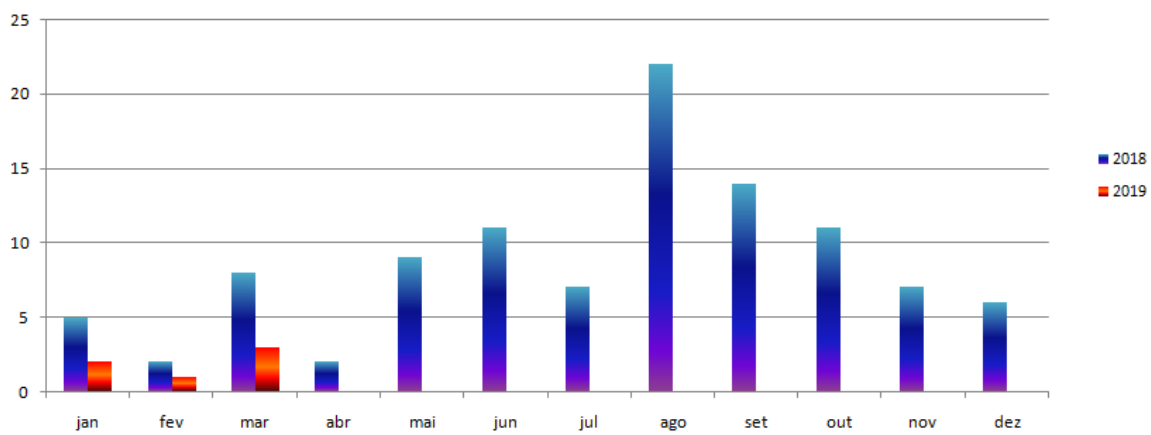
Highest pressure drop	Lowest recorded pressure	Highest sustained wind
25.0hPa/24h	962.2 hPa	15.5 m/s
Frei	Palmer	Frei
Mar. 25th	Mar. 25th	Mar. 25th



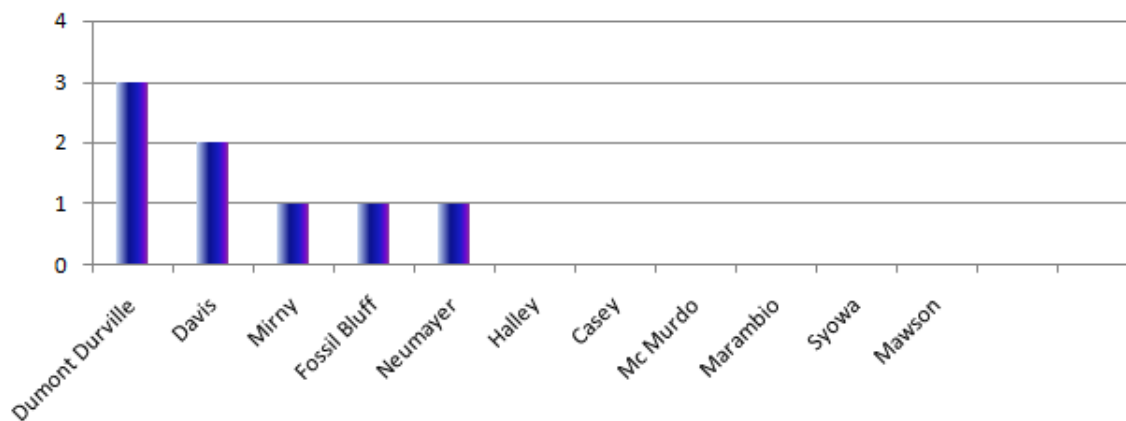
Total of events registered in each station in the month of March/2019



Explosive Cyclones in the Antarctic



Total of events registered by station in 2019



BOMB CYCLONE Nº04/2019- DATE: MAR./25/2019
LOCAL: FREI STATION – WMO 89056 (OPERATED BY CHILE)

Drop of pressure in 24h	-25.0 hPa
Minimum pressure registered on station	988.0 hPa
Minimum pressure estimation in the cyclone core	981.0 hPa
Sustained maximum wind	15.5 m/s (35 mph)
Maximum wind gust	19 m/s (43 mph)
Bergeron	1.0 (weak)

BOMB CYCLONE Nº05/2019- DATE: MAR./25/2019
LOCAL: PALMER STATION – WMO 89061 (OPERATED BY U.S.A.)

Drop of pressure in 24h	-24.0 hPa
Minimum pressure registered on station	962.2 hPa
Minimum pressure estimation in the cyclone core	958 hPa
Sustained maximum wind	12.0 m/s (27 mph)
Maximum wind gust	none m/s (mph)
Bergeron	1.0 (weak)

BOMB CYCLONE Nº06/2019- DATE: MAR./29/2019
LOCAL: FREI STATION – WMO 89056 (OPERATED BY CHILE)

Drop of pressure in 24h	-25.0 hPa
Minimum pressure registered on station	964.0 hPa
Minimum pressure estimation in the cyclone core	958 hPa
Sustained maximum wind	15.5 m/s (35 mph)
Maximum wind gust	17.0 m/s (38 mph)
Bergeron	1.0 (weak)

Sources:

AMRC – UW Madison

<https://worldview.earthdata.nasa.gov>

<http://www.bom.gov.au>

<https://data.aad.gov.au>

<http://www.smn.gov.ar>

<http://meteoarmada.directemar.cl>