MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT

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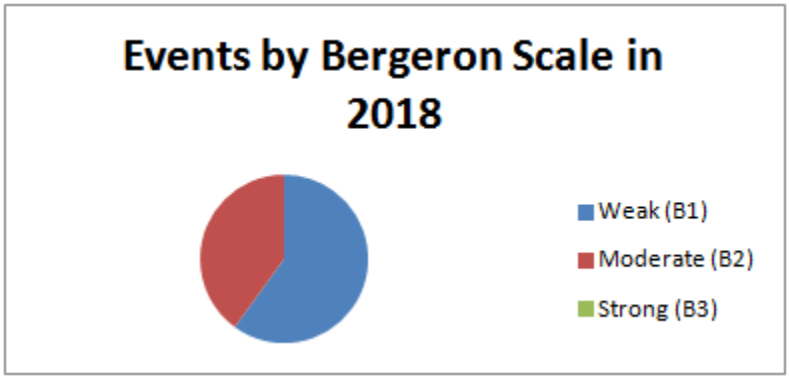
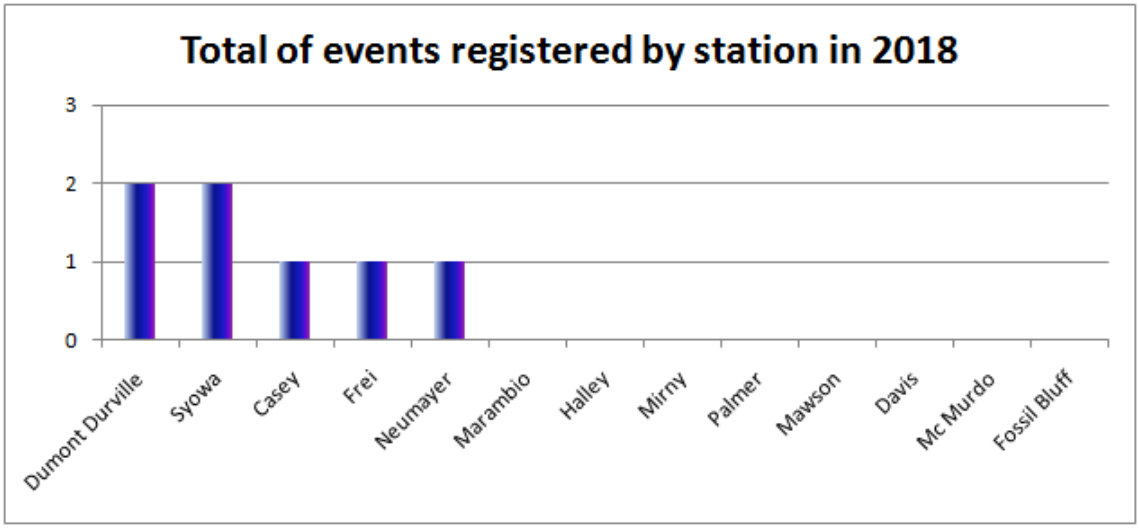
During this month, 02 events were recorded among the 13 research stations located on the coast of the Antarctic utilized as references for the monitoring of bomb cyclones. There was a decrease in cases both in relation to the previous month and the same month of February 2017. The stations that were affected by cyclones this month were: Syowa and Neumayer. The most intense cyclone recorded was no. 07/2018 at the Neumayer station on February 12th with sustained winds of up to 25.0 m/s (56 mph). The cyclone with the lowest recorded atmospheric pressure at sea level was also no. 07/2018 at the Neumayer station, with values reaching 954.4 hPa.

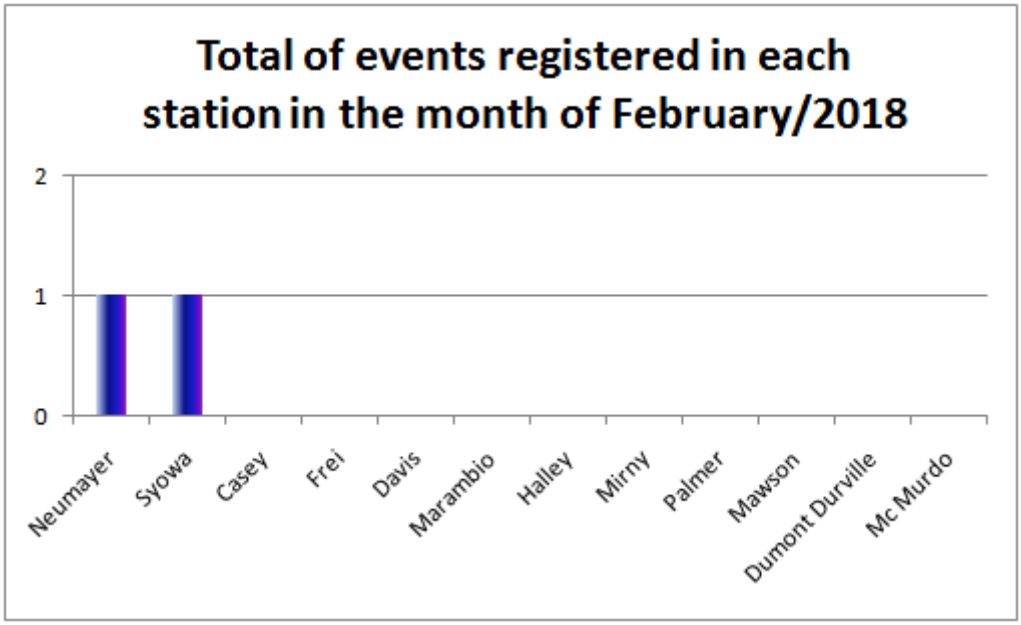
STATISTICS OF THE MONTH

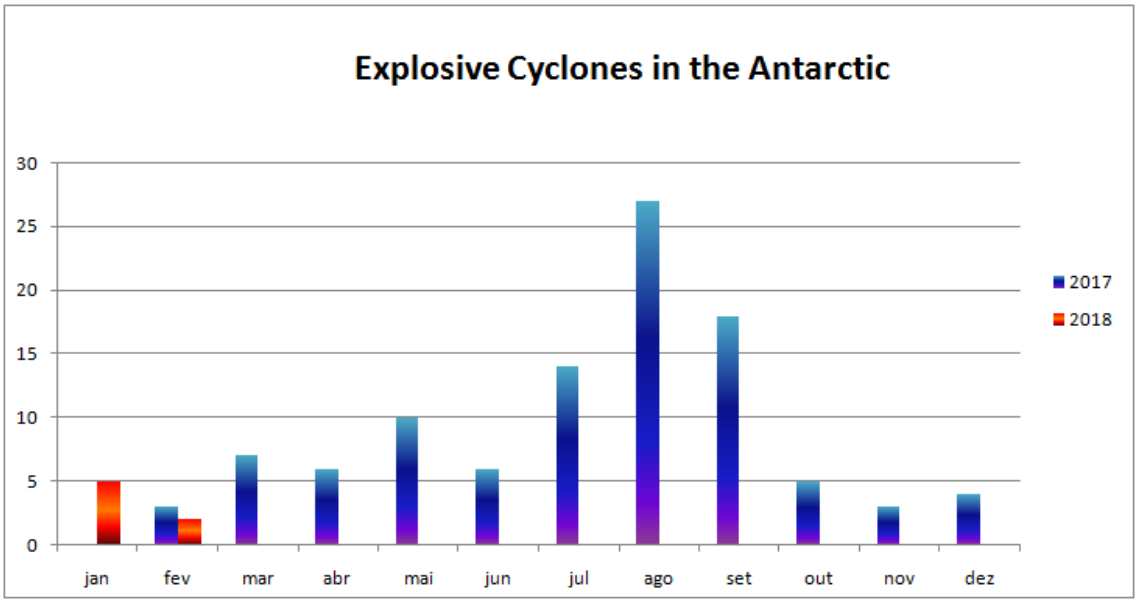
Classification	Bergeron Scale	Intensity	Total of cases registered in the month
B1	1 a 1.2	Weak	01
B2	1.3 a 1.8	Moderate	01
B3	>1.8	Strong	00

Highest pressure drop	Lowest recorded pressure	Highest sustained wind	Average minimum pressures	Mean of pressure drops
-30.6 hPa/24h	954.4 hPa	25 m/s	959.3 hpa	-28.6 hPa/24h
Syowa	Neumayer	Neumayer		
Feb. 07th	Feb. 12th	Feb. 12th		

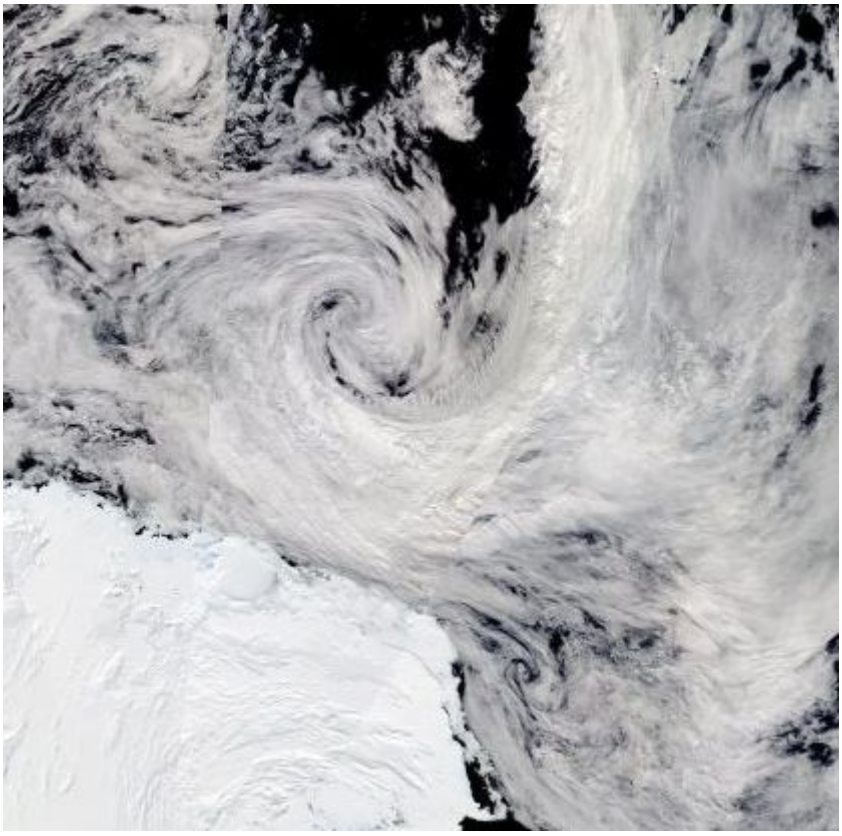



Total of events registered by station in 2018
3
2
1
0
Dumont Durville
Syowa
Casey
Frei
Neumayer
Marambio
Halley
Mirny
Palmer
Mawson
Davis
Mc Murdo
Fossil Bluff


Total of events registered in each station in the month of February/2018
2
1
0
Neumayer
Syowa
Casey
Frei
Davis
Marambio
Halley
Mirny
Palmer
Mawson
Dumont Durville
Mc Murdo


Explosive Cyclones in the Antarctic
30
25
20
15
10
5
0
jan
fev
mar
abr
mai
jun
jul
ago
set
out
nov
dez
2017
2018

BOMB CYCLONE Nº06/2018- DATA: FEB/07/2018
LOCAL: SYOWA STATION – WMO 89532 (OPERATED BY JAPAN)



Drop of pressure in 24h	-30.6 hPa
Minimum pressure registered on station	964.2 hPa
Min. pressure estimation in the cyclone core	955 hPa
Sustained maximum wind	19.0 m/s (42 mph)
Maximum wind gust	None m/s (mph)
Bergeron	1.3 (moderate)

BOMB CYCLONE Nº07/2018- DATA: FEB/12/2018
LOCAL: NEUMAYER STATION – WMO 89002 (OPERATED BY GERMANY)

No Image

Drop of pressure in 24h	-26.6 hPa
Minimum pressure registered on station	954.4 hPa
Min. pressure estimation in the cyclone core	950 hPa
Sustained maximum wind	25.0 m/s (56 mph)
Maximum wind gust	None m/s (mph)
Bergeron	1.1 (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