



MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT

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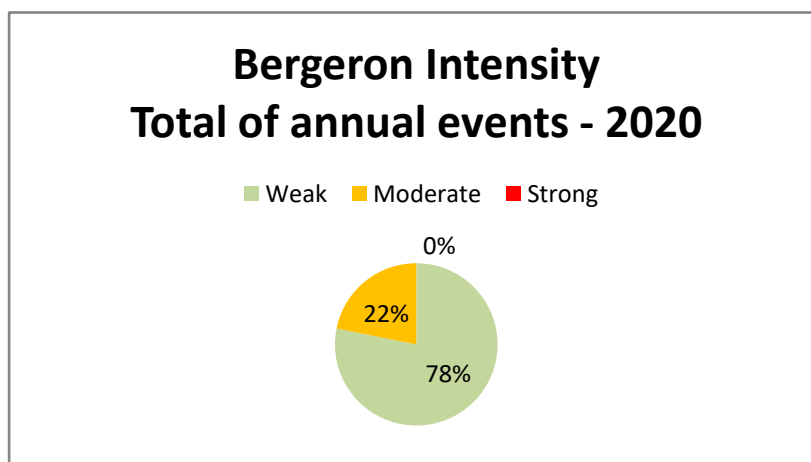
MAY 2020

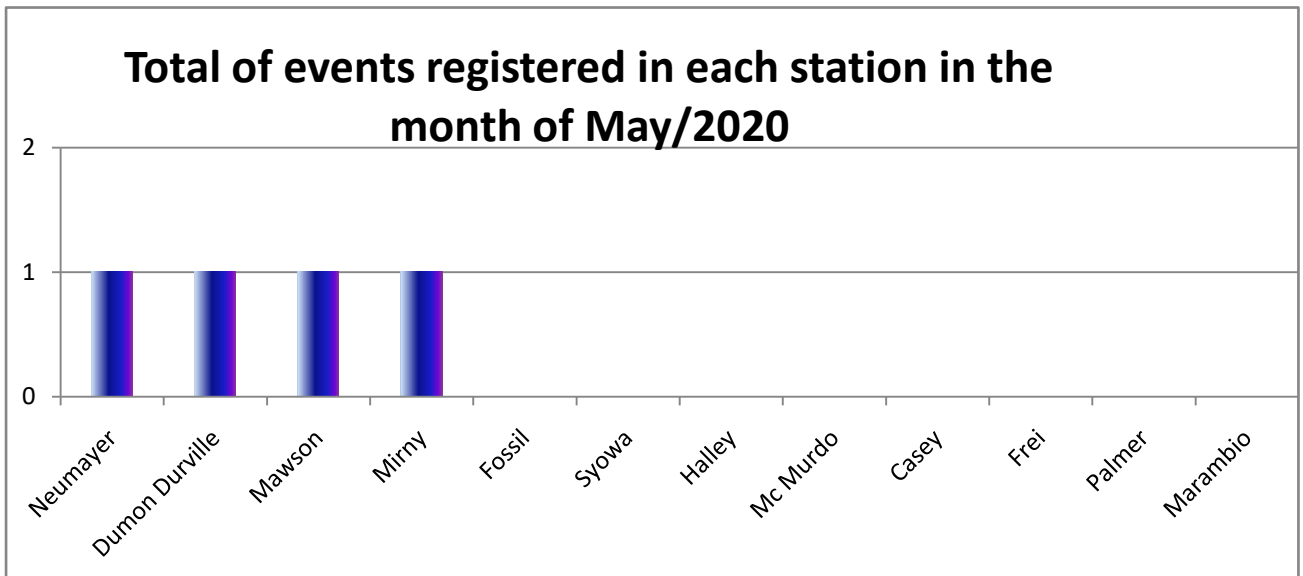
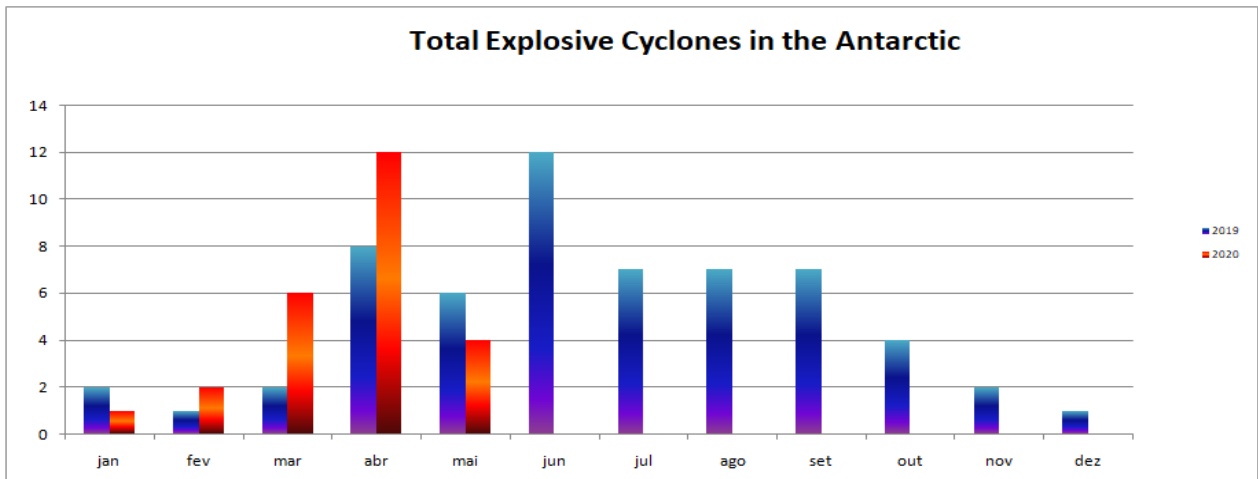
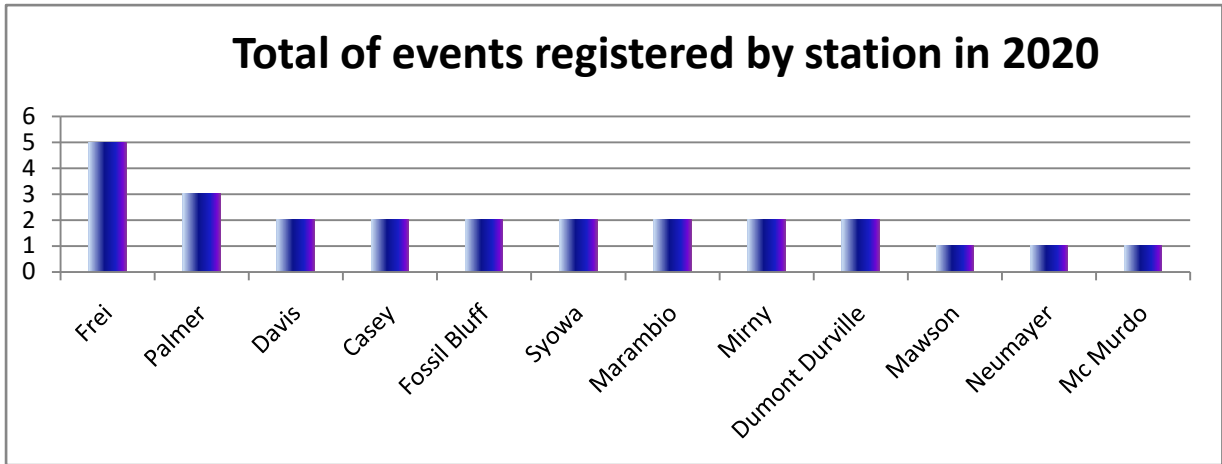
During this month, 04 events were registered among the 13 research stations located on the coast of the Antarctic utilized as references for the monitoring of explosive cyclones (bomb cyclones). The stations affected by cyclones this month were: Dumont D'Urville, Mawson, Mirny and Neumayer. There was a reduction of 33% in the number of cyclones in comparison to the same month of the previous year (2019).

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 recorded pressure	Highest sustained wind
-36.6 hPa/24h	953.5 hPa	33.5 m/s
Dumont D'Urville	Neumayer	Neumayer
May 29th	May 25th	May 25th







BOMB CYCLONE N°22/2020- DATE: MAY/05/2020

LOCAL: MIRNY STATION – WMO 89592 (OPERATED BY RUSSIA)

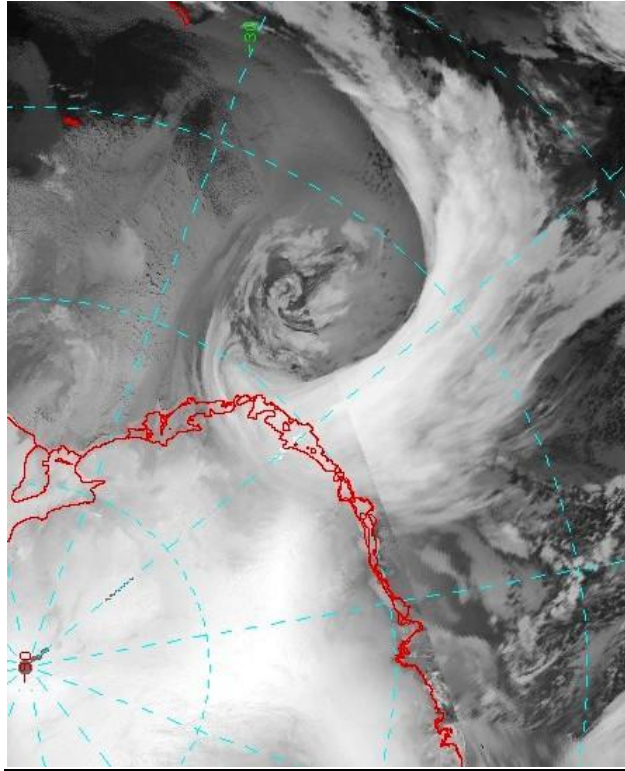


Drop of pressure in 24h	-25.5 hPa
Minimum pressure registered on station	981.1 hPa
Minimum pressure estimation in the cyclone core	974 hPa
Sustained maximum wind	11.5 m/s (26 mph)
Maximum wind gust	13.0 m/s (29 mph)
Bergeron	1.1 (weak)



BOMB CYCLONE N°23/2020- DATE: MAY/25/2020

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

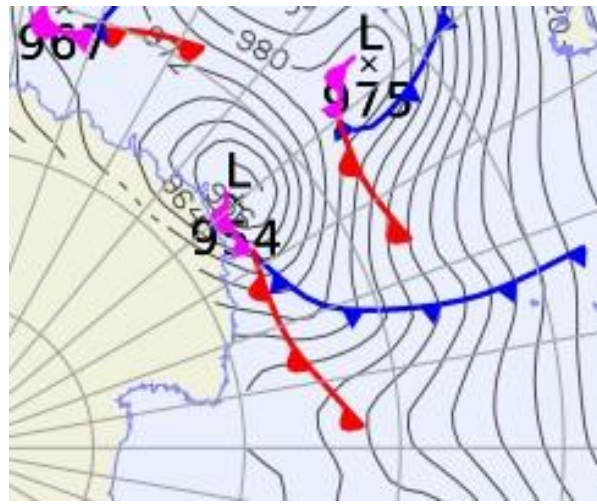


Drop of pressure in 24h	-29.3 hPa
Minimum pressure registered on station	953.5 hPa
Minimum pressure estimation in the cyclone core	942 hPa
Sustained maximum wind	33.5 m/s (75 mph)
Maximum wind gust	none m/s (mph)
Bergeron	1.2 (weak)



BOMB CYCLONE N°24/2020- DATE: MAY/29/2020

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

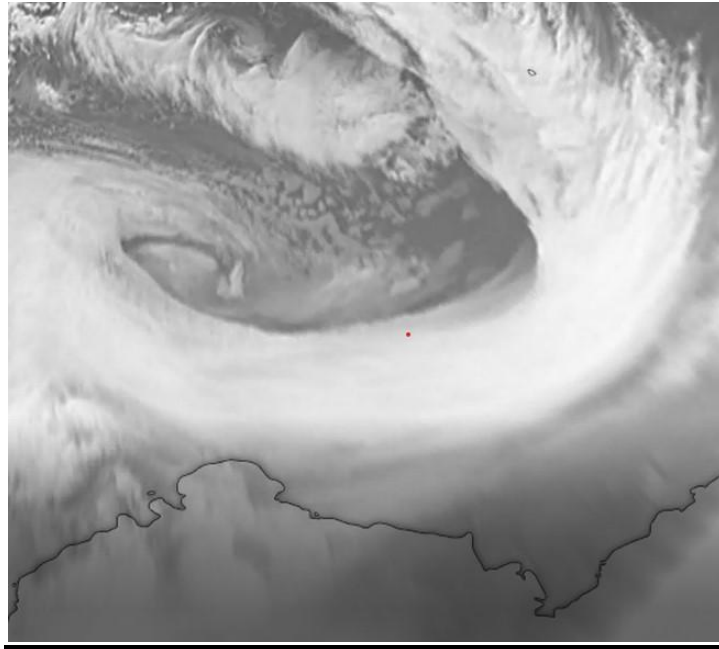


Drop of pressure in 24h	-36.6 hPa
Minimum pressure registered on station	956.9 hPa
Minimum pressure estimation in the cyclone core	954 hPa
Sustained maximum wind	31.5 m/s (70 mph)
Maximum wind gust	46.0 m/s (103 mph)
Bergeron	1.5 (moderate)



BOMB CYCLONE Nº25/2020- DATE: MAY/29/2020

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



[HTTPS://WWW.YOUTUBE.COM/WATCH?V=PWPYSLOVTLY](https://www.youtube.com/watch?v=PWPYSLOVTLY)

Drop of pressure in 24h	-29.4 hPa
Minimum pressure registered on station	975.4 hPa
Minimum pressure estimation in the cyclone core	932 hPa
Sustained maximum wind	22.5 m/s (50 mph)
Maximum wind gust	27.0 m/s (60 mph)
Bergeron	1.2 (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>

<https://www.marinha.mil.br/chm/chm/dados-do-smm-cartas-sinoticas>