

MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT

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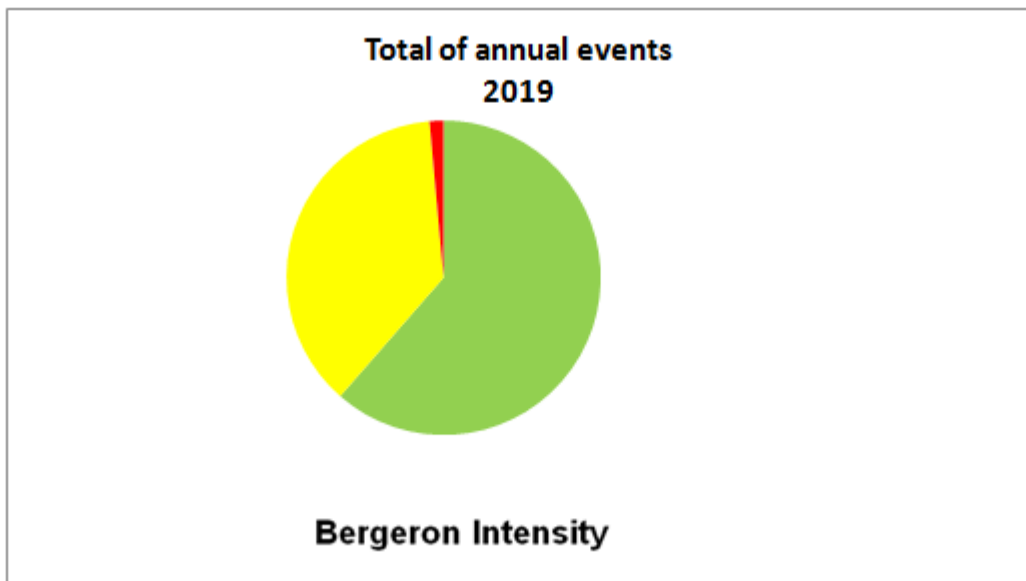
OCTOBER 2019

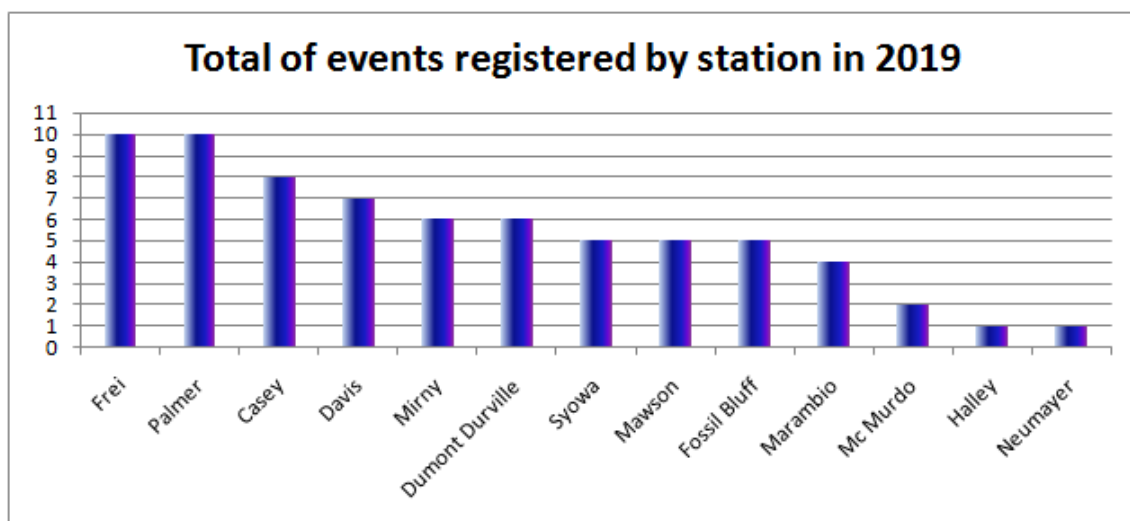
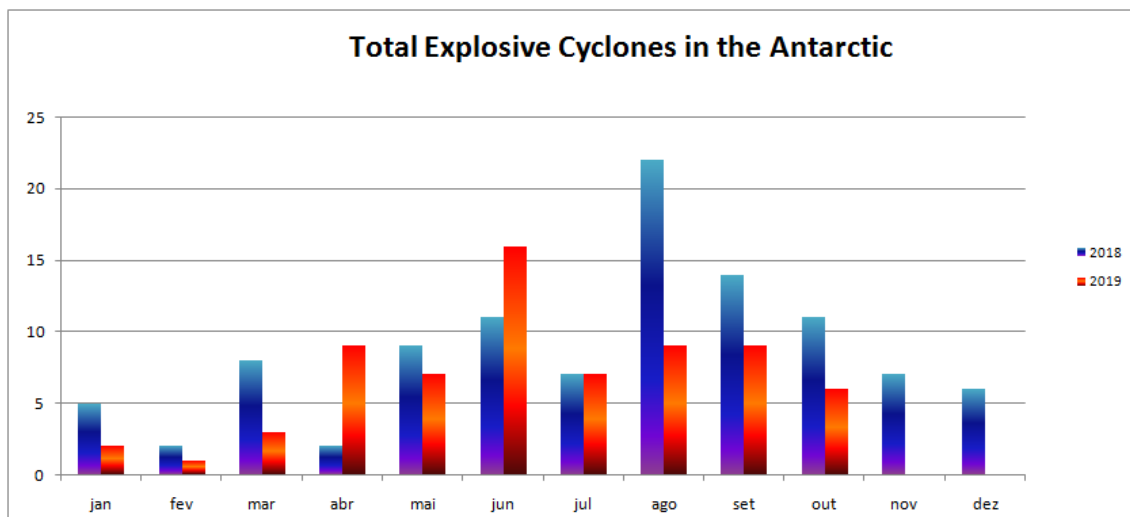
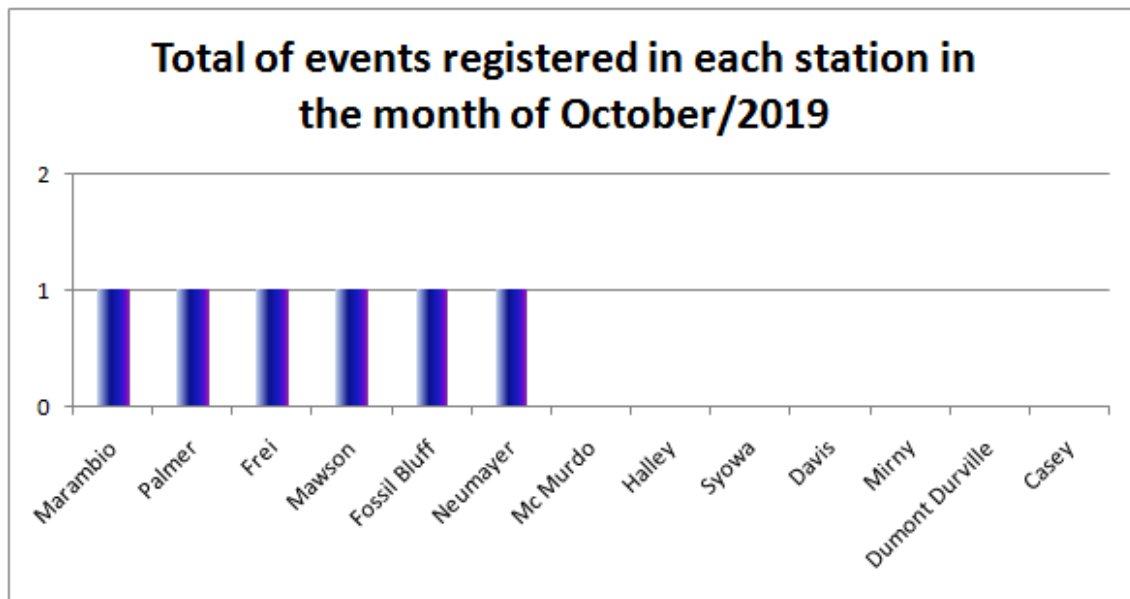
During this month, 06 events were registered among the 13 research stations located on the coast of the Antarctic utilized as references for the monitoring of bomb cyclones. The stations hit by cyclones this month were: Palmer, Frei, Marambio, Mawson, Neumayer, and Fossil Bluff. The most intense cyclone recorded was no.69/2019 at the Palmer station on 20th with sustained winds of up to 32 m/s (72 mph). The cyclone which registered the lowest atmospheric pressure at sea level was the no.66/2019 at the Neumayer station, with values reaching 948 hPa. There was a decrease in the number of cases in comparison to the same month of the previous year (45%.)

STATISTICS OF THE MONTH

Classification	Bergeron Scale	Intensity	Total of cases registered in the month
B1	1 a 1.2	Weak	05
B2	1.3 a 1.8	Moderate	01
B3	>1.8	Strong	00

Highest pressure drop	Lowest recorded pressure	Highest sustained wind
-34.8 hPa/24h	948 hPa	32.0 m/s
Palmer	Neumayer	Palmer
Oct. 20 th	Oct. 03 th	Oct. 20 th





BOMB CYCLONE Nº65/2019- DATE: OCTOBER/02/2019

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

Drop of pressure in 24h	-24.0 hPa
Minimum pressure registered on station	972.0 hPa
Minimum pressure estimation in the cyclone core	950 hPa
Sustained maximum wind	31.5 m/s (70 mph)
Maximum wind gust	38.5 m/s (86 mph)
Bergeron	1.0 (weak)

BOMB CYCLONE N°66/2019- DATE: OCTOBER/03/2019

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

Drop of pressure in 24h	-24.4 hPa
Minimum pressure registered on station	948.3 hPa
Minimum pressure estimation in the cyclone core	946 hPa
Sustained maximum wind	22.5 m/s (50 mph)
Maximum wind gust	none m/s (mph)
Bergeron	1.0 (weak)

BOMB CYCLONE N°67/2019- DATE: OCTOBER/14/2019

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

Drop of pressure in 24h	-26.3 hPa
Minimum pressure registered on station	980.9 hPa
Minimum pressure estimation in the cyclone core	980 hPa
Sustained maximum wind	11.3 m/s (25 mph)
Maximum wind gust	none m/s (mph)
Bergeron	1.1 (weak)

BOMB CYCLONE N°68/2019- DATE: OCTOBER/20/2019

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

Drop of pressure in 24h	-25.3 hPa
Minimum pressure registered on station	968.8 hPa
Minimum pressure estimation in the cyclone core	950 hPa
Sustained maximum wind	19.0 m/s (42 mph)
Maximum wind gust	21.5 m/s (48 mph)
Bergeron	1.1 (weak)

BOMB CYCLONE N°69/2019- DATE: OCTOBER/20/2019

LOCAL: PALMER STATION – WMO 89 (OPERATED BY U.S.A.)

Drop of pressure in 24h	-34.8 hPa
Minimum pressure registered on station	953.8 hPa
Minimum pressure estimation in the cyclone core	950 hPa
Sustained maximum wind	32.0 m/s (72 mph)
Maximum wind gust	none m/s (mph)
Bergeron	1.5 (moderate)

BOMB CYCLONE N°70/2019- DATE: OCTOBER/20/2019

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

Drop of pressure in 24h	-25.1 hPa
Minimum pressure registered on station	960.1 hPa
Minimum pressure estimation in the cyclone core	950 hPa
Sustained maximum wind	13.0 m/s (29 mph)
Maximum wind gust	none m/s (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>