

MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT

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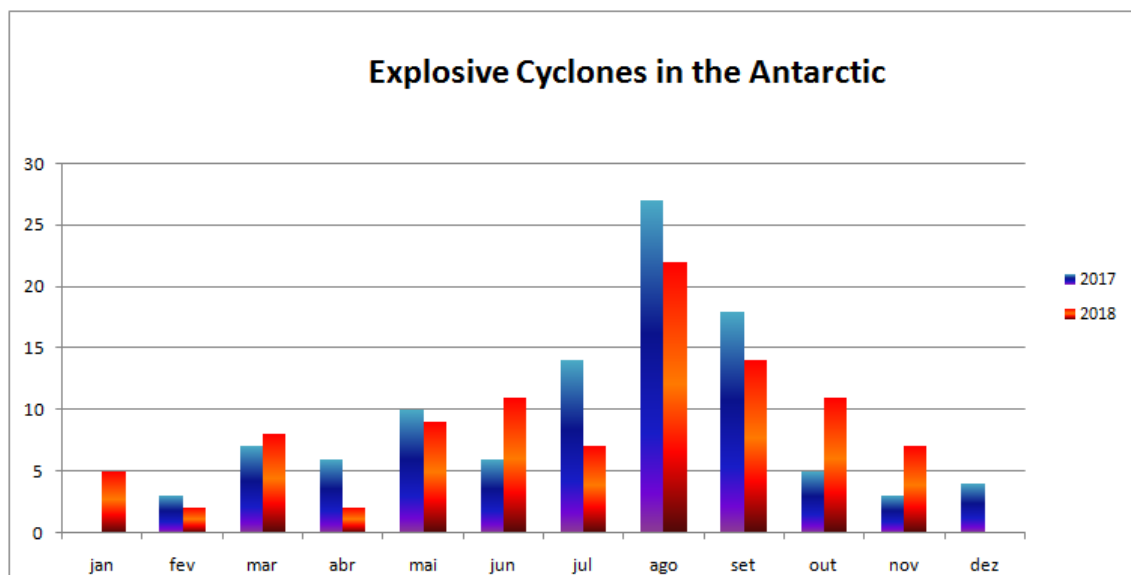
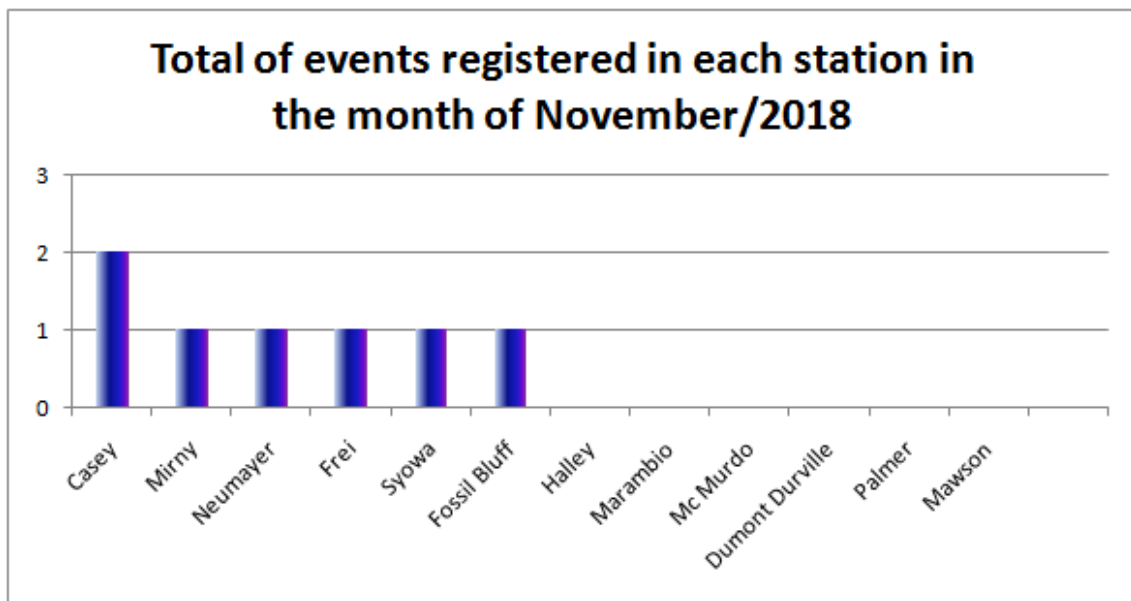
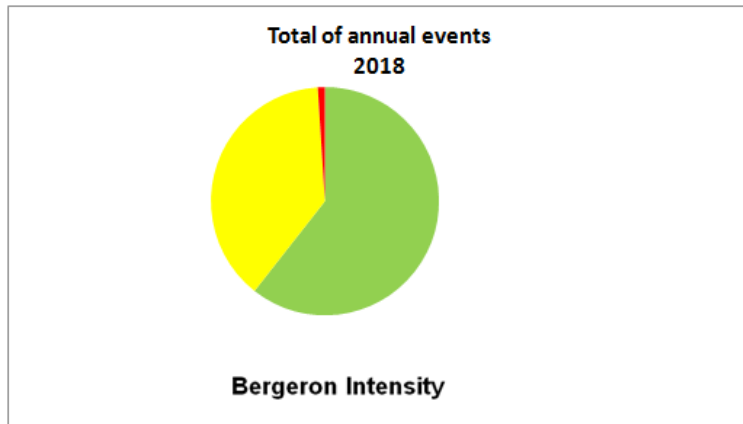
NOVEMBER 2018

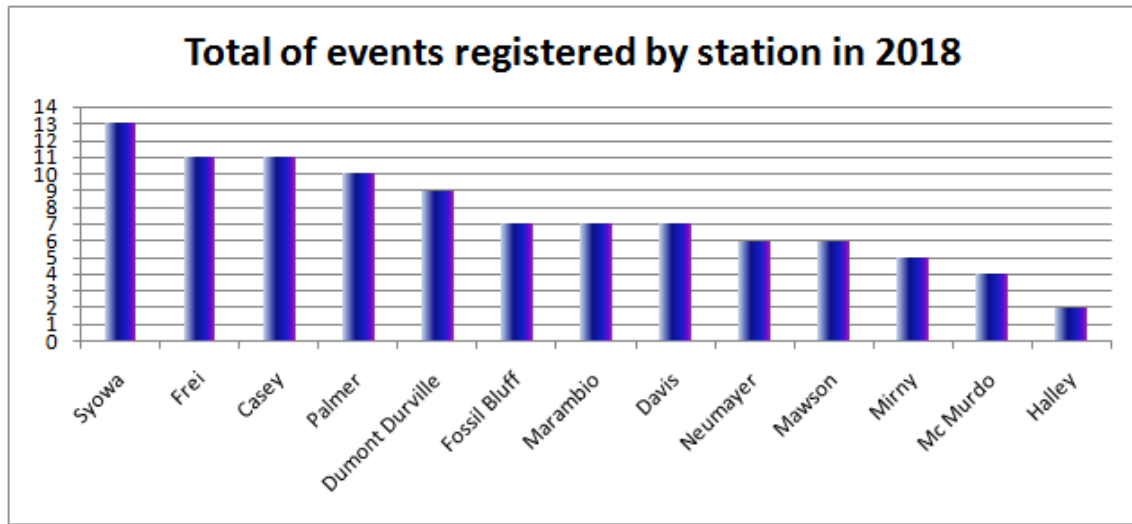
During this month, 07 events were registered among the 13 research stations located on the coast of the Antarctic utilized as references for the monitoring of bomb cyclones. There was a significant increase in cases in comparison to the same month of the previous year (+133%). The stations hit by cyclones this month were: Davis, Frei, Casey, Mawson, Neumayer and Syowa. The most intense cyclone recorded was number 98/2018 at the Mawson station on 19th with sustained winds of up to 30.5 m/s (68 mph). The cyclone which registered the lowest atmospheric pressure at sea level was the number 96/2018 at the Casey station, with values reaching 951.8 hPa.

STATISTICS OF THE MONTH

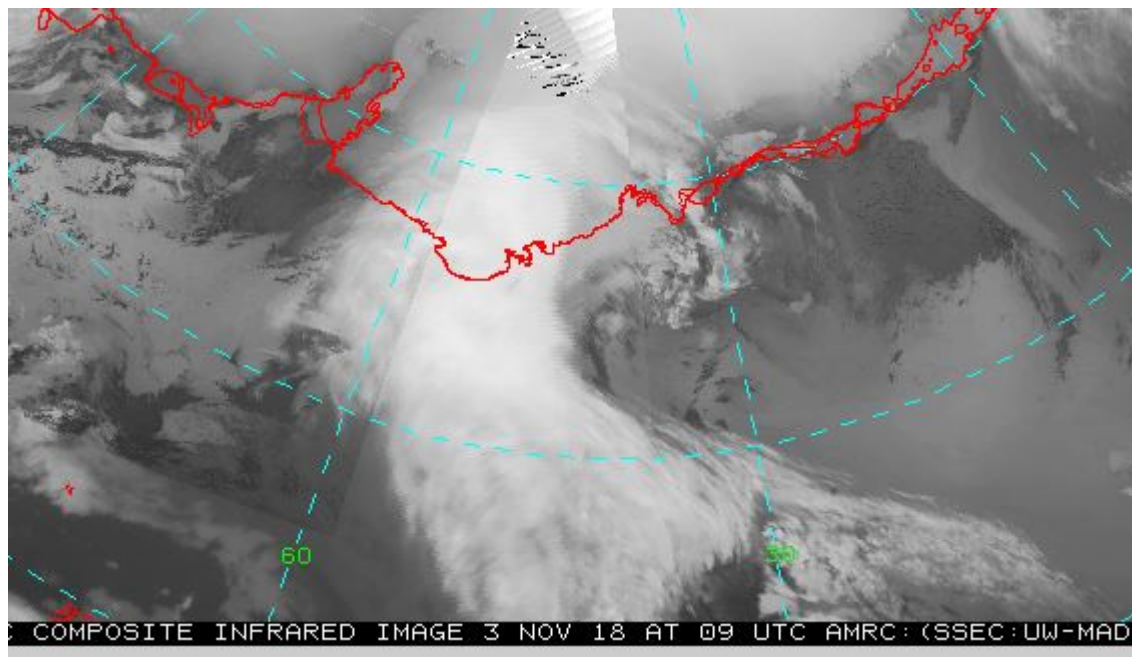
Classification	Bergeron Scale	Intensity	Total of cases registered in the month
B1	1 a 1.2	Weak	03
B2	1.3 a 1.8	Moderate	04
B3	>1.8	Strong	00

Highest pressure drop	Lowest recorded pressure	Highest sustained wind
-36.3 hPa/24h	951.8 hPa	30.5 m/s
Casey	Casey	Mawson
Nov. 18th	Nov. 18th	Nov. 19th





BOMB CYCLONE N°92/2018- DATA: NOV./03/2018
LOCAL: SYOWA STATION – WMO 89532 (OPERATED BY JAPAN)



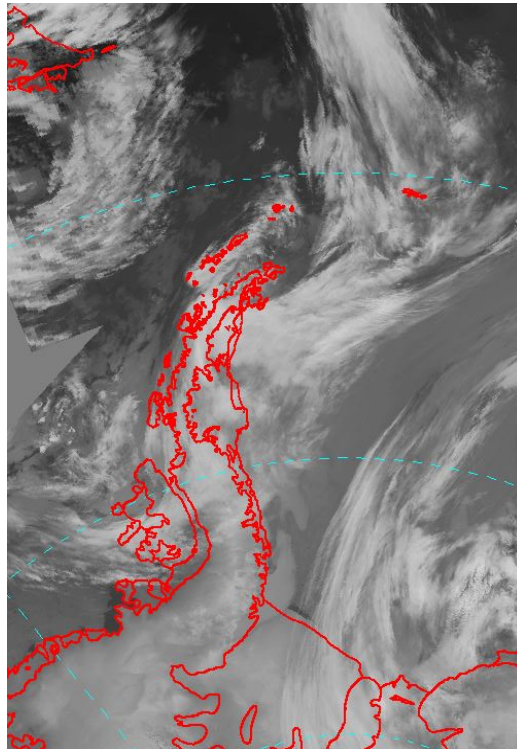
Drop of pressure in 24h	31.2 hPa
Minimum pressure registred on station	954.3 hPa
Min. pressure estimation in the cyclone core	952 hPa
Sustined maximum wind	26.5 m/s (59 mph)
Maximum wind gust	none m/s (mph)
Bergeron	1.3 (moderate)

BOMB CYCLONE N°93/2018- DATA: NOV./05/2018
LOCAL: DAVIS STATION – WMO 89571 (OPERATED BY AUSTRALIA)

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Drop of pressure in 24h	34.8 hPa
Minimum pressure registred on station	954.1 hPa
Min. pressure estimation in the cyclone core	954 hPa
Sustined maximum wind	21.1 m/s (mph)
Maximum wind gust	none m/s (mph)
Bergeron	1.5 (moderate)

BOMB CYCLONE N°94/2018- DATA: NOV./18/2018
LOCAL: FREI STATION – WMO 89056 (OPERATED BY CHILE)



Drop of pressure in 24h	26.0 hPa
Minimum pressure registred on station	957.6 hPa
Min. pressure estimation in the cyclone core	957 hPa
Sustined maximum wind	18.0 m/s (40 mph)
Maximum wind gust	21.0 m/s (47 mph)
Bergeron	1.1 (weak)

BOMB CYCLONE N°95/2018- DATA: NOV./18/2018
LOCAL: NEUMAYER STATION – WMO 89002 (OPERATED BY
GERMANY)

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Drop of pressure in 24h	30.4 hPa
Minimum pressure registred on station	960.9 hPa
Min. pressure estimation in the cyclone core	935 hPa
Sustined maximum wind	24.5 m/s (55 mph)
Maximum wind gust	none m/s (mph)
Bergeron	1.3 (moderate)

BOMB CYCLONE N°96/2018- DATA: NOV./18/2018
LOCAL: CASEY STATION – WMO 89611 (OPERATED BY
AUSTRALIA)

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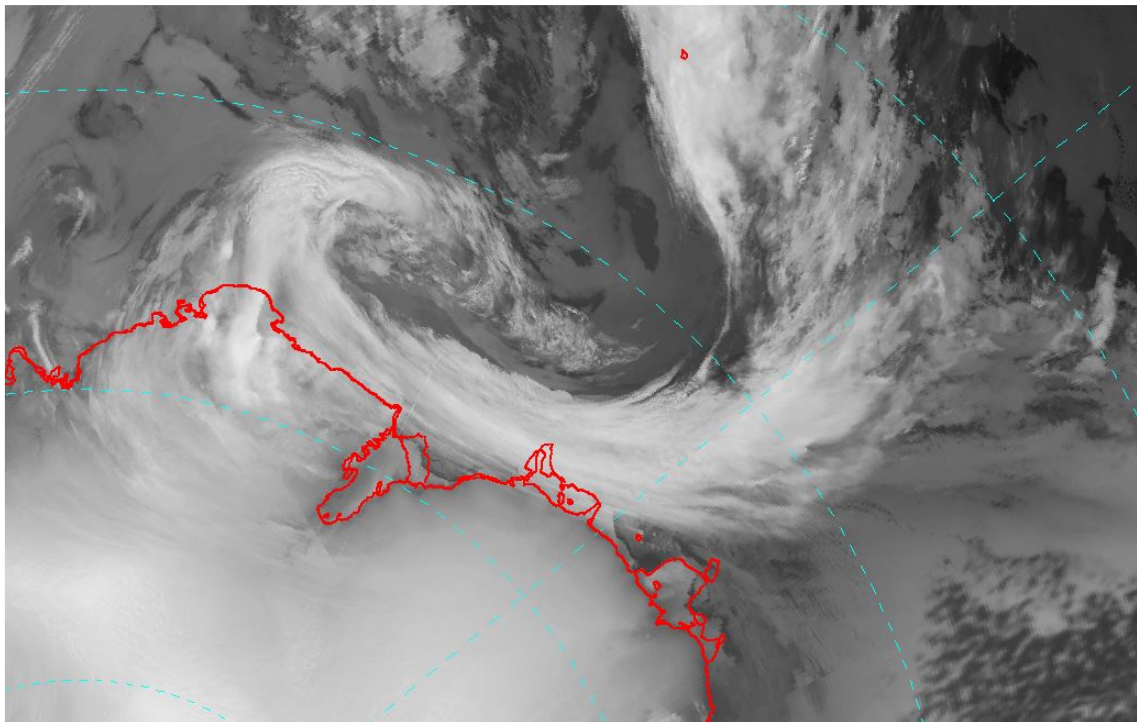
Drop of pressure in 24h	36.3 hPa
Minimum pressure registred on station	951.8 hPa
Min. pressure estimation in the cyclone core	934 hPa
Sustined maximum wind	19.5 m/s (44 mph)
Maximum wind gust	22.5 m/s (50 mph)
Bergeron	1.5 (moderate)

BOMB CYCLONE N°97/2018- DATA: NOV./19/2018
LOCAL: DAVIS STATION – WMO 89571 (OPERATED BY AUSTRALIA)

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Drop of pressure in 24h	24.1 hPa
Minimum pressure registred on station	970.1 hPa
Min. pressure estimation in the cyclone core	945 hPa
Sustined maximum wind	12.0 m/s (27 mph)
Maximum wind gust	16.5 m/s (37 mph)
Bergeron	1.0 (weak)

BOMB CYCLONE N°98/2018- DATA: NOV./19/2018
LOCAL: MAWSON STATION – WMO 89564 (OPERATED BY AUSTRALIA)



Drop of pressure in 24h	33.3 hPa
Minimum pressure registred on station	962.0 hPa
Min. pressure estimation in the cyclone core	945 hPa
Sustined maximum wind	30.5 m/s (68 mph)
Maximum wind gust	39.0 m/s (87 mph)
Bergeron	1.4 (moderate)

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>