

MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT

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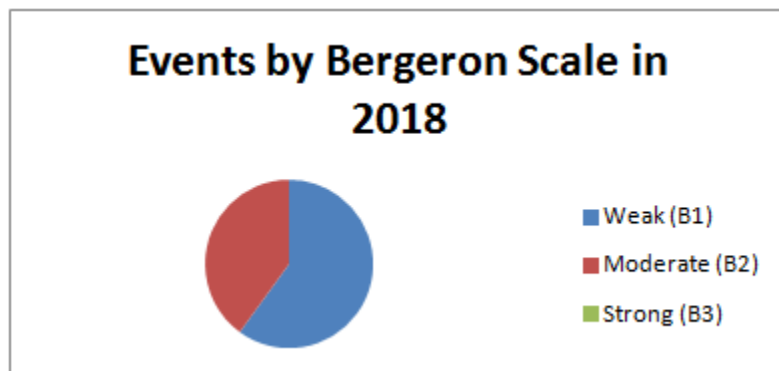
MARCH 2018

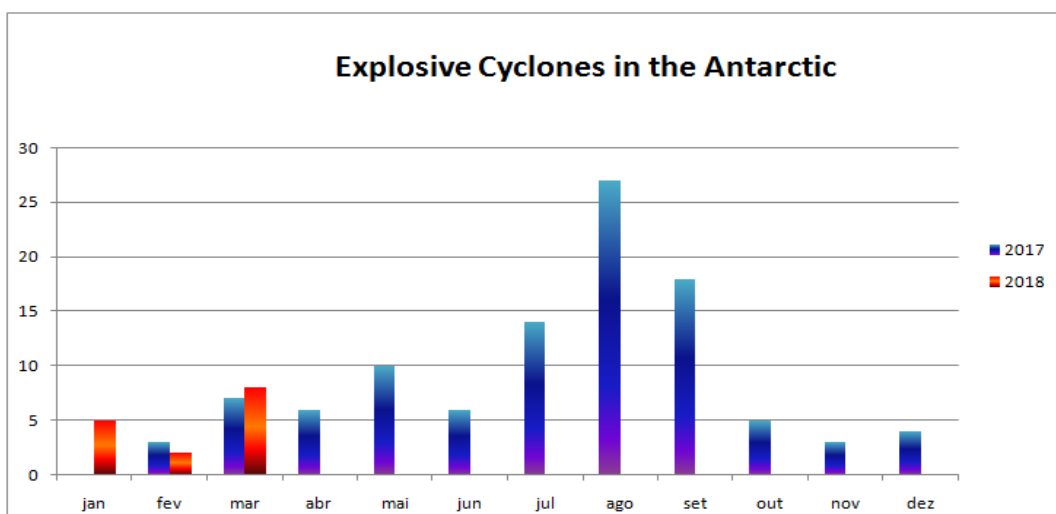
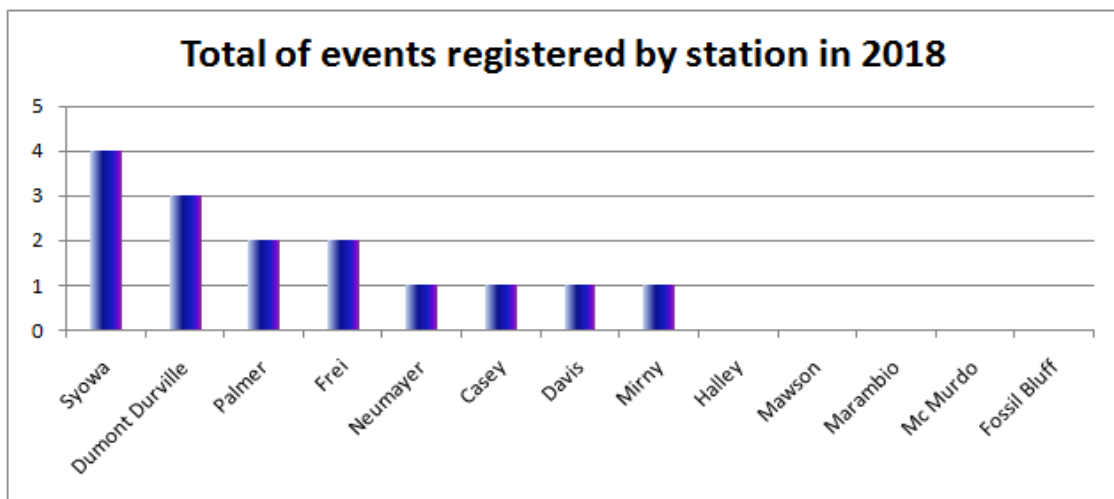
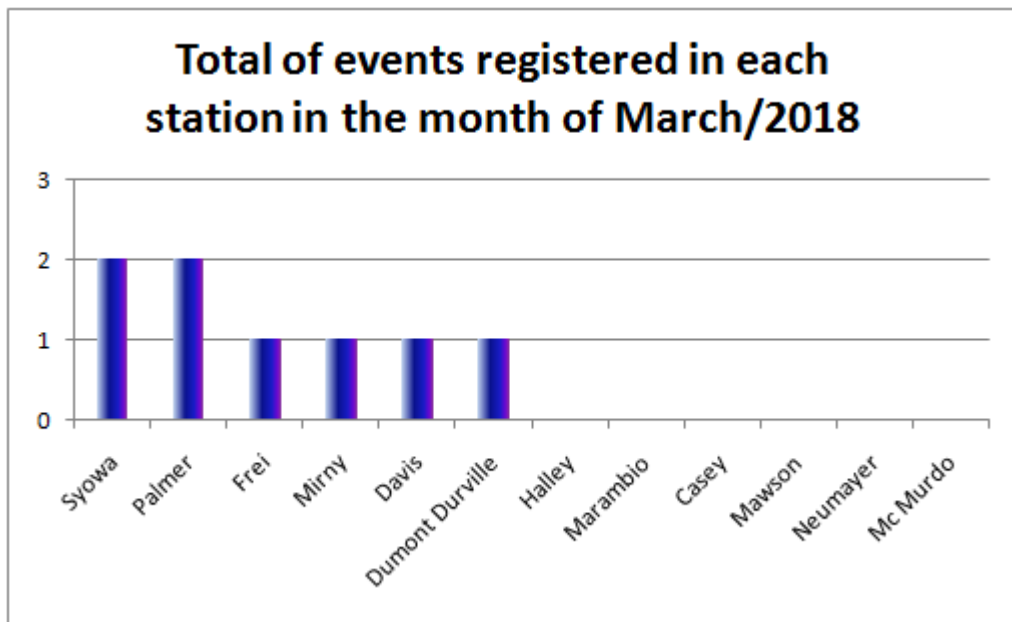
During this month, 08 events were recorded among the 13 research stations located on the coast of the Antarctic utilized as references for the monitoring of bomb cyclones. There was an increase in cases both in relation to the previous month and the same month of March 2017. The stations that were affected by cyclones this month were: Syowa, Frei, Dumont D'Urville, Mirny, Davis, and Palmer. The most intense cyclone recorded was no. 13/2018 at the Dumont D'Urville station on March 18th with sustained winds of up to 28.0 m/s (63 mph). The cyclone with the lowest recorded atmospheric pressure at sea level was no. 15/2018 at the Palmer station, with values reaching 947 hPa.

STATISTICS OF THE MONTH

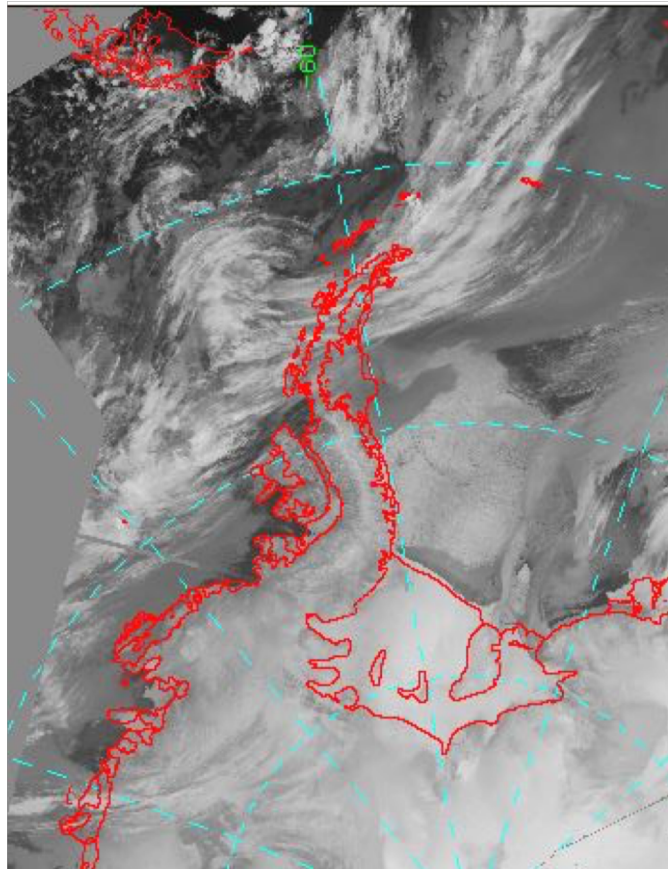
Classification	Bergeron Scale	Intensity	Total of cases registered in the month
B1	1 a 1.2	Weak	05
B2	1.3 a 1.8	Moderate	03
B3	>1.8	Strong	00

Highest pressure drop	Lowest recorded pressure	Highest sustained wind
-34.6 hPa/24h	947.2 hPa	28.0 m/s
Syowa	Palmer	D. D'Urville
Mar. 15 th	Mar. 22th	Mar. 18th



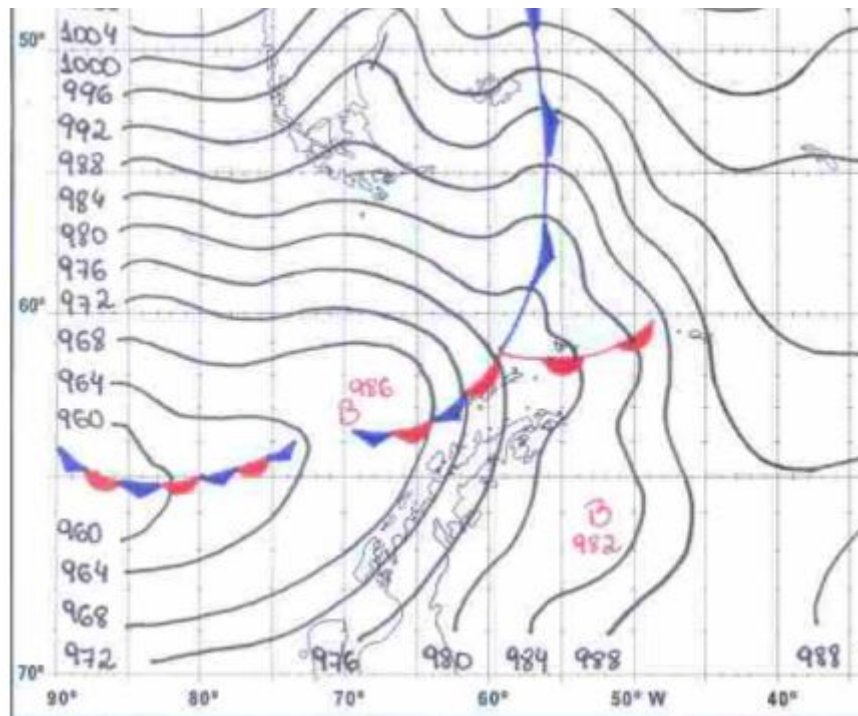


BOMB CYCLONE N°08/2018- DATA: MAR/01/2018
LOCAL: PALMER STATION – WMO 89061 (OPERATED BY U.S.A.)



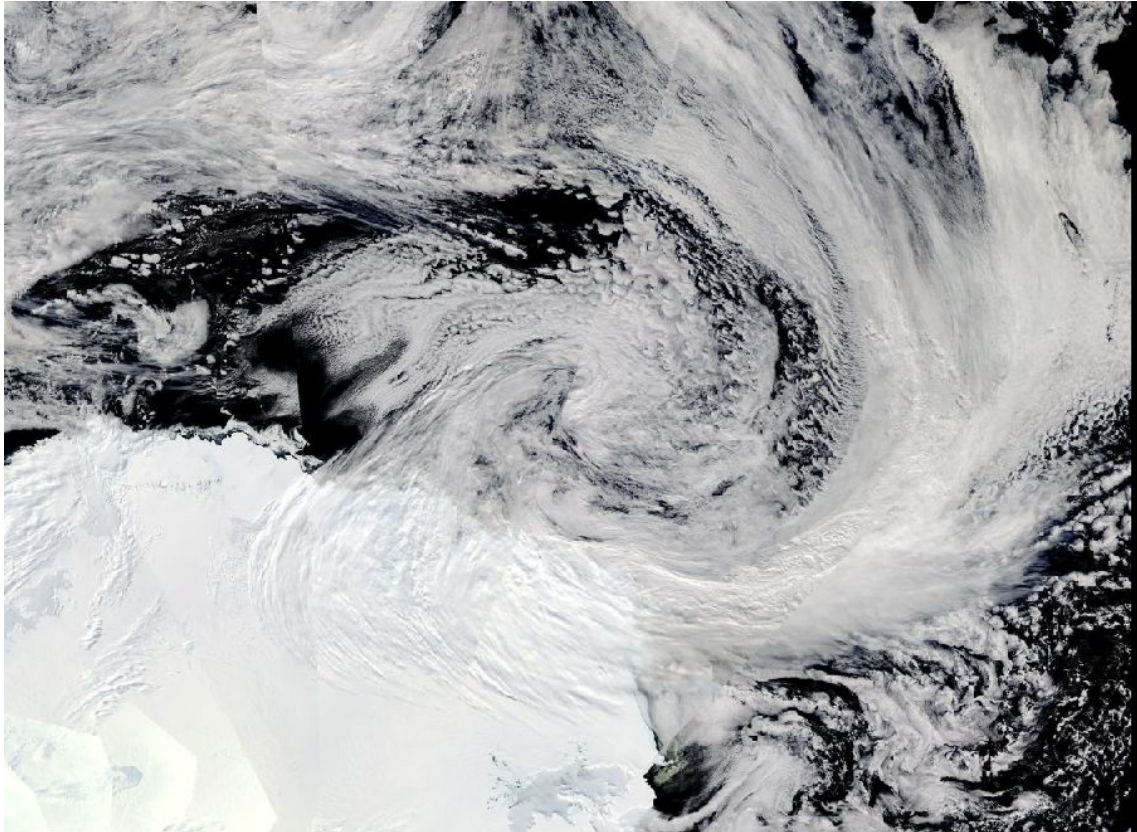
Drop of pressure in 24h	-24.6 hPa
Minimum pressure registred on station	963.9 hPa
Min. pressure estimation in the cyclone core	960 hPa
Sustined maximum wind	9 m/s (20 mph)
Maximum wind gust	None m/s (mph)
Bergeron	1.0 (moderate)

BOMB CYCLONE Nº09/2018- DATA: MAR/01/2018
LOCAL: FREI STATION – WMO 89056 (OPERATED BY CHILE)



Drop of pressure in 24h	-24.4 hPa
Minimum pressure registred on station	971.4 hPa
Min. pressure estimation in the cyclone core	960 hPa
Sustined maximum wind	12.0 m/s (27 mph)
Maximum wind gust	None m/s (mph)
Bergeron	1.0 (weak)

BOMB CYCLONE N°10/2018- DATA: MAR/04/2018
LOCAL: SYOWA STATION – WMO 89532 (OPERATED BY JAPAN)



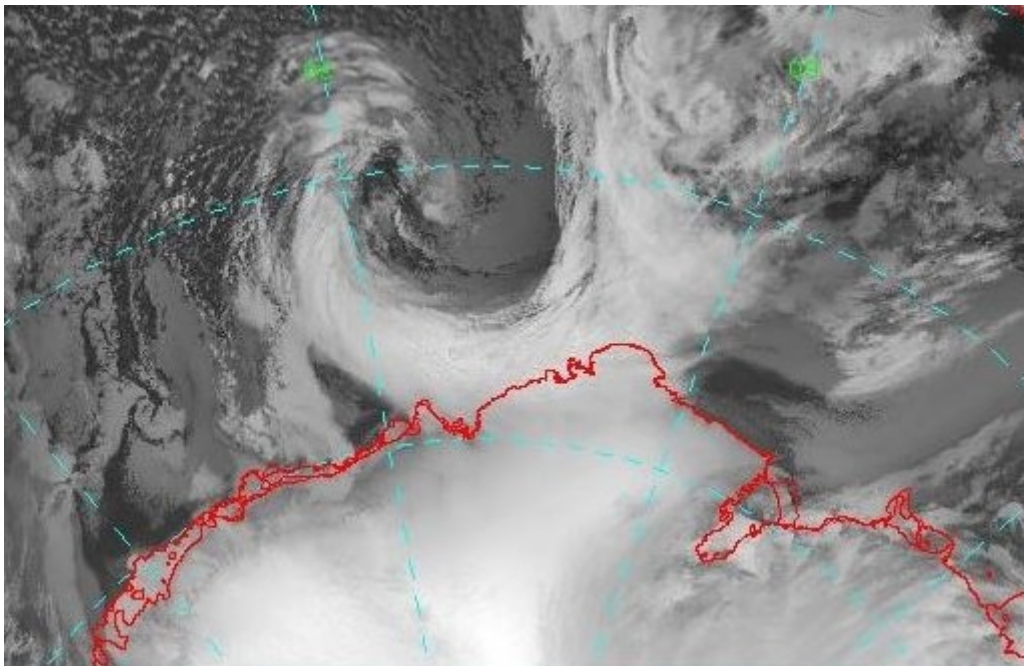
Drop of pressure in 24h	-25.6 hPa
Minimum pressure registred on station	971.6 hPa
Min. pressure estimation in the cyclone core	959 hPa
Sustined maximum wind	22.5 m/s (50 mph)
Maximum wind gust	None m/s (mph)
Bergeron	1.1 (weak)

BOMB CYCLONE N°11/2018- DATA: MAR/14/2018
LOCAL: DAVIS STATION – WMO 89571 (OPERATED BY
AUSTRALIA)

NO IMAGE

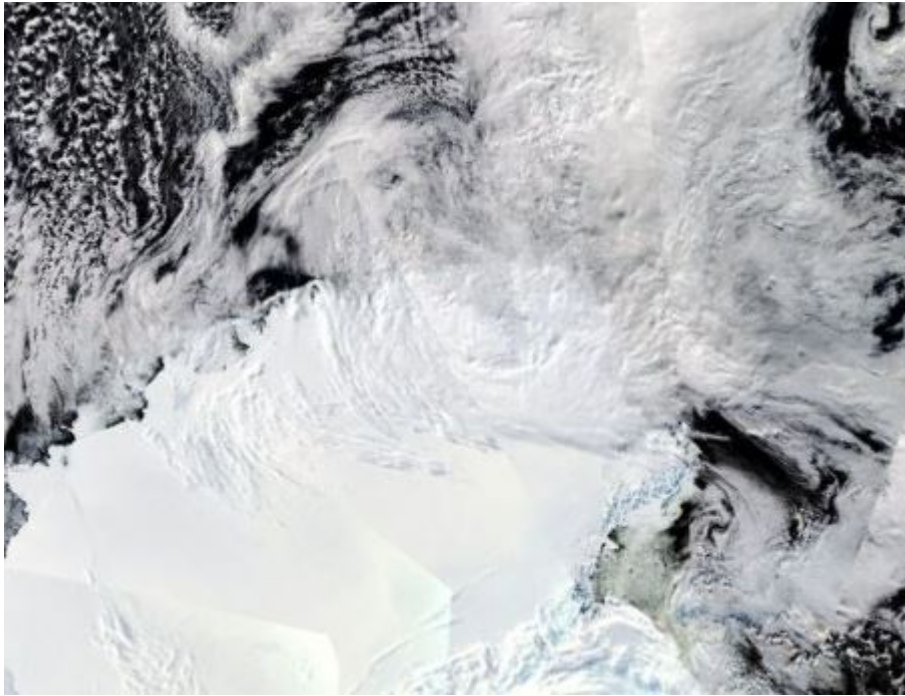
Drop of pressure in 24h	-27.6 hPa
Minimum pressure registred on station	965.1 hPa
Min. pressure estimation in the cyclone core	957 hPa
Sustined maximum wind	27.3 m/s (mph)
Maximum wind gust	None m/s (mph)
Bergeron	1.2 (weak)

BOMB CYCLONE N°12/2018- DATA: MAR/15/2018
LOCAL: SYOWA STATION – WMO 89532 (OPERATED BY JAPAN)



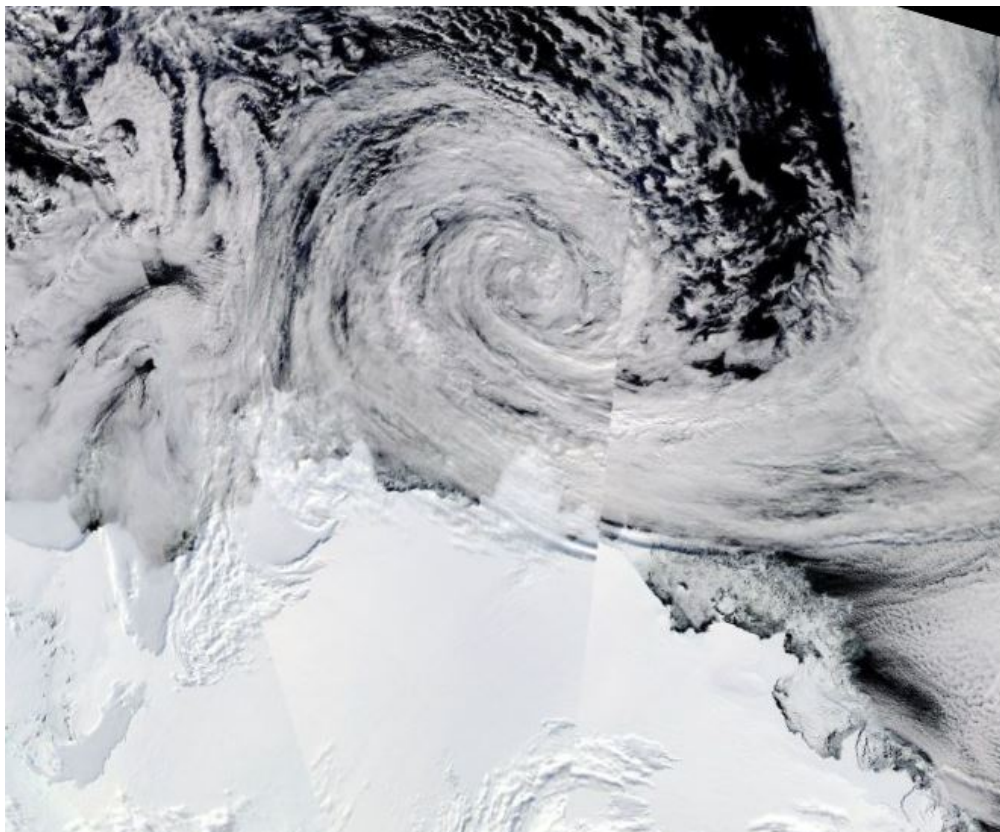
Drop of pressure in 24h	-34.6 hPa
Minimum pressure registred on station	953.7 hPa
Min. pressure estimation in the cyclone core	938 hPa
Sustined maximum wind	26.0 m/s (58 mph)
Maximum wind gust	None m/s (mph)
Bergeron	1.4 (moderate)

BOMB CYCLONE N°13/2018- DATA: MAR/18/2018
LOCAL: DUMONT D'URVILLE STATION – WMO 89642
(OPERATED BY FRANCE)



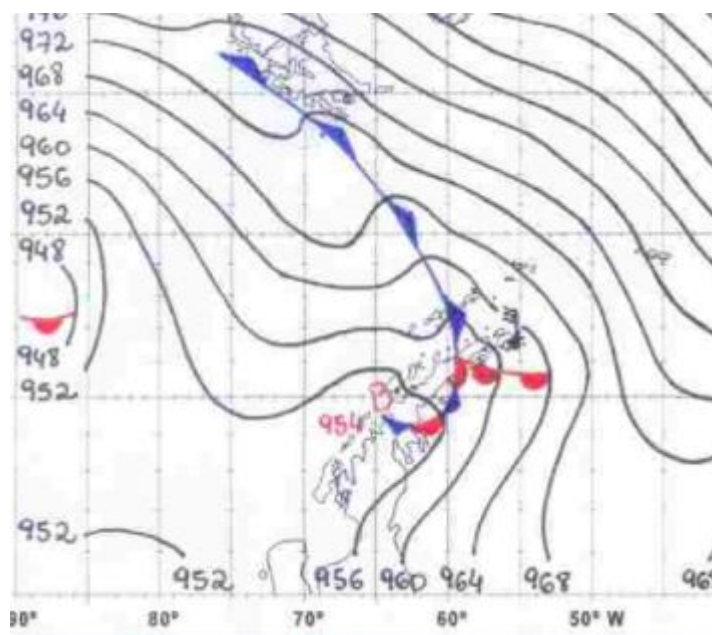
Drop of pressure in 24h	-30.0 hPa
Minimum pressure registred on station	948.6 hPa
Min. pressure estimation in the cyclone core	944 hPa
Sustined maximum wind	28.0 m/s (63 mph)
Maximum wind gust	39.0 m/s (87 mph)
Bergeron	1.3 (moderate)

BOMB CYCLONE N°14/2018- DATA: MAR/19/2018
LOCAL: MIRNY STATION – WMO 89592 (OPERATED BY RUSSIA)



Drop of pressure in 24h	-25.5 hPa
Minimum pressure registred on station	962.5 hPa
Min. pressure estimation in the cyclone core	956 hPa
Sustined maximum wind	9.5 m/s (21 mph)
Maximum wind gust	12.0 m/s (27 mph)
Bergeron	1.1 (weak)

BOMB CYCLONE N°15/2018- DATA: MAR/22/2018
LOCAL: PALMER STATION – WMO 89061 (OPERATED BY USA)



Drop of pressure in 24h	-26.7 hPa
Minimum pressure registred on station	947.2 hPa
Min. pressure estimation in the cyclone core	947 hPa
Sustined maximum wind	16 m/s (36 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>