

MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT

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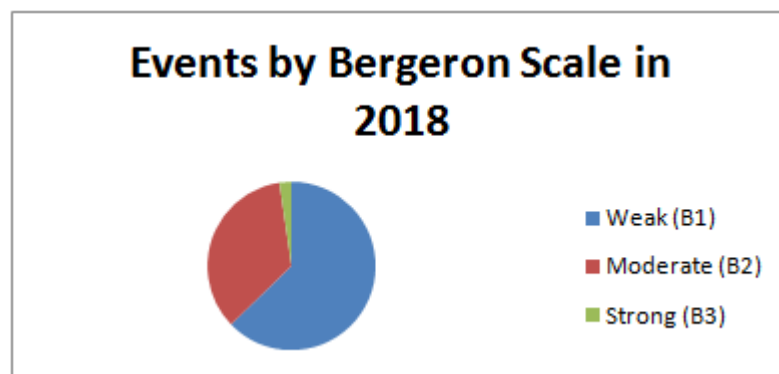
JULY 2018

During this month, 06 events were recorded among the 13 research stations located on the coast of the Antarctic utilized as references for the monitoring of bomb cyclones. Because 14 cases were registered last year, there has since been a decrease in cyclone events. The stations that were affected by cyclones this month were: Palmer, Fossil Bluff, Syowa, Frei, and Casey. The most intense cyclone recorded was no. 41/2018 at the Casey station on July 13th with sustained winds of up to 39 m/s (88 mph). The cyclone with the lowest recorded atmospheric pressure at sea level was also no. 41/2018 at the Casey station, with values reaching 938.8 hPa.

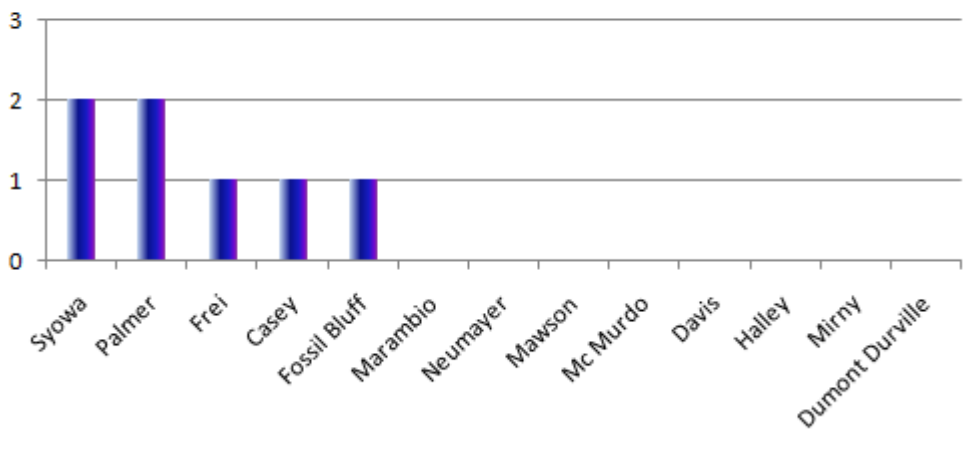
STATISTICS OF THE MONTH

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	01
B3	>1.8	Strong	01

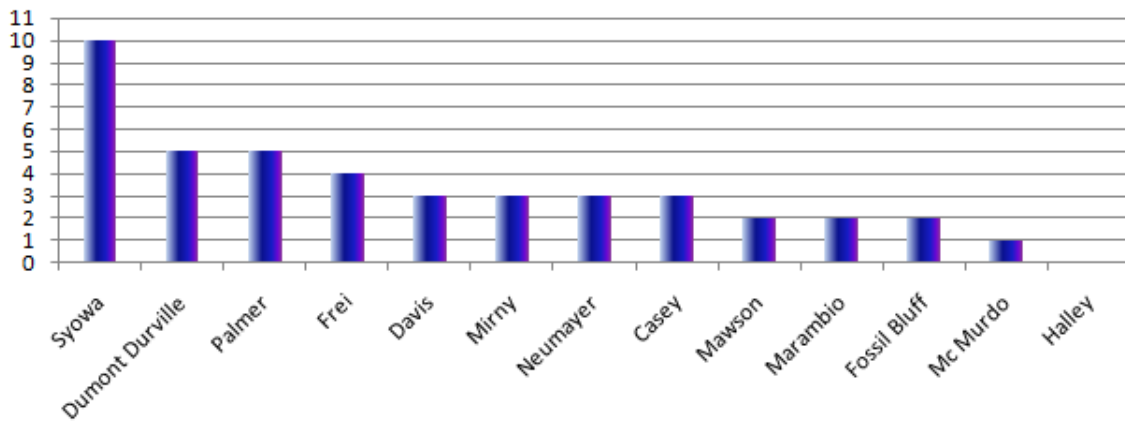
Highest pressure drop	Lowest recorded pressure	Highest sustained wind
-46.5 hPa/24h	938.8 hPa	39 m/s
Casey	Casey	Casey
July 13th	July 13th	July 13th



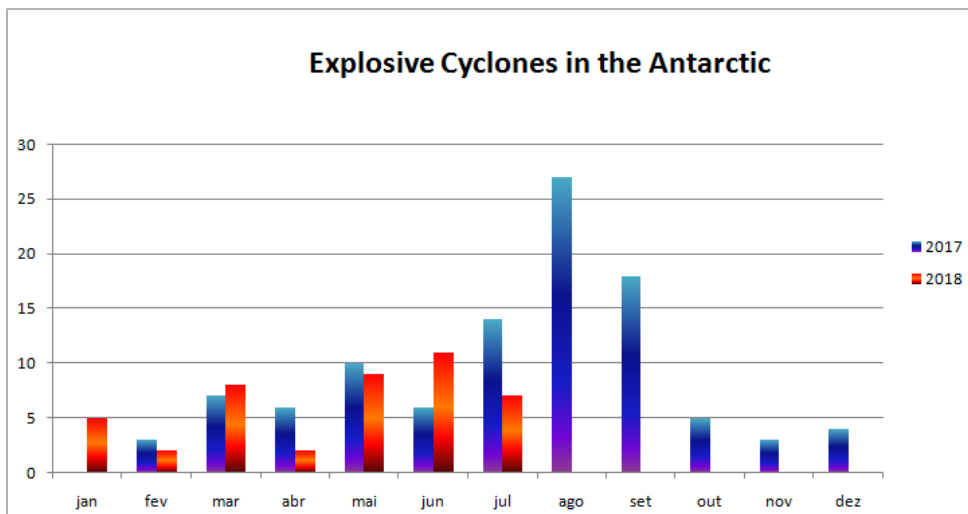
Total of events registered in each station in the month of July/2018



Total of events registered by station in 2018



Explosive Cyclones in the Antarctic

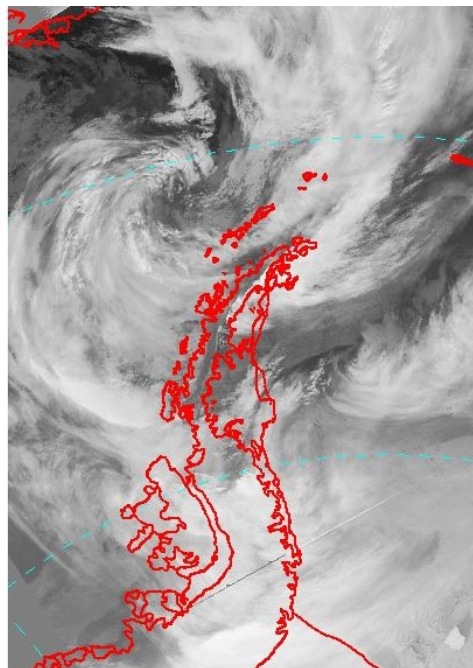


BOMB CYCLONE N°38/2018- DATA: JULY/03/2018
LOCAL: SYOWA STATION – WMO 89532 (OPERATED BY JAPAN)

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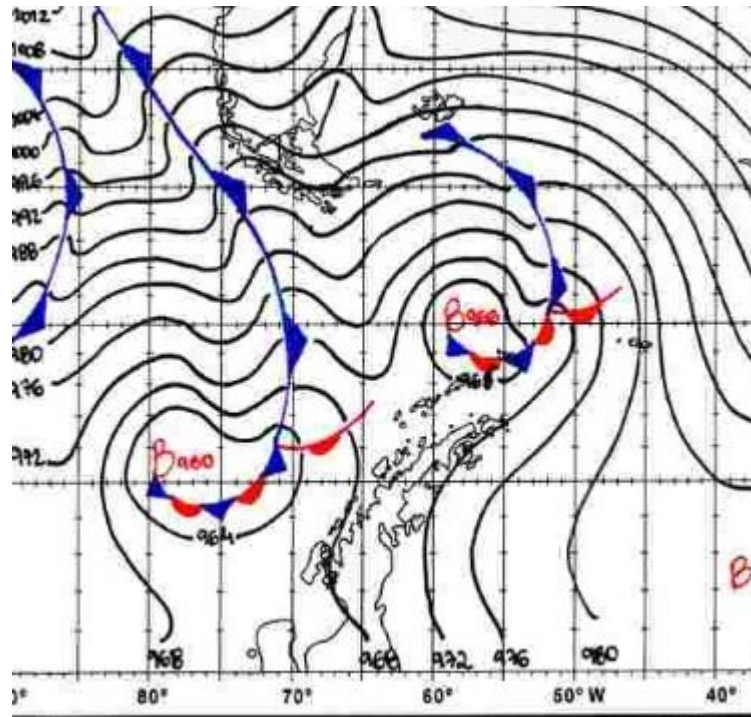
Drop of pressure in 24h	-26.3 hPa
Minimum pressure registred on station	969.9 hPa
Min. pressure estimation in the cyclone core	none hPa
Sustined maximum wind	8.8 m/s (20 mph)
Maximum wind gust	None m/s (mph)
Bergeron	1.1 (weak)

BOMB CYCLONE N°39/2018- DATA: JULY/09/2018
LOCAL: FREI STATION – WMO 89056 (OPERATED BY CHILE)



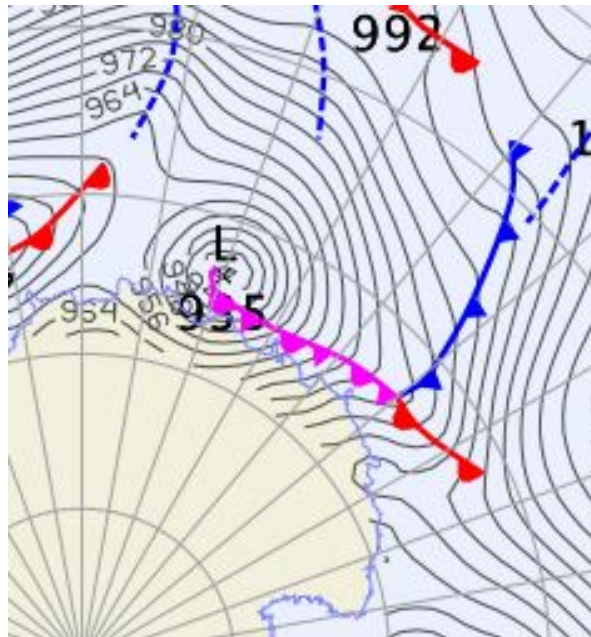
Drop of pressure in 24h	-29.6 hPa
Minimum pressure registred on station	970.5 hPa
Min. pressure estimation in the cyclone core	966 hPa
Sustined maximum wind	18.0 m/s (40 mph)
Maximum wind gust	22.0 m/s (49 mph)
Bergeron	1.2 (weak)

BOMB CYCLONE N°40/2018- DATA: JULY/09/2018
LOCAL: PALMER STATION – WMO 89061 (OPERATED BY U.S.A.)



Drop of pressure in 24h	-27.8 hPa
Minimum pressure registred on station	963.5 hPa
Min. pressure estimation in the cyclone core	960 hPa
Sustined maximum wind	14.0 m/s (31 mph)
Maximum wind gust	None m/s (mph)
Bergeron	1.0 (weak)

BOMB CYCLONE N°41/2018- DATA: JULY/13/2018
LOCAL: CASEY STATION – WMO 89611 (OPERATED BY AUSTRALIA)



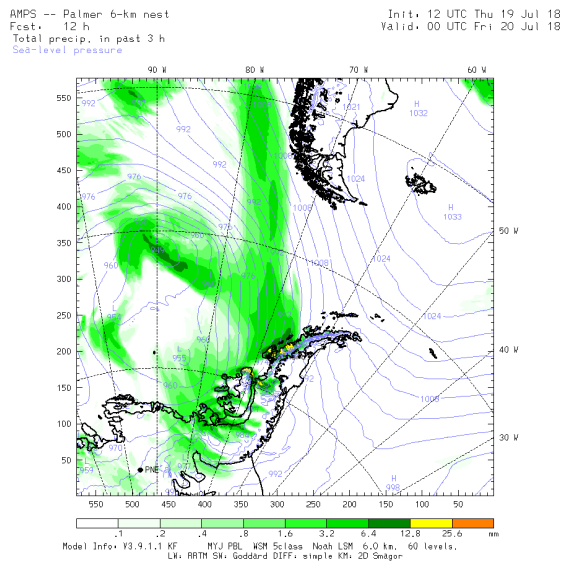
Drop of pressure in 24h	-46.5 hPa
Minimum pressure registered on station	938.8 hPa
Min. pressure estimation in the cyclone core	933 hPa
Sustined maximum wind	39.5 m/s (88 mph)
Maximum wind gust	47.5 m/s (106 mph)
Bergeron	1.9 (strong)

BOMB CYCLONE N°42/2018- DATA: JULY/18/2018
LOCAL: SYOWA STATION – WMO 89532 (OPERATED BY JAPAN)

NO IMAGE

Drop of pressure in 24h	-31.0 hPa
Minimum pressure registred on station	964.4 hPa
Min. pressure estimation in the cyclone core	949 hPa
Sustined maximum wind	25.2 m/s (56 mph)
Maximum wind gust	None m/s (mph)
Bergeron	1.3 (moderate)

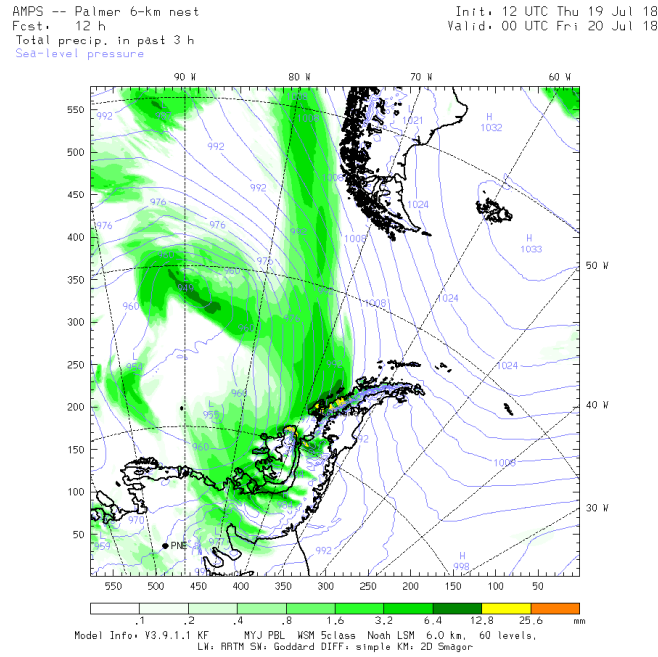
BOMB CYCLONE N°43/2018- DATA: JULY/20/2018
LOCAL: PALMER STATION – WMO 89061 (OPERATED BY U.S.A.)



Drop of pressure in 24h	-24.3 hPa
Minimum pressure registred on station	988.6 hPa
Min. pressure estimation in the cyclone core	none hPa
Sustined maximum wind	25.0 m/s (56 mph)
Maximum wind gust	None m/s (mph)
Bergeron	1.0 (weak)

BOMB CYCLONE N°44/2018- DATA: JULY/20/2018

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



Drop of pressure in 24h	-28.0 hPa
Minimum pressure registred on station	962.4 hPa
Min. pressure estimation in the cyclone core	954 hPa
Sustined maximum wind	20.6 m/s (46 mph)
Maximum wind gust	None m/s (mph)
Bergeron	1.2 (weak)