MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT

BY ROMAO, M. AND PIRES, L. B. M.

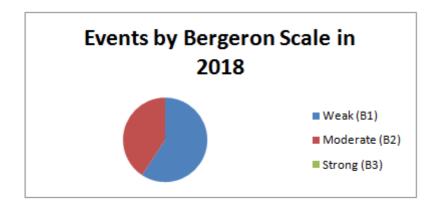
MAY 2018

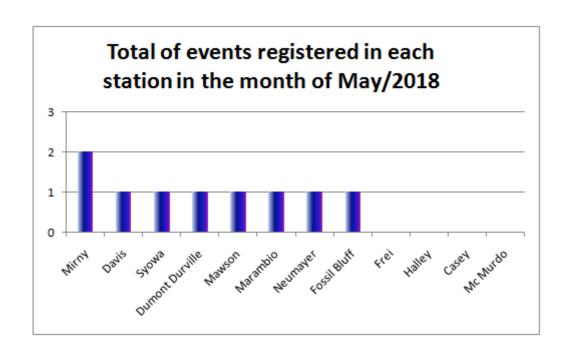
During this month, 09 events were recorded among the 13 research stations located on the coast of the Antarctic utilized as references for the monitoring of bomb cyclones. Because 10 cases were registered last year, there has since been a slight reduction in cyclone events. The stations that were affected by cyclones this month were: Syowa, Fossil Bluff, Dumont D'Urville, Mirny, Mawson, and Neumayer. The most intense cyclone recorded was no. 23/2018 at the Mawson station on May 23th with sustained winds of up to 34.0 m/s (76 mph). The cyclone with the lowest recorded atmospheric pressure at sea level was no. 21/2018 at the Mirny station, with values reaching 959.1 hPa.

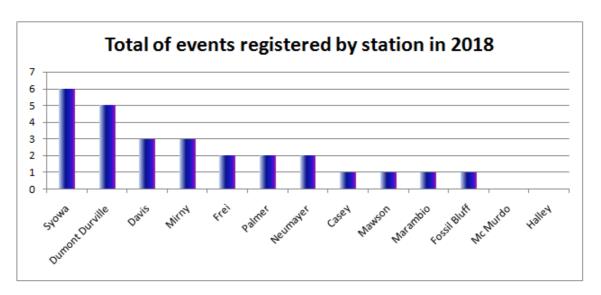
STATISTICS OF THE MONTH

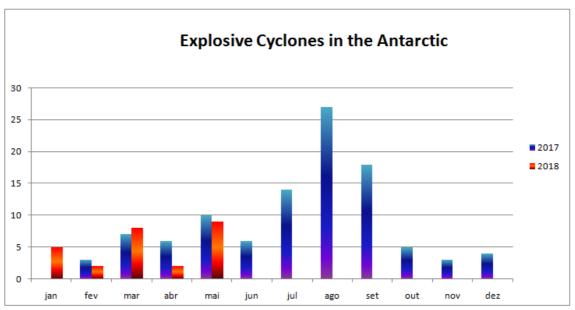
Classification	Bergeron Scale	Intensity	Total of cases registered in the month
B1	1 a 1.2	Weak	05
B2	1.3 a 1.8	Moderate	04
В3	>1.8	Strong	00

Highest pressure drop	Lowest recorded pressure	Highest sustained wind
-35.6 hPa/24h	959.1 hPa	34.0 m/s
Mawson	Mirny	Mawson
May 23th	May 09th	May 23th

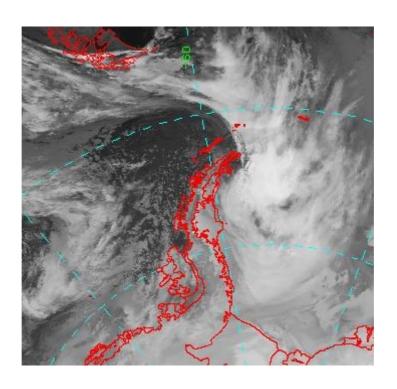






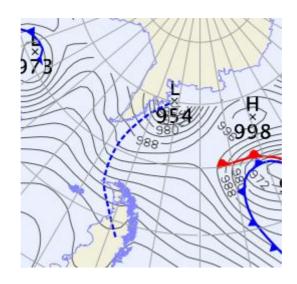


BOMB CYCLONE N°18/2018- DATA: MAY/01/2018 LOCAL: MARAMBIO STATION – WMO 89055 (OPERATED BY ARGENTINA)



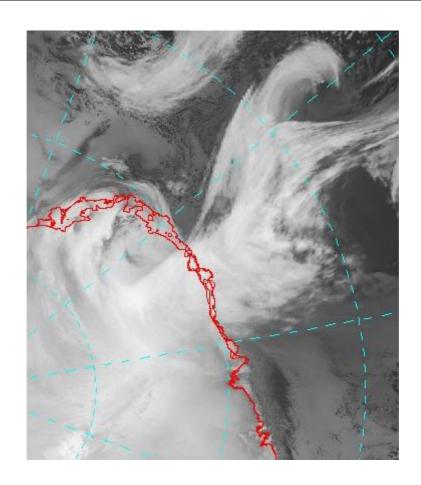
Drop of pressure in 24h	-25.2 hPa
Minimum pressure registred on station	970.9 hPa
Min. pressure estimation in the cyclone core	963 hPa
Sustined maximum wind	19.5 m/s (44 mph)
Maximum wind gust	None m/s (mph)
Bergeron	1.1 (weak)

BOMB CYCLONE N°19/2018- DATA: MAY/07/2018 LOCAL: FOSSIL BLUFF STATION – WMO 89065 (OPERATED BY U.K.)



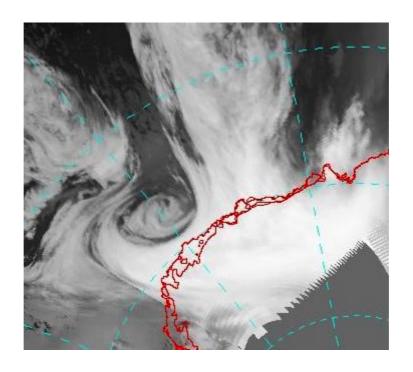
Drop of pressure in 24h	-28.8 hPa
Minimum pressure registred on station	959.5 hPa
Min. pressure estimation in the cyclone core	954 hPa
Sustined maximum wind	12.9 m/s (29 mph)
Maximum wind gust	None m/s (mph)
Bergeron	1.2 (weak)

BOMB CYCLONE N°20/2018- DATA: MAY/08/2018 LOCAL: NEUMAYER STATION – WMO 89002 (OPERATED BY GERMANY)



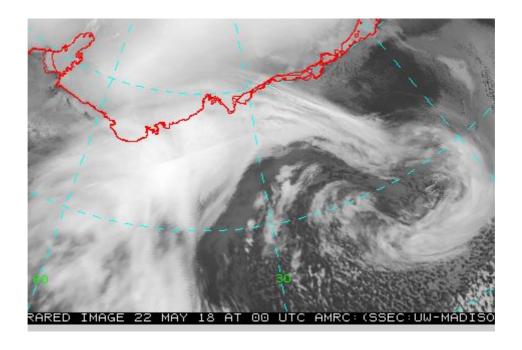
Drop of pressure in 24h	-29.3 hPa
Minimum pressure registred on station	963.7 hPa
Min. pressure estimation in the cyclone core	958 hPa
Sustined maximum wind	25.0 m/s (56 mph)
Maximum wind gust	None m/s (mph)
Bergeron	1.2 (weak)

BOMB CYCLONE N°21/2018- DATA: MAY/09/2018 LOCAL: MIRNY STATION – WMO 89592 (OPERATED BY RUSSIA)



Drop of pressure in 24h	-31.4 hPa
Minimum pressure registred on station	959.1 hPa
Min. pressure estimation in the cyclone core	943 hPa
Sustined maximum wind	26 m/s (58 mph)
Maximum wind gust	30 m/s (67 mph)
Bergeron	1.3 (moderate)

BOMB CYCLONE N°22/2018- DATA: MAY/22/2018 LOCAL: Syowa STATION – WMO 89532 (OPERATED BY JAPAN)



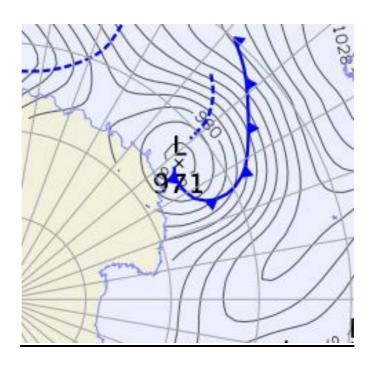
Drop of pressure in 24h	-35.8 hPa
Minimum pressure registred on station	964.1 hPa
Min. pressure estimation in the cyclone core	949 hPa
Sustined maximum wind	30.0 m/s (67 mph)
Maximum wind gust	none m/s (mph)
Bergeron	1.5 (moderate)

BOMB CYCLONE N°23/2018- DATA: MAY/23/2018 LOCAL: MAWSON STATION – WMO 89564 (OPERATED BY AUSTRALIA)

NO IMAGE

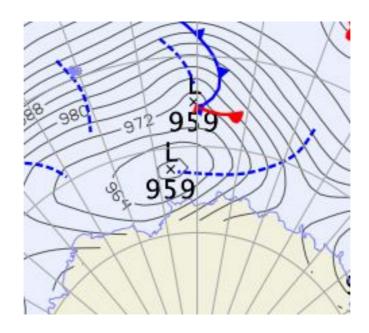
Drop of pressure in 24h	-35.6 hPa
Minimum pressure registred on station	973.1 hPa
Min. pressure estimation in the cyclone core	953 hPa
Sustined maximum wind	34.0 m/s (76 mph)
Maximum wind gust	none m/s (mph)
Bergeron	1.5 (moderate)

BOMB CYCLONE N°24/2018- DATA: MAY/24/2018 LOCAL: DUMONT D'URVILLE STATION – WMO 89642 (OPERATED BY FRANCE)



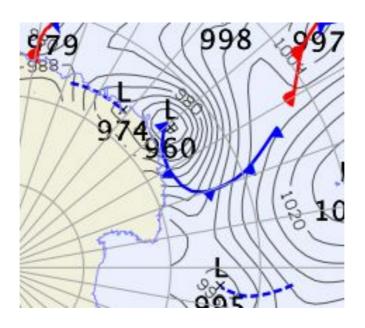
Drop of pressure in 24h	-33.2 hPa
Minimum pressure registred on station	973.8 hPa
Min. pressure estimation in the cyclone core	971 hPa
Sustined maximum wind	23.2 m/s (52 mph)
Maximum wind gust	35.0 m/s (78 mph)
Bergeron	1.4 (moderate)

BOMB CYCLONE N°25/2018- DATA: MAY/25/2018 LOCAL: MIRNY STATION – WMO 89592 (OPERATED BY RUSSIA)



Drop of pressure in 24h	-24.4 hPa
Minimum pressure registred on station	968.8 hPa
Min. pressure estimation in the cyclone core	959 hPa
Sustined maximum wind	11.5 m/s (26 mph)
Maximum wind gust	13.0 m/s (29 mph)
Bergeron	1.0 (weak)

BOMB CYCLONE N°26/2018- DATA: MAY/29/2018 LOCAL: DUMONT D'URVILLE STATION – WMO 89642 (OPERATED BY FRANCE)



-26.2 hPa	Drop of pressure in 24h
968.7 hPa	Minimum pressure registred on station
960 hPa	Min. pressure estimation in the cyclone core
23.7 m/s (53 mph)	Sustined maximum wind
41.0 m/s (92 mph)	Maximum wind gust
1.1 (weak)	Bergeron