

# MONITORING EXPLOSIVE CYCLONES ON THE COAST OF THE ANTARCTIC CONTINENT

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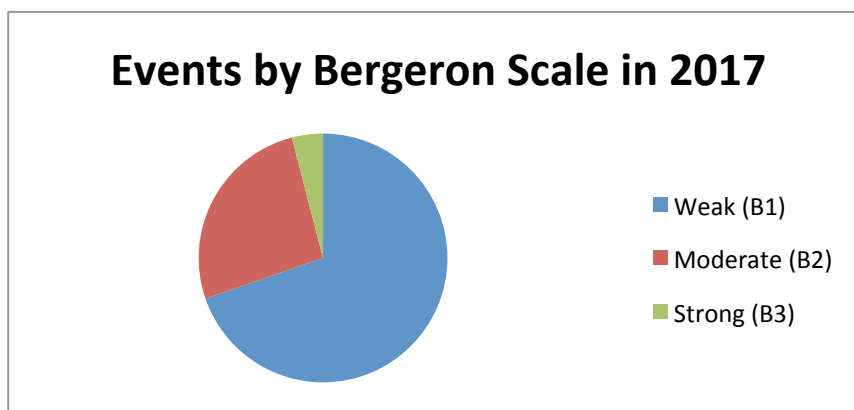
## NOVEMBER 2017

During this month, 03 events were registered among the 13 research stations located on the coast of the Antarctic utilized as references for the monitoring of explosive cyclones, at the stations of: Neumayer, Dumont D'Urville and Mirny, totaling 02 less cases than in the previous month. The most intense cyclone recorded was number 97/2017 at the Neumayer station on November 04th with sustained winds of up to 25.0 m/s (56 mph). The cyclone which registered the lowest atmospheric pressure at sea level was also number 97/2017 at the Neumayer station, with values reaching 957.4 hPa. Throughout 2017 the station with the largest number of events has been the Australian Casey with 16 cases, followed by the Frei stations with 11 cases. Russkaya's Russian station was not operating this month, so it was not possible to monitor that region.

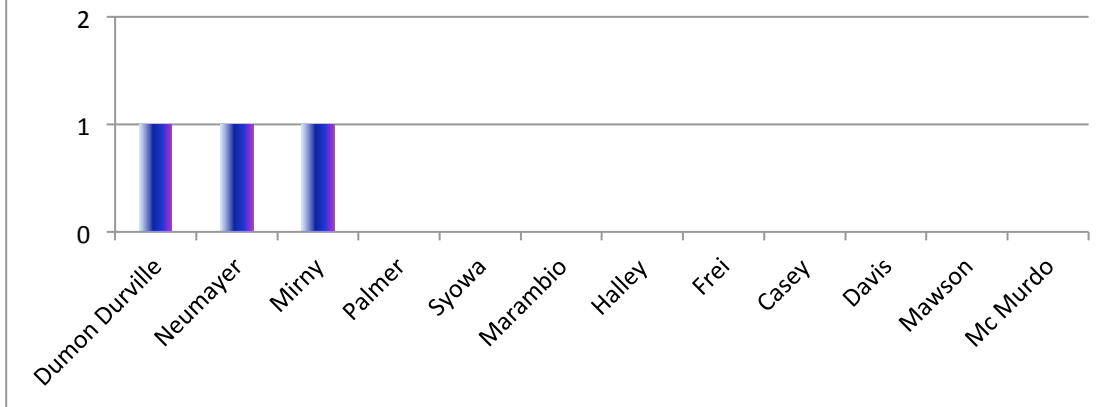
### STATISTICS OF THE MONTH

Classification	Bergeron Scale	Intensity	Total of cases registered in the month
B1	1 a 1.2	Weak	02
B2	1.3 a 1.8	Moderate	01
B3	>1.8	Strong	00

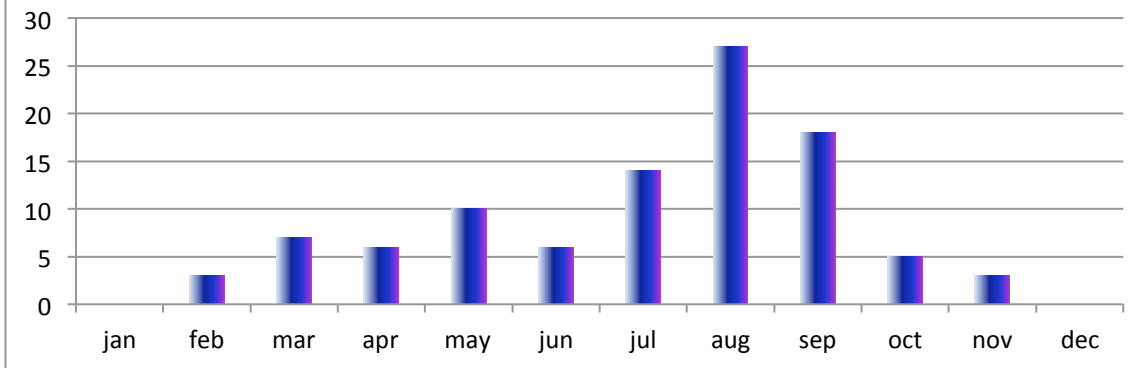
Highest pressure drop	Lowest recorded pressure	Highest sustained wind	Average minimum pressures	Mean of pressure drops
-32.0 hPa/24h	957.4 hPa	25.0 m/s	966.2 hPa	-27.9 hPa/24h
Neumayer Station November 05	Neumayer Station November 13	Neumayer Station November 12		



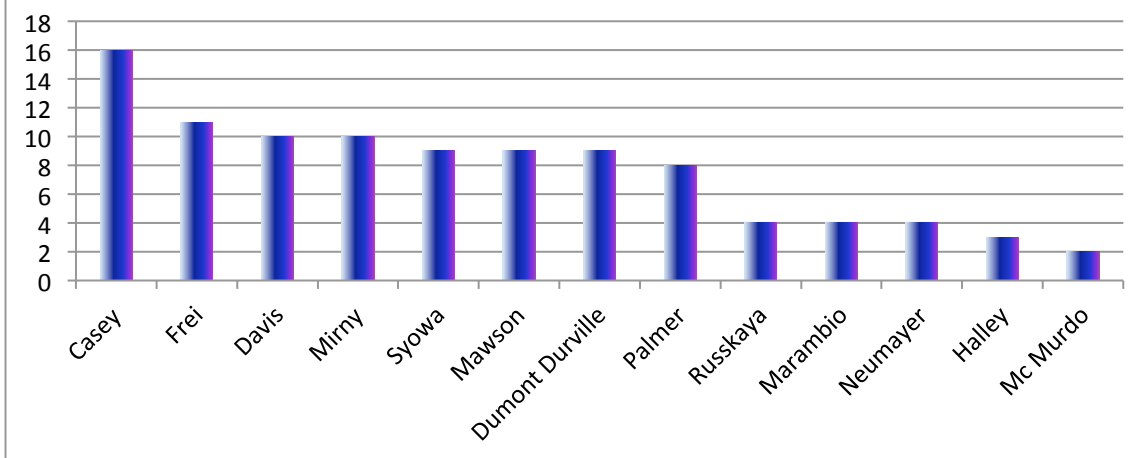
### Total of events registered in each station in the month of November/2017



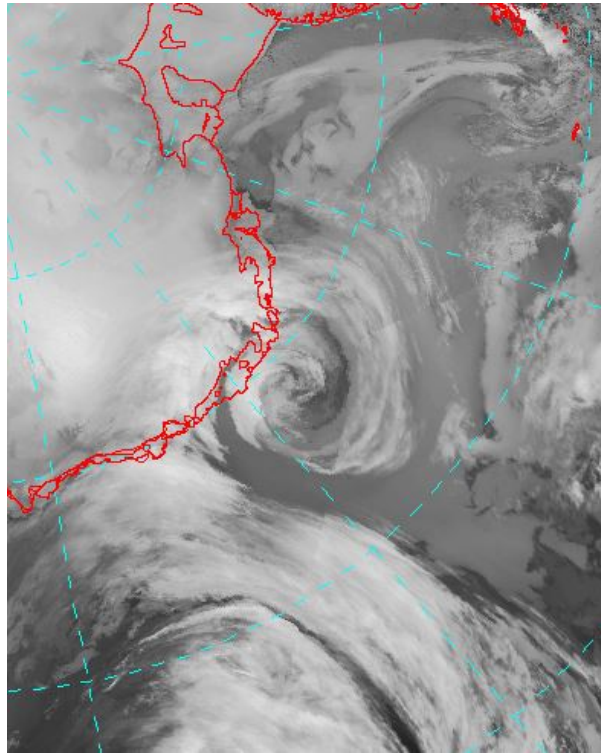
### Explosive Cyclones in the Antarctic Total of monthly events



### Total of events registered by station in 2017

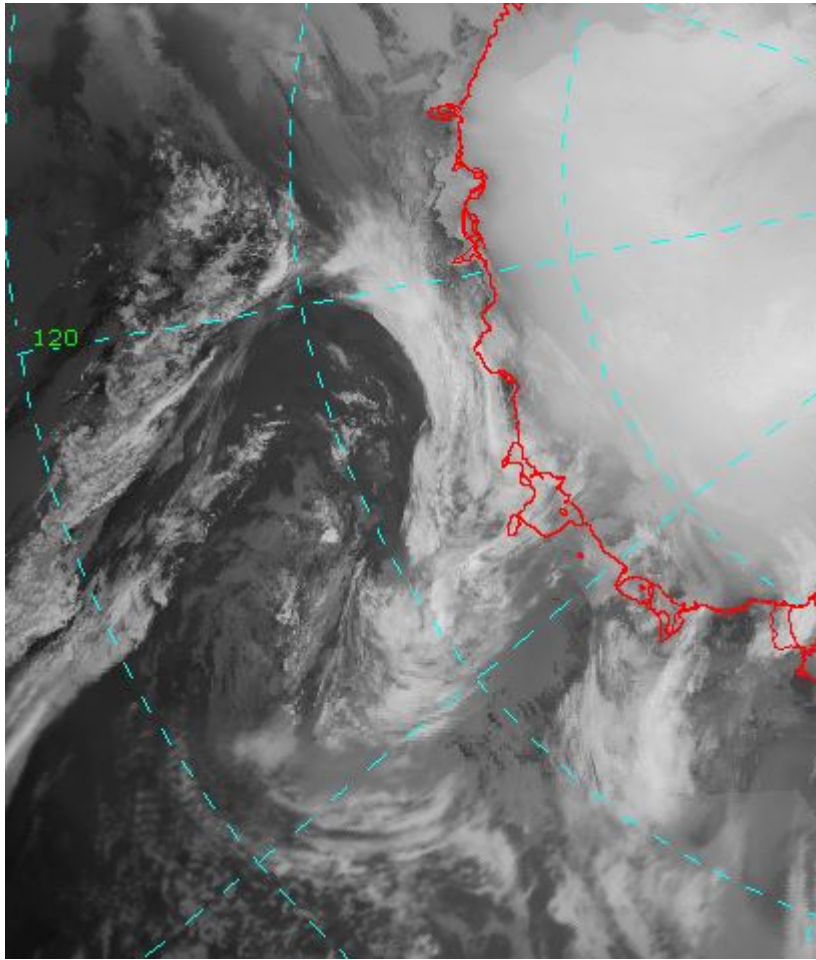


**EXPLOSIVE CYCLONE N°97/2017- DATA: 04/NOV/2017**  
**LOCAL: NEUMAYER STATION – WMO 89002 (OPERATED BY GERMANY)**



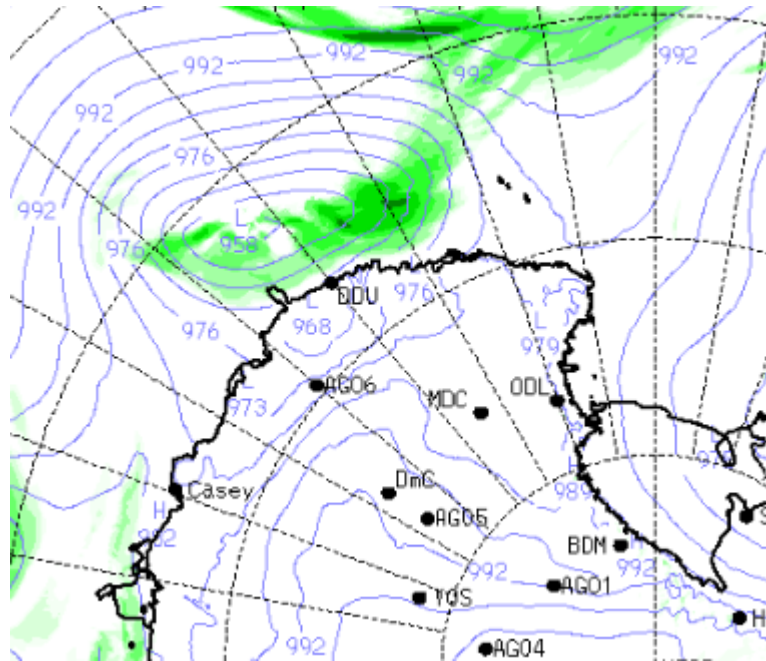
DROP OF PRESSURE IN 24H: -32.0 hPa  
MINIMUM PRESSURE REGISTERED ON STATION: 957.4 hPa  
MINIMUM PRESSURE ESTIMATED IN THE CYCLONE CORE: 948.0 hPa  
SUSTAINED MAXIMUM WIND: 25.0 m/s (56 mph)  
MAXIMUM WIND GUST: none m/s (mph)  
BERGERON: 1.3 (MODERATE)

**EXPLOSIVE CYCLONE N°98/2017- DATA: 06/NOV/2017**  
**LOCAL: MIRNY STATION – WMO 89592 (OPERATED BY RUSSIA)**



DROP OF PRESSURE IN 24H: -24.1 hPa  
MINIMUM PRESSURE REGISTERED ON STATION: 972.4 hPa  
MINIMUM PRESSURE ESTIMATED IN THE CYCLONE CORE: 960.0 hPa  
SUSTAINED MAXIMUM WIND: 12.5 m/s (28 mph)  
MAXIMUM WIND GUST: 15.0 m/s (34 mph)  
BERGERON: 1.0 (WEAK)

**EXPLOSIVE CYCLONE N°99/2017- DATA: 30/NOV/2017**  
**LOCAL: DUMONT D'URVILLE STATION –WMO 89642 (OPERATED BY FRANCE)**



DROP OF PRESSURE IN 24H: -24.4 hPa  
MINIMUM PRESSURE REGISTERED ON STATION: 968.8 hPa  
MINIMUM PRESSURE ESTIMATED IN THE CYCLONE CORE: 958 hPa  
SUSTAINED MAXIMUM WIND: 17.5 m/s (39 mph)  
MAXIMUM WIND GUST: 27.5 m/s (62 mph)  
BERGERON: 1.0 (WEAK)

**Sources:**

AMRC – UW Madison  
<https://worldview.earthdata.nasa.gov>  
<http://www.weathersa.co.za>  
<http://www.bom.gov.au>  
<https://data.aad.gov.au>  
<http://www.smn.gov.ar>  
<http://meteoarmada.directemar.cl>