



# SCOPING WORKSHOP: TOWARDS IMPLEMENTATING AN ANTARCTIC RCC NETWORK

**NATIONAL WEATHER SERVICE OF CHILE**

**PAOLA URIBE RAIBAUDI**

# OUTLINE

- ▶ NATIONAL CAPABILITIES
  - ▶ CLIMATOLOGY SERVICES
  - ▶ FORECASTING SERVICES
- ▶ NEEDS
  - ▶ SEASONAL AND S2S FORECAST

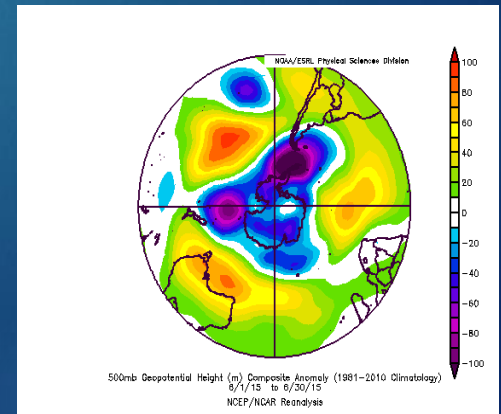
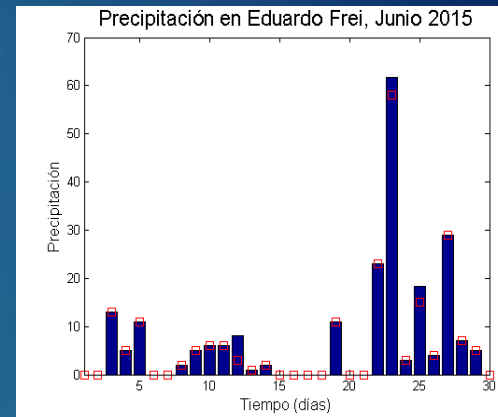
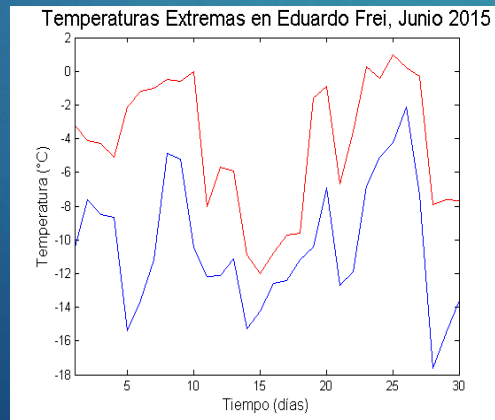
# Climatology Services

Antarctic Meteorology  
Bulletin

Stratospheric ozone and UV  
radiation Bulletin

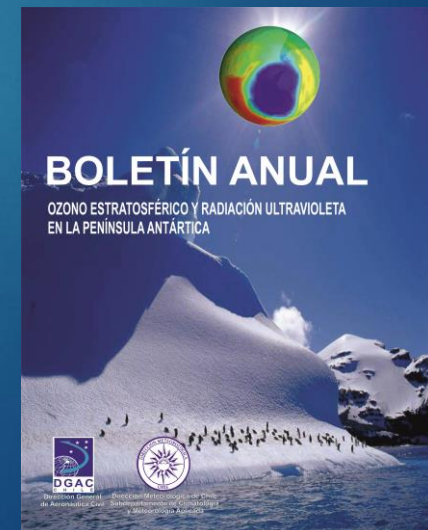
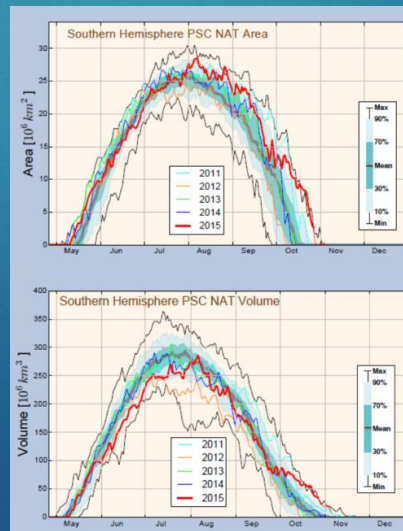
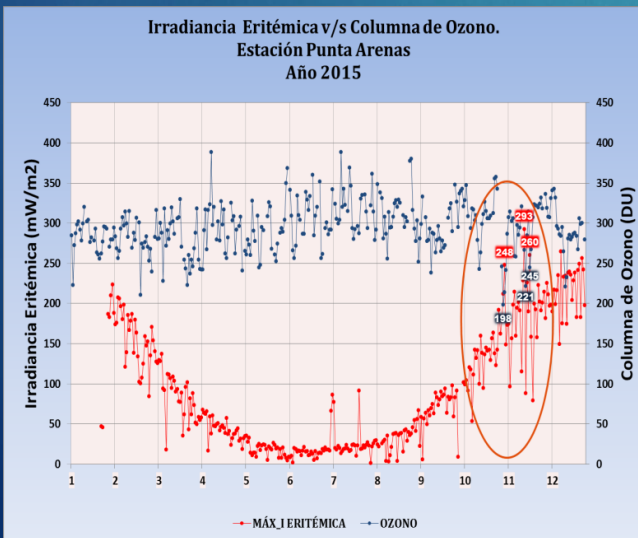
# ANTARCTIC METEOROLOGY BULLETIN

- Monthly Synoptic conditions over Antarctic Peninsula
- Meteorology Parameters:
  - Maximum and Minimum Temperatures
  - Precipitation
  - Relative humidity
  - Wind
  - clouds
- Antarctic Oscillation and forecast



# Stratospheric ozone and UV radiation Bulletin

- ▶ Monthly Bulletin
- ▶ Ozone and UV radiation and their interaction
- ▶ Ozone layer monitoring



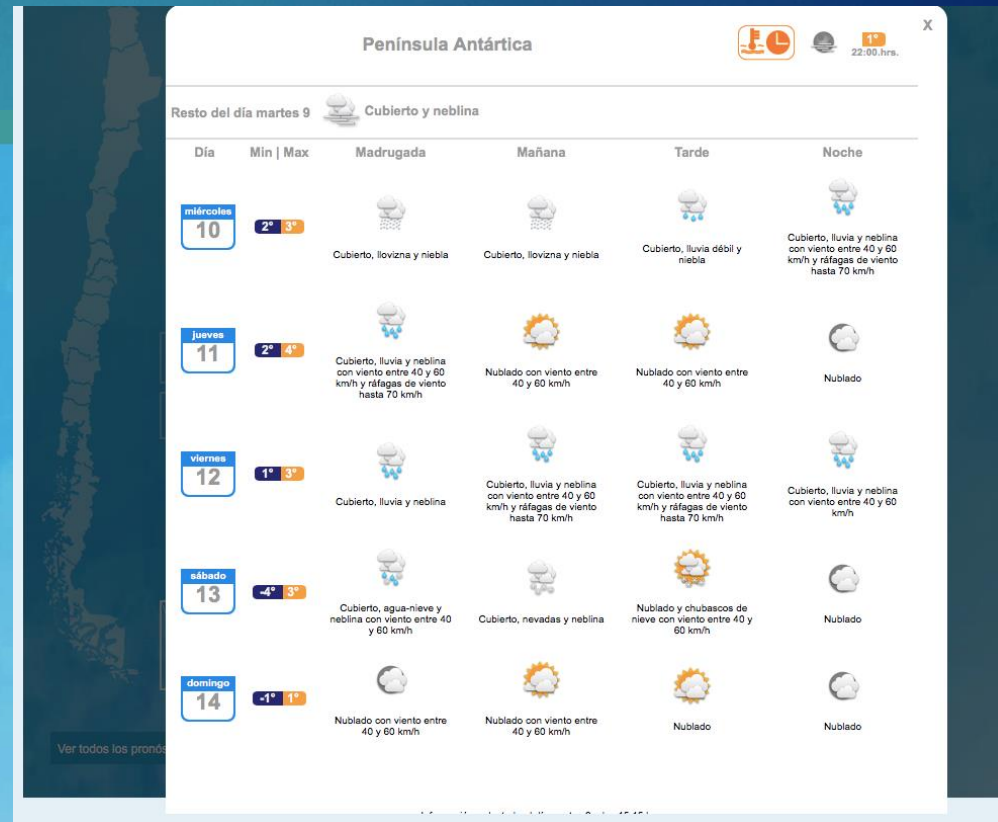
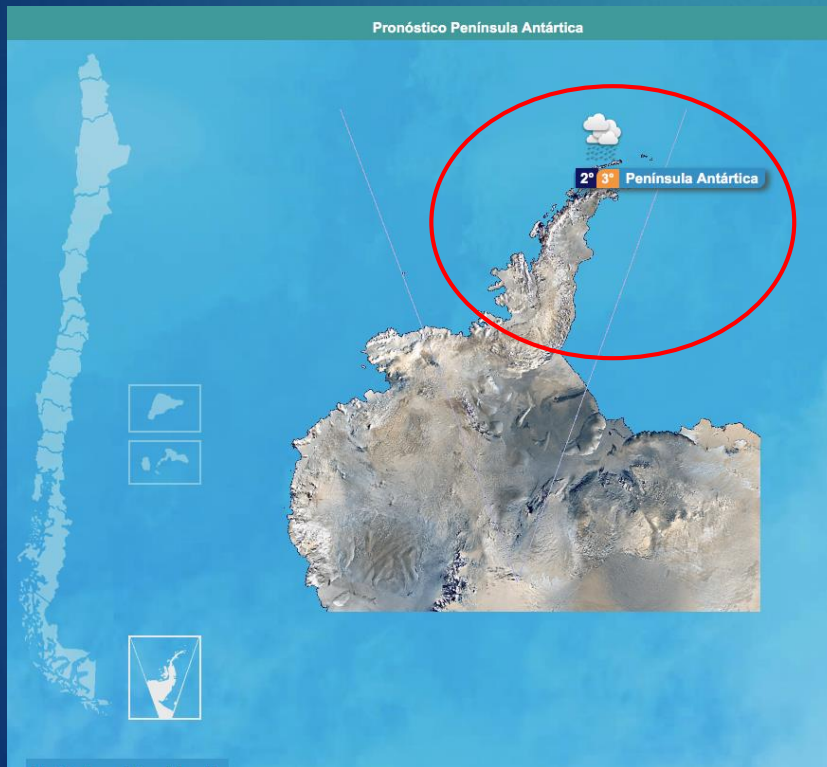
# Weather Services

Public Forecast

Meteorology forecast for  
aviation users

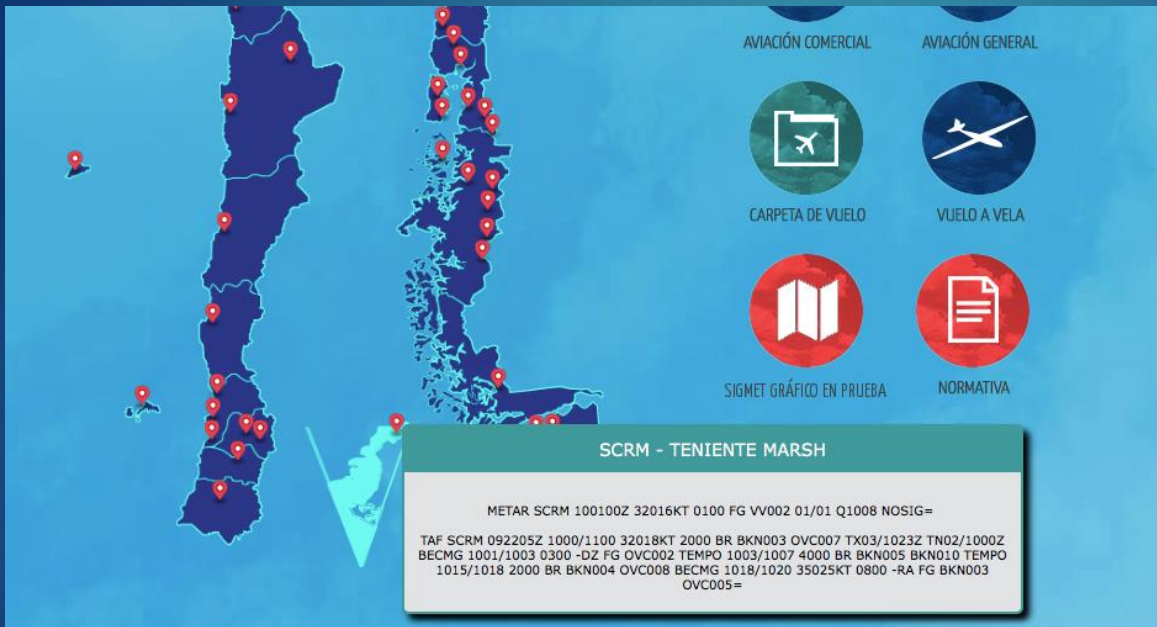
WRF model

# WEATHER SERVICES



Short and medium range forecast

# Meteorology forecast for aviation



AVIACIÓN COMERCIAL AVIACIÓN GENERAL

CARPETA DE VUELO VUELO A VELA

SIGMET GRÁFICO EN PRUEBA NORMATIVA

**SCRМ - TENIENTE MARSH**

METAR SCRМ 100100Z 32016KT 0100 FG VV002 01/01 Q1008 NOSIG=

TAF SCRМ 092205Z 1000/1100 32018KT 2000 BR BKN003 OVC007 TX03/1023Z TN02/1000Z BECMG 1001/1003 0300 -DZ FG OVC002 TEMPO 1003/1007 4000 BR BKN005 BKN010 TEMPO 1015/1018 2000 BR BKN004 OVC008 BECMG 1018/1020 35025KT 0800 -RA FG BKN003 OVC005=

- Local conditions every hours
- Forecast every 6 hours

Designador OACI  Últimos  Tipo

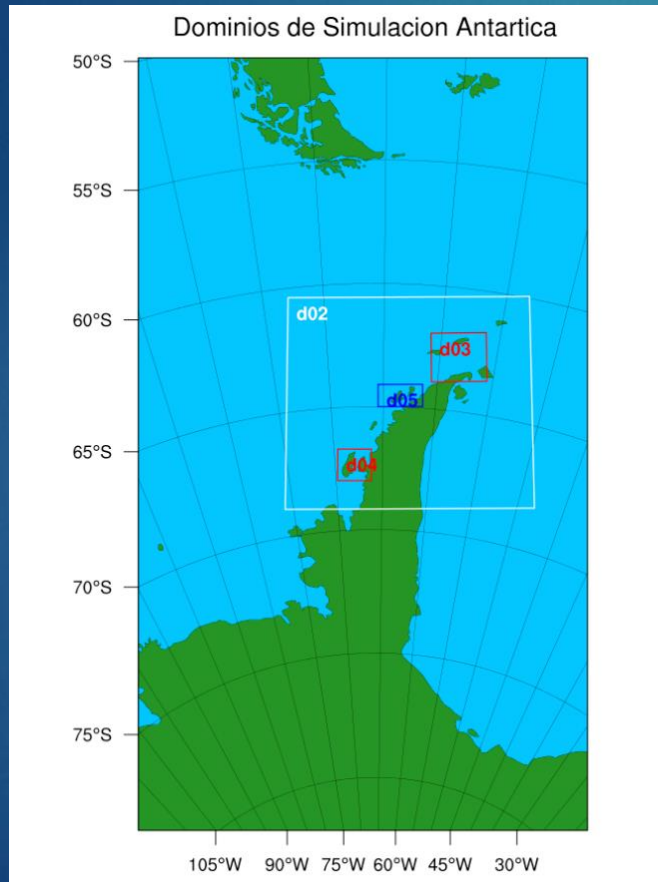
ATENCIÓN: Este sitio contiene información meteorológica aeronáutica operativa relevante para la seguridad y planificación de vuelos en aeronaves tripuladas por pilotos con licencia certificada por la DGAC.

**Dirección Meteorológica de Chile :: Meteorología Aeronáutica**

Av. Portales 3450, Estación Central - Santiago  
Fono (02) 24364538 Fax (02) 24378212  
Correo Postal: Casilla 140, Sucursal Matucana, Estación Central



# WRF Model (Weather Research and Forecasting)



- ▶ WRF runs 0.5 GFS Model, every 12 hours
- ▶ 120 hours forecasting
- ▶ a) 1 dominio de 50 km for flights between Punta Arenas and the Peninsula.
- ▶ b) 1 dominio madre de 10 km de resolución for the peninsula
- ▶ c) 5 dominios anidados de 2 KM de resolución para las bases respectivas.

# NEEDS

## Agosto 2019 – Presión a nivel del Mar y TSM

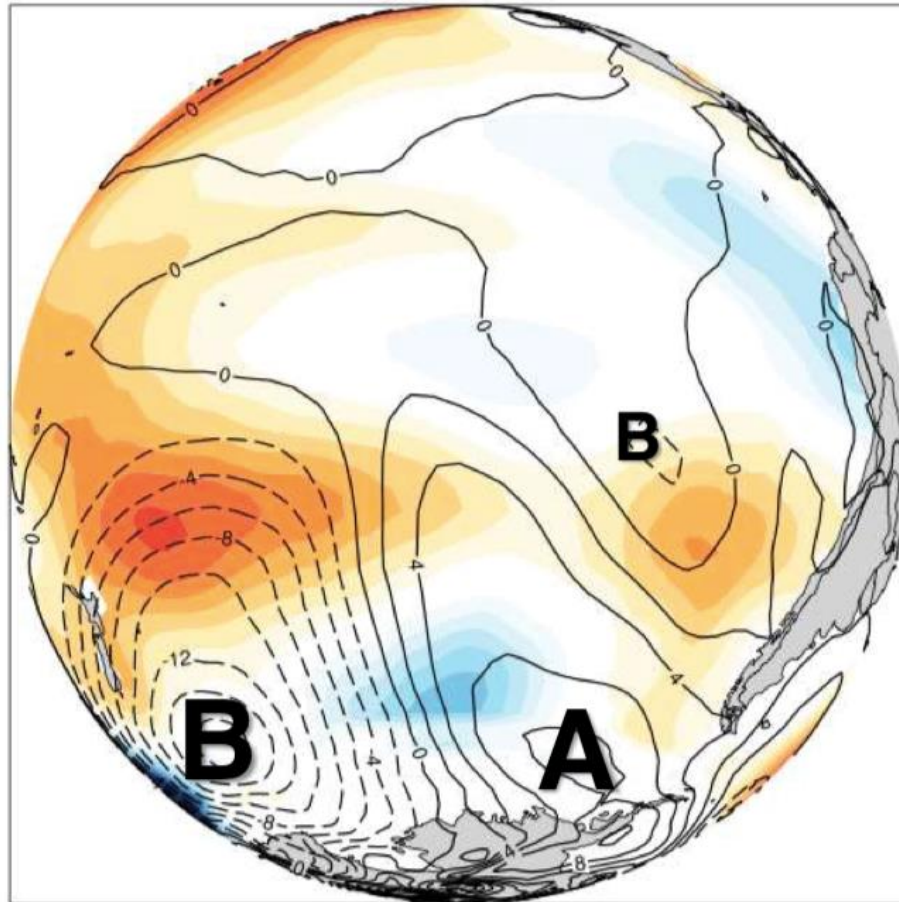
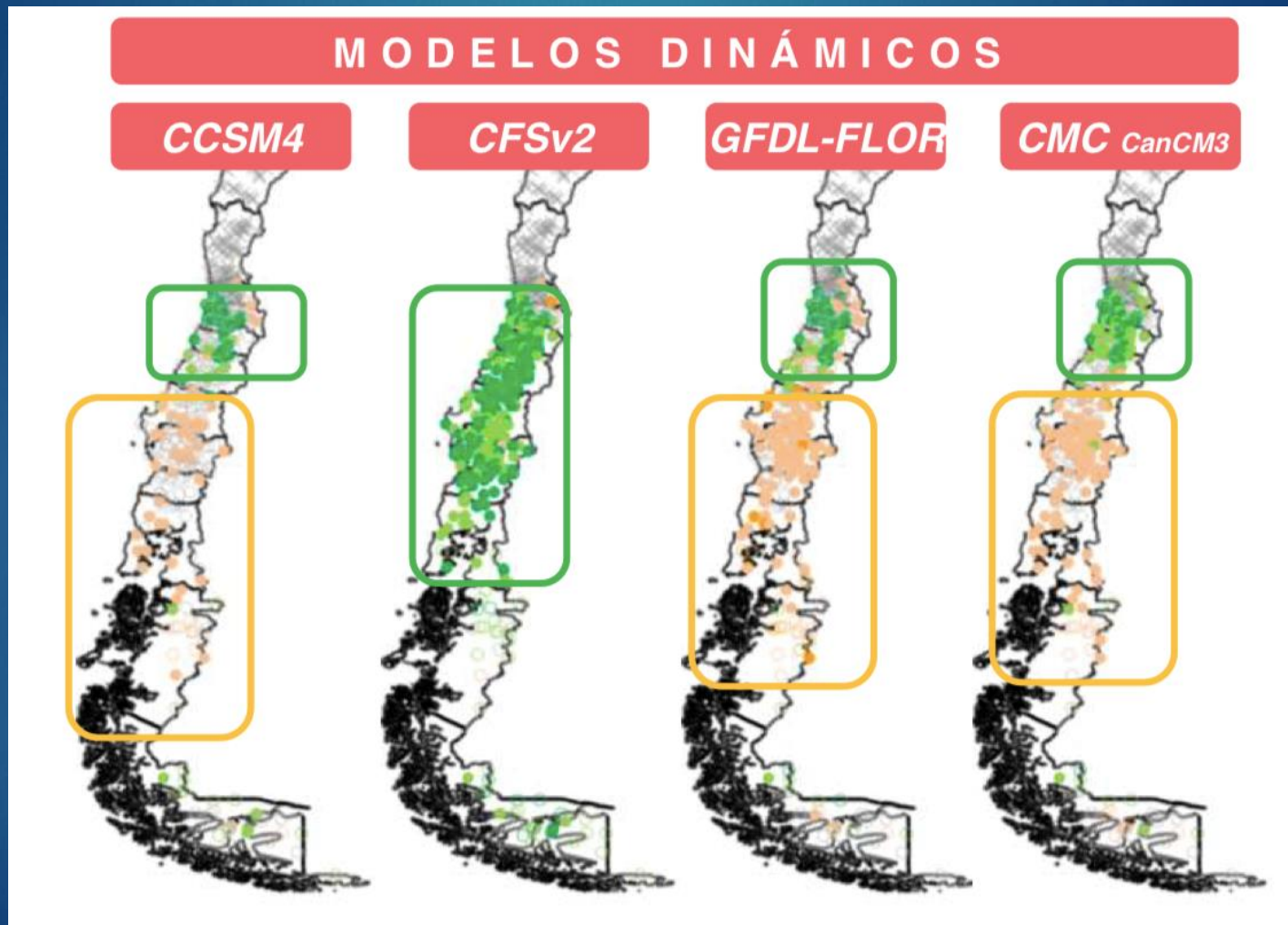


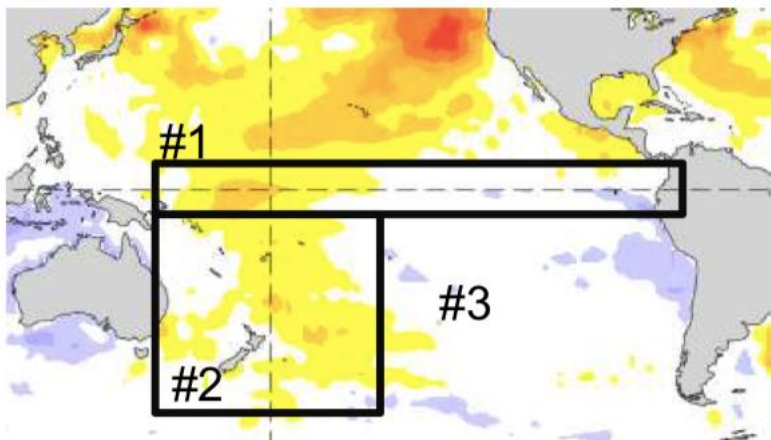
Figura: Anomalías de TSM (°C, colores) y presión a nivel del mar (hPa, líneas). Agosto 2019. Datos: NCEP-NCAR Reanálisis

# SEASONAL AND S2S FORECAST



# SEASONAL AND S2S FORECAST

TSM AGOSTO – OISSTv2



MODELOS ESTADÍSTICOS

TSM

OBSERVADA

Pacífico Ecuatorial

Pacífico Suroccidental

Océano Pacífico

*El Niño*

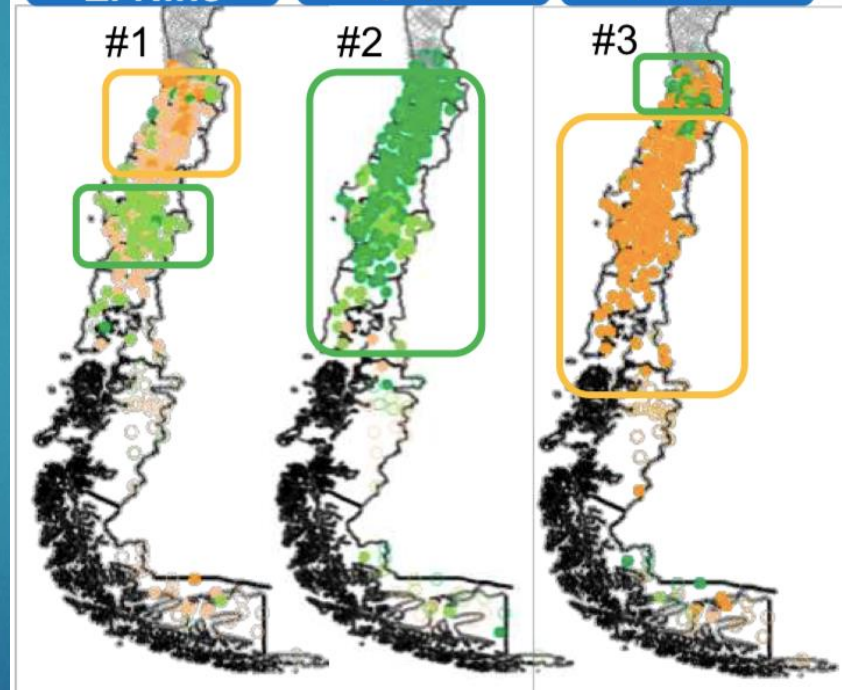
*SWP*

Océano Pacífico

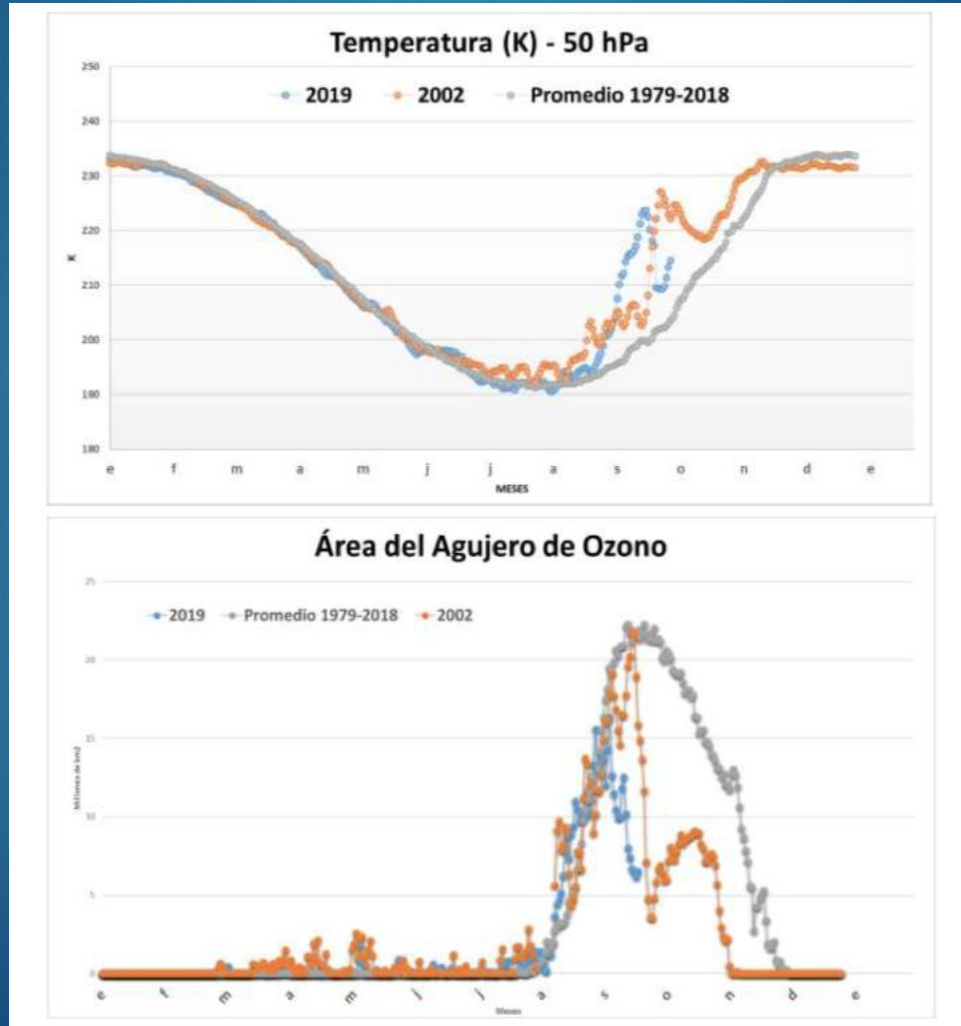
#1

#2

#3

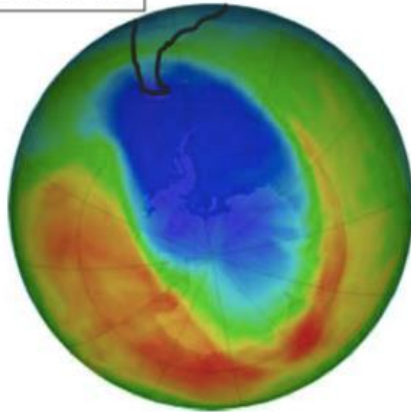


# Stratospheric warming/Ozone monitoring

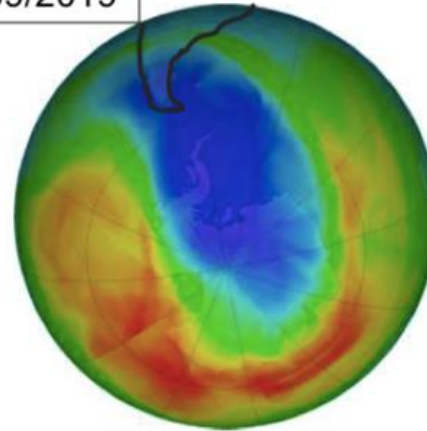


## Elongación del Agujero de Ozono

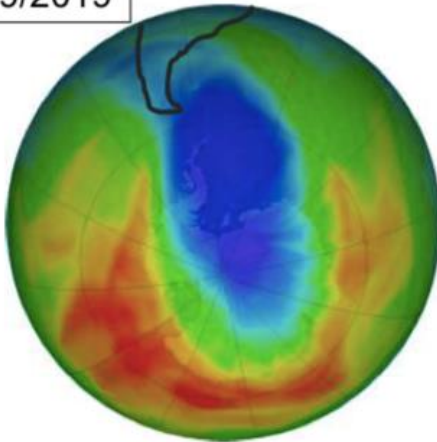
15/09/2019



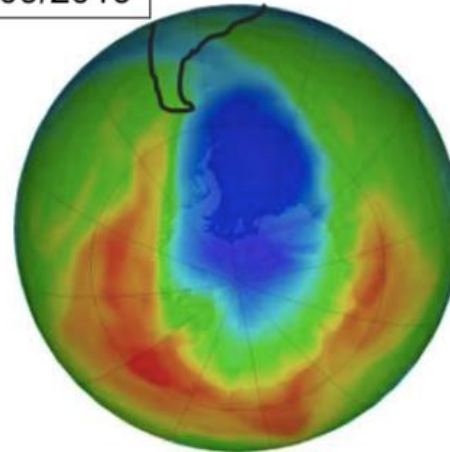
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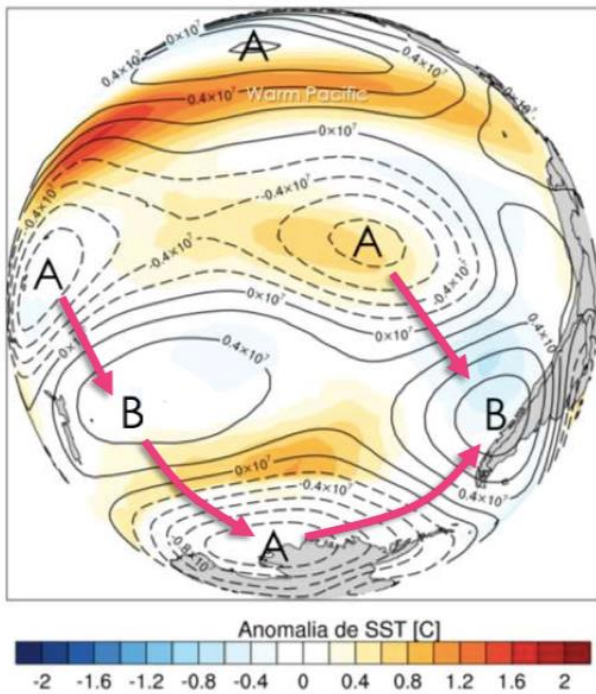
17/09/2019



18/09/2019



Anomalías de Temperatura Superficial del Mar (colores) y circulación (líneas) en SOND 2002



Agosto 2019 – Presión a nivel del Mar y TSM

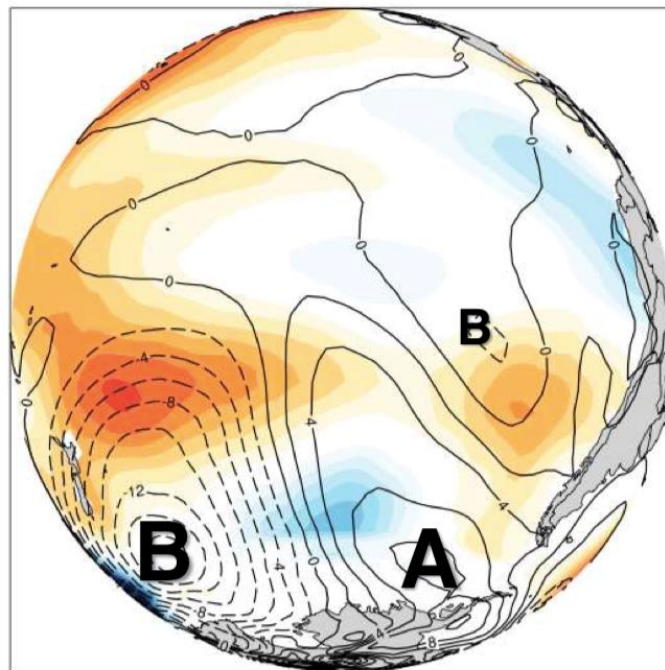


Figura: Anomalías de TSM (°C, colores) y presión a nivel del mar (hPa, líneas). Agosto 2019. Datos: NCEP-NCAR Reanálisis

THANK YOU