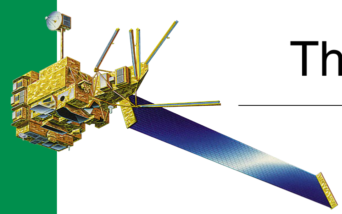

The Impact of NSCAT Data on a Global NWP Model

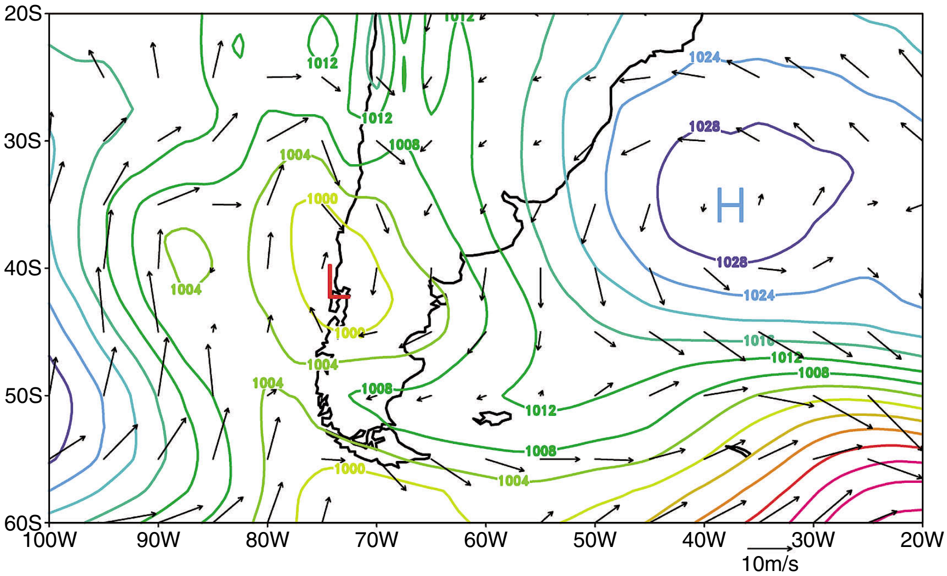

Fig.1 120hrs Forecast (NSCAT+ERS run) from OOUTC, 13 May 1997

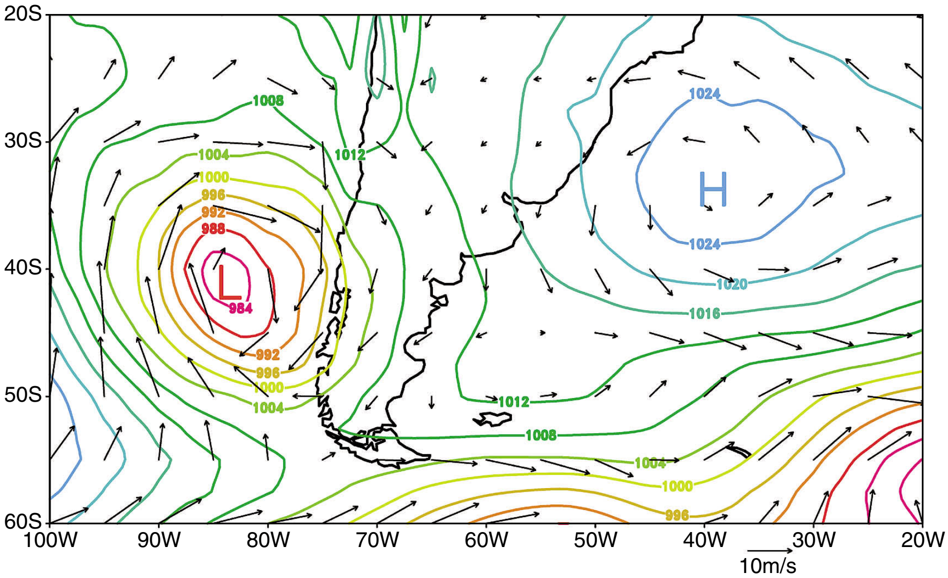

Fig.2 120hrs Forecast (Control run) from OOUTC, 13 May 1997

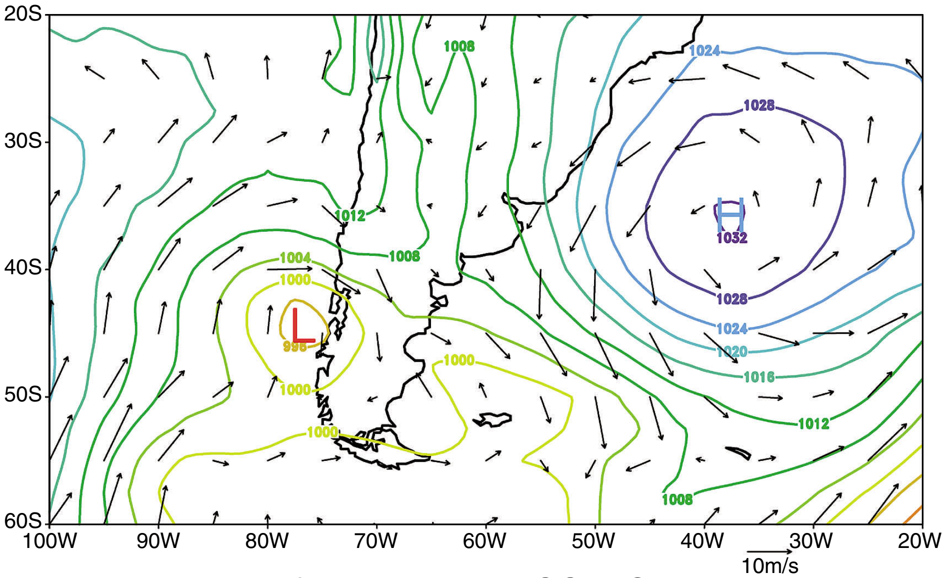

Fig.3 Verifying Analysis at OOUTC, 18 May 1997

Provided by NASDA/NASA/JMA

The Impact of NSCAT Data on a Global NWP Model

The NASA Scatterometer (NSCAT) on board Japan's Advanced Earth Observing Satellite (ADEOS) observed ocean surface wind vectors, which were expected to greatly benefit the Numerical Weather Prediction (NWP) model.

These images compare a 120-hour forecast around South America with NSCAT and ERS-2 scatterometer data of Fig. 1 (NSCAT+ERS-2 run) and without scatterometer data of Fig. 2 (Control run) on Japan Meteorological Agency's global NWP model. Figure 3 shows the verifying analysis, which shows that a low pressure of 995 hPa is just off the east coast of Patagonia. In the control run, its position is forecasted at 800 km westward from the coast and it is too developed; it is too large, and its center pressure is 980 hPa. In the NSCAT+ERS-2 forecast run, the low pressure can be seen on the coast and its center pressure is almost the same as the analysis. The position and center pressure of the high pressure far east of South America is forecasted better in the NSCAT+ERS run than in the control run.

ADEOS-II will be launched with SeaWinds which measures the ocean surface winds like NSCAT. The SeaWinds data is expected to have a remarkable impact on data assimilations and NWP models.