

Stratospheric ozone observations at mid-latitude NDACC station Río Gallegos (51° 36'S, 69° 19'W), Patagonia

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As a part of environmental studies in the southern hemisphere, the Laser and Application Research Center (UNIDEF-MINDEF) with the financial support of JICA (Japan International Cooperation Agency) and the collaboration of LATMOS, France, mounted a ground-based remote sensing site at Río Gallegos city (51° 36'S, 69° 19'W), in the Southern part of Argentina. The site denominated Atmospheric Observatory of Southern Patagonia (OAPA) has carried out systematic measurements of stratospheric ozone vertical distribution with DIAL remote sensing technique and passive sensors to measure solar UV irradiance since 2005.

The Patagonian region is affected each spring season by the polar vortex, which brings ozone-depleted air masses over the continent. In this study, we present the results from the balloon-borne and DIAL profiles obtained during the OZone profile aT Río GallegOS (OZITOS) campaign held in 2014 and 2015 in the framework of the SAVER-Net, South American Environmental Risk Management Network, which is five-year trilateral project among Argentina, Chile and Japan promoted by Japanese funding agencies JICA and JST under SATREPS, Science and Technology Research Partnership for Sustainable Development, program.

Influence of the polar vortex over the continent during the spring season over the last ten-years using stratospheric ozone profiles from DIAL system at Rio Gallegos combined with ground-based and satellite instruments are done.