Inauguration of the APEX Telescope

Gonzalo Argandoña, Felix Mirabel (ESO)

The serene Andean village of San Pedro de Atacama, in northern Chile, was the epicentre of the two-day official inauguration of APEX, the 12-metre telescope working at the Llano of Chajnantor.

On September 25 and 26, representatives of the three organisations running this antenna hosted a lively scientific celebration. Dr. Catherine Cesarsky (ESO’s Director General), Prof. Karl Menten (Director of the Max-Planck-Institute for Radio Astronomy and Chairman of the APEX Board) and Prof. Roy Booth (Director of the Onsala Space Observatory) presented the key features of this new astronomical facility that will provide privileged access to the “cold universe”.

The intendente Jorge Molina, representative in Region II of the President of Chile Ricardo Lagos, remarked that Paranal Observatory, APEX and in the near future ALMA have turned this part of Chile into an active astronomical centre, with significant benefits to the local economy and the education of the people living there.

On behalf of local communities, the Mayor of San Pedro de Atacama, Sandra Berna, celebrated the active cultural exchange and dialogue between members of European astronomical organisations and the inhabitants of San Pedro, most of them belonging to the ancient Lican Antai culture.

Ambassadors in Chile of some of ESO’s member states, the Executive Director of the Chilean Science Agency (CONICYT), the Presidents of the Communities of Señor and Toconao, as well as representatives of the Ministry of Foreign Affairs and Universities in Chile also attended the ceremony.

On the second day of the programme, the group visited the APEX base camp in Señor, near San Pedro, from where the antenna is operated through a microwave link to Chajnantor. Visitors had a guided tour of Señor facilities, including the main control room. Here, they could have a glimpse of some of the scientific results already obtained with APEX.

Above: After months of hard work setting up the telescope, the members of the three organisations behind APEX celebrated at San Pedro de Atacama the beginning of regular science observations. They were joined by representatives of the Chilean government, universities and local communities during the two-day event.

Among other astronomical targets, APEX will be used for comprehensive surveys of the Galactic Plane, which will locate the sources that ALMA will study in minute detail. In that sense, it is considered as a real pathfinder that will prepare the way for ALMA in the years to come.

The telescope, designed to work at sub-millimetre wavelengths, in the 0.2- to 1.5-mm range, successfully passed its Science Verification phase in July, and since then has been performing regular science observations.

Left: APEX is the largest sub-millimetre facility in the southern hemisphere. The surface of the antenna has been adjusted to an accuracy of 17 microns, less than one-fifth of the thickness of a human hair, all across the surface and at all times and positions.