

### EXPLORATION OF POSSIBLE ASTROBLEMES IN THE ARGENTINE PUNA

R.D. Acevedo<sup>1</sup>, R. Alonso, M. Rocca, K. Klajnik and E. Tálamo  
<sup>1</sup>CADIC-CONICET, Houssay 200, 9410 Ushuaia, Tierra del Fuego, Argentina. E-mail: acevedo@cadic-conicet.gob.ar

Puna is a very large geographical and morpho-structural district located in NW Argentina. This region is characterized by an extremely arid climate, and a very low population density, one of the least inhabited areas in the world. It represents a gigantic plateau in the Central Andes between 22° 30' and 25° 30' S latitude. This high elevated *meseta* has remained stable and invariable across very long geological periods. There are deflation surfaces mainly composed by very dry lands with large terrains covered by clear volcanic sediments and ignimbrites, and light-colored halides and borates deposits found in dry salt lakes.

Potential three new astrobleme sites have been detected there by remote sensors:

**Salar del Rincón.** Four small craters, of about 30 to 50 meters in diameter, separated by around 220 meters and located on colluvial and alluvial Tertiary deposits at 3,800 meters above sea level. The age of impact could be estimated as Holocene.



**Salar del Hombre Muerto.** Possible 10 small (with diameters from 90 to 250 meters), fresh simple craters are located on a Quaternary alluvial cone of sedimentary deposits. The diameter of the largest crater is 250 meters. Craters are widespread in an oval area of 5 x 4.5 kilometers. These craters

seem not to be located on a tectonic fault. Most probably they may be collapse structures in the alluvial fan, or the result of a meteorite shower. Their age, whatever the event is, is very recent.

**Salar de Antofalla.** The diameter of the crater is 20 meters. It is placed 600 m SE of the large simple-type impact crater of 750 meters named Antofalla Crater on ignimbrite rocks of Cenozoic age.



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