

Inventory of glacier-front positions using CBERS-2 data: a case study for the Bolivian Andes

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Abstract For the first time, products of the China–Brazil Earth Resources Satellite (CBERS) are used for Andean glaciers studies. In this paper we compare results from previous ground studies with our observations using two scenes acquired by the High Resolution Charge Coupled Device (CCD) and the Infra-Red Multispectral Scanner (IRMSS) aboard the second Chinese–Brazilian satellite (CBERS-2), to establish an inventory of glacier frontal positions from 1975 to 2004 in the Cordillera Tres Cruces, Central Bolivia. All studied glaciers have retreated since 1974 (by up to 409 m) agreeing with ground studies. The use of CBERS-2 can contribute to establish an inventory of Andean glaciers as it covers the same area each 26 days.

Key words remote sensing; glacier inventory; CBERS-2
