

[Available Issues](#) | [Japanese](#)>> [Publisher Site](#)Author: Keyword:

Search

[ADVANCED](#)[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

ONLINE ISSN : 1883-1184

PRINT ISSN : 0289-7911

Journal of The Remote Sensing Society of Japan

Vol. 27 (2007) , No. 4 p.363-371

[\[PDF \(1055K\)\]](#) [\[References\]](#)**Evaluation of PALSAR Geometric Accuracy Using DEM-simulated Images**Osamu ISOGUCHI¹⁾ and Masanobu SHIMADA¹⁾

1) Earth Observation Research Center, Japan Aerospace Exploration Agency

(Received April 9, 2007)

(Accepted July 10, 2007)

Abstract

The geometric accuracy of the Phased-Array L-band Synthetic Aperture Radar (PALSAR) on board of ALOS (Advanced Land Observing Satellite) was evaluated by using a digital elevation model (DEM). The PALSAR amplitude images and those simulated with a DEM were produced. Tie points between them were then automatically calculated by pattern matching. The automated co-registration procedure efficiently collected the favorable tie points, especially for rugged terrain. The coefficients of affine transformation calculated from the tie points indicated no significant range- or azimuth-dependent errors over the standard image size. Absolute geometric accuracy was then defined as offsets between the amplitude and DEM-simulated images and was estimated to be better than the specification requirement.

Keywords: ALOS, PALSAR, geometric evaluation, DEM

[\[PDF \(1055K\)\]](#) [\[References\]](#)Download Meta of Article [\[Help\]](#)[RIS](#)[BibTeX](#)

To cite this article:

Osamu ISOGUCHI and Masanobu SHIMADA: Evaluation of PALSAR Geometric Accuracy Using DEM-simulated Images , Journal of The Remote Sensing Society of Japan, **27, 4**, pp.363-371, 2007 .



[Japan Science and Technology Information Aggregator, Electronic](#)

