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## THE EVOLVING SPACEBORNE RADAR DATA SUPPORT TO EARTH SCIENCE AND OPERATIONS: THE ALASKA SAR FACILITY

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The Alaska SAR Facility (ASF) has been receiving, processing, archiving and distributing data for Earth scientists and operations since it began receiving data from the First European Remote Sensing Satellite (ERS-1) in 1991, and four radar satellites are now handled, the most recent being RADARSAT which was launched in late 1995 and became fully operational this fall. Most of the data coverage is within the reception areas of the ground stations at Fairbanks, Alaska, and McMurdo, Antarctica, but some RADARSAT and Japanese Earth Resources Satellite (ERS-1) data are from outside those regions. Recent developments have served to increase the level of service of ASF to the Earth science community considerably; specifically:

1. ASF holds in its archives a massive data set from the ERS Tandem Mission in which ERS-1 & 2 flew identical orbits with a 1-day separation. These data sets, covering the Alaska and McMurdo reception areas, are useful for interferometric analysis of ice sheets and streams, glaciers, volcanic and seismic deformation, and other situations in which topography and/or surface change are required.
2. ASF is in process of providing processed radar images for two mappings of the Amazon rain forest by ERS-1, one mapping each for the wet and dry seasons.
3. Preparations are underway for the first fine-resolution mapping of Antarctica by RADARSAT, probably in spring or fall of 1997.
4. User tools for SAR analysis, supplied on-line from ASF, now include interferometric SAR (INSAR) programs, and this general area will continue to be strengthened over the coming months. In time we expect that complete INSAR processing support will be generally available to the science community through ASF.

Detail on these and other aspects of ASF can be obtained by examination of our website: <http://www.asf.alaska.edu>.