SAR mosaics

• ALOS Kyoto and Carbon Initiative meeting

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SAR Mosaics

- Why should this be a product?
 - GRFM heritage
 - The ability to produce a high resolution, continental scale, single "season" image is a powerful SAR capability that is relevant for filling gaps in optical imagery
 - New applications of the imagery not anticipated within predefined KC products - without users having to resort to getting large numbers of individual scenes
 - Might be of value as an intermediate product for higher level KC products
 - Verification of calibration
 - Verification and INCENTIVE for successful acquisition coverage
 - Outreach and education

SAR mosaics end users

- GRFM users
- optical community (gap filling)
- Kyoto and Carbon Initiative
 - For higher level products
 - For evaluation of calibration

SAR mosaics Scientific relevance and technical feasibility

- Basic image product
- Technique of accurate mosaicking is now implemented at NASDA, JPL, ASF, and JRC

SAR mosaics Algorithms

- Algorithms have been published in journals
- If image geolocation of data is good, the process is fast and simple.
 - Examine co-registration to verify image geolocation accuracy
- Calibration could be part of mosaicking process

SAR mosaics Data flow from data take to final product

SAR mosaics Data requirements and data volumes

- Requires all the acquired data
- Output products can be reduced resolution

SAR mosaics Time schedule

• Must be able to mosaic as fast as the data is acquired, with output products released within a certain time after acquisition

SAR mosaics Geographic region in focus

• global

SAR mosaics one time products vs. repetitive?

• Every repetition

SAR mosaics local/regional demonstration products vs. global data sets and information

• Global data sets

SAR mosaics adequacy of current acquisition plan

- Adequate
 - Interferometric coverage increases likelihood of complete coverage every season for each region.

SAR mosaics lead organization

SAR mosaics bottlenecks

• If there are geolocation problems, the task will be more difficult (requires coregistration of data)

SAR mosaics minimum output requirements

• Low resolution mosaics every cycle of acquisition

SAR mosaics the role of NASDA

- Calibration feedback
- Geolocation feedback