# Title: Calibrated and Normalized Interferometric Correlation Maps

Product Leader: Paul Siqueira

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Product Team (confirmed members only):

- Kostas Papathanasiou (DLR, Germany)

Agreement status: Waiting for KC agreement

Preferred agreement type (individual/institutional): Individual (through Caltech)

Project objective(s):

- Generate a baseline-normalized correlation map for targets of opportunity (appropriate baseline characteristics, short repeat time).
- Calibrate the correlation for instrumental effects such as thermal noise and baseline decorrelation.
- Demonstrate the use of the calibrated correlation maps for estimating vegetation height.
- Present an observing and processing scenario for ALOS/PALSAR to make systematic measurements that will be sensitive to vegetation height.

# Calibrated and Normalized Interferometric Correlation Maps

Prototype Area: Dependent on available short repeat (46 day) observations of forested regions with appropriate perpendicular baseline (200 - 1000 meters) obtained during the cal/val period and targets of opportunity

Corresponding observation plan polygon(s): use selection of vegetated cal/val sites. Of particular interest will be Raco, Michigan; Rayleigh (Duke), N.C., Latour, CA as well as shared regions of interest expressed by the DLR.

No. PALSAR paths/coverage: 46-day repeat image pairs (2)

PALSAR request (Year 1-3): ~75 pairs (3 annual sets of 25 pairs/year; 1st set of pairs obtained during cal/val period)

Input data (EORC products): PALSAR level 1.0 format data (raw echoes w/header)

Ancillary data requests: coincident JERS-1 data, as available (75 images worth of raw data, if available).

# Calibrated and Normalized Interferometric Correlation Maps

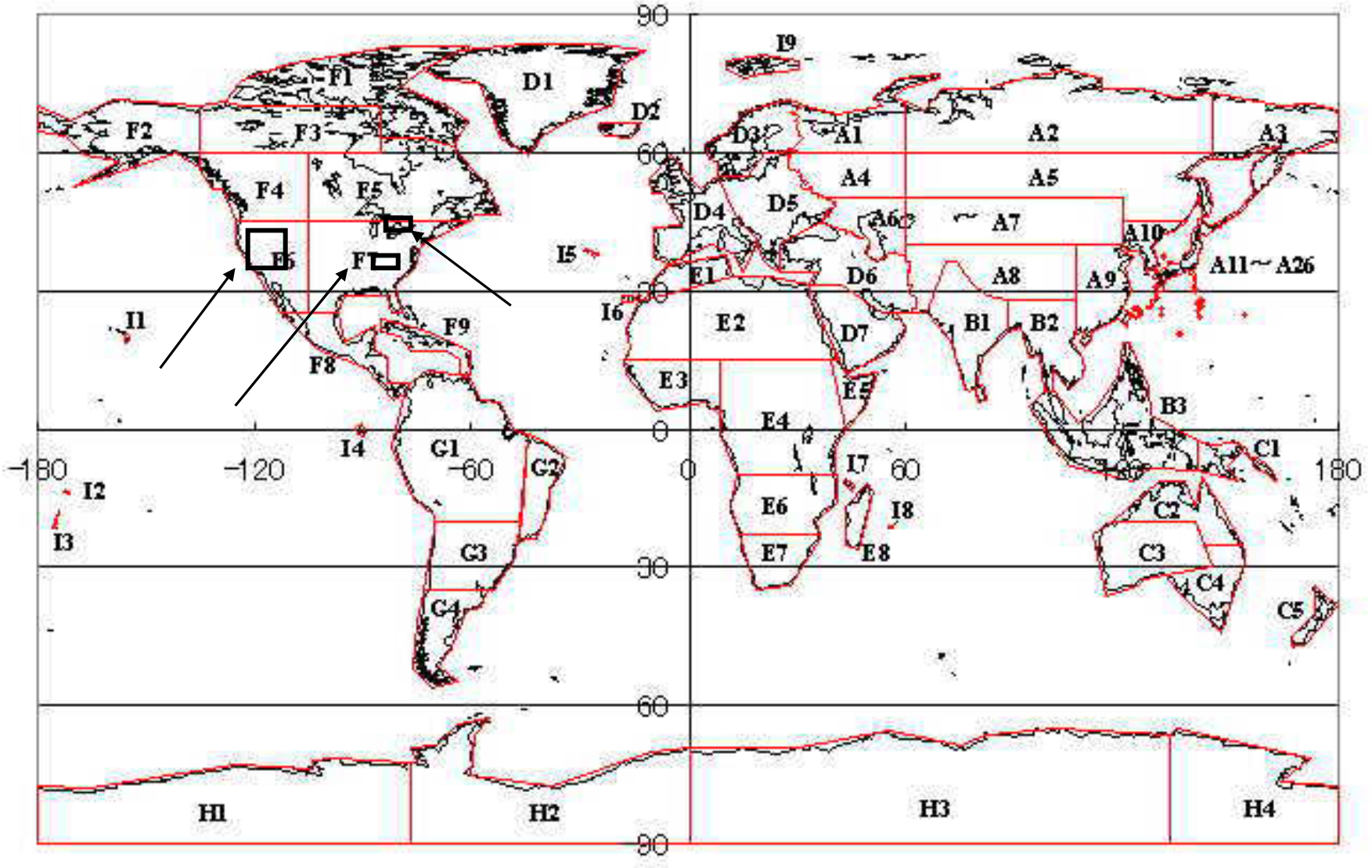
K&C Product Deliverables (before end of Year 3):

- Specify appropriate ALOS 46-day repeat baseline specification for making one global observation.
- Detail processing algorithm for providing a normalized and calibrated interferometric correlation data product
- Illustrate application of data product for estimating vegetation height

Prospects for Years 4-6 (assuming agreement extension)

- Participate and/or provide processing of raw data into a calibrated correlation data product
- Mosaicking of available data (if applicable).
- Proposal for short repeat cycle opportunity

# Calibrated and Normalized Interferometric Correlation Maps




Location of Prototype Areas