

Discussion – Issues and recommendations

PALSAR-2 25m FBD mosaics:

- Geolocation errors up to several pixels reported. Magnitude vary depending on observation dates and geographical locations [J. KelIndorfer]
- Residual radiometric artefacts after Radiometric Terrain Correction, possibly caused by alignment error between DEM and SAR in SigmaSAR processor [J. KelIndorfer].
- Additional temporal and geometric artefacts as previously reported by email (see 2.1.4 and Attachment 2b above) [M. Santoro]

PALSAR-2 ScanSAR mosaics:

- Geolocation errors up to several pixels reported. Magnitude vary depending on observation dates and geographical locations (Figure 4) [K. McDonald, J.KelIndorfer]
- ScanSAR mosaics considered of very high value. Continuation of mosaic generation during PALSAR-2 operations suggested [K&C team].
- Consider generating mosaics of all ScanSAR data that have been acquired (such as Siberia), not only over the tropical zone [K&C team]

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ALOS-2 BOS:

- There was great concern that PALSAR-2 BOS reduction of 10m FBD global observations to once/year at high priority will have serious impact on PALSAR-2 data utilisation. It was emphasised that dense consistent time-series of data is the key to SAR data analysis and that 10m FBD data are a key complement to ScanSAR 42-day observations (which are not global) [K&C team]
- It was further a concern that with JAXA's aim of only one single global coverage at high priority would result in gaps in the coverage [K&C team]

Antarctica:

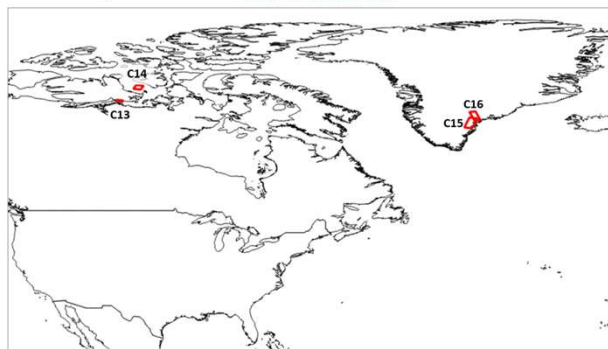
- Important to continue InSAR observations over Antarctic Super Sites, in particular during ongoing Left-looking cycles over Ross and Ronne glaciers [B. Scheuchl]

Polarimetric Super Sites:

- Continue with POL observations over 6 selected Super Sites (Mexico, Canada, Sweden, USA) also after April 2019 (all Post-KC members)

K&C polarimetric super sites

KC Super Site(Canada &Greenand)



Figure

KC Super Site	Mode	A/D	Beam	Polarization	R/L
C13	SM 2	Descending	FP6-7	HH+HV+VH+VV	R
C14	SM 2	Descending	FP6-7	HH+HV+VH+VV	R
C15	SM 3	Descending	F2-5	HH+HV	R
C16	SM 2	Ascending	FP6-6	HH+HV+VH+VV	R

Polarimetric Super Sites

- Proposed last year. About half selected.
- Continue with Kiuic, Mexico, during March-April
- Continue with remaining selected super sites (Arkansas, Stordalen, Alberta, CB Arctic Watershed, Alaska)
- Joao to propose new BIOMASS site for JAXA's consideration (consider bilateral ESA/JAXA)

Descending	Conflicting World polygon	2018																					
		Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct			
Full-Pol Super Sites		91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112
Thai Binh, Vietnam	Wet-Def-1																						
Arkansas, USA	-												FP		FP	FP	FP	FP		FP			
Stordalen, Sweden	-									FP		FP		FP		FP		FP		FP			
Kruger National Park, South Africa	Wet-Def-2																						
Kiuic, Mexico	Wet-Def-1					FP		FP	FP		FP												
Kedah-Perak, Malaysia	Wet-Def-2																						
Negro-Solimoes, Brazil	Wet-Def-2																						
Pacaya Samaria Reserve, Peru	Wet-Def-2																						
Ontario, Canada	-																						
Alberta, Canada	NISAR(?)					FP			FP			FP			FP			FP			FP		
CB Arctic Watershed, Canada	-					FP			FP						FP			FP			FP		
Alaska (same as Area 60 above)	Wet-Def-2, NISAR					FP		FP	FP		FP	FP		FP		FP	FP		FP	FP		FP	

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K&C Special issue:

- Inquiries sent to *Ecologica*, *Remote Sensing of Ecology and Conservation* and *AGU journal for Earth and Space Science*.
- *Positive reply from Remote Sensing of Ecology and Conservation (RSEC)*
- *Potential contributors:*
 - Kyle/Jessica – Amazon inundation
 - Kyle/Brian Lam - coastal?
 - Lisa - Myanmar, KC overview
 - Josef - scansar time series signals - dual pol time series for forest and wetland dynamics
 - Maurizio - biomass/carbon changes in sweden (maybe another journal).
 - Misha - deforestation mapping time series
 - Humberto - selective logging detection
 - Dirk - ecological mapping of amazon, flood freq mapping
 - Pete Bunting - global mangrove watch
 - Bruce - boreal wetlands with L-band SAR
 - Richard, CESBIO, AGS, Thiago, others -?

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RECOMMENDATIONS

- Correction of errors in SigmaSAR processor.
- Reprocessing of PALSAR-2 25m global mosaics by either SigmaSAR or alternative processor.
- Reprocessing of PALSAR-2 ScanSAR mosaics by either SigmaSAR or by alternative processor.
- Generation of low resolution (100-250 m) FBD ‘mosaics per cycle’ mosaics to avoid seasonal discontinuities.
- Include flag in metadata to indicate data that were seriously affected by ionospheric artefacts (e.g. scalloping).
- Continue Left-looking InSAR observations over key Antarctica glaciers.
- Assess actual 30% duty cycle capacity and keep PALSAR-2 BOS 10m FBD global observations as frequent as possible.