Science Team feed-back from Phase 1

Extracts from Technical Reports

What can we do to improve in the Extension Phase?

Science Team feed-back

Data dissemination
Science Plan
Science Team meetings
Wiki site
Data quality and processing
Other issues

Data dissemination

The ftp is fast and well accessible. [DH]
Excellent data dissimination by JAXA (FTP and posted CD/DVD). [TLT]
Overall: Excellent (straight forward and very quick) o Many data strips have not been delivered although available in AUIG. [CS]
I have been acquiring the ScanSAR strips through the ftp site satisfactorily, and have always received data ordered through the AUIG promptly and efficiently. Any queries I have had relating to either the ScanSAR or AUIG data have been answered quickly. [LR]
The distribution of the data from the ALOS KC ftp site has been excellent. [BC]
Wonderful, well done. [FDG]
PALSAR data have been acquired according to the planning and SLC products have been delivered on time. [FH]
The delivery of the data via ftp went smooth. Problems with missing or corrupt data were dealt by JAXA very rapidly and efficiently. The combination of AGAP and AUIG was very helpful in looking for data, checking the availability and ordering replacements. [JF]
Very good although it would be useful to be able to better save the searches so that these can be reordered without having to go through the lists of imagery again online. [RL]
AUIG system is efficient and convenient. [PP]
The FTP dissemination has worked very well. [LH]
Excellent. [PS]
We had some early problems with the Web interface for ordering data which took time to resolve but now all appears to be fine. Our only problem with data dissemination has been juggling our quota as we learnt which were the most important data type. [SQ]
very good. [MC]
Relatively quick and painless delivery method via FTP. [KT]

Science Team meetings

Excellent platform for exchange of ideas and feedback. 6-month interval is convenient. [DH]
Science team meetings present a very good opportunity for exchange of information and forum discussion [TLT]
Science team meetings a useful means of exchanging information on issues with data products, issues relevant to wetland, forestry and deserts, and progress on individual projects. The format with the use of posters is an improvement – it provides a product to JAXA. Future poster sessions could be broken into smaller sessions, (between presentations on other issues) to keep everyones attention focused. The science team meetings provide a good opportunity to discuss and update the science plan with the project leaders. Inviting stakeholders from outside the Science Team to observe elements of the K&C Initiative (such as the poster sessions) is a good idea [JL]
I have found the Scienc ues, increasing my understanding of to meet and
The scie
Possibly too many and mmend better use of modern data c cost. [FDG]
The Science Team m Funding for traveling and accommoc too much time
Greater scientific discu products are generated. [RL]
needed and very informative (Tokyo environment is much better than Tsukuba...). [PP]
Twice-yearly meetings have been essential for addressing data issues, sharing information, and moving the projects forward. [LH]
Excellent [PS]
Science Team meetings have been very valuable to see the full range of results that was being produced by the K&C initiative. Some parts of the meetings I've found too concerned with the details of processing [SQ]
very good and helpful. [MC]
These have been efficient and very helpful for the discussion of issues and concerns [KT]

Overall positive impression (^_^)

Meeting feed-back on:
- Time spent on data/format issues
- Poster sessions
- Tsukuba/Tokyo
- Meeting frequency (6 months vs annual)
- Other issues

JAXA Japan Aerospace Exploration Agency

JRC EUROPEAN COMMISSION

Science Plan

(1) not often clear under which theme some of my activities should fall. (2) products generated by the mosaic theme alone (in terms of quantity and extra layers) not sufficient for proper monitoring

(3) consider the definition of some 'standard' mapping/monitoring global products which crosses themes in a next version of the Science Plan [DH]

Good efforts by theme coordinatos. We need however to update the science plan [TLT]

The science … outside of the … plan … [JL]

I feel this docu… …ervers,

The science pla… …ended

Needs to … …]

The plan is a… …about … ALOS or K&C. [LH]

Excellent [PS]

The Science Plan has not really been useful as a working document; far more useful have been the results presented at Science Team meetings. [SQ]

very good [MC]

Overall positive, but room for improvements

Meeting feed-back on:
- Need for Science Plan for Phase 2
- (if yes) Format for Phase 2?
(Present format too complicated? Theme division too rigid?)
- Update frequency
- On-line version vs. "frozen" document?
- Other comments

Wicked Wiki

Good initiative. If we all use the wiki site routinely it likely is worth the extra investment in time. [DH]
Very good initiative by R. Lucas [TLT]
The concept of the wiki site is very good. The wiki site potentially provides a useful means of sharing / exchanging information, and could be a valuable resource for downloading tools, publications, scripts etc. [JL]
Wonderful initiative to be further fostered [CS]
time is the only constraint that inhibits the use of this resource. [TM]
Theoretically the wiki site is a useful resource, however with the extremely slow internet connection in Ethiopia I have had pr… [LR]
I have put a lot of … think it may be
The Wiki site is a g… …m members do not have enough … …ed in the K&C
More people could … …i of all data and
Due to initial difficulties in using the site, I have been slow to take advantage of it but plan to do so. [LH]
Under utilized by this project [PS]
We have made little use of the Wiki site up to now. This probably reflects my unfamiliarity with this but it may develop as we get more fully familiar and especially when joint papers by the K&C team come to be written. [SQ]
have not used it. [MC]
We have yet to readily utilize the site [KT]

Overall positive, but actually very little used

Meeting feed-back on:
- Should we keep it?
- If yes, what can be done to make it used?
- What features are good, and which are not?
- For what should the Wiki be used, and for what not?

Data quality and processing (1/4)

Our rice mapping algorithms require a long time series of data that span at full year. Aside from AUIG data that we ordered separately, we did not have any full time series data until September 2008. Unfortunately, this did not give us sufficient time to complete algorithm development, testing and creation of regional products. [BS]
most of our strips in time and in good shape. [DH]
o Radiometric anomalies in form of clear drop of backscatter at image borders o Some strips are too long o Some track numbers are reported incorrectly in the file names. o Some stripes are delivered twice ore more often [CS]
Unfortunately K&C data still present radiometric issues to be dealt with. The clear drop of backscatter at far range as well as at the beginning and end of a strip is a major issue. Currently the user has to do a lot of tedious fiddling around to eliminate these noisy parts, which should not be the case. Also the radiometric calibration should be revised as some large scale effects can be observed for some dates. [JF]
Methods for correcting for the cross-track correction have delayed production of the final mosaic by Aberystwyth University and some standardization of procedures is needed so that all strips can be processed consistently and with confidence. We are working with other K&C colleagues to document procedures. [RL]
efficient and fast, but need for a detailled documentation describing strip data format. [PP]
I am not sure whether radiometric calibration issues have yet been fully resolved. Some Amazon strips may need to be reprocessed. [LH]
I have several issues with the geometry (ortho data), and my understanding is presently there are some issues with radiometry. As a consequence, the mosaics were not delivered. [MC]
We have had several issues with the processing and utilization of the ground range strip data over Canada. However, this was addressed by the delivery of alternate slant range data. [KT]

Data quality and processing (2/4)

We have been extremely impressed and pleased with the PALSAR data to date. We have a couple of small comments regarding data and timing issues:

➢ Some "Raw" K&C Strips have some spatial/geocode discrepancies: GCPs provided with raw imagery created significant co-registration errors; images were misregistered in some cases by as much as 350 meters (7 pixels; e.g. RSP 97 in eastern China).

➢ Early K&C product documentation caused some issues, namely we needed more detailed, accurate, and up-to-date metadata, consistent ancillary files (orbital parameters, geographic control points, header files, etc.), and formalized raw data process regimes: metadata for ancillary files were either out-of-date or incorrect making it difficult to interpret file contents or rendering the files unusable. In some cases ancillary files were missing (e.g. orbital parameters) making it impossible to ingest, co-register, or make radiometric corrections to the imagery. [BS]

The radiometry is tedious to handle/correct near the edges of the strip. For our work in Insular SE Asia we simply remove the edges and still have a considerable (100 pixels) overlap. For other areas, like Guyana, the strip width is too small to do this,

There is a 3 pixel offset in Guyana and Borneo when compared to the GeoCover Landsat dataset. It would be advisable to consider interoperability with other key datasets, e.g. the improved orthorectified GeoCover Landsat Mid-Decadal Global Land Survey (MDGLS) datasets. [DH]

During K&C meeting, we presented results on data quality assessment, and obtained very good feedback with the JAXA team, who took into account our observations. [TLT]

Overall: Excellent data in terms of product levels, radiometry, and geometry

Processing to 50 by 50 m² pixel size keeps high quality of radiometry and minimises speckle. [CS

Data quality and processing (3/4)

ALOS/PALSAR images analyzed presented a strong potential to be used in the Brazilian program for Amazonia Forest Monitoring. However, some image processing procedure still must be defined in order to minimize images displacement and/or antenna pattern illumination effects. Considering the Amazonia dimension, it is fundamental to define automatic procedures for operational use of ALOS/PALSAR images for deforestation mapping [DV]
I have been mostly inspecting the ALOS Dual Pol slant range fine res data processed through the ALOS KC project AGAP. For data processed after September 2007, the geolocation is very good, but the radiometric accuracy has some fall off in brightness in the near and far range that varies slightly along track. This was reported at the ALOS 2nd PI symposium in Rhodes, Greece. I also did some inspection of the ScanSAR strip map slant range products, and it appeared well geolocated, but I have not yet done a quantitative analysis of the radiometry (though it appeared quite good). [BC]
There have been several issues with the data concerning geolocation and radiometric calibration. JAXA has been very responsive in dealing with these issues. We look forward to a continued excellent collaboration. JAXA's efforts have been key to our scientific success. We are very appreciative for what JAXA has provided. [KM]
In general: top notch sensor and spacecraft. Very good quality data, with a few idiosyncrasies related mostly to strip processing (radiometry, long strips). Very well designed acquisition plan with respect to global and systematic earth observations (possibly a unique feature among the competing missions). [FDG]
• (AUIG) SLC data are of high quality. • The quality of the KC products is questionable, in primis with respect to the geometry and the selected format (e.g. projection system). Furthermore, several aspects concerning the radiometry are still not clear. Finally, the use of interferometry for forestry applications is essential (refer to the results of our project): this format strongly reduces the use of PALSAR data. [FH]

Data quality and processing (4/4)

The overall quality of the K&C data strips in slant range geometry is high. The product level (50-m multi-look intensity) is acceptable rable in order to

• PALSAR da d scenes create

The quality of assessment. The ScanSAR da ch case gave a position at the e also appears to be some dis t out by a few

Various issues related to
- geometric accuracy
- radiometric quality
- ancillary data

Need to clarify which of these problems that still remain

Delay in strip processing causing projects to rely on AUIG data

To be discussed for Phase 2 (with Shimada-san on Thursday)
- Products to be offered by EORC
- The significance of interferometric coherence
- Possibility of 25m products for REDD support
- Others

Data quality and processing
AUIG

PALSAR FB Level 1.5 data products (and JERS1-SAR) have inconsistent map geometries that prevent simple registration between scenes and with project support datasets such as optical and geophysical data, with proven geometry. Considerable effort and time is spent selecting tie points to enable time-series analysis to be conducted. Additional expense is also required to purchase geo-referenced optical scenes of similar resolution, for example, SPOT, to geolocate the SAR scenes. [TM]
I have been extremely pleased with the PALSAR FBD (level 1.5) data acquired through the AUIG, these have proved to be an excellent data source. I have had a few issues with geometry for some scenes acquired in the first half of 2007, but these were reprocessed by AUIG satisfactorily. [LR]

Other issues

(1) Some relevant technical background information has been lacking for a long time, e.g. the description of header/data formats of strip data, which caused confusion/delays.
(2) In general, the K&C initiative is very well and pleasantly managed by JAXA and Ake R.

Modifications to data observation strategy and data downlink issues to be discussed for Phase 2 (and ALOS Follow-on)

Thank you again for all feed-back to help us improve.

Missed
mosaic
follow-on. [EH]

Only issue is with respect to the long repeat-period between observations. [PS]