

### Purpose of Browse Panel

Determine what browse products should be available for MODIS.

### Panel's obligation

Represent the broad user community

Consider the cost and utility of various products

### Purpose of browse

help to decide what to order

what is this products (what does it look like)

is this particular instance a good one?

representative of the situation of interest

cloudy

effectively processed in the region of interest

### Assumption

The nature of browse products can vary for various MODIS products

No browse product

Limited examples (e.g. CD-ROM sample images)

HDF access to parts of a data set (eg. only metadata)

subsamples of data (in space, or bit depth)

on demand

simple (every nth by mth value)

unique (brightest, coldest etc.)

other products (e.g. cloud mask)

other levels of the same product (e.g. Level 3)

purpose made browse products

### Suggestion

See if there are some easy cases and put them to bed

Level 1a

Level 1b

Level 3

Is there a general level 2 answer?

Is there an answer for a group of level 2 products

How can we get an answer for things not solved above?

Each author specifies

Panel sets guidelines?

DAACs assemble panels (of whom, how include our costs).

Simulated data

Wayne Esaias

3 slides, then go to panelist

Difference btw test data and simulated data

Oceans planned on seawifs for simulated data, but hasn't launched yet, worrisome as deadlines approach.

PI is primarily responsible

PRIORITIES

agreements in place - ICDs, SOW's team leader agreements

level of launch readiness

Some handouts yesterday by Ed and Al. Go around table .

Strahler -

gray area between test/simulated data PI may choose odd data of interest only to their product. want to have test data with some information value in it. Need to move beyond black/white squares or moire patterns - need to hit a happy medium.

flieg - test data - good definition. need more than just 1s and 0s (although good check - if you can't get a checkerboard out, have problems). But ECS will use to determine if thy have system scaled properly - need right number of iterations. ALSO need output useable by net step. need reasonable set of radiances, but don't need "right definition of a cloud". everything so far cloud-free, will need to excercise cloud algorithms.

Reber

Skip ..(q) <sup>①</sup> need to know when done with test data - need test data to come in with software, so that should be a issue in figuring elaborateness of test data. \ <sup>②</sup>

Wayne - version beta- algorithms tested individually. at some point, need more realisti data set to proude realistic output so next step can use it.

Flieg - will hve 1st test data set by end of month.

barbara - will do both - test individually, and will integrate  
wayne - very little coordination between groups

btw level 1 and 2 will break

joann - thats why icds are imprtant

Level 1B will provide calibrated radiances. can be used for level 2

Joanne - not all level 2 require level 1b - many and use calculated reflectance

Barbara - error handling - SDST will bring in error handling routines (from PGS toolkit)

Flieg - another issue - software verification before launch.

Barker - verification of level 1b data different - some will be point data. whether waivers asked for by SBRC are appropriate, etc. Simulations to understand whether that will be a problem. @0-25 bad waivers a concern doing things on geo,etric - landsat. had suggestion that landsat slope planes not as stable as thought. have been substantial changes since launch - 1/2 pixel size launch on landsat 4 - a surprise.

Think scattering is significant - hard to simulate, but simulating ghosting relatively easily to see effect on calibration.  
Update level 0 data to reflect anomalies as they are found, have schedule for release, will make easier for PIs to test for errors, etc.

To extent possible, will make available.  
Std format? As resources available, yes.

*L.P. put sci data into  
1b output format*

MCST is testing instrument, as calibration understood, fine. haven't had energy/resources to put in useable form, but as it is in useable form, will make it available.

Wayne - dont want to impact mcsts work on characterizing sensor - thats critical - but need data to characterie anomalies. How useful is

barker - no idea how to simulate stray-light problem. ghosting we can do that. can invert that problem, provide image with ghsting. modelling question. problem is not going from image in one fmt to format useful, problem is getting an image with anomalies. Must understand how anomaly is produced, then simulate it.

is test data of protoflight data going to be available soon enough or use pre launch - when will be available

flieg - more basic question - test data as planned - will it give scattering?

barker - not sure test procedures are going to adress yet phenomenon that are significant before launch.

if you want to be able to sepearate phenomenon going on in insreument - not sure that will be ale to do that

Will there be tests on reticules or images where result should be known, and show all phenomenon?

Barker - thought that only usefull thing would be to model phenomena, so could characterize it. SBRC doesn't collect image data in their testing

any plan to take sub-pixel light source. move thru all points in FOV to look at ight pathe?>

Would like to, but not planned.

How good can data be?

Some stuff might be very good. Ghosting will be very good.

Will start to get data - possibly engineering but probably protoflight, better than test data can be, better than can be modelled. Will get data that is a better than can do on orbit because of controls that can do on ground. eg - spectral test. Very good data, can do very good simulations before launch. How soon? it's a continuum. bits and pieces will come in.

Radiometric and geometric data will wait to protoflight, because some fixes not in engineering  
spectral available now -

wayne evolutionary thing - some will be as good as they will be before flight, otherw will wait until orbit.

other things will be better through modelling, because you can't collect enough data.

3 levels

Ungar - different spin I don't think we have a simulation plan, because don't value simulation. Simulation fell by wayside as funds got cut. Don't have, can't have

good simulation is present product which is extremely well characterized, can recoup variations in original scene. can have synthetic scenes, simulated scenes, characterize algorithm sensitivity, adjacency, etc.

Pint 2 - emphasis on need ready now - best time to have simulation ready is post-launch

if we get a scene back, with striping, nice to have simulation to verify behavior, propose fix/workaround.

Wayne - most simulations described were level 0/level 1. ??

Steve - triggered by scene variations. could be algorithm artifact. could get ringing going from low contrast to high contrast scene ...

King - c valuable, but can be big sinkhole

wayne - hoping group can give guidance as to how much is enough -

*Encouraged ongoing dialog*

steve - least effort should be highest priority. synthetic scenes. diagnostic. used to adjust tv with tet pattern.

wayne - do we have that at level 0 for everyone who needs it? level 1?

Skip - distinction between test and simulation data restated

Wayne - gray area for level 1 processing.

barbara - als group putting together simulated data package, going to evolve t. would it help others to have their hands on it??

al - have tool which are partial solutions, would talk with folk on producing subsets of test data, subject to resource availability

--- nice to have radiative transfer model

yess, but can't be generic

barker - was original intent. Havent had resources to support that. not trivial effort. going at it piecemeal now. do pieces that are most critical first.

Summize -

will have to be evolutionary, tuned to peoples needs.

performance of algorithms wrt instrument anomalies instead of geophysical artifacts on ground.

need something in simulated data to handle anomalies.

*Limit samples from MCST  
if not facts*

Software verification - what is it if not making sure than things flow.

*Yield other  
to QA, QC, Val*

Q - will test data include tag ancillary data??

A1 - Twst data will have geolocation and DEM (elevation).

*Need ongoing coord with Sci Team*