

MAJOR POINTS

Embargo is contrary to established NASA, OSTP, and OMB policy for MPTE to make data broadly available to the public.

NASA oceans, and global science community is shocked to think NASA might embargo MODIS data to protect a single commercial interest.

Data embargo to protect private sector value-added services will not withstand FIOA requests, per recent NOAA determination.

MODIS L-2 data do not present an "undercutting" threat.
3-4 day delivery already limits availability.
Mandated phase-in further limits data availability. ←
MODIS ocean data will be less complete than SeaWiFS due to sunglint.

Embargo of any bands would eliminate use of the direct broadcast capability.
This will increase risk of the mission. —

Embargo would place a major hardship on ESDIS and Goddard DAAC, and the MODIS Instrument Team, and increase risk.

An embargo would set a dangerous precedent.
The lowest quality commercial data interest could deny public benefit of enhancements in technology by the government. ←

MODIS recommends a strong rejection, with assurances by NASA that it will not back away from support of existing SeaWiFS commitments.



OFFSETTING ADVANTAGES TO ORBIMAGE

OSC already enjoys significant competitive advantage.

OSC has had 4+years to develop distribution software and market data.

OSC will receive 'windfall' income from SeaWiFS land, atmos. applications.

**SeaWiFS data will have had over one year of market dominance by the time
MODIS data is routine.**

SIMBIOS Project activities (\$5 M/yr) will benefit OSC.

**Merged MODIS/SeaWiFS data represents a significant commercial opportunity
available only to OSC.**

**Merged MODIS and SeaWiFS data will provided better coverage
than SeaWiFS or MODIS alone.**

NASA has funded SIMBIOS Project to develop & verify merging capability.

**OSC already controls merged SeaWiFS/MODIS data for commercial
and operational purposes.**

IMPLEMENTING AN EMBARGO HAS BIG NEGATIVES

Embargo would place severe hardship on MTPE & DAAC data distribution.
EOS and MODIS have distributed processing/validation (not like SeaWiFS).
More complex than SeaWiFS - many more people and scientists
need rapid access to the data.
Presently planned system does not include delay or approved-to-see
lists - ECS is an open system.
A major change in scope to an already late system is trouble.

Embargo would prevent rapid validation/calibration of MODIS ocean data.
Validation requires rapid access by team members.

Establishing secure computer systems at Team Member and Interdisciplinary
Investigators will be very difficult, is unscoped, and unfunded.

IMPACTS TO OTHER COMMERCIAL ENTERPRISES

Data other than SeaWiFS was never a part of the OSC/NASA partnership.

Embargo would exclude other value-added commercial developers.
Present NASA policy shows no favoritism to public funded missions.

Several firms have already made substantial investment in value-added processing
of MODIS data, including ocean applications.

More under Direct Broadcast (cont.)

DIRECT BROADCAST DATA STREAM

MODIS X-Band broadcast does not directly infringe on the SeaWiFS HRPT market

Direct reception offers significant advantage to increasing MODIS data availability and utilization to the taxpaying public.

Direct reception provides needed redundancy for a large investment.

Direct broadcast is critical for observing and reacting to natural hazards (floods, fires, volcanoes, red-tides, ice, storms).

Direct Broadcast data stream contains all MODIS bands as they are read-out. Control is all or none, by switching transmitter on and off. Present plans are 100% "ON".

Anyone can listen to the broadcast. There is no encryption.

NASA provides data specifications, and can provide its standard software to OSC or anyone who requests it, when it is ready.

DIRECT BROADCAST DATA STREAM (cont.)

Foreign governments (e.g. Japan) as well as US Government users have need to access near-real time MODIS data.

Several firms and government agencies, and foreign users, are preparing to receive MODIS X band broadcasts, for value-added processing. Several entities have already committed significant funds to their efforts

Direct Broadcast does not present an "undercutting" threat to OSC at this time. X-band stations are fewer, more costly than SeaWiFS HRPT stations. Merged MODIS/SeaWiFS data represents a significant commercial opportunity available only to OSC. OSC is potentially well-poised to capitalize on this market, due to SeaWiFS.

ADDITIONAL CONSIDERATIONS

The public and science community is best served by competition in providing good near-real time access and distribution to satellite data.

We are poorly served by establishment of single point bottlenecks with no performance controls, and embargos.

No present encroachment exists.

There is reasonable possibility that encroachment will never exist.

14 day embargo period is arbitrary and requires substantiation. Let OSC prove that 2-4 days is inadequate. Earlier, value added servers of AVHRR SST maps insisted only on 3 days embargo (since overturned).

Land bands 1,2,3,4 have SNR greater than CZCS, and could be used to produce a qualitative ocean color product from either ESDIS or direct broadcast data. It would be limited as above, but at higher resolution.

REASSURANCES

Pending the official acceptance of SeaWiFS data delivery in December, NASA can recognize the unique value of SeaWiFS data. SeaWiFS will be complemented, not replaced, by MODIS observations. NASA has no intention of reducing its interest in using and supporting SeaWiFS data. Following formal acceptance, NASA could discuss its intention of continuing purchase of SeaWiFS data beyond the stated 5 year period, and continuing as long as SeaWiFS data provides worthwhile research information.

NASA recognizes the unique value of the SeaWiFS HRPT network, and will continue to support the research aspects of the network as long as SeaWiFS data provides worthwhile research information. This includes continuing to support OSC's exclusive use of the HRPT data beyond the embargo period for commercial and operational use, and providing OSC access to improvements in data transfer systems and technology.

NASA has no intention of developing competing satellite ocean color capability using the L-Band SeaWiFS HRPT capability, and will continue to support OSC's use of this frequency as a means of providing the public rapid access to ocean color data which has worthwhile research value.

NASA will continue to support OSC's use of the NASA S-Band capability for command control of OSC's SeaStar/Orbview.

In recognition of the enhanced value of merged MODIS and SeaWiFS data, the commercial and operational rights to which OSC controls, NASA will continue to make users aware of the value of merged data, and of developments of the SIMBIOS project in merging SeaWiFS and MODIS data.

SUMMARY

NASA does not have to impose an embargo.

The threat is overstated by OSC.

An embargo will have severe negative impacts on rapid data distribution, and the science community.

An embargo may increase risk of successful mission.

An embargo will not stand up to public scrutiny, or FIOA requests.

An embargo would be extremely difficult to implement.

IF THE NIGHTMARE IS REALITY

We sincerely hope it never comes to this, but...

If granted, any embargo should cease when SeaWiFS ceases operations, or when SeaWiFS data become, in NASA's opinion, significantly degraded.

And, when SeaWiFS operation ceases, or the data are determined by NASA to not be of worthwhile value to its research missions, any software or capability developed by OSC for the ingest, use, distribution, or sale of MODIS data shall become the property of NASA who will place it in the public domain according to practices of fair and open competition.