

Near & Mid-term Planning Discussion

- Objectives
 - Discuss remaining FY13 activities
 - Plan SWG activities for FY14 and FY15-FY18
 - Prioritize science study priorities for FY14
 - Engineering study recommendations

SWG Goals

- I. Develop and justify Science Traceability Matrix and application sciences traceability matrix for GEO-CAPE coastal ocean mission.
- II. Improve our understanding of the science and applications enabled by GEO-CAPE such as short-term dynamics of coastal biogeochemical properties.
- III. Establish technology readiness for geostationary ocean color measurements and data processing.

Near & Mid-term Planning Discussion

- FY13 Plans
 - Complete white paper & print NASA TM (June)
 - Plan & execute GoMex field campaign
 - Development of Science Value Matrix (FY13-FY14)
 - Oceans magazine article (summer-fall)
 - Dialogue with international community
 - GOCI and GOCI-II collaboration
 - Constellation with GOCI-II, European, ISRO, etc.
 - South and North American contacts
 - Develop compelling science statement
 - Prepare for 2nd Decadal Survey Mission review
 - Review science questions to make them Geo-CAPE centric

FY14 Priorities

Literature search - (student support)
related to science questions

FY14 Planning Discussion

- Activities to promote mission launch by 2022
 - quasi-global constellation concept
 - science topic to sell mission to congress
- Complete Development of Science Value Matrix
- Continue dialogue with international community
 - Exploit GOCI data processing within SeaDAS (I2gen) to advance GEO-CAPE
 - Address issues such as:
 - atmospheric correction above $AMF=4$ and high SZA
 - BRDF
 - detection (and correction) for absorbing aerosols
 - retrievals of ocean reflectances in the UV
- Risk reduction activities
 - GEO-CAPE simulator (start discussion)
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Activities Beyond FY14

- Define calibration and validation requirements and develop plan for GEO-CAPE
 - Define initial set of cal/val requirements
 - Develop vision and requirements for in situ sensor technology development & airborne sensor development
 - Outline calibration/validation plan
- Continue building international cooperation through informal contacts.
- Recommend engineering study priorities annually
- Recommend science study priorities to prepare for GEO-CAPE annually
 - Large-scale comprehensive field campaigns (sea and air)
 - Promote joint campaign with KIOST
 - Other possibilities
- Continue science studies demonstrating the utility of GEO-CAPE measurements

Activities Beyond FY14

- Develop algorithms for coastal products defined in the NASA TM
 - Study processes from multi-spectral and diurnal observations
 - Complex coastal waters algorithm development for GEO-CAPE data products
 - Improved algorithms with hyperspectral radiometry and high spectral resolution including utilization of UV and NIR bands
 - Develop coastal and inland waters GEO-CAPE PFT (phytoplankton functional types) algorithms
 - Atmospheric products for atmospheric corrections
 - Develop algorithms that maximize the advantage of multiple daily measurements
- Resolve geo-unique issues for ocean color
- Develop strategies to optimize sensor spatial coverage and frequency
 - Sensor independent; don't know what instrument will fly?
 - Cloud avoidance
 - Scanning optimization
- Define ground operation requirements for GEO-CAPE OC
- scanning sequence (life in the day of G-C OC)