

Quarterly Progress Report

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Near-Term Objectives

1) Complete Algorithm Theoretical Basis Document 2) Hire Postdoctoral researcher to work on fluorescence algorithms 3) Deploy ocean color buoys in California Current 4) Complete ocean color white paper in the context of the planned 20-year time series of ocean color measurements 5) Review EOSDIS Core System (ECS) System documents 6) Continue development of information management system.

Task Progress

1) Algorithm Theoretical Basis Document

An ATBD for the fluorescence product (the only at-launch product for which I am responsible) was delivered to the EOS Project Science Office. The ATBD covers all of the required elements, including fluorescence theory, previous applications, algorithm description, and implementation.

2) Postdoctoral Researcher

I hired Dr. Ricardo Letelier as a postdoctoral researcher for MODIS. He will focus on the relationship between fluorescence and primary productivity. He received his PhD in oceanography from the University of Hawaii in March 1994. His research focused on phytoplankton ecology in the JGOFS time series station. He will begin work at OSU in May.

3) Ocean Color Buoys

I have now deployed 17 drifters in the California Current as part of an ONR research project. Preliminary results were presented at the AGU/ASLO Ocean Sciences meeting in February. The drifters have been very successful. In regards to fluorescence, there is clearly a complex relationship between fluorescence and pigment as estimated by radiance ratios. Dr. Letelier and I will work with these data over the coming months.

4) Ocean Color White Paper

The final draft of the white paper has been completed except for some minor changes suggested by Frank Muller-Karger. I am planning to publish this report as a SeaWiFS Technical Report.

5) EOSDIS Core System

We have reviewed several documents, specifically those related to formats and the Data Processing Focus Team. We will send a representative to the upcoming DPFT meeting in April.

6) Information Management

Roen Hogg has made considerable progress in our information system activities. We are assembling a system based on Microsoft's SQL Server which uses Open Data Base Connectivity (ODBC) to link the data base with standard desktop applications such as Excel and eventually IDL. This system will form the basis of our integrated data management and processing system.

Anticipated Activities

1) Analysis of Drifter Data

We are continuing analysis of the ocean drifters. We will pay particular attention to issues of fouling and calibration, and to the relationship of fluorescence to chlorophyll concentration and physical processes. This will be the main focus of my research for MODIS. This should proceed more rapidly with the hiring of Dr. Letelier.

2) ECS

I expect to continue reviewing ECS plans and documentation.

3) Information Management

We will continue our implementation of our object-oriented data management system.

Problems/Corrective Actions

No significant problems were encountered.