

Validation of MODIS Ocean Products

[F. Hoge, GSFC]

Development of Validation Techniques

I. Laboratory

II. Ship

III. Airborne

A. ACTIVE (LASER)

B. PASSIVE (SOLAR)

IV. Airborne + SeaWiFS

V. Airborne + SeaWiFS + MODIS

Airborne

Lidar + Ocean Color Radiometer

- 13 peer reviewed publications
- Including: Hoge, F.E., C. Wayne Wright, Paul E. Lyon, Robert N. Swift, James K. Yungel, "Satellite Retrieval of the Absorption Coefficient of Phytoplankton Phycoerythrin Pigment: Theory and Feasibility Status," *Applied Optics* **38**, 7431-7441 (1999).

PHYCOERYTHRIN (MOD31)

-ALGORITHM SUCCESSFULLY
VALIDATED IN 1998

- NOW AWAITING MODIS
REPROCESSING

- OUR GROUP: VALIDATING
OTHER'S PRODUCTS TOO

Airborne + SeaWiFS

EXAMPLE: Hoge, F. E., C. Wayne Wright, Paul E. Lyon, Robert N. Swift, and James K. Yungel, "Inherent optical properties imagery of the western North Atlantic Ocean: Horizontal spatial variability of the upper mixed layer," In Press, JGR-Oceans 2002.

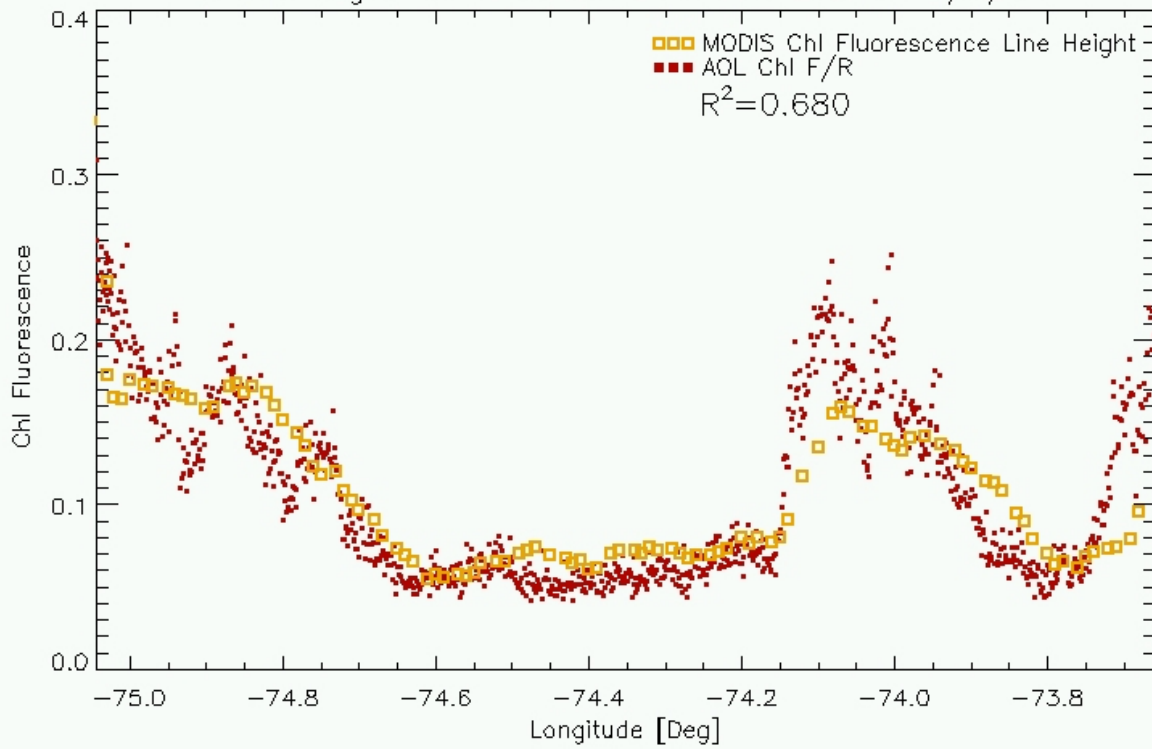
Airborne + SeaWiFS + MODIS

- Product Comparisons

SCIENCE PLANS

Continue MODIS + SeaWiFS + Airborne
Validation Activities

MODIS Regressed to Airborne Chl Fluorescence 4/5/01



W/m²/μm²/sr MODIS Standard Product Chlorophyll Fluorescence Line Height 4/5/01

