

A world map with a color-coded overlay, likely representing a global environmental or climate dataset. The colors range from blue and green in the tropics to yellow and orange in the mid-latitudes, and red and brown in the high latitudes. The map is centered on the Atlantic Ocean.

SIMBIOS Support Services

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13-15 September 1999

SIMBIOS Science Team Meeting

A world map with a color-coded overlay representing satellite data, likely chlorophyll-a concentration. The colors range from dark blue (low concentration) to red (high concentration). The overlay is most prominent in the tropical and subtropical regions, particularly in the Indian Ocean and the western Pacific. The text and list are overlaid on the map.

SIMBIOS Support Services

- Overflight predictions for operational sensors
- SeaWiFS On-board LAC recording scheduling
- Near Real Time image generation from SeaWiFS data
- Instrument Pool

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A world map showing ocean color data. The map uses a color scale from blue (low chlorophyll) to red (high chlorophyll). High concentrations are visible in the North Atlantic, the North Pacific, and the Indian Ocean. The title 'Overflight Predictions' is centered over the map.

Overflight Predictions

- Provide information as to when various ocean color sensors will view a given geo-located position.
- Currently, predictions are available for:
 - SeaWiFS
 - MOS
 - OCI

Example Overflight Prediction

SeaWiFS: Viewing Times

* 1 = tilt in progress; 2 = no tilt file, est. tilt; 3 = Sat. view ang. > 45 deg

Date	Time	Lat	Lon	Sat. Azi.	Sat. Elev.	Range (km)	Sun Azi.	Sun Elev.	Tilt	Flags*
	(UTC)	(DEG)	(DEG)							
02 Aug 1999	11:49:05	45.3139	12.5083	12.5083	211.30	67.14	768	196.64	61.66	AFT
03 Aug 1999	10:55:09	45.3139	12.5083	12.5083	112.35	28.99	1286	169.31	61.90	AFT 3
03 Aug 1999	12:32:55	45.3139	12.5083	12.5083	275.58	31.43	1222	216.19	57.95	AFT 3
04 Aug 1999	11:39:11	45.3139	12.5083	12.5083	169.33	66.01	773	191.64	61.56	AFT
05 Aug 1999	10:45:12	45.3139	12.5083	12.5083	108.68	23.70	1459	164.68	60.99	AFT 3
05 Aug 1999	12:23:04	45.3139	12.5083	12.5083	270.32	37.94	1078	211.78	58.42	AFT
06 Aug 1999	11:29:17	45.3139	12.5083	12.5083	142.06	57.37	830	186.69	61.30	AFT
06 Aug 1999	13:06:45	45.3139	12.5083	12.5083	287.04	16.73	1770	228.05	53.22	AFT 3

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On-board LAC Scheduling

- In addition to the GAC data, SeaWiFS records ~10 minutes of LAC data per downlink
 - 1 minute of coverage is ~400km along track
- On-board LAC is available for scheduling when the area of interest is not covered by an HRPT ground station
- Can specify a site or a region for LAC coverage
 - sites have higher priority
 - regions, think big...

Default LAC Coverage

Site	Latitude	Longitude		
MOBY	20.838	-157.237		
Venice Tower	45.314	12.508		
HOTS (Hawaii)	22.750	-158.000		
Chavez Eqtl Mooring(a)	0.000	-155.000		
Chavez Eqtl Mooring(b)	-2.000	-170.000		
PlyMBODY	50.217	-4.083		
BATS & BTBM	31.833	-64.167		
Abbott's IDS program	-60.000	-160.000		
Region	North Lat	South Lat	East Lon	West Lon
Caribbean	13.0	7.0	-55.0	-75.0
JGOFS	-50.0	-78.0	-160.0	160.0
Antarctic LTER	-62.0	-68.0	-64.0	-75.0
Equatorial Pacific	3.0	-3.0	-80.0	170.0
African Gulf	10.0	-10.0	15.0	-15.0
West African Coast	25.0	5.0	-15.0	-35.0

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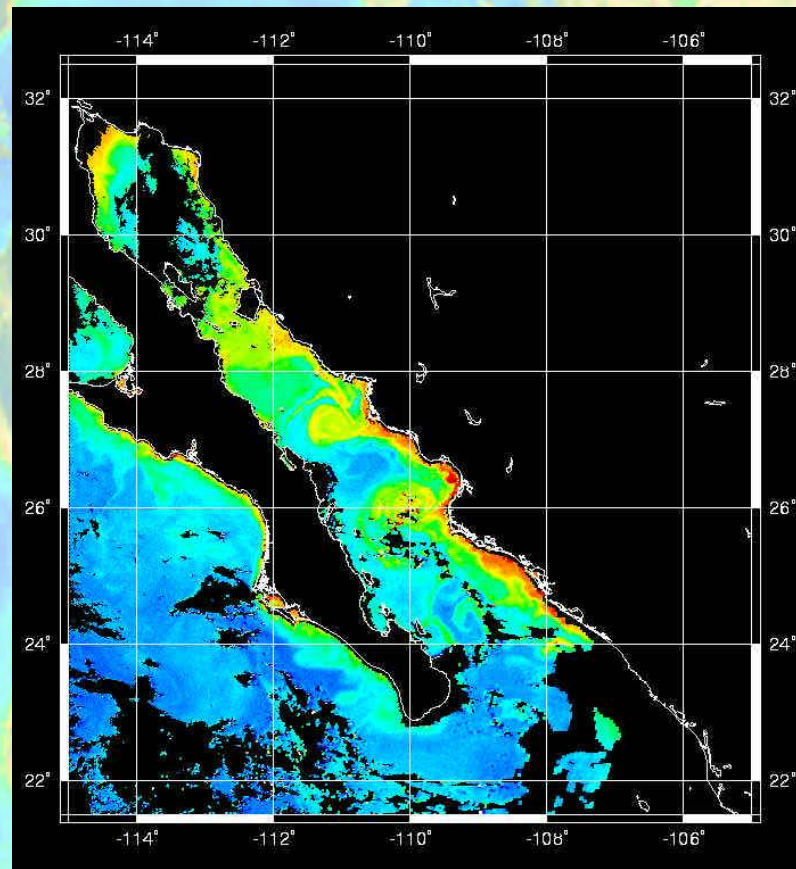
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A world map showing chlorophyll-a concentrations. The map uses a color scale from blue (low concentration) to red (high concentration). High concentrations are visible in the tropical oceans, particularly in the Indian Ocean and the western Pacific. The text "Near Real Time Images" is overlaid on the map in a large, black, serif font.

Near Real Time Images

- Default Images:
 - Available LAC, GAC and HRPT
 - True color images from Level 1 bands 1, 5, and 6
 - Chlorophyll-a
 - Entire designated region
 - Image Width: 600 pixels
 - Minimum percent valid chlorophyll pixels: 5%
- Customization options:
 - Image Width
 - File types and Receiving station
 - Chlorophyll Threshold
 - Type(s) of Images
 - True color and chlorophyll
 - Level 1 radiances
 - nLw_412, nLw_443, nLw_490, nLw_510, nLw_555, La_670, La_865, CZCS_pigment, K_490, eps_78, tau_865

Example NRT Image



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A world map with a color gradient from blue to red, overlaid with a semi-transparent text box. The map shows the continents and oceans, with colors ranging from light blue in the oceans to dark red in some landmasses.

SIMBIOS Instrument Pool

- A variety of instrument systems have been purchased for the SIMBIOS project.
 - Many of the instruments were purchased by SIMBIOS investigators
- These instruments are to be shared within the U.S., NASA sponsored ocean color community to enhance the overall quality of validation data sets provided to the SeaBASS archive.
- The SIMBIOS Project Office manages the deployment schedules of these instruments.

A world map with a color gradient from blue (oceans) to red (landmasses), serving as a background for the slide.

Instrument Pool Summary

- 3 HydrosCat 6
- 1 Hystar drop-package
- 3 Pure H₂O Systems
- 3 WETLabs AC-9
- 4 SIMBAD above-water radiometers
- 2 Satlantic profiling radiometers
- 1 Micropulse LIDAR
- 12 MicroTops II Sunphotometers
- 12 Cimel Sunphotometers
- 2 Prede Sunphotometers

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A world map with a color gradient from blue to red, overlaid with a grid. The map is centered on the Atlantic Ocean.

Cruise Support Database

- Accessible via WWW
 - simbios.gsfc.nasa.gov under “Support Services”
- Searchable on:
 - Cruise name
 - Investigator name
 - Cruise start date
 - Alternate Investigator
- Currently contains 119 cruises