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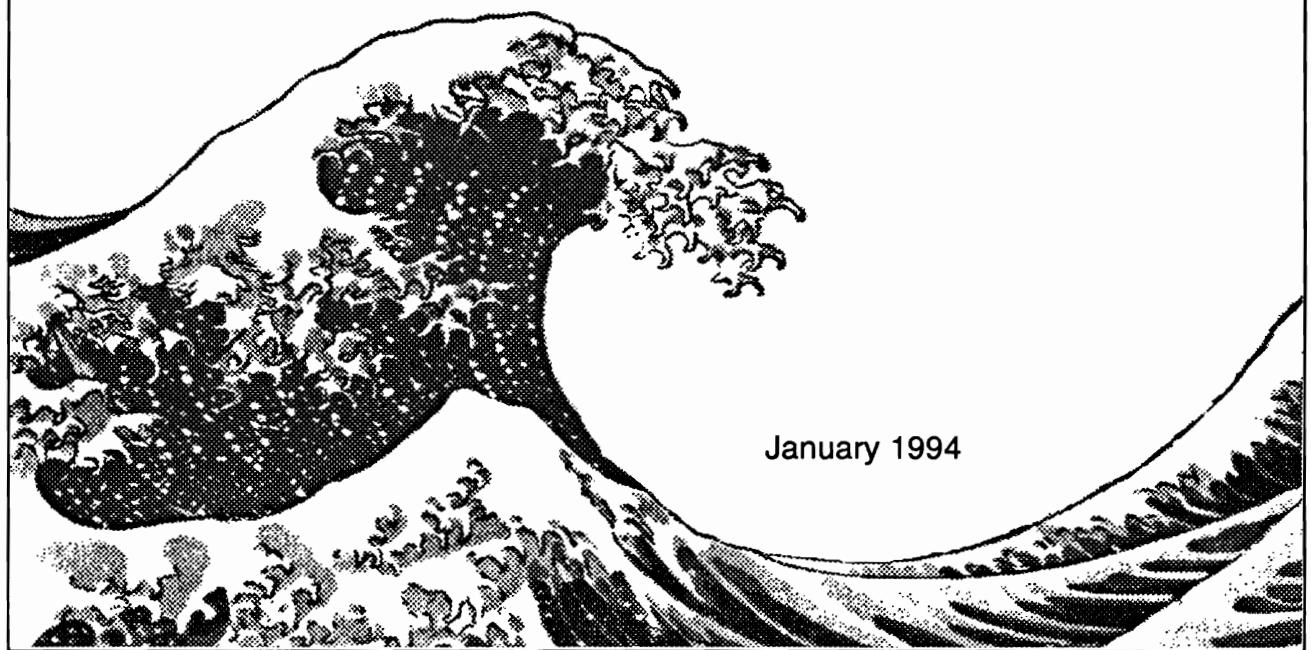
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Oceanographic Profiling and Spectroradiometer Observations from the MOCE-1 Cruise: 28 August to 8 October 1992

Michael E. Feinholz, Mark A. Yarbrough and Nancy T. Greene

Moss Landing Marine Laboratories Technical Publication 94-1





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Abstract

This report contains the first observations made for the Modis Optical Characterization Experiment (MOCE). Data presented here were obtained on the R/V DeSteiguer between 28 August and 8 October along the central California coast and in Monterey Bay. Three types of data are reported here: high spectral resolution radiometry at three depths for seven stations; salinity, temperature, fluorescence and beam attenuation profiles at the same stations; and total suspended matter and suspended organic carbon and nitrogen.

Introduction

The purpose of the Marine Optical Characterization Experiment (MOCE) is to obtain *in situ* ocean data characterizing the upper ocean bio-optical properties. The purposes of these data is twofold: 1) providing surface truth for the SeaWiFS ocean color satellite which will be launched in 1994, and 2) developing bio-optical algorithms relating water-leaving radiance to dissolved and suspended particulate material concentrations in surface waters.

Data included in this report are from the NOAA/MLML high spectral resolution Marine Optics Spectrometer (MOS) and the MLML CTD/Rosette. The first instrument was used to characterize the subsurface light field by measurements of upwelled radiance (L_u) at three depths, the downwelled irradiance (E_d) at those same depths and surface irradiance (L_s) is measured above the surface by the Surface Incident Spectrometer (SIS). Oceanographic profiling data from the CTD/optics profiler characterize the density stratification from salinity, temperature profiles, the biological state from dissolved oxygen, chlorophyll and phycoerythrin fluorescence profiles, and the distribution of suspended particulates by beam attenuation. Water samples were obtained by rosette bottles for the determination of total suspended materials (TSM), particulate organic carbon (POC) particulate organic nitrogen (PON), and phytoplankton pigments.

Station locations (Fig. 1, Table 1) were chosen to sample a variety of water coastal types near Monterey Bay.

Methods

The work plan at each of the bio-optical stations is generally similar to that used during Dennis

Clark's CZCS optical characterization work (Clark 1981; Gordon, *et al.* 1983). When SeaWiFS is launched, the objective will be to observe in-water light fields concomitant with the SeaWiFS overpass near local apparent noon. During MOCE-1 a similar routine was followed. The R/V DeSteiguer stopped on station about three hours before local noon, and the spectroradiometer tetrahedron equipped with wave dampening barriers (Fig. 2) was deployed by allowing it to drift away from the ship. MOS was attached to a electric winch at the apex of the tetrahedron and was lowered to successive depths where it made repeated spectral scans.

The prototype MOS (Fig. 3) uses two 512-element silicon-diode arrays: the blue (340 to 640 nm) detects light passed through a "water mirror" dichroic filter, while the red (600 to 900 nm) detects that reflected off the dichroic. This novel design allows the measurement in the near infra-red (above 700 nm) where water absorption and effects of instrument self-shading (Gordon and Ding 1992) are large. With the 250 μm slit, the effective spectral resolution of the MOS prototype is 2.5 nm.

Downwelled irradiance (E_d) is measured via a BioSpherical Instruments cosine collector on the top of the instrument housing. Upwelled radiance (L_u) is measured either with a 5° field of view radiance collector on the bottom of the housing or through mechanically multiplexed fiber-optics collectors. The bare fiber-optics collectors have a field of view of about 5°. Their 5 mm diameter reduces self-shading to a minimum and allows the infra-red measurements. On this cruise the fiber optics collectors were not used. The MOS prototype used an American Holographics Chemspec 100 spectrograph with Hamamatsu 512-element silicon diode detectors.

During MOS scans, a separate instrument, the

Table 1. Marine Optical Characterization Experiment MOCE-1 Station Summary

Station:		Latitude:	Longitude:	Date:
Stn 01	Mulligan Hill	36° 44.0' N	121° 51.0' W	28 Aug 1992
Stn 02	Monterey Bay Mouth	36° 43.3' N	122° 02.2' W	04 Sep 1992
Stn 03	Outside Monterey Bay	36° 40.9' N	122° 40.3' W	05 Sep 1992
Stn 04	Monterey Peninsula	36° 31.2' N	122° 22.2' W	05 Sep 1992
Stn 05	Point Sur	36° 12.9' N	121° 47.9' W	06 Sep 1992
Stn 06	Santa Cruz	36° 52.5' N	121° 59.8' W	07 Sep 1992
Stn 07	Mulligan Hill	36° 44.9' N	121° 51.2' W	08 Sep 1992

surface incident spectrometer (SIS) runs in background to measure surface incident irradiance (E_s). SIS uses an American Holographic 38-channel Hamamatsu diode array and a 0.1 m American holographic MS-10 spectrograph. Its spectral range is 370 to 725 nm giving a spectral resolution of 9 nm. The irradiance collector, based on the Scripps Visibility Laboratory design, was constructed of 0.5 inch thick UV transmitting acrylic.

Upwelled radiance and downwelled irradiance data were obtained sequentially as a group of 2 dark scans, 5 radiance or irradiance scans followed by 2 dark scans constitute a *scan set*. During this first shipboard work using MOS and SIS, we ran SIS as an independent instrument taking E_s scans as MOS made E_d and L_u scans. Depending upon atmospheric conditions and wave roughness, between 3 and 10 *scan sets* (each taking about two minutes to complete) were collected at each of three depths (nominally 1, 6, and 11 m). During the cruise over 200 radiometric *scan sets* were obtained.

While the radiometer work was in progress, vertical profiles were made using the MLML CTD-Rosette sampler. During MOCE-1 that instrument was fitted with six 2-liter sampling bottles, which supplied insufficient water for suspended material analyses. Water samples were collected by 10-liter Niskin samplers hung on the hydrographic cable and tripped inflection points observed from the vertical profiles. The CTD profiler was equipped with a SeaBird conductivity cell, a platinum resistance thermometer, a DigiQuartz pressure transducer, an MLML designed three-channel fluorometer fitted with filters to detect chlorophyll a and phycoerythrin fluorescence, a 1-m folded path, 490 nm, Martek transmissometer based on the Scripps Visibility Laboratory design and a Beckman membrane dissolved oxygen sensor.

The conductivity cell, pressure transducer and

temperature transducer on the CTD were calibrated before the cruise at MLML: absolute pressure calibration was made using a dead weight test stand; conductivity was calibrated using 30 and 35 PSU standard seawater and a Mini-Sal salinometer; temperature was calibrated against the triple point of water and gallium melting point using an HP-2804A quartz thermometer. All of the calibrations were temperature stabilized in computer controlled thermostated bath. During the cruise, water samples for field calibration were collected and analyzed for salinity using the Mini-Sal, and dissolved oxygen using Winkler titrations.

Before each cast the transmissometer windows were thoroughly cleaned with isopropyl alcohol, dark current and air calibration readings were noted. Beam transmission was computed based on an assumed air calibration reading of 84.5%, which accounts for Fresnel reflection losses by the four air/glass surfaces relative to seawater/glass.

Near local apparent noon, Secchi depth measurements were made with a 30 cm, all white, Secchi disk, carefully avoiding surface glint. The depth estimates were made both by lowering the disk until it faded from view and raising it again until it was again viewed. The reported Secchi depths are the mean of the two readings. Ocean color as sensed by the human eye was estimated by Munsell color chips (Munsell Color Company, Baltimore Md.) selected by R.W. Austin (Scripps Visibility Laboratory). Two or more observers compared the color of the Secchi disk suspended at half its disappearance depth.

Based upon inflection points indicated by the transmission, fluorescence and temperature profiles, water samples were collected by pump and by Niskin bottle. These samples were analyzed for total and organic suspended particulate materials, scattering cross-section, fluorescence and HPLC chlorophyll pigment analyses. Results from the scattering and

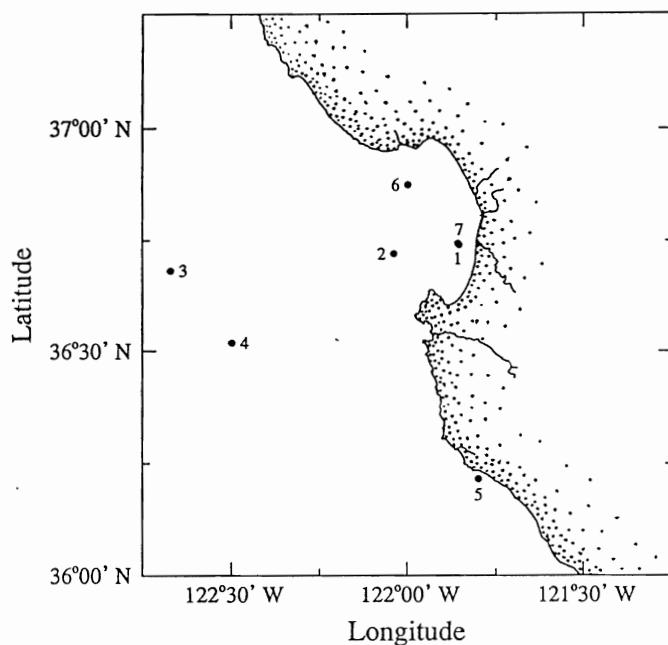


Figure 1. Station locations for MOCE-1.

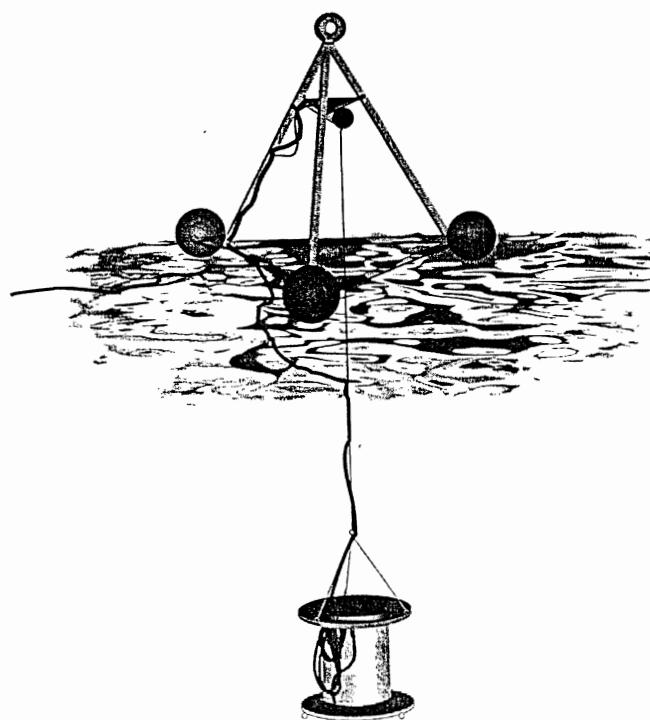


Figure 2. Tetrahedron surface floatation used in MOS radiometer profiling.

pigment analyses are reported elsewhere.

Total suspended particulates were determined by filtering 1 to 2 liters of water through 47 mm diameter, 0.45 μm pore-size Millepore HP/EP mixed-ester cellulose filters. These filters were desiccated and tared to a constant ($\pm 20 \mu\text{g}$) weight and stored in separate Petri dishes. Water was vacuum filtered aboard ship using a pressure differential of 0.5 to 0.7 atmospheres. Sea salts were removed by two 20 ml rinses with deionized (Mille-Q) water. These filters have a 6 mm hydrophobic edge which eliminates the need to rinse sea salts from the filter rim. After sample collection, the filters were folded, gently creased and returned to the Petri dish. The filters were frozen for storage during this cruise, however under ideal conditions they should preferably have been dried at 60° C. Suspended sediment weights were determined by weighing each filter on a Mettler H54-AR balance. Weighing was repeated three times or more until the difference between weights was less than 40 μg .

Separate samples were filtered for particulate organic carbon and nitrogen analyses. Approximately 0.5 l of water was pressure filtered through 25 mm Whatman glass fiber GF/F filters having a nominal pore size of 0.7 μm . These filters were pretreated by ashing in a muffle furnace at 500° C for two hours. Each filter was stored in an shed aluminum-line Petri dish. Following filtration, the filters were stored frozen until analysis ashore. Organic carbon and nitrogen were determined by combustion analysis with a Leeman Labs Model 440 Element Analyzer. Acetanilide standards were analyzed every 15th sample, and the maximum deviation of these standards never exceeded the 5% limits, which are the accepted precision of the method (University of Maryland, 1992). The limits of detection are 1 $\mu\text{g C mg}^{-1}$ sample for carbon and 0.1 $\mu\text{g N mg}^{-1}$ for nitrogen.

Data Management

The MLML group manages data from five instrument systems: the MLML CTD/Rosette; Fastie, an 80-channel photomultiplier scanning radiometer; SIS, the surface incident irradiance spectrometer; MOS, the high resolution spectroradiometer; and MOBY which uses MOS in the Marine Optical Buoy System. Data obtained from these instruments are similar in form, but each has its own idiosyncrasies. Each data set is obtained with a high level program written in C and FORTRAN for VAXstations. Data acquisition and processing procedures are explained in detail by Feinholz and Broenkow (1993) and processing steps are illustrated in a tutorial

(Broenkow, *et al.*, 1993). Data from all instruments are kept in an MLML_DBASE format which can be displayed, edited and processed with a single suite of programs (Broenkow and Reaves, 1993).

Because of the complexity of these diverse data sets, data files have been organized into a hierarchical directory structure. An advantage of VMS is its robust file naming capabilities. Each data type is identified by the instrument name (MOS or SIS or CTD), a two digit station number (STNnn), a two digit sampling depth (zzM), and by a sequential index (sss). CTD sequential file numbers have been used from the beginning of CTD work at MLML in 1974. MOS data may be obtained in a variety of sampling modes, which are reflected by file names. Each *scan set* is identified by data type: LU for upwelled radiance, ED for downwelled irradiance and ES in the unlikely event that MOS would be used to measure surface irradiance. MOS may be used in the vertical profiling mode, in which case the depth, zzM, is replaced by PRF. SIS is used mainly to take surface irradiance scans, but it could be used in other modes as well. Fastie is a general purpose instrument, and its use is similar to MOS. When an instrument is calibrated, the station designator is changed to CALIB. Any of these instruments could be used to take ship track-line data, in which case the STNnn designator is changed to TRKLN. Trackline and calibration files are identified by the year (yy) and Julian day (jjj) as well as a sequential index (sss). Each data type is identified also with a code that follows the data throughout processing. This is important because several files are merged to produce a single file containing all MOS/SIS observations at a single optics station.

To keep file naming conventions straight, the data acquisition programs (CTD, MOS, SIS, FASTIE) generate the file names with minimal user input. Files from the Marine Optical Buoy (MOBY) contain upwelled radiance, downwelled irradiance and surface irradiance scans from three depths. MOBY files are named according to instrument serial number (SNnn), year, Julian day and GMT time (hhmm). Because multiple instruments may be used, MOS, SIS and MOBY files include a serial number in the database.

Because each data set may be taken by different workstations, it is important to consolidate all data in one location. This will be the MLML VAX 4000, whose Internet domain name is NSF.MLML.CALSTATE.EDU. All current raw and processed files are located in a directory structure as follows:

Table 2. MLML Marine Optical Characterization Experiment file naming conventions.

Station profiling data	CTD_STNnn_sss.MLDAT
Calibration files	CTD_CALIB_yyjjj.MLDAT
Radiometer scan files	MOS_LU_STNnn_zzM_sss.MLDAT
"	MOS_ED "
"	MOS_ES "
Station profiling data	MOS_LU_STNnn_PRF_sss.MLDAT
Calibration	MOS_LU_CALIB_yyjjj_sss.MLDAT
Surface irradiance scan files	SIS_ES_STNnn_zzM_sss.MLDAT
Calibration files	SIS_ES_CALIB_yyjjj_sss.MLDAT
Trackline files	SIS_ES_TRKLN_yyjjj_sss.MLDAT
Station scan files	FASTIE_LU_STNnn_zzM_sss.MLDAT
Calibration files	FASTIE_LU_CALIB_yyjjj_sss.MLDAT
Composite radiometer data from the Marine Optical Buoy	MOBY_SNnn_yyjj_hhmm.MLDAT
Merged radiometer files	MOCE1_STNnn_RADIOM.MLDAT
Corrected CTD profile files	MOCE1_STNnn_CTD.MLDAT

[DATA.NOAA.CRUISE.INSTRUMENT.RAW]
 [DATA.NOAA.CRUISE.INSTRUMENT.PRD]
 [DATA.NOAA.CRUISE.INSTRUMENT.CAL]

Thus each data type is located in its associated directory for a given cruise. Sub-directories for the raw observations, the processed files and the calibration files are grouped together. We anticipate that data may be requested by any of the MOCE investigators. Upon receipt of requests, we will make read-only ASCII files available in a top level directory, NSF:[MOCE] to Internet users who login as MOCE. The file naming convention in Table 2 will be maintained, but ASCII files will have the file extension .DAT rather than .MLDAT used for the MLML_DBASE binary files. It is unlikely that the preliminary files will be requested by MOCE investigators, but those may be requested also. The merged corrected files will be named according to cruise, station number and data type, such as MOCE01-STN14-RADIOM.MLDAT or MOCE01-STN14-CTD.MLDAT or their ASCII equivalents.

Acknowledgements

We appreciate the efforts of our many colleagues, particularly Edward King and Yong Sung Kim, as well as the captain and crew of R/V DeSteiguer. Craig Hunter performed the TSM, POC and PON analyses. Richard Reaves reduced the CTD optics profile data, and we appreciate the help of Stephanie Flora in assembling this report. This work was supported by National Oceanic and Atmospheric, National Environmental Satellite Data Information Service Grant No. NA17ECO428 to William Broenkow.

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Appendix 1. MOS Radiometry Data: Spectral plots and data listings.

Explanation of Data Tables:

Four pages are presented for each optics station. The first two page are graphs of corrected observed data at up to three depths:

Ed is downwelled irradiance ($\mu\text{W cm}^{-2} \text{nm}^{-1}$).
 Lu is upwelled radiance in ($\mu\text{W cm}^{-2} \text{sr}^{-1} \text{nm}^{-1}$).
 Es is surface irradiance ($\mu\text{W cm}^{-2} \text{nm}^{-1}$).

Ed and Lu are measured at about 0.6 nm intervals.
 Es is measured at about 9 nm intervals.

All data have been used in the plots, but the spectra have been interpolated to 10 nm intervals for tables presented here.

The second page presents derived data.
 Ke(1,2,3) and Kl(1,2,3) are the diffuse irradiance and radiance attenuation coefficients (m^{-1}) computed between all combinations of Ed at the three depths. Sampling depth is shown above each column. Top refers to the upper depth, Mid to the second depth and Bot to the bottom or deepest most depth.
K_1 is between Top and Mid; K_2 between Top and Bot; K_3 between Mid and Bot.

R is the ratio between the spectral mean surface irradiances and indicates the variability in surface irradiance.

Four water-leaving radiance spectra are presented by combinations of observed Lu (at the Top, Mid and Bot depths termed Lu_1, Lu_2 and Lu_3 respectively) and Kls between those three depths as indicated above the columns.

The last column is the solar-normalized water-leaving radiance based only on the Top Lu spectra and Kl between the Top and Mid depths.

SeaWiFS-weighted, solar-normalized water-leaving radiances are listed above the spectral values.

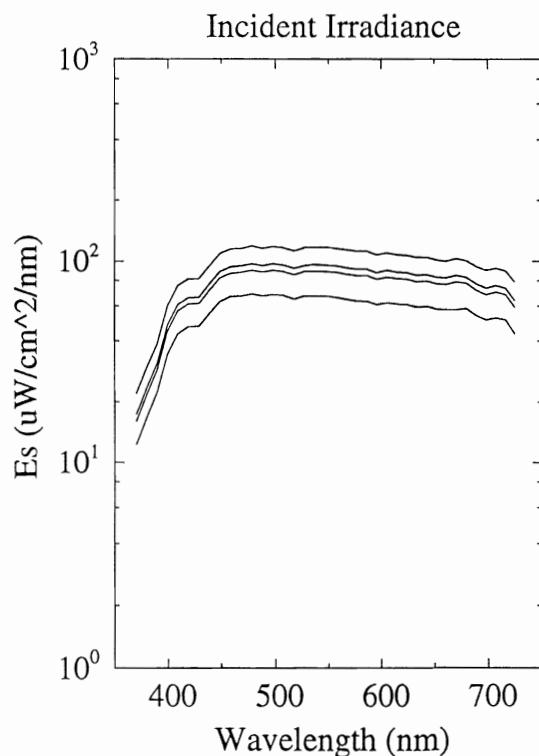
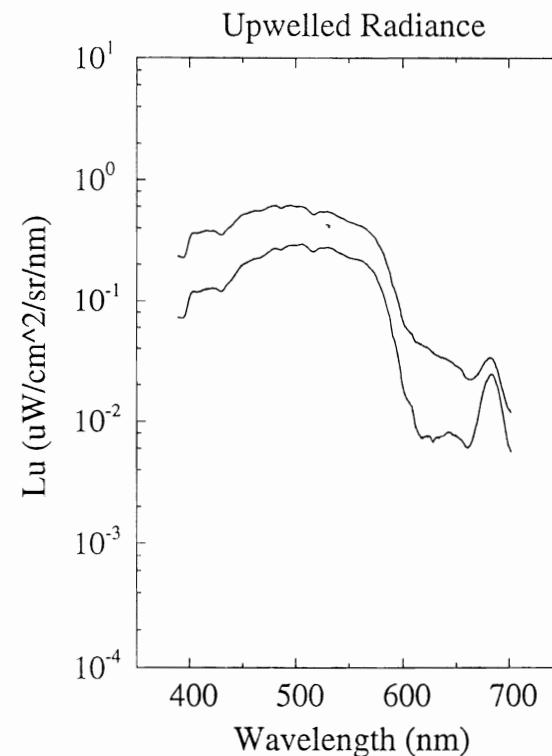
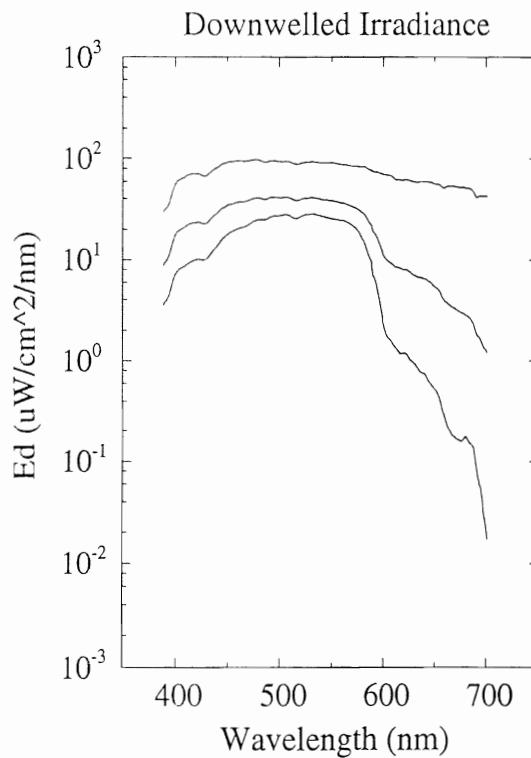
Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
 STATION: 1-4 Mulligan Hill

Top = 1 m
 Mid = 5 m
 Bot = 12 m

POSITION: 36°44.6 N 121°51.4 W
 DATE: 23:06 (GMT) 01 Sep 1992

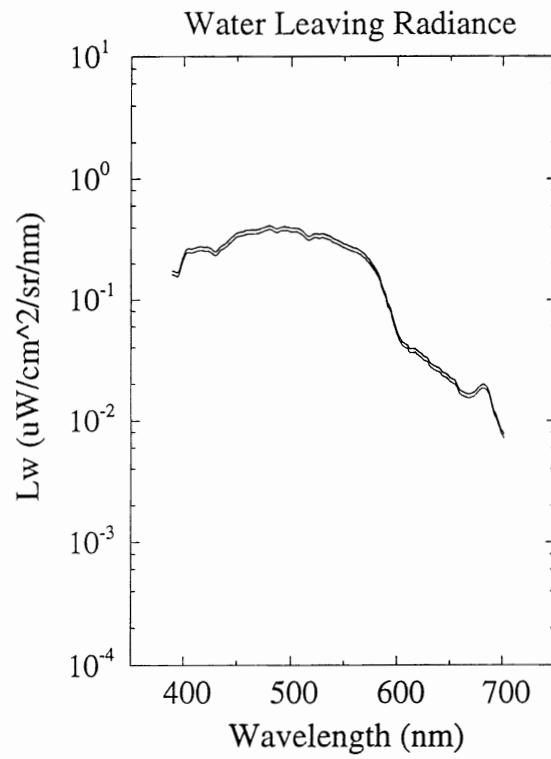
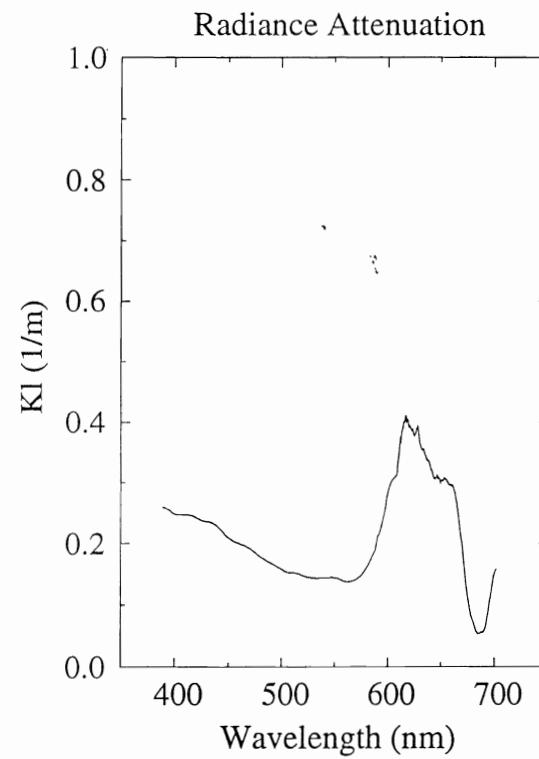
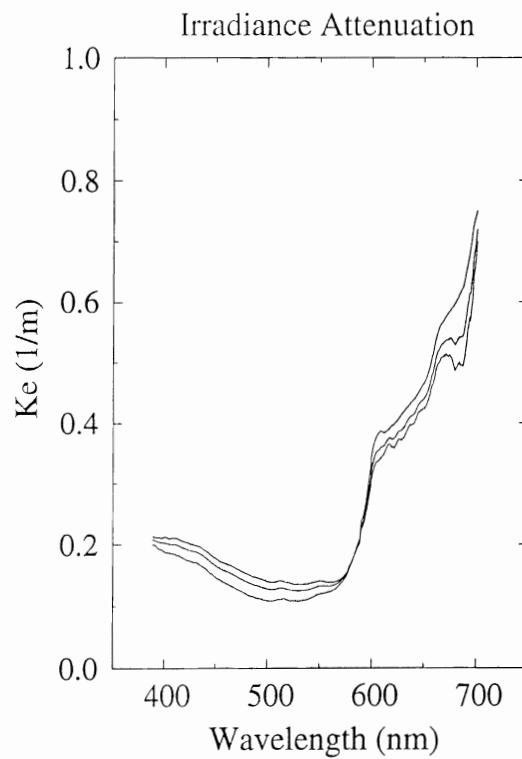


MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
 STATION: 1-4 Mulligan Hill

Top = 1 to 5 m
 Mid = 1 to 12 m
 Bot = 5 to 12 m

POSITION: 36°44.6 N 121°51.4 W
 DATE: 23:06 (GMT) 01 Sep 1992



File: MOCE1:[MOS.PRC]STN01_4_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 23:06 (GMT) 01 Sep 1992STATION: 1-4 Mulligan Hill
POSITION: 36°44.6' N 121°51.4' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm):	412	443	490	510	555	670	765	865
Lwn (W/cm ² /sr):	5.62E-1	6.36E-1	7.46E-1	6.82E-1	5.17E-1	3.04E-2	8.64E-3	nil

Depth (m)	Top	Top	Mid	Mid	Bot
0.6			4.8	5.4	11.7
Time (GMT)	23:06	23:06	23:49	23:21	22:07

λ (nm)	Ed_1	Es_1	Lu_1	Es_1	Ed_2	Es_2	Lu_2	Es_2	Ed_3	Es_3
400	5.59E+1	4.83E+1	3.31E-1	4.83E+1	1.76E+1	3.45E+1	1.08E-1	4.48E+1	7.13E+0	5.99E+1
410	6.64E+1	6.09E+1	3.65E-1	6.09E+1	2.12E+1	4.35E+1	1.20E-1	5.65E+1	8.72E+0	7.54E+1
420	7.06E+1	6.57E+1	3.76E-1	6.57E+1	2.33E+1	4.69E+1	1.26E-1	6.10E+1	9.94E+0	8.10E+1
430	6.78E+1	6.64E+1	3.48E-1	6.64E+1	2.29E+1	4.74E+1	1.20E-1	6.17E+1	1.02E+1	8.17E+1
440	8.06E+1	7.71E+1	4.18E-1	7.71E+1	2.83E+1	5.50E+1	1.49E-1	7.16E+1	1.34E+1	9.47E+1
450	9.15E+1	8.84E+1	5.11E-1	8.84E+1	3.43E+1	6.31E+1	1.97E-1	8.22E+1	1.77E+1	1.08E+2
460	9.49E+1	9.36E+1	5.47E-1	9.36E+1	3.69E+1	6.68E+1	2.19E-1	8.70E+1	2.02E+1	1.15E+2
470	9.46E+1	9.44E+1	5.61E-1	9.44E+1	3.82E+1	6.74E+1	2.33E-1	8.79E+1	2.19E+1	1.15E+2
480	9.63E+1	9.68E+1	6.11E-1	9.68E+1	4.06E+1	6.90E+1	2.69E-1	9.02E+1	2.49E+1	1.18E+2
490	9.40E+1	9.48E+1	6.00E-1	9.48E+1	4.07E+1	6.73E+1	2.76E-1	8.82E+1	2.60E+1	1.16E+2
500	9.32E+1	9.65E+1	5.99E-1	9.65E+1	4.10E+1	6.83E+1	2.86E-1	8.99E+1	2.73E+1	1.18E+2
510	9.24E+1	9.54E+1	5.71E-1	9.54E+1	4.05E+1	6.75E+1	2.80E-1	8.88E+1	2.70E+1	1.16E+2
520	8.93E+1	9.21E+1	5.30E-1	9.21E+1	3.92E+1	6.51E+1	2.65E-1	8.57E+1	2.65E+1	1.12E+2
530	9.29E+1	9.50E+1	5.43E-1	9.50E+1	4.11E+1	6.70E+1	2.75E-1	8.84E+1	2.83E+1	1.16E+2
540	9.05E+1	9.60E+1	4.93E-1	9.60E+1	3.94E+1	6.75E+1	2.50E-1	8.93E+1	2.69E+1	1.17E+2
550	9.08E+1	9.57E+1	4.49E-1	9.57E+1	3.83E+1	6.72E+1	2.27E-1	8.89E+1	2.55E+1	1.17E+2
560	8.74E+1	9.45E+1	4.17E-1	9.45E+1	3.62E+1	6.65E+1	2.17E-1	8.78E+1	2.44E+1	1.15E+2
570	8.48E+1	9.27E+1	3.62E-1	9.27E+1	3.35E+1	6.49E+1	1.86E-1	8.60E+1	2.20E+1	1.13E+2
580	8.38E+1	9.14E+1	2.62E-1	9.14E+1	2.90E+1	6.35E+1	1.24E-1	8.48E+1	1.59E+1	1.12E+2
590	7.49E+1	9.13E+1	1.42E-1	9.13E+1	1.96E+1	6.34E+1	5.58E-2	8.47E+1	7.60E+0	1.12E+2
600	7.01E+1	8.77E+1	6.81E-2	8.77E+1	1.11E+1	6.05E+1	1.93E-2	8.14E+1	2.34E+0	1.08E+2
610	6.49E+1	8.79E+1	5.01E-2	8.79E+1	8.78E+0	6.13E+1	1.15E-2	8.18E+1	1.44E+0	1.07E+2
620	6.17E+1	8.72E+1	4.20E-2	8.72E+1	8.01E+0	6.06E+1	7.56E-3	8.11E+1	1.18E+0	1.06E+2
630	5.92E+1	8.50E+1	3.61E-2	8.50E+1	7.02E+0	5.91E+1	7.27E-3	7.88E+1	9.39E-1	1.04E+2
640	5.99E+1	8.54E+1	3.33E-2	8.54E+1	6.52E+0	5.96E+1	7.77E-3	7.93E+1	7.38E-1	1.04E+2
650	5.63E+1	8.30E+1	2.89E-2	8.30E+1	5.41E+0	5.76E+1	7.46E-3	7.71E+1	5.20E-1	1.01E+2
660	5.21E+1	8.23E+1	2.26E-2	8.23E+1	3.86E+0	5.73E+1	6.06E-3	7.65E+1	2.62E-1	9.98E+1
670	5.34E+1	8.49E+1	2.44E-2	8.49E+1	3.27E+0	5.71E+1	1.02E-2	7.90E+1	1.74E-1	1.03E+2
680	5.18E+1	8.33E+1	3.33E-2	8.33E+1	2.83E+0	5.82E+1	2.31E-2	7.75E+1	1.75E-1	1.01E+2
690	4.22E+1	7.73E+1	2.41E-2	7.73E+1	1.93E+0	5.36E+1	1.77E-2	7.18E+1	9.71E-2	9.39E+1
700	4.27E+1	7.36E+1	1.24E-2	7.36E+1	1.27E+0	5.09E+1	6.01E-3	6.83E+1	2.23E-2	8.98E+1

File: MOCE1:[MOS.PRC]STN01_4_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 23:06 (GMT) 01 Sep 1992STATION: 1-4 Mulligan Hill
POSITION: 36°44.6' N 121°51.4' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm):	412	443	490	510	555	670	765	865
Lwn (μW/cm²/sr):	5.62E-1	6.36E-1	7.46E-1	6.82E-1	5.17E-1	3.04E-2	8.64E-3	nil

Depth(m)	1-5	1-5	1-12	5-12	Top KL_1	Mid KL_1	Lw_1
λ (nm)	Ke_1	KL_1	Ke_2	Ke_3	Lw_1	Lw_2	Lwn
400	1.88E-1	2.48E-1	2.03E-1	2.12E-1	2.43E-1	2.25E-1	5.24E-1
410	1.85E-1	2.48E-1	2.01E-1	2.10E-1	2.67E-1	2.48E-1	5.63E-1
420	1.77E-1	2.43E-1	1.94E-1	2.05E-1	2.74E-1	2.54E-1	5.63E-1
430	1.71E-1	2.36E-1	1.88E-1	1.99E-1	2.52E-1	2.34E-1	5.07E-1
440	1.62E-1	2.28E-1	1.80E-1	1.91E-1	2.99E-1	2.78E-1	5.92E-1
450	1.47E-1	2.10E-1	1.66E-1	1.78E-1	3.58E-1	3.32E-1	6.96E-1
460	1.38E-1	2.00E-1	1.57E-1	1.69E-1	3.78E-1	3.51E-1	7.28E-1
470	1.29E-1	1.92E-1	1.50E-1	1.62E-1	3.84E-1	3.57E-1	7.29E-1
480	1.19E-1	1.78E-1	1.40E-1	1.53E-1	4.12E-1	3.82E-1	7.76E-1
490	1.13E-1	1.68E-1	1.34E-1	1.47E-1	3.99E-1	3.71E-1	7.44E-1
500	1.09E-1	1.58E-1	1.29E-1	1.41E-1	3.94E-1	3.66E-1	7.32E-1
510	1.10E-1	1.53E-1	1.29E-1	1.40E-1	3.73E-1	3.47E-1	6.91E-1
520	1.10E-1	1.48E-1	1.27E-1	1.38E-1	3.44E-1	3.20E-1	6.35E-1
530	1.08E-1	1.44E-1	1.25E-1	1.35E-1	3.51E-1	3.26E-1	6.49E-1
540	1.12E-1	1.44E-1	1.27E-1	1.37E-1	3.19E-1	2.96E-1	5.89E-1
550	1.19E-1	1.45E-1	1.32E-1	1.41E-1	2.90E-1	2.70E-1	5.36E-1
560	1.23E-1	1.39E-1	1.33E-1	1.39E-1	2.68E-1	2.49E-1	4.96E-1
570	1.34E-1	1.42E-1	1.40E-1	1.43E-1	2.33E-1	2.17E-1	4.34E-1
580	1.66E-1	1.61E-1	1.67E-1	1.68E-1	1.73E-1	1.61E-1	3.21E-1
590	2.32E-1	2.06E-1	2.24E-1	2.20E-1	9.85E-2	9.15E-2	1.81E-1
600	3.49E-1	2.84E-1	3.24E-1	3.09E-1	5.22E-2	4.84E-2	9.63E-2
610	3.85E-1	3.38E-1	3.60E-1	3.45E-1	4.09E-2	3.80E-2	7.51E-2
620	3.95E-1	3.92E-1	3.74E-1	3.60E-1	3.67E-2	3.41E-2	6.66E-2
630	4.17E-1	3.65E-1	3.91E-1	3.74E-1	3.05E-2	2.84E-2	5.48E-2
640	4.37E-1	3.29E-1	4.13E-1	3.98E-1	2.69E-2	2.50E-2	4.78E-2
650	4.66E-1	3.05E-1	4.39E-1	4.22E-1	2.27E-2	2.11E-2	3.99E-2
660	5.27E-1	2.96E-1	4.94E-1	4.74E-1	1.76E-2	1.63E-2	3.07E-2
670	5.71E-1	1.91E-1	5.33E-1	5.09E-1	1.67E-2	1.55E-2	2.89E-2
680	5.98E-1	7.02E-2	5.29E-1	4.87E-1	1.97E-2	1.83E-2	3.39E-2
690	6.40E-1	5.71E-2	5.66E-1	5.19E-1	1.40E-2	1.30E-2	2.40E-2
700	7.42E-1	1.55E-1	6.99E-1	6.72E-1	8.09E-3	7.51E-3	1.38E-2

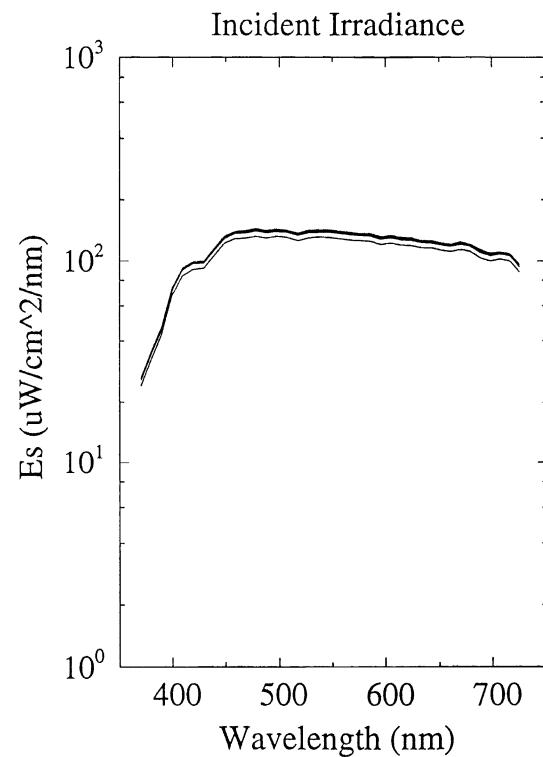
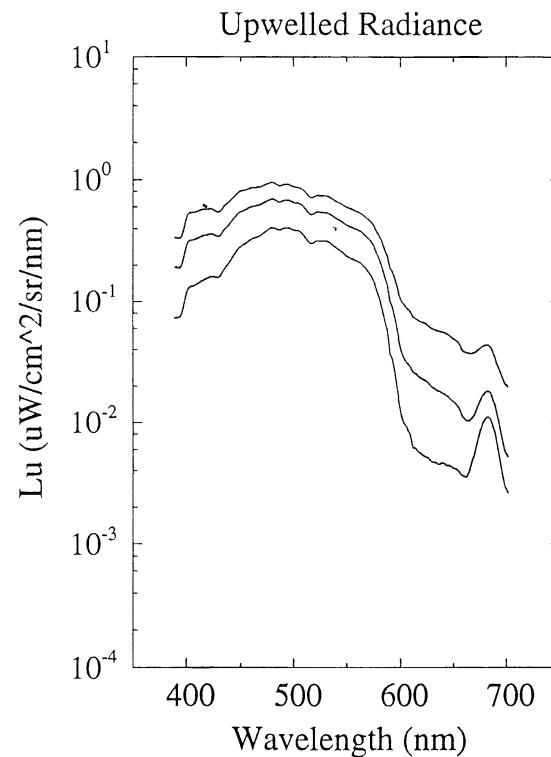
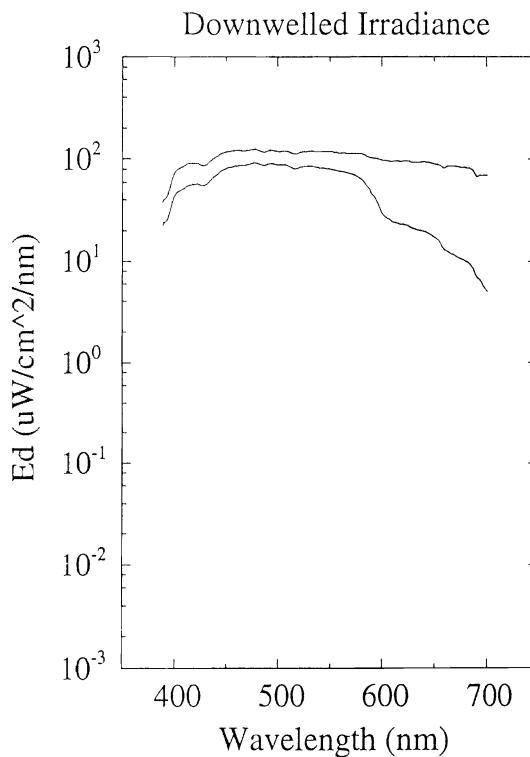
Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
 STATION: 1-5 Mulligan Hill

Top = 1 m
 Mid = 5 m
 Bot = 11 m

POSITION: 36°44.6 N 121°51.3 W
 DATE: 19:13 (GMT) 02 Sep 1992

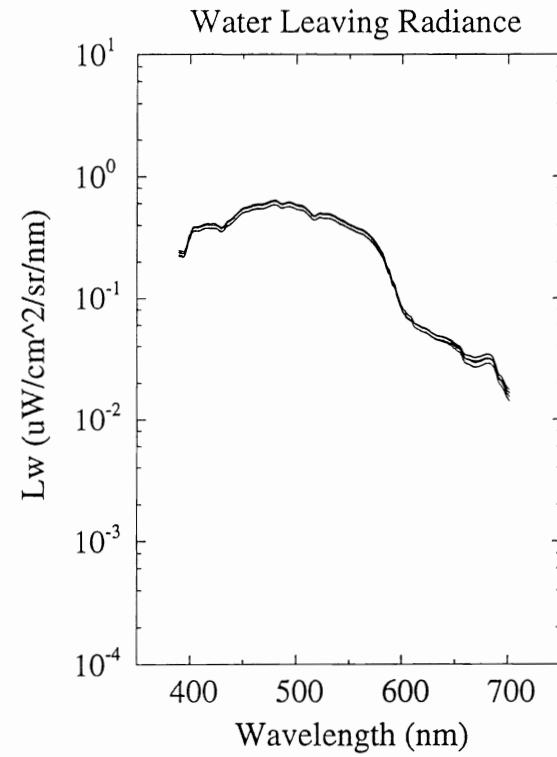
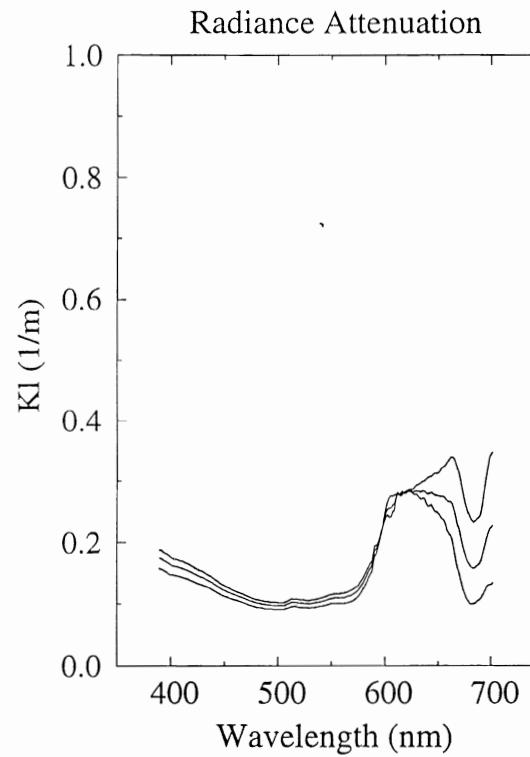
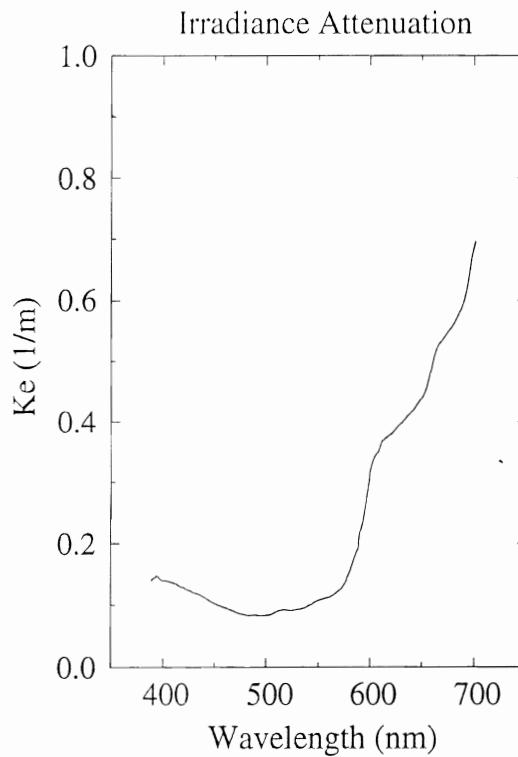


MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
STATION: 1-5 Mulligan Hill

Top = 1 to 5 m
Mid = 1 to 11 m
Bot = 5 to 11 m

POSITION: 36°44.6 N 121°51.3 W
DATE: 19:13 (GMT) 02 Sep 1992



File: MOCE1:[MOS.PRC]STN01_5_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 19:13 (GMT) 02 Sep 1992STATION: 1-5 Mulligan Hill
POSITION: 36°44.6' N 121°51.3' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm):	412	443	490	510	555	670	765	865
Lwn (μW/cm²/sr):	5.31E-1	6.35E-1	7.50E-1	6.56E-1	4.74E-1	3.98E-2	6.75E-3	nil

Depth (m)	Top	Top	Mid	Mid	Bot
0.8			4.6	5.3	10.5
Time (GMT)	18:56	18:27	19:30	19:23	19:49

λ (nm)	Ed_1	Es_1	Lu_1	Es_1	Ed_2	Es_2	Lu_2	Es_2	Lu_3	Es_3
400	7.28E+1	7.12E+1	4.88E-1	6.71E+1	4.36E+1	7.32E+1	2.89E-1	7.22E+1	1.18E-1	7.31E+1
410	8.64E+1	8.97E+1	5.48E-1	8.45E+1	5.25E+1	9.22E+1	3.29E-1	9.10E+1	1.38E-1	9.21E+1
420	9.10E+1	9.65E+1	5.75E-1	9.10E+1	5.69E+1	9.89E+1	3.54E-1	9.78E+1	1.56E-1	9.89E+1
430	8.70E+1	9.74E+1	5.42E-1	9.18E+1	5.63E+1	9.98E+1	3.44E-1	9.86E+1	1.58E-1	9.97E+1
440	1.04E+2	1.13E+2	6.58E-1	1.06E+2	6.90E+1	1.16E+2	4.31E-1	1.14E+2	2.10E-1	1.15E+2
450	1.17E+2	1.29E+2	8.00E-1	1.22E+2	8.09E+1	1.32E+2	5.44E-1	1.31E+2	2.81E-1	1.32E+2
460	1.21E+2	1.36E+2	8.59E-1	1.29E+2	8.60E+1	1.39E+2	5.99E-1	1.38E+2	3.23E-1	1.40E+2
470	1.21E+2	1.37E+2	8.84E-1	1.30E+2	8.77E+1	1.40E+2	6.30E-1	1.39E+2	3.53E-1	1.41E+2
480	1.23E+2	1.41E+2	9.50E-1	1.33E+2	9.09E+1	1.44E+2	6.94E-1	1.42E+2	4.03E-1	1.44E+2
490	1.20E+2	1.37E+2	9.11E-1	1.30E+2	8.90E+1	1.40E+2	6.73E-1	1.39E+2	3.98E-1	1.41E+2
500	1.19E+2	1.40E+2	8.81E-1	1.32E+2	8.84E+1	1.43E+2	6.53E-1	1.41E+2	3.89E-1	1.43E+2
510	1.18E+2	1.38E+2	8.06E-1	1.30E+2	8.60E+1	1.41E+2	5.90E-1	1.39E+2	3.45E-1	1.42E+2
520	1.15E+2	1.33E+2	7.29E-1	1.26E+2	8.24E+1	1.36E+2	5.32E-1	1.35E+2	3.09E-1	1.37E+2
530	1.20E+2	1.37E+2	7.38E-1	1.30E+2	8.60E+1	1.41E+2	5.41E-1	1.39E+2	3.15E-1	1.41E+2
540	1.17E+2	1.39E+2	6.64E-1	1.31E+2	8.25E+1	1.42E+2	4.82E-1	1.40E+2	2.77E-1	1.43E+2
550	1.18E+2	1.38E+2	5.97E-1	1.31E+2	8.04E+1	1.42E+2	4.26E-1	1.40E+2	2.37E-1	1.42E+2
560	1.15E+2	1.37E+2	5.47E-1	1.29E+2	7.67E+1	1.40E+2	3.90E-1	1.38E+2	2.15E-1	1.40E+2
570	1.13E+2	1.34E+2	4.75E-1	1.27E+2	7.25E+1	1.38E+2	3.33E-1	1.36E+2	1.77E-1	1.38E+2
580	1.13E+2	1.33E+2	3.49E-1	1.26E+2	6.45E+1	1.36E+2	2.25E-1	1.34E+2	1.08E-1	1.37E+2
590	1.03E+2	1.33E+2	1.99E-1	1.25E+2	4.71E+1	1.36E+2	1.07E-1	1.34E+2	4.11E-2	1.36E+2
600	9.83E+1	1.28E+2	1.05E-1	1.21E+2	2.99E+1	1.31E+2	4.12E-2	1.29E+2	1.23E-2	1.31E+2
610	9.51E+1	1.27E+2	8.07E-2	1.20E+2	2.47E+1	1.30E+2	2.82E-2	1.28E+2	7.31E-3	1.30E+2
620	9.52E+1	1.26E+2	6.79E-2	1.19E+2	2.30E+1	1.29E+2	2.33E-2	1.27E+2	5.50E-3	1.29E+2
630	9.36E+1	1.23E+2	5.98E-2	1.16E+2	2.10E+1	1.26E+2	1.97E-2	1.24E+2	4.72E-3	1.26E+2
640	9.44E+1	1.23E+2	5.60E-2	1.16E+2	1.97E+1	1.26E+2	1.76E-2	1.24E+2	4.63E-3	1.26E+2
650	8.94E+1	1.19E+2	4.90E-2	1.13E+2	1.71E+1	1.22E+2	1.48E-2	1.21E+2	4.20E-3	1.23E+2
660	8.26E+1	1.17E+2	3.84E-2	1.11E+2	1.28E+1	1.20E+2	1.07E-2	1.19E+2	3.59E-3	1.21E+2
670	8.53E+1	1.20E+2	3.78E-2	1.14E+2	1.13E+1	1.23E+2	1.16E-2	1.22E+2	5.49E-3	1.24E+2
680	8.28E+1	1.18E+2	4.36E-2	1.11E+2	1.00E+1	1.20E+2	1.78E-2	1.19E+2	1.07E-2	1.21E+2
690	6.95E+1	1.10E+2	3.24E-2	1.04E+2	7.31E+0	1.13E+2	1.29E-2	1.11E+2	7.48E-3	1.13E+2
700	6.98E+1	1.06E+2	2.02E-2	9.97E+1	5.18E+0	1.08E+2	5.43E-3	1.07E+2	2.78E-3	1.09E+2

File: MOCE1:[MOS.PRC]STN01_5_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 19:13 (GMT) 02 Sep 1992STATION: 1-5 Mulligan Hill
POSITION: 36°44.6' N 121°51.3' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm):	412	443	490	510	555	670	765	865
Lwn (μW/cm^2/sr):	5.31E-1	6.35E-1	7.50E-1	6.56E-1	4.74E-1	3.98E-2	6.75E-3	nil

Depth(m)	1-5	1-5	1-11	5-11	Top	Top	Mid	Bot	Lw_1
Res	0.976	0.934	0.919	0.984	KL_1	KL_2	KL_1	KL_2	Lwn
λ (nm)	Ke_1	KL_1	KL_2	KL_3	Lw_1	Lw_1	Lw_2	Lw_3	Lwn
400	1.41E-1	1.47E-1	1.63E-1	1.75E-1	3.19E-1	3.25E-1	3.41E-1	3.54E-1	4.81E-1
410	1.37E-1	1.44E-1	1.58E-1	1.70E-1	3.56E-1	3.63E-1	3.81E-1	3.95E-1	5.28E-1
420	1.29E-1	1.37E-1	1.51E-1	1.61E-1	3.70E-1	3.77E-1	3.97E-1	4.10E-1	5.39E-1
430	1.20E-1	1.30E-1	1.43E-1	1.53E-1	3.47E-1	3.52E-1	3.71E-1	3.83E-1	4.96E-1
440	1.13E-1	1.22E-1	1.33E-1	1.42E-1	4.17E-1	4.23E-1	4.46E-1	4.60E-1	5.89E-1
450	1.03E-1	1.13E-1	1.23E-1	1.30E-1	5.00E-1	5.07E-1	5.36E-1	5.51E-1	6.98E-1
460	9.62E-2	1.07E-1	1.15E-1	1.22E-1	5.33E-1	5.39E-1	5.71E-1	5.86E-1	7.38E-1
470	9.00E-2	1.01E-1	1.09E-1	1.15E-1	5.45E-1	5.50E-1	5.83E-1	5.98E-1	7.45E-1
480	8.48E-2	9.52E-2	1.02E-1	1.08E-1	5.81E-1	5.86E-1	6.22E-1	6.38E-1	7.91E-1
490	8.39E-2	9.25E-2	9.91E-2	1.04E-1	5.56E-1	5.60E-1	5.95E-1	6.09E-1	7.51E-1
500	8.38E-2	9.17E-2	9.79E-2	1.03E-1	5.37E-1	5.41E-1	5.75E-1	5.88E-1	7.23E-1
510	8.99E-2	9.46E-2	1.01E-1	1.06E-1	4.93E-1	4.97E-1	5.27E-1	5.40E-1	6.62E-1
520	9.24E-2	9.52E-2	1.02E-1	1.08E-1	4.46E-1	4.50E-1	4.77E-1	4.89E-1	5.97E-1
530	9.33E-2	9.44E-2	1.01E-1	1.07E-1	4.51E-1	4.55E-1	4.83E-1	4.95E-1	6.05E-1
540	9.87E-2	9.68E-2	1.04E-1	1.10E-1	4.07E-1	4.11E-1	4.36E-1	4.47E-1	5.46E-1
550	1.07E-1	1.01E-1	1.09E-1	1.16E-1	3.68E-1	3.72E-1	3.94E-1	4.05E-1	4.94E-1
560	1.13E-1	1.01E-1	1.10E-1	1.18E-1	3.37E-1	3.41E-1	3.61E-1	3.71E-1	4.53E-1
570	1.23E-1	1.05E-1	1.16E-1	1.24E-1	2.94E-1	2.98E-1	3.15E-1	3.24E-1	3.97E-1
580	1.53E-1	1.26E-1	1.36E-1	1.44E-1	2.22E-1	2.24E-1	2.37E-1	2.44E-1	2.98E-1
590	2.11E-1	1.71E-1	1.81E-1	1.89E-1	1.33E-1	1.35E-1	1.43E-1	1.47E-1	1.78E-1
600	3.18E-1	2.51E-1	2.42E-1	2.36E-1	7.80E-2	7.72E-2	8.35E-2	8.40E-2	1.05E-1
610	3.60E-1	2.79E-1	2.71E-1	2.65E-1	6.21E-2	6.15E-2	6.65E-2	6.69E-2	8.29E-2
620	3.79E-1	2.84E-1	2.82E-1	2.81E-1	5.26E-2	5.24E-2	5.63E-2	5.71E-2	6.95E-2
630	3.98E-1	2.94E-1	2.85E-1	2.78E-1	4.69E-2	4.64E-2	5.03E-2	5.05E-2	6.16E-2
640	4.16E-1	3.05E-1	2.80E-1	2.60E-1	4.45E-2	4.32E-2	4.77E-2	4.69E-2	5.80E-2
650	4.40E-1	3.15E-1	2.76E-1	2.46E-1	3.94E-2	3.76E-2	4.22E-2	4.09E-2	5.10E-2
660	4.94E-1	3.35E-1	2.66E-1	2.13E-1	3.17E-2	2.91E-2	3.40E-2	3.17E-2	4.08E-2
670	5.35E-1	3.10E-1	2.19E-1	1.48E-1	3.03E-2	2.70E-2	3.24E-2	2.94E-2	3.87E-2
680	5.59E-1	2.40E-1	1.61E-1	1.00E-1	3.20E-2	2.90E-2	3.42E-2	3.15E-2	4.07E-2
690	5.96E-1	2.46E-1	1.69E-1	1.09E-1	2.39E-2	2.17E-2	2.56E-2	2.36E-2	3.03E-2
700	6.87E-1	3.44E-1	2.25E-1	1.32E-1	1.69E-2	1.45E-2	1.81E-2	1.58E-2	2.13E-2

! MOCE1 Station 01 (#5) Mulligan Hill 02-Sep-1992

!

! Ed top

M30	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN5_2M_ED_5.MLDAT	#Var=1-10	02Sep92 18:55 to 02Sep92 18:57
S43	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN5_WMOS_2M_7.MLDAT	#Var=1-10	02Sep92 18:56 to 02Sep92 18:56

! Lu top

M31	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN5_2M_LU_1.MLDAT	#Var=1,6-14	02Sep92 18:00 to 02Sep92 18:07
M32	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN5_2M_LU_3.MLDAT	#Var=1-10	02Sep92 18:43 to 02Sep92 18:47
S38	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN5_WMOS_2M_2.MLDAT	#Var=1-10	02Sep92 18:09 to 02Sep92 18:10
S42	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN5_WMOS_2M_6.MLDAT	#Var=1,20-28	02Sep92 18:23 to 02Sep92 18:51

! Ed mid

M33	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN5_5M_ED_7.MLDAT	#Var=1-10	02Sep92 19:28 to 02Sep92 19:31
S44	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN5_WMOS_5M_10.MLDAT	#Var=1-10	02Sep92 19:30 to 02Sep92 19:31

! Lu mid

M34	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN5_5M_LU_6.MLDAT	#Var=1,15-23	02Sep92 19:01 to 02Sep92 19:24
S46	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN5_WMOS_5M_9.MLDAT	#Var=1-10	02Sep92 19:23 to 02Sep92 19:23

! Ed bot

! TET tipped

! Lu bot

M27	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN5_10M_LU_8.MLDAT	#Var=1,11-19	02Sep92 19:41 to 02Sep92 19:50
S35	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN5_WMOS_10M_11.MLDAT	#Var=1-10	02Sep92 19:49 to 02Sep92 19:49

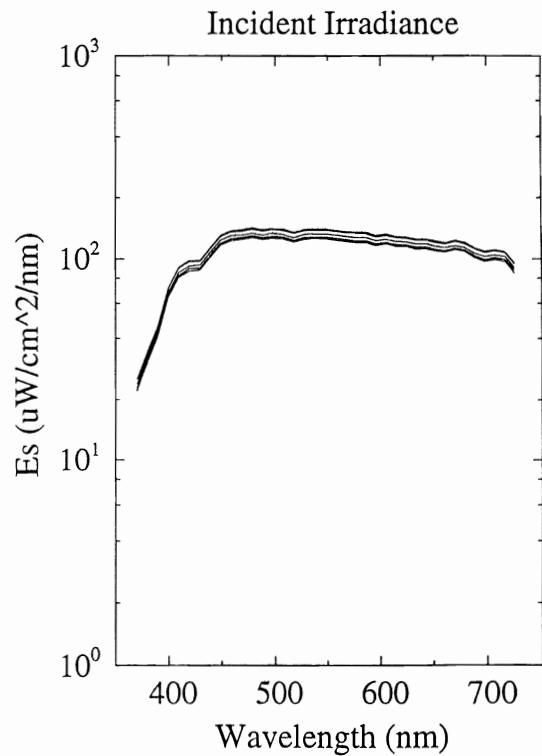
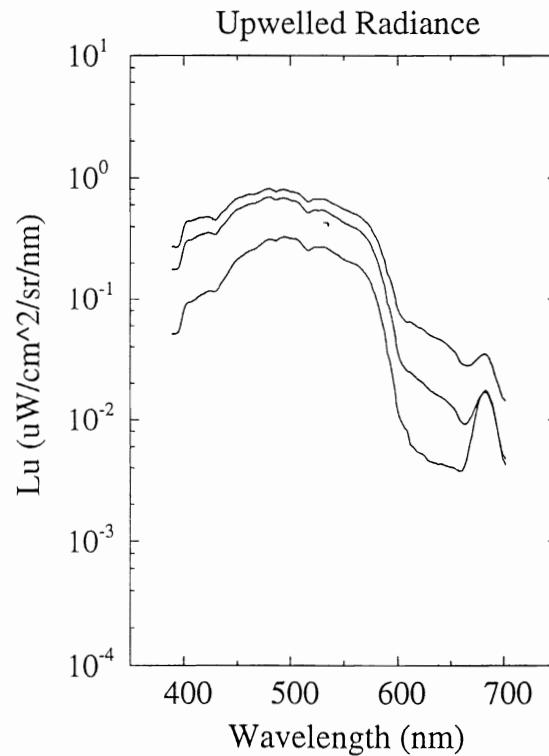
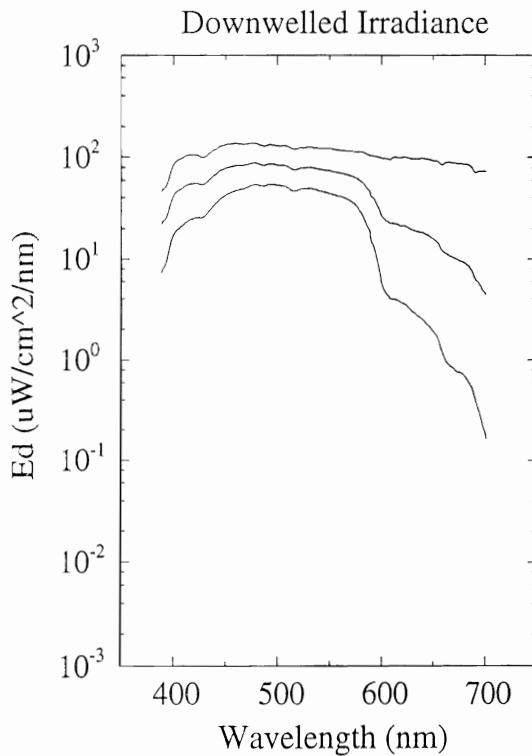
Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
STATION: 1-6 Mulligan Hill

Top = 1 m
Mid = 5 m
Bot = 10 m

POSITION: 36°44.6 N 121°51.4 W
DATE: 19:44 (GMT) 03 Sep 1992

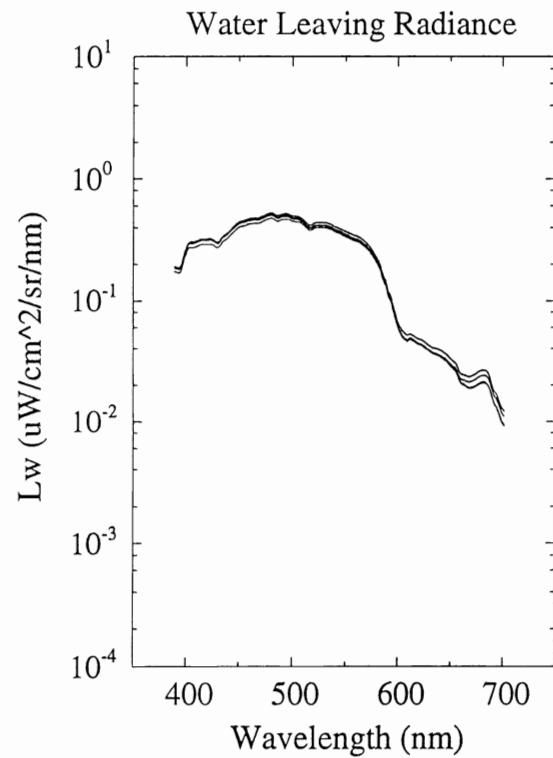
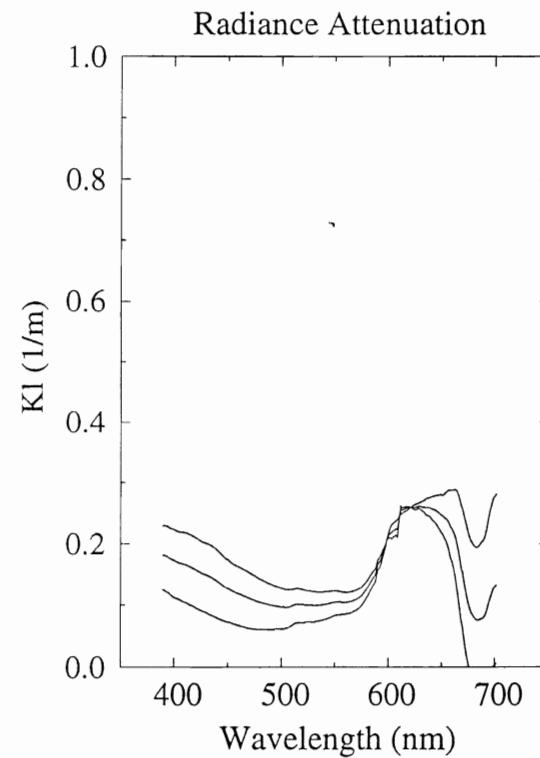
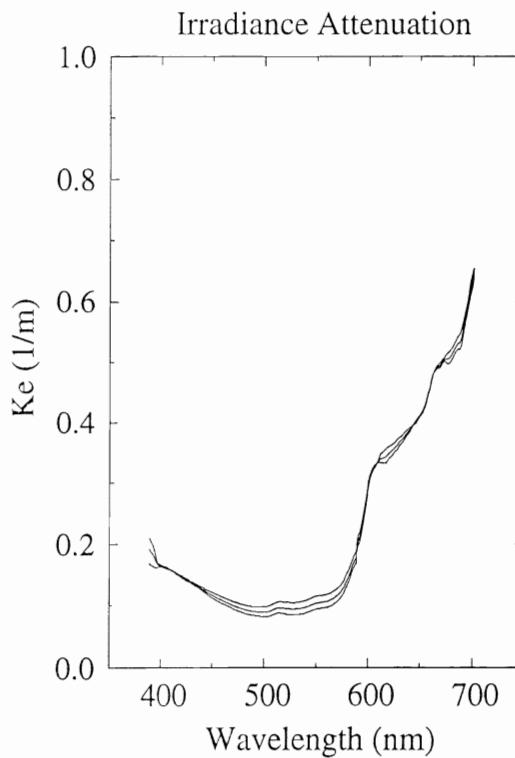


MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
STATION: 1-6 Mulligan Hill

Top = 1 to 5 m
Mid = 1 to 10 m
Bot = 5 to 10 m

POSITION: 36°44.6 N 121°51.4 W
DATE: 19:44 (GMT) 03 Sep 1992



File: MOCE1:[MOS.PRC]STN01_6_PRC.MLDAT;1

MOOIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 19:44 (GMT) 03 Sep 1992STATION: 1-6 Mulligan Hill
POSITION: 36°44.6' N 121°51.4' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm):	412	443	490	510	555	670	765	865
Lwn (uW/cm^2/sr):	4.07E-1	4.96E-1	6.11E-1	5.50E-1	4.22E-1	2.82E-2	4.80E-3	nil

Depth (m)	Top	Top	Mid	Mid	Bot	Bot						
	.6	1.2	4.8	5.5	9.9	10.5						
Time (GMT)	20:08	21:47	19:38	19:31	18:47	18:27						
<hr/>												
λ (nm)	Ed_1	Es_1	Lu_1	Es_1	Ed_2	Es_2	Lu_2	Es_2	Ed_3	Es_3	Lu_3	Es_3
400	8.42E+1	7.16E+1	4.01E-1	6.38E+1	4.16E+1	7.13E+1	2.75E-1	7.11E+1	1.72E+1	6.78E+1	8.26E-2	6.54E+1
410	9.97E+1	9.04E+1	4.50E-1	8.07E+1	5.05E+1	9.00E+1	3.18E-1	8.97E+1	2.17E+1	8.56E+1	9.78E-2	8.26E+1
420	1.05E+2	9.73E+1	4.75E-1	8.70E+1	5.51E+1	9.69E+1	3.48E-1	9.65E+1	2.52E+1	9.22E+1	1.12E-1	8.91E+1
430	1.00E+2	9.85E+1	4.51E-1	8.80E+1	5.47E+1	9.78E+1	3.43E-1	9.74E+1	2.63E+1	9.31E+1	1.15E-1	8.99E+1
440	1.18E+2	5.53E-1	1.02E+2	6.69E+1	1.13E+2	4.36E-1	1.13E+2	3.41E+1	1.08E+2	1.55E-1	1.04E+2	
450	1.32E+2	1.30E+2	6.74E-1	1.17E+2	7.81E+1	1.30E+2	5.46E-1	1.29E+2	4.23E+1	1.24E+2	2.11E-1	1.19E+2
460	1.36E+2	1.38E+2	7.24E-1	1.24E+2	8.28E+1	1.37E+2	6.00E-1	1.36E+2	4.70E+1	1.31E+2	2.45E-1	1.26E+2
470	1.34E+2	1.39E+2	7.46E-1	1.25E+2	8.43E+1	1.38E+2	6.32E-1	1.38E+2	4.98E+1	1.32E+2	2.70E-1	1.27E+2
480	1.35E+2	1.42E+2	8.12E-1	1.28E+2	8.71E+1	1.41E+2	6.94E-1	1.41E+2	5.35E+1	1.35E+2	3.13E-1	1.30E+2
490	1.30E+2	1.39E+2	7.91E-1	1.25E+2	8.51E+1	1.38E+2	6.76E-1	1.38E+2	5.32E+1	1.32E+2	3.18E-1	1.27E+2
500	1.29E+2	1.41E+2	7.70E-1	1.27E+2	8.38E+1	1.41E+2	6.56E-1	1.40E+2	5.29E+1	1.34E+2	3.19E-1	1.30E+2
510	1.26E+2	1.40E+2	7.12E-1	1.26E+2	8.05E+1	1.39E+2	5.90E-1	1.39E+2	4.98E+1	1.33E+2	2.89E-1	1.28E+2
520	1.21E+2	1.35E+2	6.54E-1	1.21E+2	7.66E+1	1.34E+2	5.32E-1	1.34E+2	4.73E+1	1.28E+2	2.61E-1	1.24E+2
530	1.26E+2	1.39E+2	6.70E-1	1.25E+2	7.96E+1	1.38E+2	5.42E-1	1.38E+2	4.94E+1	1.32E+2	2.71E-1	1.28E+2
540	1.22E+2	1.41E+2	6.11E-1	1.26E+2	7.62E+1	1.40E+2	4.86E-1	1.40E+2	4.68E+1	1.33E+2	2.43E-1	1.29E+2
550	1.22E+2	1.40E+2	5.54E-1	1.26E+2	7.40E+1	1.39E+2	4.29E-1	1.39E+2	4.41E+1	1.33E+2	2.13E-1	1.29E+2
560	1.17E+2	1.38E+2	5.08E-1	1.24E+2	7.04E+1	1.37E+2	3.90E-1	1.37E+2	4.13E+1	1.31E+2	1.96E-1	1.27E+2
570	1.15E+2	1.36E+2	4.40E-1	1.22E+2	6.63E+1	1.35E+2	3.30E-1	1.35E+2	3.74E+1	1.29E+2	1.63E-1	1.25E+2
580	1.13E+2	1.35E+2	3.19E-1	1.21E+2	5.86E+1	1.34E+2	2.18E-1	1.34E+2	2.87E+1	1.28E+2	1.00E-1	1.24E+2
590	1.03E+2	1.35E+2	1.73E-1	1.21E+2	4.23E+1	1.34E+2	1.00E-1	1.34E+2	1.56E+1	1.28E+2	3.94E-2	1.23E+2
600	9.83E+1	1.30E+2	8.27E-2	1.16E+2	2.66E+1	1.29E+2	3.63E-2	1.29E+2	5.83E+0	1.23E+2	1.16E-2	1.19E+2
610	9.62E+1	1.29E+2	6.46E-2	1.16E+2	2.23E+1	1.28E+2	2.53E-2	1.27E+2	3.97E+0	1.22E+2	7.37E-3	1.18E+2
620	9.93E+1	1.28E+2	5.83E-2	1.15E+2	2.11E+1	1.27E+2	2.15E-2	1.27E+2	3.63E+0	1.21E+2	5.37E-3	1.17E+2
630	9.68E+1	1.25E+2	5.07E-2	1.12E+2	1.93E+1	1.24E+2	1.78E-2	1.24E+2	2.99E+0	1.18E+2	4.53E-3	1.14E+2
640	9.74E+1	1.25E+2	4.62E-2	1.12E+2	1.81E+1	1.24E+2	1.57E-2	1.24E+2	2.51E+0	1.18E+2	4.28E-3	1.14E+2
650	9.23E+1	1.22E+2	3.89E-2	1.09E+2	1.56E+1	1.21E+2	1.30E-2	1.21E+2	1.88E+0	1.15E+2	4.05E-3	1.12E+2
660	8.60E+1	1.20E+2	2.92E-2	1.08E+2	1.16E+1	1.19E+2	9.46E-3	1.19E+2	1.08E+0	1.14E+2	3.79E-3	1.10E+2
670	8.83E+1	1.23E+2	2.89E-2	1.11E+2	1.02E+1	1.22E+2	1.09E-2	1.22E+2	8.20E-1	1.16E+2	7.56E-3	1.13E+2
680	8.59E+1	1.20E+2	3.48E-2	1.09E+2	9.10E+0	1.19E+2	1.66E-2	1.19E+2	6.88E-1	1.14E+2	1.68E-2	1.10E+2
690	7.19E+1	1.13E+2	2.60E-2	1.01E+2	6.53E+0	1.12E+2	1.18E-2	1.12E+2	4.27E-1	1.07E+2	1.25E-2	1.03E+2
700	7.32E+1	1.08E+2	1.48E-2	9.70E+1	4.56E+0	1.07E+2	4.99E-3	1.07E+2	1.89E-1	1.02E+2	4.52E-3	9.90E+1

File: MOCE1:[MOS.PRC]STN01_6_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 19:44 (GMT) 03 Sep 1992STATION: 1-6 Mulligan Hill
POSITION: 36°44.6' N 121°51.4' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm):	412	443	490	510	555	670	765	865
Lwn (uW/cm^2/sr):	4.07E-1	4.96E-1	6.11E-1	5.50E-1	4.22E-1	2.82E-2	4.80E-3	nil

Depth(m)	1-5	1-5	1-10	1-10	5-10	5-10	Top KL_1	Top KL_2	Mid KL_1	Bot KL_2	Lw_1
Res	1.007	0.904	1.055	0.979	1.048	1.083					
λ (nm)	Ke_1	KL_1	Ke_2	KL_2	Ke_3	KL_3	Lw_1	Lw_1	Lw_2	Lw_3	Lwn
400	1.63E-1	1.12E-1	1.65E-1	1.72E-1	1.66E-1	2.23E-1	2.50E-1	2.69E-1	2.76E-1	2.75E-1	3.69E-1
410	1.57E-1	1.05E-1	1.58E-1	1.66E-1	1.58E-1	2.19E-1	2.78E-1	3.00E-1	3.07E-1	3.06E-1	4.03E-1
420	1.49E-1	9.59E-2	1.48E-1	1.58E-1	1.46E-1	2.10E-1	2.90E-1	3.13E-1	3.21E-1	3.20E-1	4.14E-1
430	1.39E-1	8.76E-2	1.38E-1	1.49E-1	1.36E-1	2.01E-1	2.73E-1	2.94E-1	3.02E-1	3.01E-1	3.83E-1
440	1.31E-1	7.94E-2	1.28E-1	1.39E-1	1.25E-1	1.90E-1	3.31E-1	3.57E-1	3.66E-1	3.64E-1	4.59E-1
450	1.21E-1	7.29E-2	1.17E-1	1.27E-1	1.12E-1	1.73E-1	4.01E-1	4.28E-1	4.43E-1	4.37E-1	5.48E-1
460	1.14E-1	6.73E-2	1.08E-1	1.19E-1	1.03E-1	1.63E-1	4.27E-1	4.55E-1	4.72E-1	4.64E-1	5.79E-1
470	1.07E-1	6.24E-2	1.01E-1	1.12E-1	9.53E-2	1.54E-1	4.38E-1	4.65E-1	4.84E-1	4.75E-1	5.87E-1
480	1.01E-1	6.03E-2	9.37E-2	1.05E-1	8.76E-2	1.42E-1	4.75E-1	5.02E-1	5.25E-1	5.12E-1	6.34E-1
490	9.80E-2	6.03E-2	9.04E-2	1.00E-1	8.39E-2	1.34E-1	4.62E-1	4.86E-1	5.11E-1	4.96E-1	6.13E-1
500	9.81E-2	6.11E-2	8.95E-2	9.70E-2	8.21E-2	1.27E-1	4.51E-1	4.71E-1	4.99E-1	4.81E-1	5.96E-1
510	1.04E-1	6.77E-2	9.42E-2	9.92E-2	8.61E-2	1.26E-1	4.21E-1	4.37E-1	4.65E-1	4.46E-1	5.55E-1
520	1.05E-1	7.20E-2	9.52E-2	1.01E-1	8.66E-2	1.25E-1	3.88E-1	4.02E-1	4.29E-1	4.11E-1	5.10E-1
530	1.05E-1	7.30E-2	9.43E-2	9.95E-2	8.54E-2	1.22E-1	3.98E-1	4.11E-1	4.40E-1	4.20E-1	5.24E-1
540	1.08E-1	7.68E-2	9.71E-2	1.01E-1	8.78E-2	1.22E-1	3.65E-1	3.76E-1	4.03E-1	3.84E-1	4.80E-1
550	1.15E-1	8.31E-2	1.03E-1	1.05E-1	9.36E-2	1.23E-1	3.33E-1	3.42E-1	3.68E-1	3.49E-1	4.38E-1
560	1.17E-1	8.55E-2	1.06E-1	1.05E-1	9.68E-2	1.21E-1	3.07E-1	3.14E-1	3.39E-1	3.20E-1	4.04E-1
570	1.26E-1	9.13E-2	1.14E-1	1.09E-1	1.05E-1	1.24E-1	2.68E-1	2.74E-1	2.96E-1	2.79E-1	3.54E-1
580	1.53E-1	1.12E-1	1.42E-1	1.27E-1	1.32E-1	1.39E-1	1.99E-1	2.02E-1	2.20E-1	2.07E-1	2.62E-1
590	2.07E-1	1.52E-1	1.98E-1	1.62E-1	1.90E-1	1.71E-1	1.13E-1	1.15E-1	1.25E-1	1.17E-1	1.49E-1
600	3.03E-1	2.17E-1	2.98E-1	2.13E-1	2.93E-1	2.10E-1	5.87E-2	5.84E-2	6.49E-2	5.96E-2	7.72E-2
610	3.39E-1	2.43E-1	3.36E-1	2.36E-1	3.34E-1	2.31E-1	4.73E-2	4.69E-2	5.23E-2	4.79E-2	6.19E-2
620	3.60E-1	2.57E-1	3.49E-1	2.59E-1	3.40E-1	2.60E-1	4.35E-2	4.36E-2	4.81E-2	4.45E-2	5.65E-2
630	3.75E-1	2.68E-1	3.68E-1	2.62E-1	3.62E-1	2.56E-1	3.83E-2	3.80E-2	4.23E-2	3.88E-2	4.93E-2
640	3.91E-1	2.77E-1	3.87E-1	2.58E-1	3.84E-1	2.42E-1	3.53E-2	3.45E-2	3.90E-2	3.52E-2	4.51E-2
650	4.14E-1	2.80E-1	4.12E-1	2.45E-1	4.11E-1	2.16E-1	2.98E-2	2.86E-2	3.30E-2	2.92E-2	3.79E-2
660	4.66E-1	2.88E-1	4.64E-1	2.22E-1	4.63E-1	1.66E-1	2.26E-2	2.09E-2	2.50E-2	2.13E-2	2.86E-2
670	5.01E-1	2.52E-1	4.96E-1	1.47E-1	4.93E-1	5.77E-2	2.14E-2	1.88E-2	2.37E-2	1.92E-2	2.69E-2
680	5.23E-1	1.97E-1	5.12E-1	8.02E-2	5.04E-1	-1.89E-2	2.41E-2	2.08E-2	2.66E-2	2.13E-2	3.01E-2
690	5.58E-1	2.08E-1	5.45E-1	8.09E-2	5.33E-1	-2.74E-2	1.82E-2	1.56E-2	2.02E-2	1.59E-2	2.27E-2
700	6.47E-1	2.78E-1	6.34E-1	1.30E-1	6.24E-1	3.98E-3	1.13E-2	9.43E-3	1.25E-2	9.63E-3	1.40E-2

! MOCE1 Station 01 (#6) Mulligan Hill 03-Sep-1992

!

! Ed top

M42	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN6_1M_ED_12.MLDAT	#Var=1,6-14	03Sep92 20:03 to 03Sep92 20:08
M43	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN6_1M_ED_13.MLDAT	#Var=1-10	03Sep92 20:09 to 03Sep92 20:12
S55	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN6_WMOS_1M_ED_12.MLDAT	#Var=1-10	03Sep92 20:06 to 03Sep92 20:06
S56	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN6_WMOS_1M_ED_13.MLDAT	#Var=1-10	03Sep92 20:10 to 03Sep92 20:11

! Lu top

M45	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN6_1M_LU_19.MLDAT	#Var=1,5-13	03Sep92 21:39 to 03Sep92 21:46
M46	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN6_1M_LU_20.MLDAT	#Var=1-10	03Sep92 21:50 to 03Sep92 21:54
S59	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN6_WMOS_1M_LU_19.MLDAT	#Var=1-10	03Sep92 21:43 to 03Sep92 21:43
S60	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN6_WMOS_1M_LU_20.MLDAT	#Var=1-10	03Sep92 21:51 to 03Sep92 21:52

! Ed mid

M48	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN6_5M_ED_8.MLDAT	#Var=1,5-13	03Sep92 19:29 to 03Sep92 19:34
M47	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN6_5M_ED_10.MLDAT	#Var=1-10	03Sep92 19:42 to 03Sep92 19:46
S62	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN6_WMOS_5M_ED_8.MLDAT	#Var=1-10	03Sep92 19:32 to 03Sep92 19:33
S61	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN6_WMOS_5M_ED_10.MLDAT	#Var=1-10	03Sep92 19:44 to 03Sep92 19:44

! Lu mid

M51	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN6_5M_LU_7.MLDAT	#Var=1,6-14	03Sep92 19:20 to 03Sep92 19:26
M52	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN6_5M_LU_9.MLDAT	#Var=1-10	03Sep92 19:36 to 03Sep92 19:40
S65	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN6_WMOS_5M_LU_7.MLDAT	#Var=1-15	03Sep92 19:23 to 03Sep92 19:24
S66	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN6_WMOS_5M_LU_9.MLDAT	#Var=1-10	03Sep92 19:37 to 03Sep92 19:38

! Ed bot

M36	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN6_10M_ED_6.MLDAT	#Var=1-10	03Sep92 18:45 to 03Sep92 18:49
S49	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN6_WMOS_10M_ED_6.MLDAT	#Var=1-10	03Sep92 18:46 to 03Sep92 18:47

! Lu bot

M40	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN6_10M_LU_3.MLDAT	#Var=1,3-11	03Sep92 18:19 to 03Sep92 18:26
M41	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN6_10M_LU_4.MLDAT	#Var=1,14-22	03Sep92 18:19 to 03Sep92 18:34
S53	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN6_WMOS_10M_LU_3.MLDAT	#Var=1-10	03Sep92 18:23 to 03Sep92 18:24
S54	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN6_WMOS_10M_LU_4.MLDAT	#Var=1-10	03Sep92 18:31 to 03Sep92 18:32

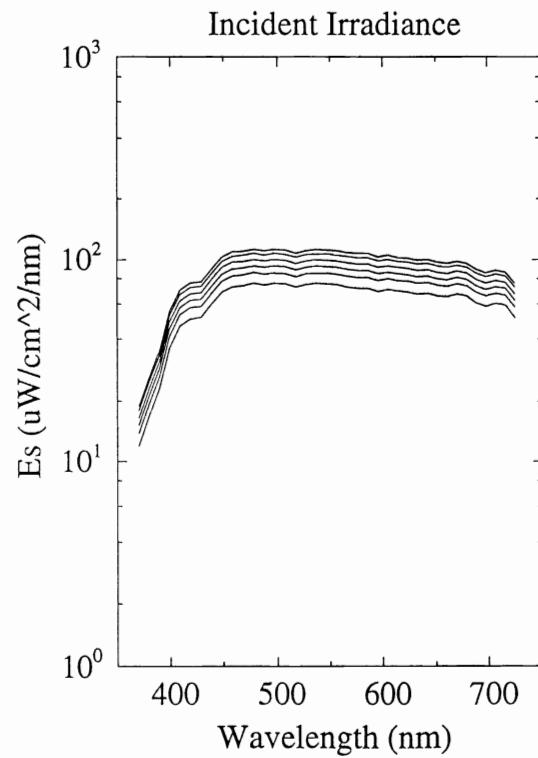
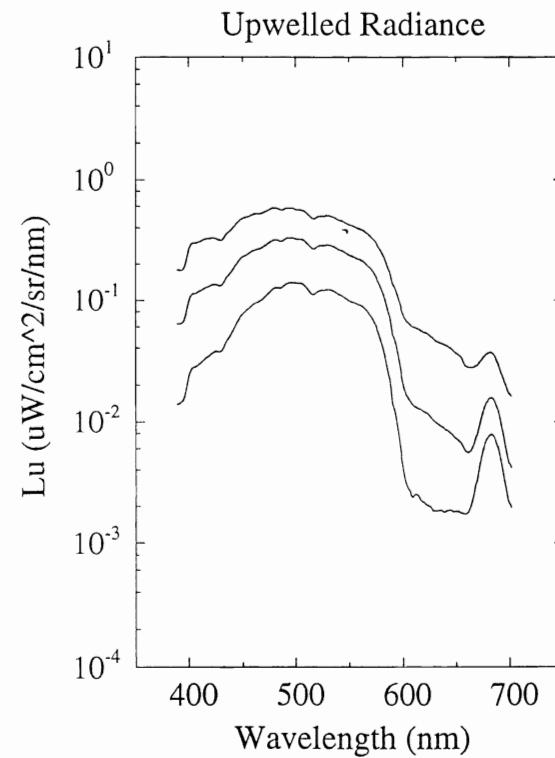
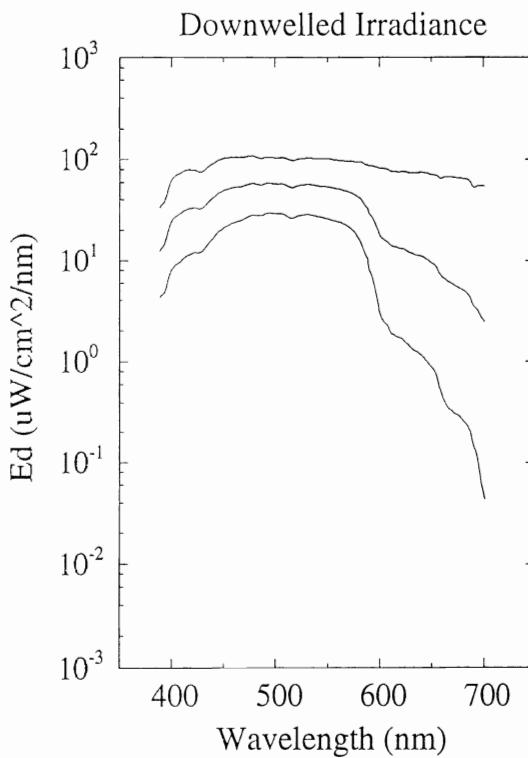
Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
STATION: 1-7 Mulligan Hill

Top = 1 m
Mid = 5 m
Bot = 10 m

POSITION: 6°44.6 N 121°51.3 W
DATE: 17:04 (GMT) 04 Sep 1992

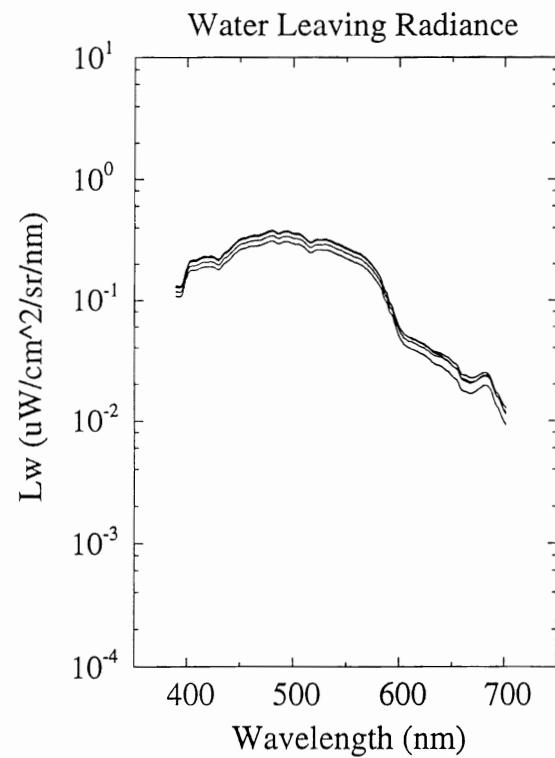
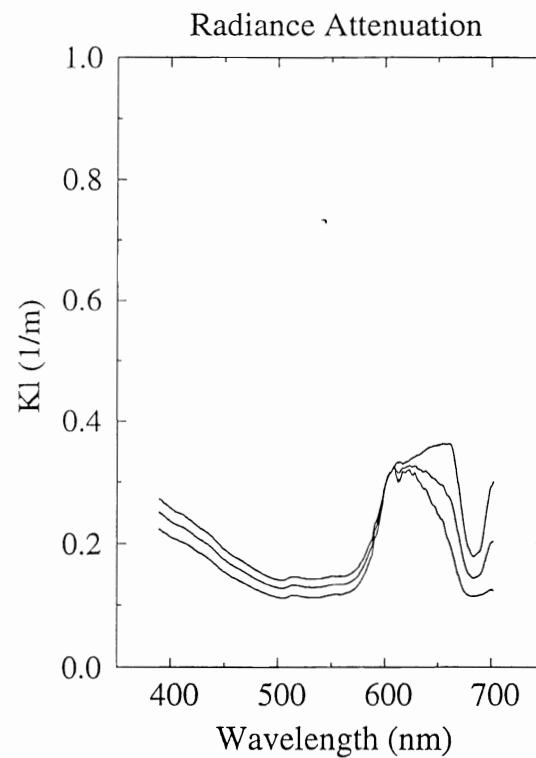
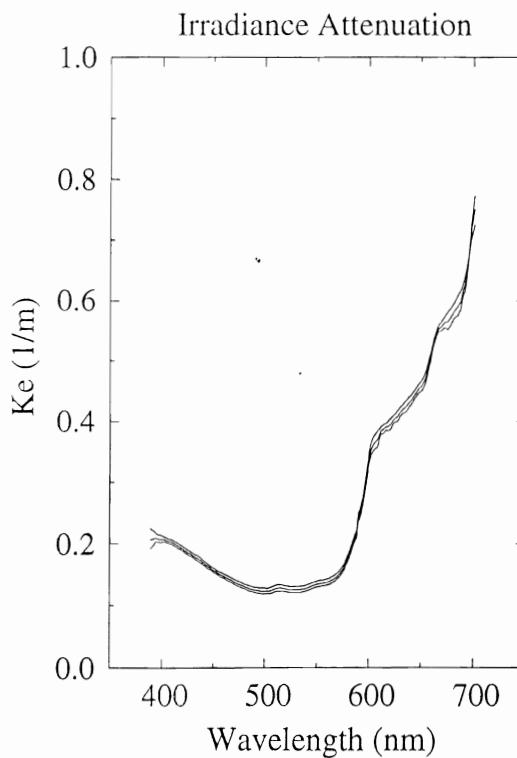


MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
 STATION: 1-7 Mulligan Hill

Top = 1 to 5 m
 Mid = 1 to 10 m
 Bot = 5 to 10 m

POSITION: 6°44.6 N 121°51.3 W
 DATE: 17:04 (GMT) 04 Sep 1992



File: MOCE1:[MOS.PRC]STN01_7_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 17:04 (GMT) 04 Sep 1992STATION: 1-7 Mulligan Hill
POSITION: 36°44.6' N 121°51.3' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm):	412	443	490	510	555	670	765	865
Lwn (uW/cm^2/sr):	4.69E-1	5.71E-1	6.93E-1	6.24E-1	4.87E-1	4.23E-2	5.89E-3	nil

Depth (m)	Top	Top	Mid	Mid	Bot	Bot
	0.6	1.2	4.8	5.5	9.9	10.6
Time (GMT)	17:43	16:56	17:29	16:40	17:11	16:20

λ (nm)	Ed_1	Es_1	Lu_1	Es_1	Ed_2	Es_2	Lu_2	Es_2	Ed_3	Es_3	Lu_3	Es_3
400	6.25E+1	5.54E+1	2.68E-1	4.51E+1	2.43E+1	5.26E+1	1.01E-1	4.14E+1	7.99E+0	4.89E+1	2.43E-2	3.63E+1
410	7.45E+1	7.03E+1	3.04E-1	5.75E+1	2.97E+1	6.69E+1	1.18E-1	5.28E+1	9.97E+0	6.22E+1	2.96E-2	4.63E+1
420	7.91E+1	7.62E+1	3.25E-1	6.24E+1	3.29E+1	7.24E+1	1.31E-1	5.73E+1	1.16E+1	6.74E+1	3.51E-2	5.04E+1
430	7.59E+1	7.70E+1	3.12E-1	6.32E+1	3.31E+1	7.33E+1	1.33E-1	5.82E+1	1.24E+1	6.83E+1	3.79E-2	5.12E+1
440	9.03E+1	8.93E+1	3.85E-1	7.35E+1	4.13E+1	8.50E+1	1.73E-1	6.76E+1	1.64E+1	7.93E+1	5.30E-2	5.97E+1
450	1.02E+2	1.02E+2	4.74E-1	8.44E+1	4.93E+1	9.76E+1	2.27E-1	7.78E+1	2.09E+1	9.10E+1	7.60E-2	6.87E+1
460	1.06E+2	1.09E+2	5.12E-1	8.96E+1	5.31E+1	1.04E+2	2.56E-1	8.26E+1	2.36E+1	9.65E+1	9.16E-2	7.30E+1
470	1.05E+2	1.10E+2	5.31E-1	9.06E+1	5.49E+1	1.04E+2	2.76E-1	8.36E+1	2.55E+1	9.74E+1	1.04E-1	7.39E+1
480	1.07E+2	1.12E+2	5.82E-1	9.30E+1	5.79E+1	1.07E+2	3.16E-1	8.59E+1	2.81E+1	1.00E+2	1.26E-1	7.59E+1
490	1.04E+2	1.10E+2	5.72E-1	9.11E+1	5.76E+1	1.05E+2	3.20E-1	8.41E+1	2.88E+1	9.79E+1	1.34E-1	7.45E+1
500	1.04E+2	1.12E+2	5.64E-1	9.29E+1	5.75E+1	1.07E+2	3.23E-1	8.58E+1	2.92E+1	9.98E+1	1.39E-1	7.60E+1
510	1.03E+2	1.11E+2	5.26E-1	9.20E+1	5.61E+1	1.06E+2	2.99E-1	8.50E+1	2.79E+1	9.88E+1	1.27E-1	7.54E+1
520	9.93E+1	1.07E+2	4.85E-1	8.87E+1	5.43E+1	1.02E+2	2.75E-1	8.20E+1	2.70E+1	9.53E+1	1.16E-1	7.27E+1
530	1.04E+2	1.11E+2	5.01E-1	9.16E+1	5.70E+1	1.06E+2	2.86E-1	8.47E+1	2.86E+1	9.84E+1	1.23E-1	7.51E+1
540	1.01E+2	1.12E+2	4.61E-1	9.26E+1	5.52E+1	1.07E+2	2.63E-1	8.56E+1	2.73E+1	9.94E+1	1.12E-1	7.59E+1
550	1.02E+2	1.11E+2	4.22E-1	9.22E+1	5.40E+1	1.06E+2	2.37E-1	8.53E+1	2.59E+1	9.91E+1	9.92E-2	7.56E+1
560	9.84E+1	1.10E+2	3.88E-1	9.12E+1	5.14E+1	1.05E+2	2.17E-1	8.44E+1	2.42E+1	9.79E+1	9.09E-2	7.48E+1
570	9.63E+1	1.08E+2	3.36E-1	8.93E+1	4.83E+1	1.03E+2	1.83E-1	8.26E+1	2.17E+1	9.60E+1	7.41E-2	7.31E+1
580	9.55E+1	1.07E+2	2.48E-1	8.80E+1	4.22E+1	1.02E+2	1.22E-1	8.13E+1	1.63E+1	9.47E+1	4.38E-2	7.19E+1
590	8.70E+1	1.07E+2	1.42E-1	8.81E+1	2.97E+1	1.02E+2	5.56E-2	8.14E+1	8.58E+0	9.47E+1	1.57E-2	7.20E+1
600	8.25E+1	1.03E+2	7.51E-2	8.49E+1	1.80E+1	9.82E+1	2.01E-2	7.85E+1	3.12E+0	9.13E+1	3.99E-3	6.94E+1
610	7.77E+1	1.02E+2	5.96E-2	8.47E+1	1.45E+1	9.77E+1	1.36E-2	7.85E+1	2.04E+0	9.10E+1	2.43E-3	6.96E+1
620	7.55E+1	1.01E+2	5.38E-2	8.40E+1	1.32E+1	9.70E+1	1.20E-2	7.77E+1	1.70E+0	9.03E+1	2.15E-3	6.89E+1
630	7.40E+1	9.91E+1	4.64E-2	8.20E+1	1.18E+1	9.48E+1	9.91E-3	7.59E+1	1.36E+0	8.82E+1	1.85E-3	6.72E+1
640	7.48E+1	9.95E+1	4.24E-2	8.26E+1	1.10E+1	9.52E+1	8.64E-3	7.66E+1	1.16E+0	8.87E+1	1.80E-3	6.79E+1
650	7.10E+1	9.68E+1	3.60E-2	8.02E+1	9.42E+0	9.26E+1	7.18E-3	7.43E+1	8.74E-1	8.62E+1	1.82E-3	6.59E+1
660	6.55E+1	9.54E+1	2.81E-2	7.92E+1	6.89E+0	9.12E+1	5.55E-3	7.34E+1	4.73E-1	8.50E+1	1.75E-3	6.52E+1
670	6.75E+1	9.78E+1	2.93E-2	8.14E+1	5.89E+0	9.36E+1	8.09E-3	7.55E+1	3.27E-1	8.73E+1	3.46E-3	6.72E+1
680	6.54E+1	9.55E+1	3.65E-2	7.98E+1	5.12E+0	9.16E+1	1.53E-2	7.41E+1	2.61E-1	8.55E+1	7.55E-3	6.60E+1
690	5.44E+1	8.91E+1	2.76E-2	7.40E+1	3.67E+0	8.54E+1	1.12E-2	6.86E+1	1.53E-1	7.95E+1	5.50E-3	6.10E+1
700	5.51E+1	8.55E+1	1.67E-2	7.09E+1	2.55E+0	8.19E+1	4.41E-3	6.56E+1	4.92E-2	7.62E+1	2.07E-3	5.82E+1

File: MOCE1:[MOS.PRC]STN01_7_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 17:04 (GMT) 04 Sep 1992STATION: 1-7 Mulligan Hill
POSITION: 36°44.6' N 121°51.3' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm):	412	443	490	510	555	670	765	865
Lwn (uW/cm^2/sr):	4.69E-1	5.71E-1	6.93E-1	6.24E-1	4.87E-1	4.23E-2	5.89E-3	nil

Depth(m)	1-5	1-5	1-10	1-10	5-10	5-10	Top KL_1	Top KL_2	Mid KL_1	Bot KL_2	Lw_1
λ (nm)	Ke_1	KL_1	Ke_2	KL_2	Ke_3	KL_3	Lw_1	Lw_1	Lw_2	Lw_3	Lwn
400	2.13E-1	2.11E-1	2.07E-1	2.36E-1	2.03E-1	2.57E-1	1.89E-1	1.96E-1	1.75E-1	1.60E-1	4.25E-1
410	2.07E-1	2.03E-1	2.02E-1	2.28E-1	1.99E-1	2.49E-1	2.12E-1	2.19E-1	1.96E-1	1.79E-1	4.64E-1
420	1.97E-1	1.94E-1	1.92E-1	2.17E-1	1.89E-1	2.36E-1	2.24E-1	2.31E-1	2.07E-1	1.89E-1	4.78E-1
430	1.85E-1	1.82E-1	1.81E-1	2.04E-1	1.78E-1	2.23E-1	2.13E-1	2.19E-1	1.96E-1	1.79E-1	4.44E-1
440	1.74E-1	1.69E-1	1.70E-1	1.91E-1	1.67E-1	2.09E-1	2.58E-1	2.65E-1	2.39E-1	2.17E-1	5.29E-1
450	1.61E-1	1.54E-1	1.57E-1	1.74E-1	1.54E-1	1.91E-1	3.12E-1	3.20E-1	2.88E-1	2.62E-1	6.28E-1
460	1.52E-1	1.44E-1	1.48E-1	1.63E-1	1.44E-1	1.78E-1	3.33E-1	3.40E-1	3.07E-1	2.78E-1	6.61E-1
470	1.43E-1	1.35E-1	1.39E-1	1.53E-1	1.36E-1	1.69E-1	3.41E-1	3.49E-1	3.15E-1	2.86E-1	6.69E-1
480	1.35E-1	1.25E-1	1.31E-1	1.42E-1	1.27E-1	1.57E-1	3.70E-1	3.78E-1	3.42E-1	3.09E-1	7.20E-1
490	1.30E-1	1.18E-1	1.25E-1	1.34E-1	1.21E-1	1.47E-1	3.60E-1	3.67E-1	3.33E-1	3.00E-1	6.94E-1
500	1.28E-1	1.13E-1	1.23E-1	1.28E-1	1.19E-1	1.42E-1	3.52E-1	3.59E-1	3.26E-1	2.94E-1	6.76E-1
510	1.32E-1	1.14E-1	1.27E-1	1.31E-1	1.22E-1	1.44E-1	3.29E-1	3.36E-1	3.04E-1	2.75E-1	6.30E-1
520	1.32E-1	1.15E-1	1.27E-1	1.32E-1	1.22E-1	1.46E-1	3.04E-1	3.10E-1	2.81E-1	2.54E-1	5.79E-1
530	1.31E-1	1.13E-1	1.25E-1	1.29E-1	1.21E-1	1.43E-1	3.13E-1	3.19E-1	2.89E-1	2.61E-1	5.97E-1
540	1.33E-1	1.13E-1	1.28E-1	1.30E-1	1.23E-1	1.44E-1	2.88E-1	2.94E-1	2.66E-1	2.41E-1	5.50E-1
550	1.39E-1	1.17E-1	1.34E-1	1.33E-1	1.30E-1	1.47E-1	2.65E-1	2.71E-1	2.45E-1	2.21E-1	5.06E-1
560	1.43E-1	1.18E-1	1.37E-1	1.34E-1	1.33E-1	1.47E-1	2.44E-1	2.49E-1	2.25E-1	2.04E-1	4.66E-1
570	1.52E-1	1.24E-1	1.47E-1	1.40E-1	1.42E-1	1.54E-1	2.13E-1	2.17E-1	1.97E-1	1.78E-1	4.10E-1
580	1.82E-1	1.49E-1	1.76E-1	1.64E-1	1.71E-1	1.77E-1	1.62E-1	1.65E-1	1.50E-1	1.35E-1	3.11E-1
590	2.44E-1	2.03E-1	2.36E-1	2.16E-1	2.30E-1	2.27E-1	9.95E-2	1.01E-1	9.19E-2	8.27E-2	1.89E-1
600	3.50E-1	2.91E-1	3.38E-1	2.93E-1	3.28E-1	2.95E-1	5.86E-2	5.88E-2	5.41E-2	4.81E-2	1.12E-1
610	3.87E-1	3.29E-1	3.77E-1	3.21E-1	3.69E-1	3.15E-1	4.88E-2	4.84E-2	4.51E-2	3.96E-2	9.25E-2
620	4.03E-1	3.33E-1	3.93E-1	3.23E-1	3.85E-1	3.15E-1	4.43E-2	4.38E-2	4.10E-2	3.58E-2	8.30E-2
630	4.23E-1	3.44E-1	4.15E-1	3.24E-1	4.08E-1	3.07E-1	3.87E-2	3.77E-2	3.58E-2	3.09E-2	7.17E-2
640	4.42E-1	3.55E-1	4.33E-1	3.17E-1	4.26E-1	2.85E-1	3.58E-2	3.42E-2	3.31E-2	2.80E-2	6.57E-2
650	4.67E-1	3.60E-1	4.58E-1	2.98E-1	4.50E-1	2.47E-1	3.07E-2	2.84E-2	2.83E-2	2.32E-2	5.56E-2
660	5.22E-1	3.62E-1	5.15E-1	2.76E-1	5.09E-1	2.04E-1	2.40E-2	2.16E-2	2.22E-2	1.76E-2	4.33E-2
670	5.66E-1	2.84E-1	5.57E-1	2.08E-1	5.50E-1	1.44E-1	2.27E-2	2.06E-2	2.10E-2	1.69E-2	4.06E-2
680	5.92E-1	1.85E-1	5.78E-1	1.47E-1	5.66E-1	1.15E-1	2.50E-2	2.38E-2	2.31E-2	1.95E-2	4.44E-2
690	6.27E-1	1.92E-1	6.16E-1	1.51E-1	6.06E-1	1.17E-1	1.90E-2	1.81E-2	1.76E-2	1.48E-2	3.35E-2
700	7.16E-1	2.94E-1	7.39E-1	2.02E-1	7.58E-1	1.25E-1	1.31E-2	1.17E-2	1.21E-2	9.56E-3	2.30E-2

! MOCE1 Station 01 (#7) Mulligan Hill 04-Sep-1992

!

! Ed top

M59	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN7_1M_ED_12.MLDAT	#Var=1,6-14	04Sep92 17:37 to 04Sep92 17:42
M60	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN7_1M_ED_13.MLDAT	#Var=1-10	04Sep92 17:43 to 04Sep92 17:45
S73	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN7_WMOS_1M_ED_12.MLDAT	#Var=1-10	04Sep92 17:40 to 04Sep92 17:41
S74	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN7_WMOS_1M_ED_13.MLDAT	#Var=1-10	04Sep92 17:44 to 04Sep92 17:45

! Lu top

M61	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN7_1M_LU_6.MLDAT	#Var=1-10	04Sep92 16:50 to 04Sep92 16:55
M62	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN7_1M_LU_7.MLDAT	#Var=1-10	04Sep92 16:56 to 04Sep92 17:01
S75	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN7_WMOS_1M_LU_6.MLDAT	#Var=1-10	04Sep92 16:53 to 04Sep92 16:53
S76	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN7_WMOS_1M_LU_7.MLDAT	#Var=1-10	04Sep92 16:58 to 04Sep92 16:58

! Ed mid

M63	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN7_5M_ED_10.MLDAT	#Var=1-10	04Sep92 17:22 to 04Sep92 17:28
M64	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN7_5M_ED_11.MLDAT	#Var=1-10	04Sep92 17:29 to 04Sep92 17:33
S77	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN7_WMOS_5M_ED_10.MLDAT	#Var=1,4-12	04Sep92 17:26 to 04Sep92 17:27
S78	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN7_WMOS_5M_ED_11.MLDAT	#Var=1-10	04Sep92 17:31 to 04Sep92 17:32

! Lu mid

M65	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN7_5M_LU_4.MLDAT	#Var=1,20-28	04Sep92 16:16 to 04Sep92 16:40
M66	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN7_5M_LU_5.MLDAT	#Var=1,29-37	04Sep92 16:16 to 04Sep92 16:45
S79	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN7_WMOS_5M_LU_4.MLDAT	#Var=1-10	04Sep92 16:37 to 04Sep92 16:38
S80	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN7_WMOS_5M_LU_5.MLDAT	#Var=1,11-19	04Sep92 16:37 to 04Sep92 16:43

! Ed bot

M54	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN7_10M_ED_8.MLDAT	#Var=1,3-11	04Sep92 17:07 to 04Sep92 17:13
S72	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN7_WMOS_10M_LU_8.MLDAT	#Var=1-10	04Sep92 17:11 to 04Sep92 17:11

! Lu bot

M57	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN7_10M_LU_2.MLDAT	#Var=1-10	04Sep92 16:16 to 04Sep92 16:23
S70	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN7_WMOS_10M_LU_2.MLDAT	#Var=1-10	04Sep92 16:20 to 04Sep92 16:20

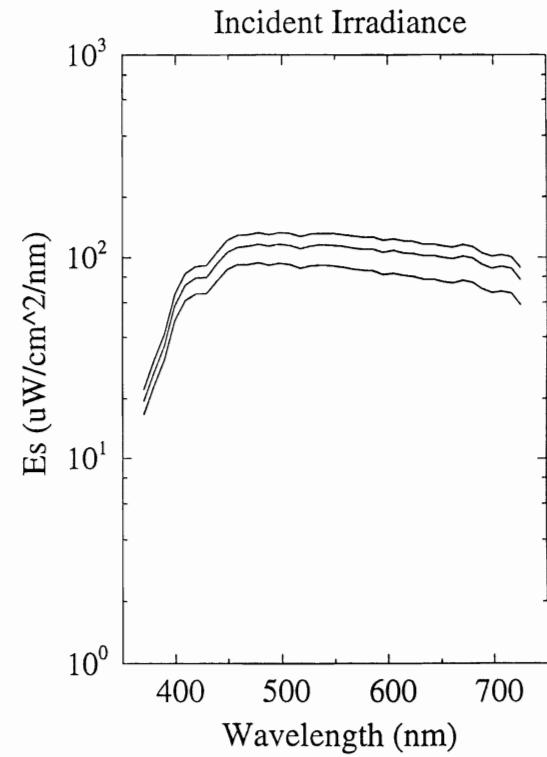
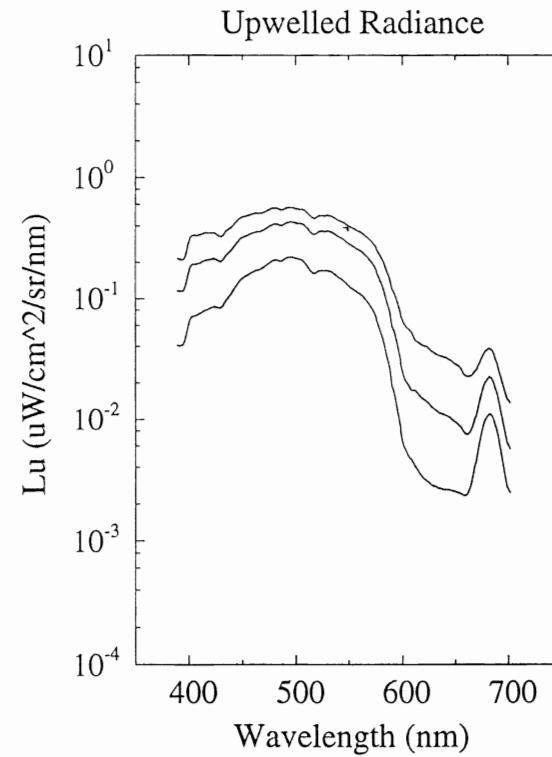
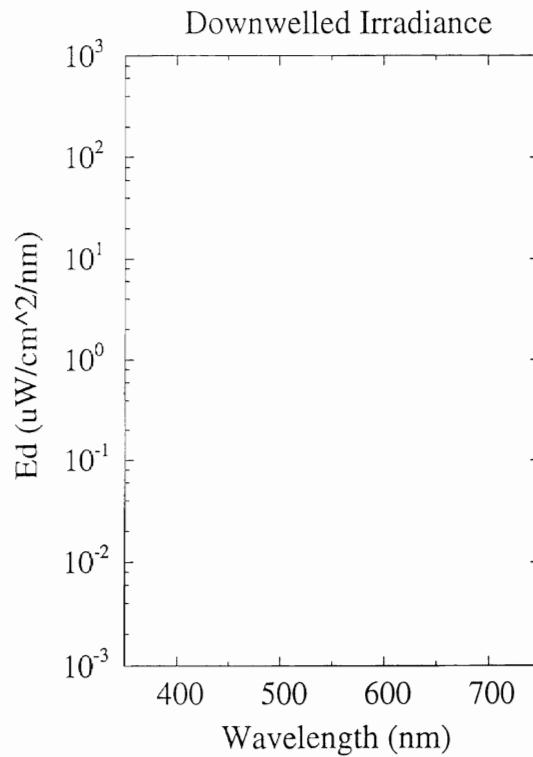
Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
STATION: 2 Monterey Bay Mouth

Top = 1 m
Mid = 6 m
Bot = 11 m

POSITION: 6°42.9 N 122°02.0 W
DATE: 22:00 (GMT) 04 Sep 1992

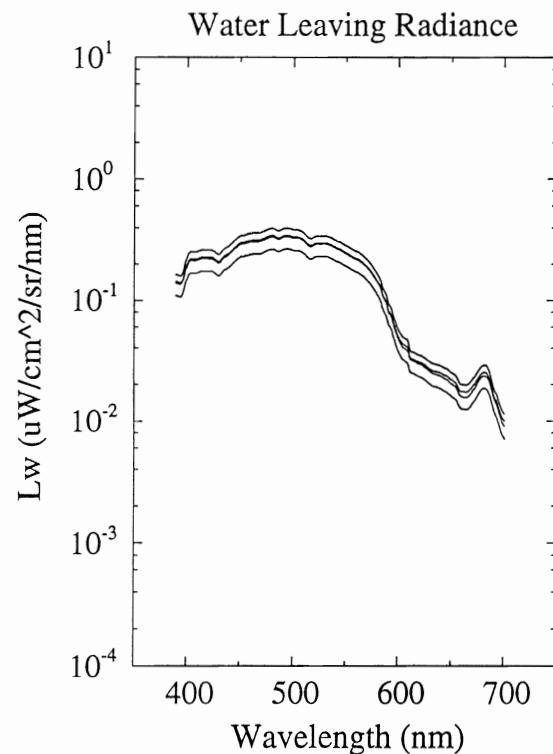
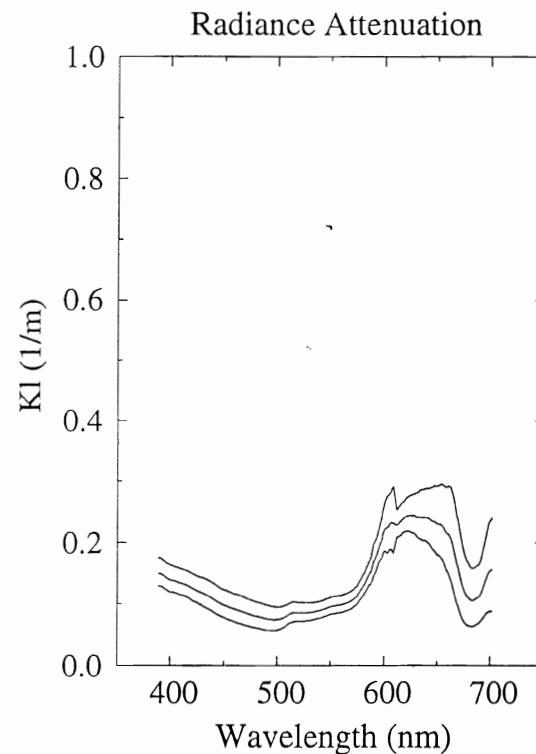
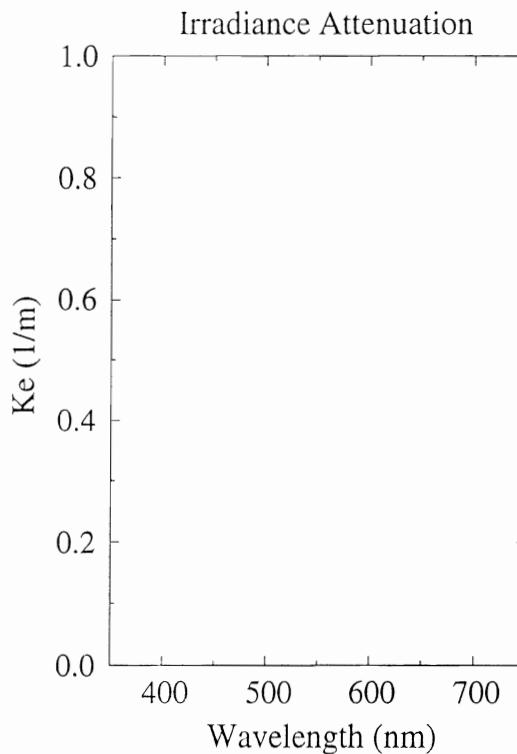


MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
STATION: 2 Monterey Bay Mouth

Top = 1 to 6 m
Mid = 1 to 11 m
Bot = 6 to 11 m

POSITION: 6°42.9 N 122°02.0 W
DATE: 22:00 (GMT) 04 Sep 1992



File: MOCE1:[MOS.PRC]STN02_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 22:00 (GMT) 04 Sep 1992STATION: 2 Monterey Bay Mouth
POSITION: 36°42.9' N 122°02.0' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm): 412 443 490 510 555 670 765 865
Lwn (uW/cm^2/sr): 3.70E-1 4.23E-1 5.12E-1 4.69E-1 3.52E-1 2.80E-2 4.29E-3 nil

	Top	Mid	Bot
Depth (m)	1.2	5.5	10.7
Time (GMT)	22:16	22:01	21:41

λ (nm)	Lu_1	Es_1	Lu_2	Es_2	Lu_3	Es_3
400	3.05E-1	5.76E+1	1.74E-1	6.56E+1	6.43E-2	4.85E+1
410	3.36E-1	7.29E+1	1.96E-1	8.31E+1	7.44E-2	6.11E+1
420	3.49E-1	7.88E+1	2.10E-1	8.98E+1	8.33E-2	6.57E+1
430	3.25E-1	7.98E+1	2.02E-1	9.11E+1	8.42E-2	6.61E+1
440	3.89E-1	9.25E+1	2.51E-1	1.06E+2	1.10E-1	7.62E+1
450	4.70E-1	1.06E+2	3.18E-1	1.21E+2	1.46E-1	8.70E+1
460	5.00E-1	1.12E+2	3.49E-1	1.28E+2	1.66E-1	9.17E+1
470	5.13E-1	1.13E+2	3.67E-1	1.29E+2	1.80E-1	9.21E+1
480	5.61E-1	1.16E+2	4.13E-1	1.33E+2	2.07E-1	9.41E+1
490	5.55E-1	1.14E+2	4.18E-1	1.30E+2	2.14E-1	9.16E+1
500	5.53E-1	1.16E+2	4.21E-1	1.32E+2	2.15E-1	9.30E+1
510	5.15E-1	1.15E+2	3.85E-1	1.31E+2	1.87E-1	9.18E+1
520	4.74E-1	1.10E+2	3.50E-1	1.27E+2	1.66E-1	8.80E+1
530	4.87E-1	1.14E+2	3.60E-1	1.30E+2	1.70E-1	9.06E+1
540	4.43E-1	1.15E+2	3.25E-1	1.32E+2	1.50E-1	9.12E+1
550	3.98E-1	1.15E+2	2.84E-1	1.31E+2	1.27E-1	9.06E+1
560	3.56E-1	1.13E+2	2.50E-1	1.30E+2	1.10E-1	8.92E+1
570	3.03E-1	1.11E+2	2.07E-1	1.28E+2	8.80E-2	8.72E+1
580	2.19E-1	1.10E+2	1.35E-1	1.26E+2	5.18E-2	8.58E+1
590	1.25E-1	1.10E+2	6.26E-2	1.26E+2	2.06E-2	8.54E+1
600	6.57E-2	1.06E+2	2.46E-2	1.21E+2	6.41E-3	8.22E+1
610	4.94E-2	1.05E+2	1.74E-2	1.20E+2	4.39E-3	8.12E+1
620	4.08E-2	1.04E+2	1.48E-2	1.20E+2	3.26E-3	8.01E+1
630	3.53E-2	1.02E+2	1.22E-2	1.16E+2	2.80E-3	7.78E+1
640	3.26E-2	1.02E+2	1.09E-2	1.16E+2	2.61E-3	7.78E+1
650	2.85E-2	9.94E+1	9.34E-3	1.14E+2	2.51E-3	7.56E+1
660	2.27E-2	9.82E+1	7.48E-3	1.12E+2	2.36E-3	7.46E+1
670	2.61E-2	1.01E+2	1.11E-2	1.15E+2	4.73E-3	7.65E+1
680	3.78E-2	9.91E+1	2.17E-2	1.13E+2	1.07E-2	7.49E+1
690	2.69E-2	9.22E+1	1.52E-2	1.05E+2	7.27E-3	6.96E+1
700	1.43E-2	8.83E+1	5.95E-3	1.01E+2	2.59E-3	6.65E+1

File: MOCE1:[MOS.PRC]STN02_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 22:00 (GMT) 04 Sep 1992STATION: 2 Monterey Bay Mouth
POSITION: 36°42.9' N 122°02.0' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm):	412	443	490	510	555	670	765	865
Lwn (uW/cm^2/sr):	3.70E-1	4.23E-1	5.12E-1	4.69E-1	3.52E-1	2.80E-2	4.29E-3	nil

Depth(m)	1-6	1-11	6-11	Top KL_1	Top KL_2	Mid KL_1	Bot KL_2	Lw1
Res	0.875	1.269	1.450					
λ (nm)	KL_1	KL_2	KL_3	Lw_1	Lw_1	Lw_2	Lw_3	Lwn
400	1.63E-1	1.39E-1	1.19E-1	2.02E-1	1.96E-1	2.30E-1	1.54E-1	3.44E-1
410	1.57E-1	1.34E-1	1.15E-1	2.21E-1	2.15E-1	2.52E-1	1.69E-1	3.69E-1
420	1.50E-1	1.26E-1	1.06E-1	2.27E-1	2.21E-1	2.60E-1	1.74E-1	3.72E-1
430	1.42E-1	1.17E-1	9.67E-2	2.10E-1	2.03E-1	2.40E-1	1.60E-1	3.37E-1
440	1.34E-1	1.08E-1	8.71E-2	2.48E-1	2.41E-1	2.84E-1	1.90E-1	3.94E-1
450	1.23E-1	9.80E-2	7.75E-2	2.96E-1	2.87E-1	3.39E-1	2.27E-1	4.63E-1
460	1.16E-1	9.12E-2	7.09E-2	3.13E-1	3.03E-1	3.57E-1	2.39E-1	4.84E-1
470	1.10E-1	8.55E-2	6.53E-2	3.19E-1	3.09E-1	3.64E-1	2.44E-1	4.87E-1
480	1.03E-1	7.98E-2	6.07E-2	3.45E-1	3.36E-1	3.95E-1	2.65E-1	5.25E-1
490	9.80E-2	7.54E-2	5.69E-2	3.39E-1	3.30E-1	3.88E-1	2.60E-1	5.12E-1
500	9.50E-2	7.44E-2	5.75E-2	3.37E-1	3.28E-1	3.85E-1	2.59E-1	5.06E-1
510	9.99E-2	8.18E-2	6.70E-2	3.16E-1	3.09E-1	3.61E-1	2.43E-1	4.73E-1
520	1.02E-1	8.52E-2	7.13E-2	2.91E-1	2.85E-1	3.33E-1	2.25E-1	4.35E-1
530	1.02E-1	8.60E-2	7.31E-2	2.99E-1	2.93E-1	3.42E-1	2.31E-1	4.48E-1
540	1.04E-1	8.94E-2	7.71E-2	2.73E-1	2.68E-1	3.12E-1	2.11E-1	4.09E-1
550	1.11E-1	9.53E-2	8.29E-2	2.47E-1	2.42E-1	2.82E-1	1.91E-1	3.69E-1
560	1.14E-1	9.88E-2	8.62E-2	2.22E-1	2.18E-1	2.54E-1	1.72E-1	3.33E-1
570	1.21E-1	1.05E-1	9.24E-2	1.91E-1	1.87E-1	2.18E-1	1.48E-1	2.87E-1
580	1.45E-1	1.27E-1	1.12E-1	1.42E-1	1.39E-1	1.62E-1	1.09E-1	2.13E-1
590	1.94E-1	1.65E-1	1.42E-1	8.56E-2	8.27E-2	9.78E-2	6.52E-2	1.28E-1
600	2.62E-1	2.20E-1	1.86E-1	4.90E-2	4.66E-2	5.60E-2	3.67E-2	7.33E-2
610	2.75E-1	2.30E-1	1.93E-1	3.75E-2	3.55E-2	4.29E-2	2.80E-2	5.58E-2
620	2.70E-1	2.41E-1	2.17E-1	3.07E-2	2.96E-2	3.51E-2	2.34E-2	4.52E-2
630	2.81E-1	2.42E-1	2.10E-1	2.69E-2	2.57E-2	3.07E-2	2.02E-2	3.93E-2
640	2.88E-1	2.41E-1	2.02E-1	2.51E-2	2.37E-2	2.86E-2	1.87E-2	3.63E-2
650	2.93E-1	2.31E-1	1.80E-1	2.20E-2	2.04E-2	2.52E-2	1.61E-2	3.16E-2
660	2.92E-1	2.13E-1	1.49E-1	1.76E-2	1.60E-2	2.01E-2	1.26E-2	2.51E-2
670	2.31E-1	1.55E-1	9.32E-2	1.87E-2	1.71E-2	2.14E-2	1.35E-2	2.65E-2
680	1.62E-1	1.08E-1	6.38E-2	2.50E-2	2.34E-2	2.86E-2	1.84E-2	3.53E-2
690	1.66E-1	1.13E-1	7.00E-2	1.79E-2	1.68E-2	2.04E-2	1.32E-2	2.51E-2
700	2.36E-1	1.54E-1	8.77E-2	1.03E-2	9.33E-3	1.18E-2	7.36E-3	1.44E-2

```

!
! MOCE1 Station 02 Monterey Bay Mouth 05-Sep-1992
!

! Ed top

! Lu top

M73  _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN8_5M_LU_5.MLDAT      #Var=1-10      04Sep92 22:10 to 04Sep92 22:15
M70  _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN8_1M_LU_6.MLDAT      #Var=1-10      04Sep92 22:16 to 04Sep92 22:21
S85  _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN8_WMOS_1M_LU_5.MLDAT  #Var=1-10      04Sep92 22:13 to 04Sep92 22:14
S86  _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN8_WMOS_1M_LU_6.MLDAT  #Var=1-10      04Sep92 22:19 to 04Sep92 22:19

! Ed mid

! Lu mid

M71  _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN8_5M_LU_3.MLDAT      #Var=1,15-23    04Sep92 21:46 to 04Sep92 22:03
S87  _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN8_WMOS_5M_LU_3.MLDAT  #Var=1-10      04Sep92 22:01 to 04Sep92 22:02

! Ed bot

! Lu bot

M68  _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN8_10M_LU_1.MLDAT     #Var=1,5-13     04Sep92 21:34 to 04Sep92 21:44
S83  _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN8_WMOS_10M_LU_1.MLDAT #Var=1,24-32    04Sep92 17:48 to 04Sep92 21:41

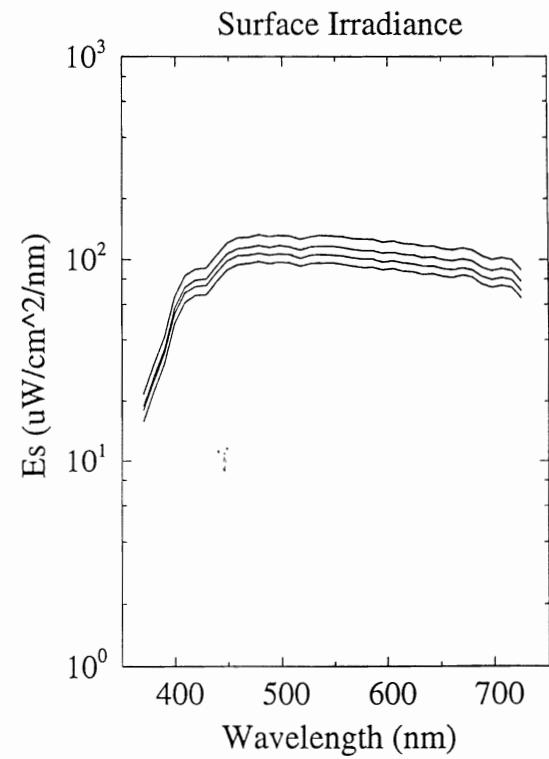
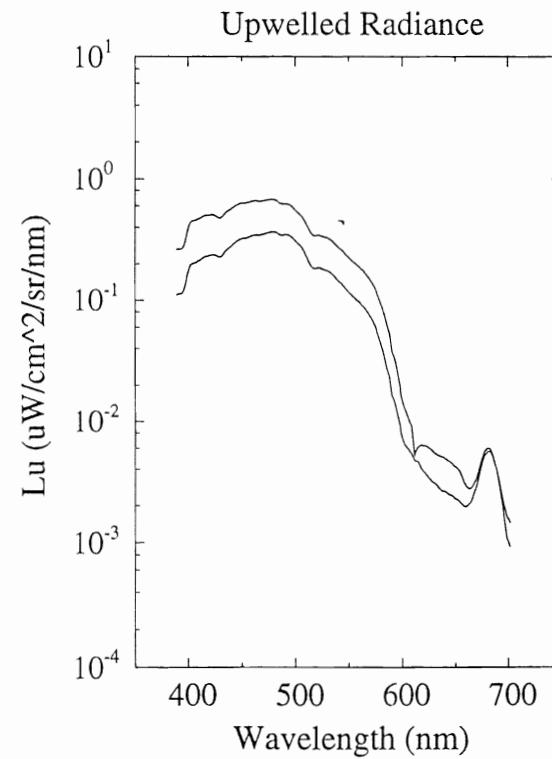
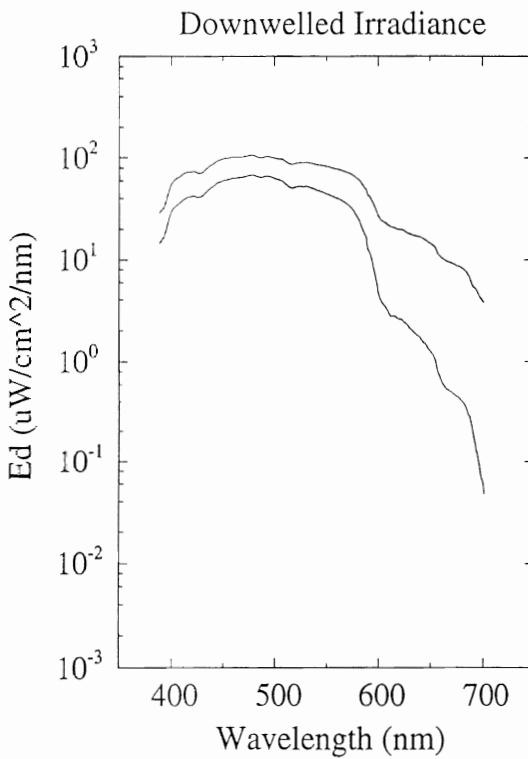
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MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
 STATION: 3 Outside Monterey Bay

Mid = 5 m
 Bot = 10 m

POSITION: 36°40.0 N 122°39.9 W
 DATE: 17:40 (GMT) 05 Sep 1992

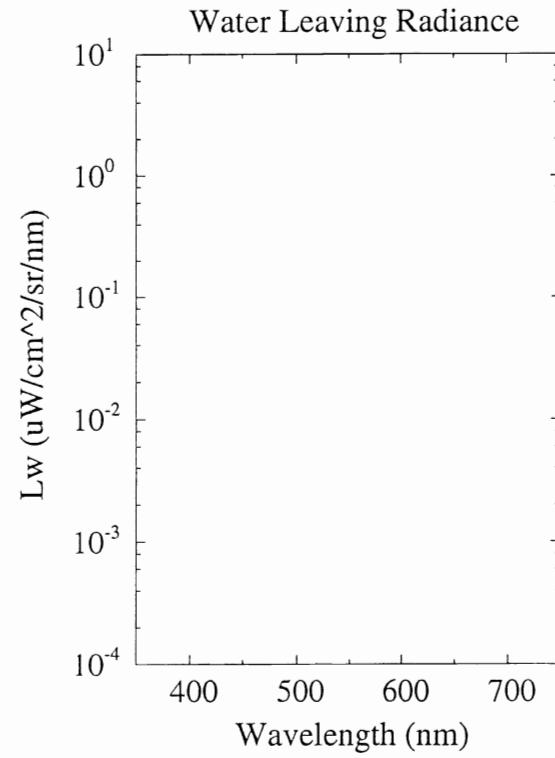
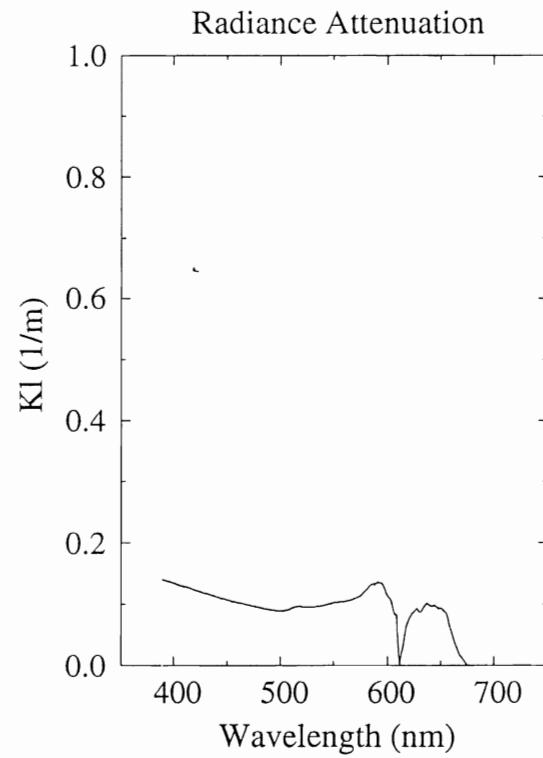
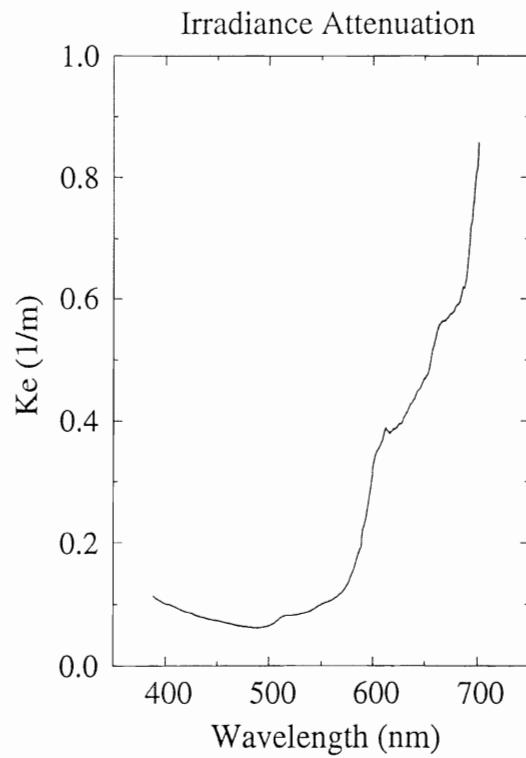


MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
STATION: 3 Outside Monterey Bay

Bot = 5 to 10 m

POSITION: 36°40.0 N 122°39.9 W
DATE: 17:40 (GMT) 05 Sep 1992



File: MOCE1:[MOS.PRC]STN03_PRC.MLDAT;1

MOOIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 17:40 (GMT) 05 Sep 1992

STATION: 3 Outside Monterey Bay
POSITION: 36°40.0' N 122°39.9' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm): 412 443 490 510 555 670 765 865
Lwn (uW/cm^2/sr):

Depth (m)	Mid	Mid	Bot	Bot				
Time (GMT)	5.0	5.3	9.9	10.8				
	18:12	17:55	17:34	17:21				
λ (nm)	Ed_2	Es_2	Lu_2	Es_2				
400	5.52E+1	6.52E+1	4.05E-1	5.37E+1	2.96E+1	5.74E+1	1.77E-1	4.80E+1
410	6.77E+1	8.28E+1	4.68E-1	6.81E+1	3.73E+1	7.30E+1	2.11E-1	6.11E+1
420	7.35E+1	8.96E+1	5.02E-1	7.35E+1	4.20E+1	7.90E+1	2.33E-1	6.61E+1
430	7.18E+1	9.07E+1	4.74E-1	7.42E+1	4.23E+1	8.01E+1	2.27E-1	6.69E+1
440	8.62E+1	1.05E+2	5.60E-1	8.59E+1	5.19E+1	9.29E+1	2.76E-1	7.77E+1
450	9.78E+1	1.21E+2	6.32E-1	9.83E+1	5.99E+1	1.07E+2	3.20E-1	8.90E+1
460	1.02E+2	1.28E+2	6.55E-1	1.04E+2	6.40E+1	1.13E+2	3.40E-1	9.42E+1
470	1.03E+2	1.29E+2	6.58E-1	1.05E+2	6.55E+1	1.14E+2	3.49E-1	9.51E+1
480	1.05E+2	1.32E+2	6.77E-1	1.07E+2	6.79E+1	1.17E+2	3.67E-1	9.74E+1
490	1.02E+2	1.29E+2	6.26E-1	1.05E+2	6.64E+1	1.15E+2	3.47E-1	9.53E+1
500	9.95E+1	1.32E+2	5.53E-1	1.07E+2	6.36E+1	1.17E+2	3.09E-1	9.71E+1
510	9.37E+1	1.30E+2	4.22E-1	1.05E+2	5.65E+1	1.15E+2	2.31E-1	9.60E+1
520	8.81E+1	1.26E+2	3.41E-1	1.01E+2	5.18E+1	1.11E+2	1.84E-1	9.25E+1
530	9.08E+1	1.30E+2	3.24E-1	1.05E+2	5.28E+1	1.15E+2	1.75E-1	9.55E+1
540	8.66E+1	1.31E+2	2.73E-1	1.06E+2	4.89E+1	1.16E+2	1.46E-1	9.64E+1
550	8.36E+1	1.31E+2	2.24E-1	1.05E+2	4.50E+1	1.16E+2	1.17E-1	9.60E+1
560	7.83E+1	1.29E+2	1.87E-1	1.04E+2	4.06E+1	1.14E+2	9.61E-2	9.48E+1
570	7.30E+1	1.27E+2	1.48E-1	1.02E+2	3.57E+1	1.12E+2	7.40E-2	9.29E+1
580	6.35E+1	1.26E+2	9.20E-2	1.01E+2	2.64E+1	1.11E+2	4.27E-2	9.16E+1
590	4.48E+1	1.25E+2	4.07E-2	1.00E+2	1.37E+1	1.11E+2	1.79E-2	9.15E+1
600	2.70E+1	1.21E+2	1.47E-2	9.70E+1	4.79E+0	1.07E+2	7.19E-3	8.84E+1
610	2.19E+1	1.20E+2	7.33E-3	9.59E+1	3.06E+0	1.06E+2	5.11E-3	8.77E+1
620	2.00E+1	1.19E+2	6.27E-3	9.49E+1	2.61E+0	1.05E+2	3.86E-3	8.67E+1
630	1.80E+1	1.16E+2	5.47E-3	9.25E+1	2.14E+0	1.02E+2	3.09E-3	8.45E+1
640	1.68E+1	1.16E+2	4.93E-3	9.27E+1	1.72E+0	1.02E+2	2.63E-3	8.49E+1
650	1.44E+1	1.13E+2	4.15E-3	9.01E+1	1.25E+0	9.96E+1	2.28E-3	8.25E+1
660	1.06E+1	1.11E+2	2.89E-3	8.86E+1	6.74E-1	9.80E+1	1.98E-3	8.13E+1
670	9.38E+0	1.14E+2	3.39E-3	9.09E+1	5.10E-1	1.01E+2	2.90E-3	8.34E+1
680	8.34E+0	1.11E+2	5.94E-3	8.90E+1	4.01E-1	9.84E+1	5.54E-3	8.17E+1
690	5.82E+0	1.04E+2	3.56E-3	8.28E+1	2.19E-1	9.14E+1	3.65E-3	7.58E+1
700	3.94E+0	1.00E+2	1.01E-3	7.96E+1	6.25E-2	8.79E+1	1.56E-3	7.28E+1

File: MOCE1:[MOS_PRC]STN03_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 17:40 (GMT) 05 Sep 1992

STATION: 3 Outside Monterey Bay
POSITION: 36°40.0' N 122°39.9' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm): 412 443 490 510 555 670 765 865
Lwn (uW/cm^2/sr):

Depth (m)	5-10	5-10
Res	1.133	1.098

λ (nm)	Ke_3	Kl_3
----------------	------	------

400	1.01E-1	1.34E-1
410	9.54E-2	1.29E-1
420	8.81E-2	1.23E-1
430	8.19E-2	1.18E-1
440	7.74E-2	1.12E-1
450	7.40E-2	1.08E-1
460	6.97E-2	1.03E-1
470	6.60E-2	9.93E-2
480	6.34E-2	9.50E-2
490	6.21E-2	9.14E-2
500	6.53E-2	8.95E-2
510	7.70E-2	9.35E-2
520	8.24E-2	9.63E-2
530	8.47E-2	9.62E-2
540	9.04E-2	9.81E-2
550	9.99E-2	1.03E-1
560	1.07E-1	1.05E-1
570	1.20E-1	1.10E-1
580	1.52E-1	1.23E-1
590	2.16E-1	1.34E-1
600	3.25E-1	1.13E-1
610	3.73E-1	4.07E-2
620	3.87E-1	7.19E-2
630	4.06E-1	8.74E-2
640	4.36E-1	9.77E-2
650	4.69E-1	9.31E-2
660	5.33E-1	5.27E-2
670	5.64E-1	1.10E-2
680	5.89E-1	-4.23E-3
690	6.40E-1	-2.21E-2
700	8.16E-1	-9.72E-2

```

!
! MOCE1 Station 03 Outside Monterey Bay 05-Sep-1992
!

! Ed top

! Lu top

! Ed mid

M78      _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN9_5M_ED_7.MLDAT      #Var=1,5-13    05Sep92 18:03 to 05Sep92 18:08
M80      _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN9_5M_ED_9.MLDAT      #Var=1-10     05Sep92 18:15 to 05Sep92 18:19
S93      _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN9_WMOS_5M_ED_7.MLDAT  #Var=1-10     05Sep92 18:07 to 05Sep92 18:07
S95      _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN9_WMOS_5M_ED_9.MLDAT  #Var=1-10     05Sep92 18:17 to 05Sep92 18:17

! Lu mid

M81      _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN9_5M_LU_5.MLDAT      #Var=1-10     05Sep92 17:51 to 05Sep92 17:56
S96      _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN9_WMOS_5M_LU_5.MLDAT  #Var=1-10     05Sep92 17:54 to 05Sep92 17:55

! Ed bot

M75      _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN9_10M_ED_4.MLDAT      #Var=1-10     05Sep92 17:32 to 05Sep92 17:36
S90      _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN9_WMOS_10M_ED_4.MLDAT #Var=1-10     05Sep92 17:34 to 05Sep92 17:34

! Lu bot

M77      _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN9_10M_LU_2.MLDAT      #Var=1,11-19   05Sep92 17:06 to 05Sep92 17:23
S92      _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN9_WMOS_10M_LU_2.MLDAT #Var=1,11-19   05Sep92 17:10 to 05Sep92 17:21

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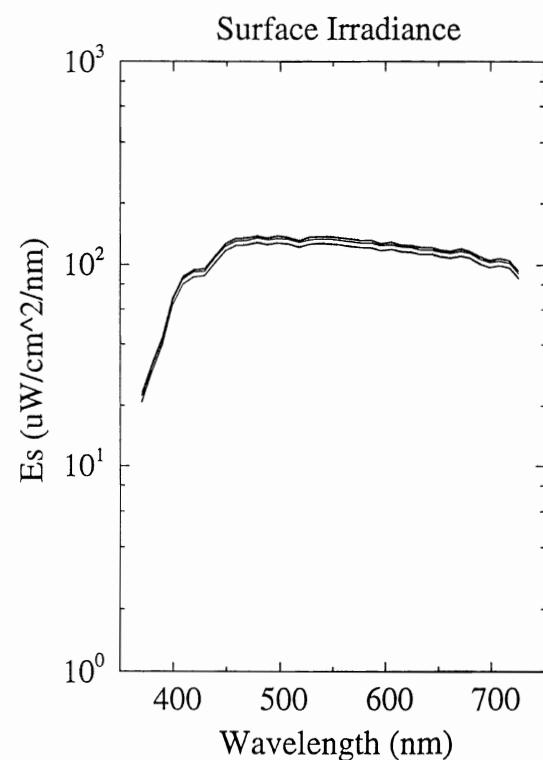
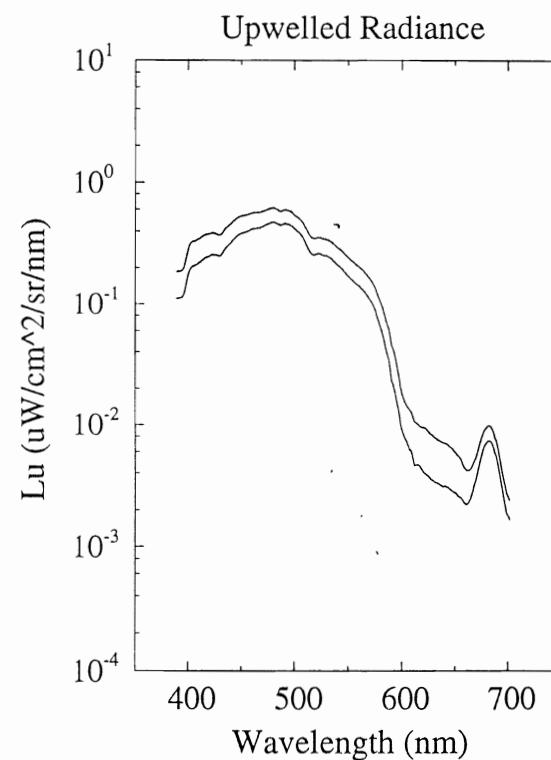
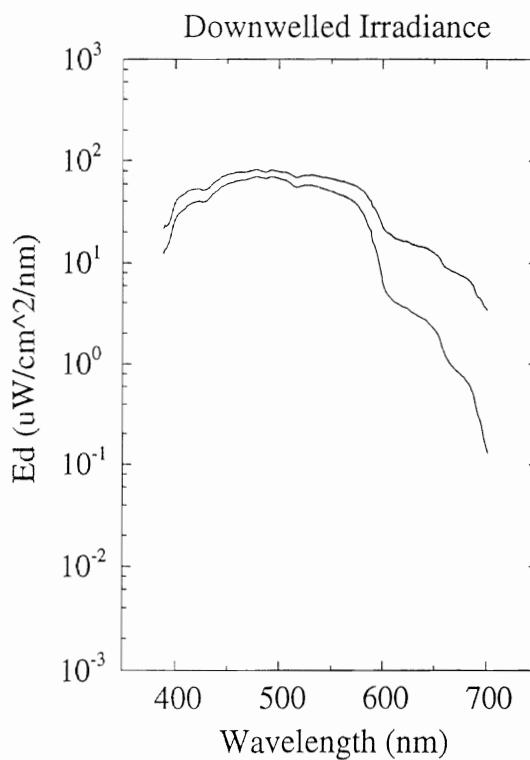

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
STATION: 4 Monterey Peninsula

Mid = 5 m
Bot = 10 m

POSITION: 36°31.2 N 122°22.2 W
DATE: 21:40 (GMT) 05 Sep 1992



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

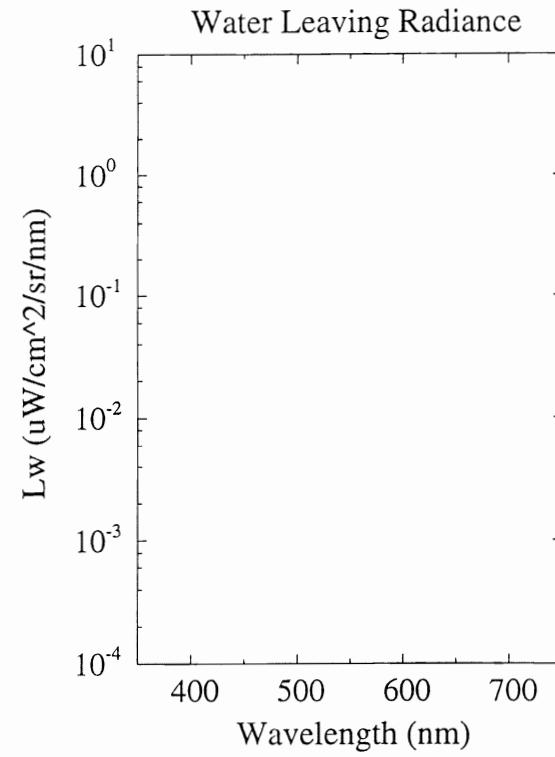
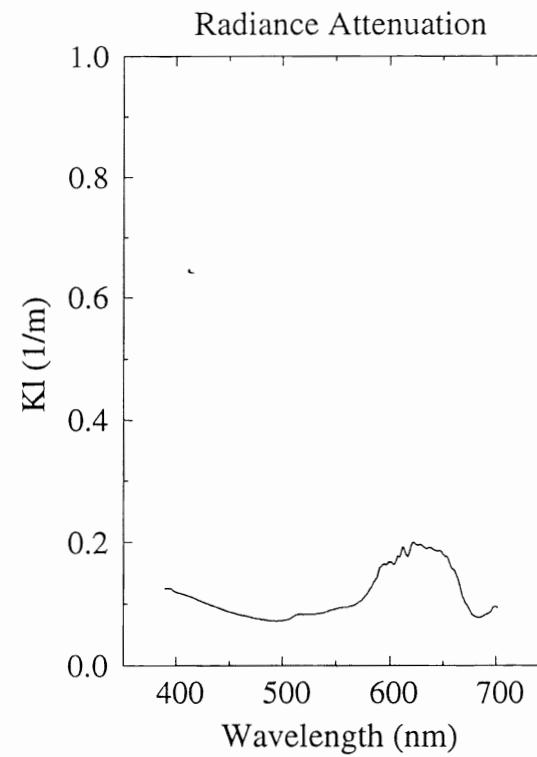
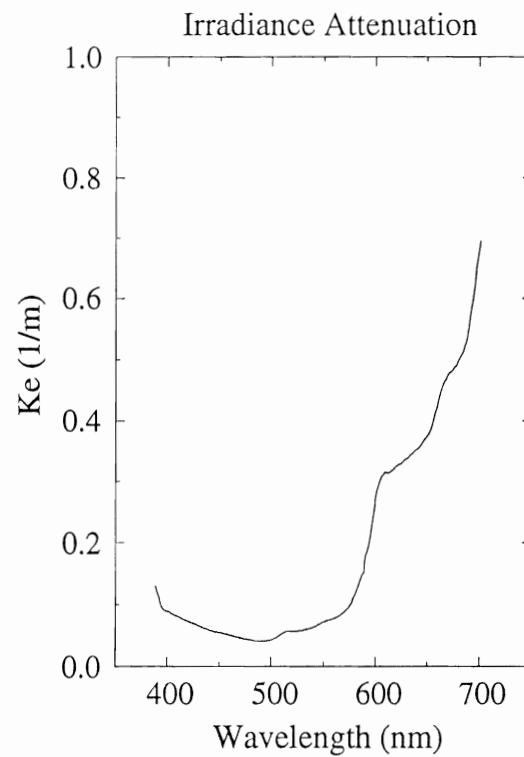
CRUISE: MOCE-1 SHIP: De Steiguer

STATION: 4 Monterey Peninsula

Bot = 5 to 10 m

POSITION: 36°31.2 N 122°22.2 W

DATE: 21:40 (GMT) 05 Sep 1992



File: MOCE1:[MOS.PRC]STN04_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 21:40 (GMT) 05 Sep 1992STATION: 4 Monterey Peninsula
POSITION: 36°31.2' N 122°22.2' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm): 412 443 490 510 555 670 765 865
Lwn (uW/cm^2/sr):

Depth (m)	Mid		Mid		Bot		Bot	
	5.0	5.6	9.7	10.3	22:00	21:49	21:30	21:22
λ (nm)	Ed_2	Es_2	Lu_2	Es_2	Ed_3	Es_3	Lu_3	Es_3
400	3.91E+1	6.31E+1	2.90E-1	6.32E+1	2.69E+1	6.70E+1	1.80E-1	6.89E+1
410	4.82E+1	8.02E+1	3.43E-1	8.03E+1	3.45E+1	8.49E+1	2.17E-1	8.73E+1
420	5.30E+1	8.69E+1	3.78E-1	8.69E+1	3.94E+1	9.19E+1	2.48E-1	9.43E+1
430	5.25E+1	8.81E+1	3.69E-1	8.79E+1	4.04E+1	9.30E+1	2.50E-1	9.55E+1
440	6.37E+1	1.02E+2	4.52E-1	1.02E+2	5.06E+1	1.08E+2	3.16E-1	1.11E+2
450	7.32E+1	1.17E+2	5.28E-1	1.17E+2	5.93E+1	1.23E+2	3.81E-1	1.27E+2
460	7.73E+1	1.24E+2	5.59E-1	1.24E+2	6.39E+1	1.31E+2	4.12E-1	1.34E+2
470	7.82E+1	1.25E+2	5.74E-1	1.25E+2	6.60E+1	1.32E+2	4.31E-1	1.35E+2
480	8.11E+1	1.28E+2	6.15E-1	1.28E+2	6.96E+1	1.35E+2	4.69E-1	1.39E+2
490	7.96E+1	1.26E+2	5.90E-1	1.25E+2	6.89E+1	1.32E+2	4.55E-1	1.36E+2
500	7.82E+1	1.28E+2	5.40E-1	1.27E+2	6.71E+1	1.35E+2	4.16E-1	1.38E+2
510	7.43E+1	1.27E+2	4.25E-1	1.26E+2	6.08E+1	1.33E+2	3.18E-1	1.37E+2
520	7.01E+1	1.22E+2	3.50E-1	1.22E+2	5.62E+1	1.28E+2	2.58E-1	1.32E+2
530	7.26E+1	1.26E+2	3.39E-1	1.25E+2	5.79E+1	1.32E+2	2.49E-1	1.36E+2
540	6.96E+1	1.27E+2	2.90E-1	1.27E+2	5.42E+1	1.34E+2	2.10E-1	1.37E+2
550	6.72E+1	1.27E+2	2.41E-1	1.26E+2	5.04E+1	1.33E+2	1.70E-1	1.37E+2
560	6.31E+1	1.25E+2	2.03E-1	1.25E+2	4.60E+1	1.32E+2	1.41E-1	1.35E+2
570	5.91E+1	1.23E+2	1.63E-1	1.22E+2	4.10E+1	1.30E+2	1.10E-1	1.33E+2
580	5.15E+1	1.22E+2	1.03E-1	1.21E+2	3.12E+1	1.28E+2	6.36E-2	1.31E+2
590	3.66E+1	1.21E+2	4.86E-2	1.21E+2	1.70E+1	1.28E+2	2.56E-2	1.31E+2
600	2.24E+1	1.17E+2	1.82E-2	1.17E+2	6.41E+0	1.24E+2	8.93E-3	1.27E+2
610	1.82E+1	1.16E+2	1.19E-2	1.15E+2	4.24E+0	1.22E+2	5.54E-3	1.25E+2
620	1.64E+1	1.15E+2	9.49E-3	1.15E+2	3.68E+0	1.21E+2	4.13E-3	1.24E+2
630	1.51E+1	1.12E+2	7.89E-3	1.12E+2	3.17E+0	1.18E+2	3.42E-3	1.21E+2
640	1.42E+1	1.12E+2	7.00E-3	1.12E+2	2.78E+0	1.18E+2	3.11E-3	1.21E+2
650	1.23E+1	1.10E+2	5.84E-3	1.09E+2	2.16E+0	1.15E+2	2.73E-3	1.18E+2
660	9.14E+0	1.08E+2	4.27E-3	1.07E+2	1.24E+0	1.13E+2	2.24E-3	1.16E+2
670	8.08E+0	1.11E+2	5.41E-3	1.10E+2	8.85E-1	1.16E+2	3.60E-3	1.19E+2
680	7.16E+0	1.08E+2	9.61E-3	1.07E+2	6.97E-1	1.14E+2	7.19E-3	1.17E+2
690	5.11E+0	1.01E+2	6.58E-3	1.00E+2	3.93E-1	1.06E+2	4.84E-3	1.09E+2
700	3.52E+0	9.70E+1	2.54E-3	9.65E+1	1.44E-1	1.02E+2	1.77E-3	1.05E+2

File: MOCE1:[MOS.PRC]STN04_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 21:40 (GMT) 05 Sep 1992

STATION: 4 Monterey Peninsula
POSITION: 36°31.2' N 122°22.2' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm): 412 443 490 510 555 670 765 865
Lwn (uW/cm^2/sr):

Depth (m)	5-10	5-10
Res	0.949	0.921

λ (nm)	Ke_3	Kl_3
----------------	------	------

400	8.88E-2	1.19E-1
410	8.12E-2	1.14E-1
420	7.29E-2	1.07E-1
430	6.57E-2	1.00E-1
440	5.93E-2	9.36E-2
450	5.49E-2	8.72E-2
460	5.07E-2	8.22E-2
470	4.64E-2	7.86E-2
480	4.28E-2	7.50E-2
490	4.10E-2	7.26E-2
500	4.30E-2	7.30E-2
510	5.26E-2	7.92E-2
520	5.72E-2	8.27E-2
530	5.84E-2	8.35E-2
540	6.31E-2	8.64E-2
550	7.12E-2	9.21E-2
560	7.72E-2	9.47E-2
570	8.74E-2	1.01E-1
580	1.16E-1	1.20E-1
590	1.73E-1	1.55E-1
600	2.74E-1	1.69E-1
610	3.15E-1	1.81E-1
620	3.24E-1	1.95E-1
630	3.37E-1	1.95E-1
640	3.53E-1	1.90E-1
650	3.76E-1	1.79E-1
660	4.29E-1	1.55E-1
670	4.74E-1	1.05E-1
680	4.99E-1	7.90E-2
690	5.49E-1	8.26E-2
700	6.81E-1	9.46E-2

```

!
! MOCE1 Station 04 Monterey Peninsula 05-Sep-1992
!

! Ed top
! Lu top
! Ed mid

M88      _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN10_5M_ED_8.MLDAT      #Var=1-10      05Sep92 21:58 to 05Sep92 22:02
S103     _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN10_WMOS_5M_ED_8.MLDAT  #Var=1-10      05Sep92 22:00 to 05Sep92 22:01

! Lu mid

M90      _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN10_5M_LU_6.MLDAT      #Var=1-10      05Sep92 21:46 to 05Sep92 21:51
S105     _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN10_WMOS_5M_LU_6.MLDAT  #Var=1-10      05Sep92 21:49 to 05Sep92 21:49

! Ed bot
! Lu bot

M83      _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN10_10M_ED_4.MLDAT      #Var=1-10      05Sep92 21:28 to 05Sep92 21:32
S98      _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN10_WMOS_10M_ED_4.MLDAT  #Var=1-10      05Sep92 21:30 to 05Sep92 21:30

M86      _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN10_10M_LU_2.MLDAT      #Var=1-10      05Sep92 21:17 to 05Sep92 21:21
M87      _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN10_10M_LU_3.MLDAT      #Var=1-10      05Sep92 21:22 to 05Sep92 21:26
S101     _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN10_WMOS_10M_LU_2.MLDAT  #Var=1-10      05Sep92 21:19 to 05Sep92 21:19
S102     _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN10_WMOS_10M_LU_3.MLDAT  #Var=1-10      05Sep92 21:24 to 05Sep92 21:25

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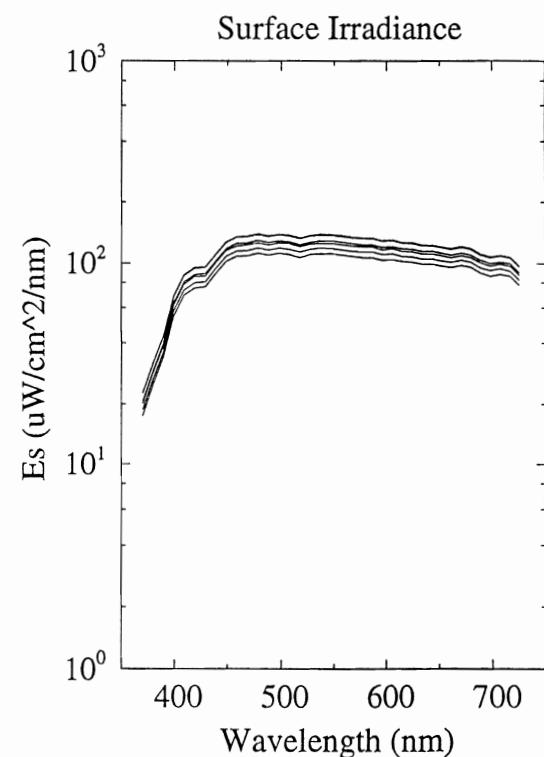
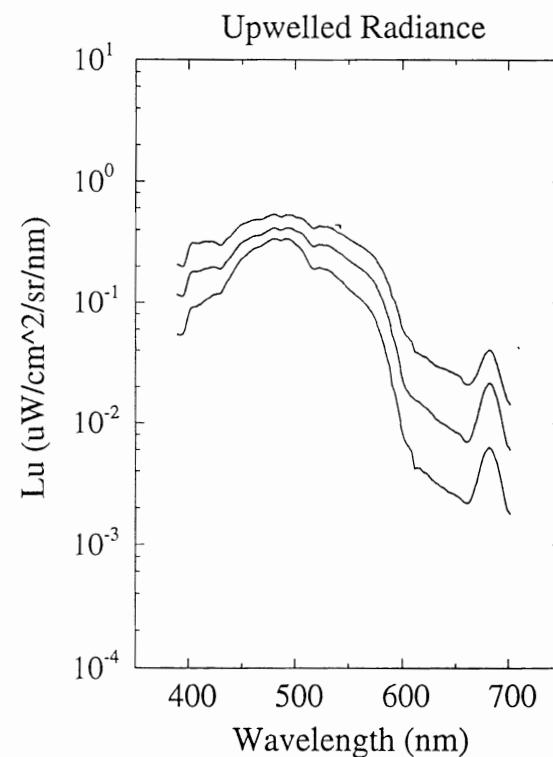
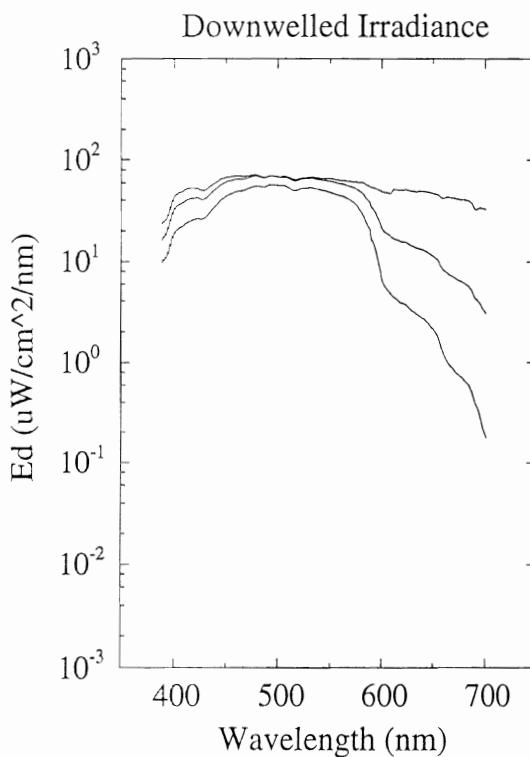

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
STATION: 5 Point Sur

Top = 1 m
Mid = 5 m
Bot = 10 m

POSITION: 36°12.9 N 121°48.0 W
DATE: 21:33 (GMT) 06 Sep 1992

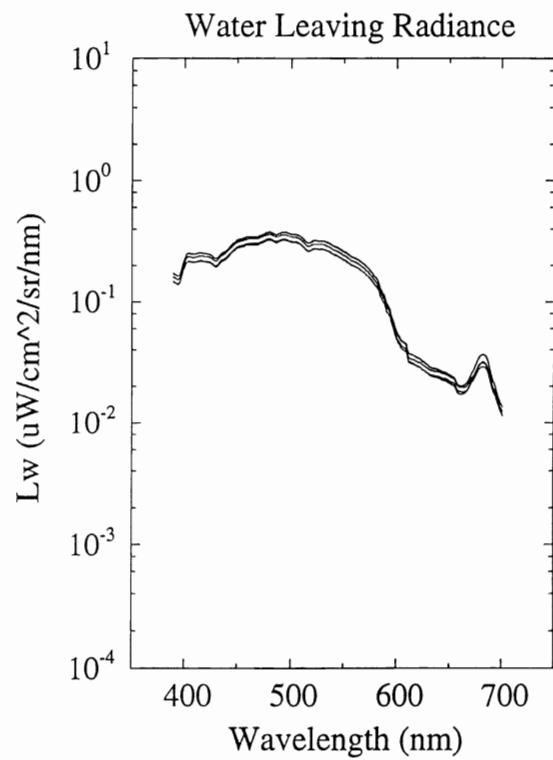
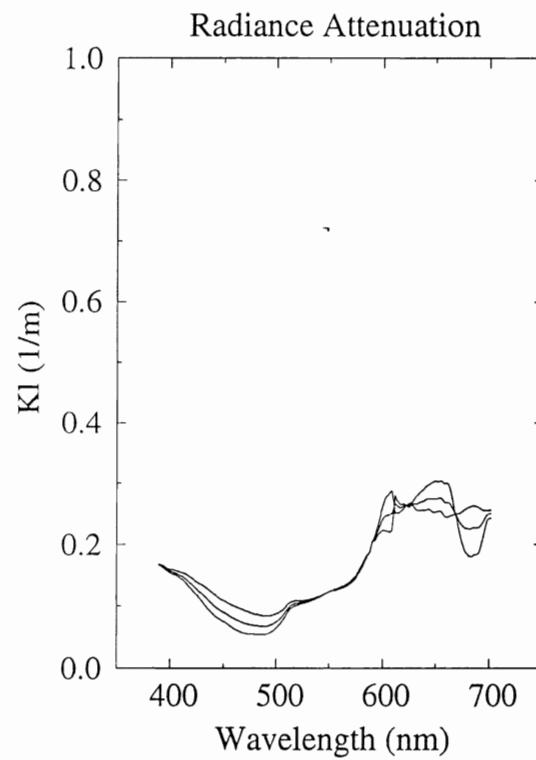
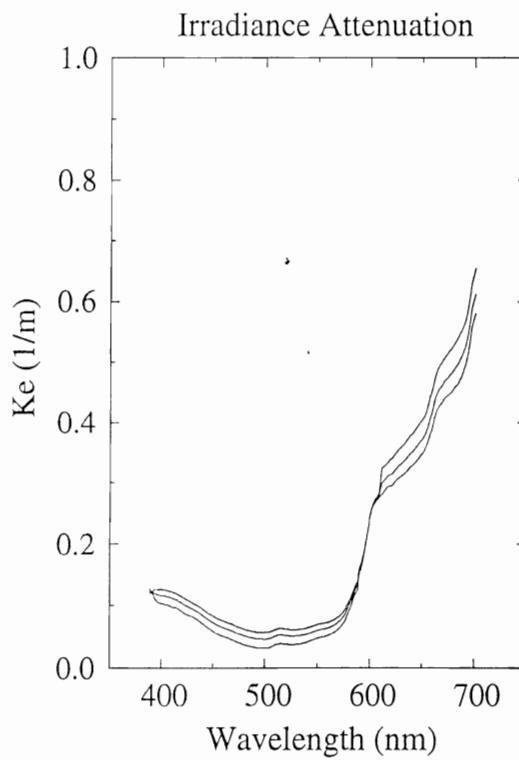


MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
STATION: 5 Point Sur

Top = 1 to 5 m
Mid = 1 to 10 m
Bot = 5 to 10 m

POSITION: 36°12.9 N 121°48.0 W
DATE: 21:33 (GMT) 06 Sep 1992



File: MOCE1:[MOS.PRC]STN05_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 21:33 (GMT) 06 Sep 1992

STATION: 5 Point Sur
POSITION: 36°12.9' N 121°48.0' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm): 412 443 490 510 555 670 765 865
Lwn (W/m²/sr): 3.37E-1 3.83E-1 4.62E-1 4.15E-1 2.99E-1 2.88E-2 3.99E-3 nil

Depth (m)	Top	Top	Mid	Mid	Bot	Bot
	1.0	1.6	4.8	5.5	9.9	10.5
Time (GMT)	22:28	22:10	21:44	21:33	20:45	20:38

λ (nm)	Ed_1	Es_1	Lu_1	Es_1	Ed_2	Es_2	Lu_2	Es_2	Ed_3	Es_3	Lu_3	Es_3
400	4.23E+1	5.42E+1	2.84E-1	5.77E+1	3.21E+1	6.17E+1	1.64E-1	6.35E+1	1.87E+1	6.85E+1	8.20E-2	6.87E+1
410	4.98E+1	6.93E+1	3.09E-1	7.36E+1	3.86E+1	7.86E+1	1.82E-1	8.09E+1	2.27E+1	8.70E+1	9.48E-2	8.74E+1
420	5.27E+1	7.52E+1	3.18E-1	7.97E+1	4.19E+1	8.52E+1	1.94E-1	8.76E+1	2.58E+1	9.41E+1	1.10E-1	9.45E+1
430	5.03E+1	7.63E+1	2.97E-1	8.09E+1	4.14E+1	8.64E+1	1.91E-1	8.87E+1	2.69E+1	9.53E+1	1.20E-1	9.57E+1
440	5.94E+1	8.86E+1	3.59E-1	9.41E+1	5.09E+1	1.00E+2	2.42E-1	1.03E+2	3.47E+1	1.10E+2	1.68E-1	1.11E+2
450	6.73E+1	1.02E+2	4.41E-1	1.08E+2	6.06E+1	1.15E+2	3.12E-1	1.18E+2	4.36E+1	1.27E+2	2.30E-1	1.27E+2
460	6.97E+1	1.08E+2	4.76E-1	1.14E+2	6.47E+1	1.22E+2	3.49E-1	1.25E+2	4.85E+1	1.34E+2	2.73E-1	1.34E+2
470	6.94E+1	1.09E+2	4.88E-1	1.15E+2	6.60E+1	1.23E+2	3.67E-1	1.26E+2	5.11E+1	1.35E+2	2.98E-1	1.36E+2
480	7.07E+1	1.12E+2	5.33E-1	1.19E+2	6.92E+1	1.26E+2	4.11E-1	1.29E+2	5.55E+1	1.38E+2	3.37E-1	1.39E+2
490	6.89E+1	1.09E+2	5.22E-1	1.16E+2	6.85E+1	1.23E+2	4.07E-1	1.27E+2	5.62E+1	1.36E+2	3.34E-1	1.36E+2
500	6.85E+1	1.12E+2	5.08E-1	1.19E+2	6.84E+1	1.26E+2	3.92E-1	1.29E+2	5.65E+1	1.38E+2	3.06E-1	1.39E+2
510	6.77E+1	1.11E+2	4.62E-1	1.17E+2	6.64E+1	1.25E+2	3.37E-1	1.28E+2	5.35E+1	1.37E+2	2.34E-1	1.37E+2
520	6.52E+1	1.07E+2	4.18E-1	1.13E+2	6.36E+1	1.20E+2	2.96E-1	1.23E+2	5.10E+1	1.32E+2	1.92E-1	1.32E+2
530	6.80E+1	1.10E+2	4.21E-1	1.17E+2	6.64E+1	1.24E+2	2.96E-1	1.27E+2	5.35E+1	1.36E+2	1.87E-1	1.36E+2
540	6.63E+1	1.11E+2	3.79E-1	1.18E+2	6.39E+1	1.25E+2	2.61E-1	1.29E+2	5.08E+1	1.38E+2	1.59E-1	1.38E+2
550	6.60E+1	1.11E+2	3.37E-1	1.18E+2	6.21E+1	1.25E+2	2.25E-1	1.28E+2	4.81E+1	1.37E+2	1.31E-1	1.38E+2
560	6.34E+1	1.10E+2	2.97E-1	1.16E+2	5.86E+1	1.23E+2	1.95E-1	1.27E+2	4.45E+1	1.35E+2	1.09E-1	1.36E+2
570	6.19E+1	1.08E+2	2.56E-1	1.14E+2	5.52E+1	1.21E+2	1.62E-1	1.25E+2	4.02E+1	1.33E+2	8.65E-2	1.34E+2
580	6.05E+1	1.06E+2	1.93E-1	1.13E+2	4.83E+1	1.20E+2	1.11E-1	1.23E+2	3.09E+1	1.32E+2	5.23E-2	1.33E+2
590	5.42E+1	1.07E+2	1.16E-1	1.13E+2	3.49E+1	1.20E+2	5.71E-2	1.23E+2	1.74E+1	1.32E+2	2.25E-2	1.33E+2
600	4.89E+1	1.03E+2	6.07E-2	1.10E+2	2.15E+1	1.17E+2	2.33E-2	1.20E+2	6.85E+0	1.28E+2	8.17E-3	1.29E+2
610	4.81E+1	1.02E+2	4.44E-2	1.08E+2	1.73E+1	1.14E+2	1.64E-2	1.18E+2	4.65E+0	1.26E+2	5.17E-3	1.26E+2
620	5.06E+1	1.01E+2	3.58E-2	1.07E+2	1.57E+1	1.14E+2	1.39E-2	1.17E+2	3.86E+0	1.25E+2	3.95E-3	1.25E+2
630	4.93E+1	9.88E+1	3.07E-2	1.05E+2	1.41E+1	1.11E+2	1.12E-2	1.14E+2	3.21E+0	1.22E+2	3.28E-3	1.23E+2
640	4.94E+1	9.91E+1	2.83E-2	1.05E+2	1.31E+1	1.11E+2	9.66E-3	1.14E+2	2.73E+0	1.22E+2	2.87E-3	1.23E+2
650	4.66E+1	9.69E+1	2.56E-2	1.03E+2	1.12E+1	1.09E+2	8.40E-3	1.12E+2	2.11E+0	1.19E+2	2.54E-3	1.20E+2
660	4.19E+1	9.52E+1	2.10E-2	1.01E+2	8.23E+0	1.07E+2	6.96E-3	1.10E+2	1.21E+0	1.17E+2	2.20E-3	1.18E+2
670	4.23E+1	9.75E+1	2.56E-2	1.03E+2	7.03E+0	1.09E+2	1.09E-2	1.12E+2	8.48E-1	1.20E+2	3.33E-3	1.20E+2
680	4.05E+1	9.54E+1	3.98E-2	1.01E+2	6.11E+0	1.07E+2	2.11E-2	1.10E+2	6.66E-1	1.17E+2	6.14E-3	1.17E+2
690	3.35E+1	8.92E+1	2.87E-2	9.47E+1	4.47E+0	1.00E+2	1.49E-2	1.03E+2	4.15E-1	1.10E+2	4.34E-3	1.10E+2
700	3.30E+1	8.61E+1	1.50E-2	9.17E+1	3.16E+0	9.68E+1	6.26E-3	9.95E+1	1.90E-1	1.06E+2	1.86E-3	1.07E+2

File: MOCE1:[MOS.PRC]STN05_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 21:33 (GMT) 06 Sep 1992STATION: 5 Point Sur
POSITION: 36°12.9' N 121°48.0' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm):	412	443	490	510	555	670	765	865
Lwn (uW/cm^2/sr):	3.37E-1	3.83E-1	4.62E-1	4.15E-1	2.99E-1	2.88E-2	3.99E-3	nil

Depth(m)	1-5	1-5	1-10	1-10	5-10	5-10	Top KL_1	Top KL_2	Mid KL_1	Bot KL_2	LW_1
Res	0.888	0.918	0.807	0.854	0.909	0.931					
λ (nm)	Ke_1	KL_1	Ke_2	KL_2	Ke_3	KL_3	Lw_1	Lw_1	Lw_2	Lw_3	Lwn
400	1.03E-1	1.59E-1	1.16E-1	1.56E-1	1.26E-1	1.53E-1	1.97E-1	1.96E-1	2.15E-1	2.30E-1	3.19E-1
410	9.80E-2	1.55E-1	1.12E-1	1.49E-1	1.23E-1	1.45E-1	2.13E-1	2.11E-1	2.32E-1	2.48E-1	3.37E-1
420	9.08E-2	1.46E-1	1.04E-1	1.36E-1	1.14E-1	1.28E-1	2.16E-1	2.13E-1	2.36E-1	2.49E-1	3.36E-1
430	8.22E-2	1.34E-1	9.47E-2	1.19E-1	1.04E-1	1.07E-1	1.99E-1	1.94E-1	2.17E-1	2.28E-1	3.03E-1
440	7.15E-2	1.21E-1	8.47E-2	1.02E-1	9.46E-2	8.73E-2	2.35E-1	2.28E-1	2.56E-1	2.67E-1	3.54E-1
450	5.88E-2	1.09E-1	7.29E-2	9.00E-2	8.35E-2	7.53E-2	2.84E-1	2.75E-1	3.09E-1	3.23E-1	4.21E-1
460	5.08E-2	9.98E-2	6.48E-2	7.97E-2	7.54E-2	6.37E-2	3.02E-1	2.93E-1	3.29E-1	3.43E-1	4.44E-1
470	4.43E-2	9.32E-2	5.85E-2	7.25E-2	6.92E-2	5.60E-2	3.06E-1	2.96E-1	3.34E-1	3.47E-1	4.45E-1
480	3.69E-2	8.67E-2	5.14E-2	6.85E-2	6.23E-2	5.41E-2	3.31E-1	3.22E-1	3.61E-1	3.77E-1	4.79E-1
490	3.29E-2	8.38E-2	4.71E-2	6.73E-2	5.79E-2	5.42E-2	3.23E-1	3.14E-1	3.52E-1	3.68E-1	4.63E-1
500	3.13E-2	8.72E-2	4.57E-2	7.42E-2	5.66E-2	6.39E-2	3.16E-1	3.10E-1	3.44E-1	3.63E-1	4.52E-1
510	3.65E-2	1.01E-1	5.06E-2	9.35E-2	6.11E-2	8.77E-2	2.93E-1	2.90E-1	3.20E-1	3.40E-1	4.18E-1
520	3.80E-2	1.08E-1	5.17E-2	1.04E-1	6.20E-2	1.01E-1	2.69E-1	2.67E-1	2.93E-1	3.13E-1	3.82E-1
530	3.75E-2	1.10E-1	5.12E-2	1.08E-1	6.14E-2	1.07E-1	2.71E-1	2.71E-1	2.96E-1	3.17E-1	3.86E-1
540	4.07E-2	1.15E-1	5.39E-2	1.14E-1	6.38E-2	1.13E-1	2.46E-1	2.46E-1	2.68E-1	2.87E-1	3.50E-1
550	4.72E-2	1.23E-1	5.98E-2	1.23E-1	6.93E-2	1.23E-1	2.21E-1	2.21E-1	2.41E-1	2.59E-1	3.15E-1
560	5.17E-2	1.28E-1	6.38E-2	1.29E-1	7.30E-2	1.30E-1	1.97E-1	1.97E-1	2.15E-1	2.31E-1	2.81E-1
570	6.11E-2	1.36E-1	7.26E-2	1.38E-1	8.12E-2	1.40E-1	1.72E-1	1.72E-1	1.87E-1	2.02E-1	2.46E-1
580	9.02E-2	1.60E-1	9.96E-2	1.63E-1	1.07E-1	1.65E-1	1.34E-1	1.35E-1	1.46E-1	1.58E-1	1.91E-1
590	1.47E-1	2.01E-1	1.53E-1	2.01E-1	1.57E-1	2.01E-1	8.60E-2	8.60E-2	9.37E-2	1.01E-1	1.22E-1
600	2.47E-1	2.63E-1	2.45E-1	2.41E-1	2.44E-1	2.24E-1	4.96E-2	4.79E-2	5.40E-2	5.61E-2	7.06E-2
610	3.00E-1	2.72E-1	2.87E-1	2.58E-1	2.78E-1	2.47E-1	3.69E-2	3.60E-2	4.02E-2	4.21E-2	5.22E-2
620	3.38E-1	2.60E-1	3.14E-1	2.63E-1	2.95E-1	2.66E-1	2.91E-2	2.93E-2	3.18E-2	3.43E-2	4.09E-2
630	3.59E-1	2.75E-1	3.31E-1	2.67E-1	3.11E-1	2.60E-1	2.56E-2	2.52E-2	2.78E-2	2.95E-2	3.56E-2
640	3.80E-1	2.92E-1	3.50E-1	2.72E-1	3.28E-1	2.57E-1	2.42E-2	2.35E-2	2.64E-2	2.75E-2	3.34E-2
650	4.05E-1	3.02E-1	3.73E-1	2.75E-1	3.48E-1	2.54E-1	2.22E-2	2.13E-2	2.42E-2	2.50E-2	3.04E-2
660	4.58E-1	3.00E-1	4.23E-1	2.69E-1	3.97E-1	2.44E-1	1.82E-2	1.73E-2	1.98E-2	2.03E-2	2.47E-2
670	5.02E-1	2.37E-1	4.64E-1	2.45E-1	4.36E-1	2.51E-1	2.01E-2	2.03E-2	2.19E-2	2.38E-2	2.71E-2
680	5.27E-1	1.82E-1	4.86E-1	2.26E-1	4.56E-1	2.61E-1	2.87E-2	3.07E-2	3.12E-2	3.60E-2	3.86E-2
690	5.59E-1	1.87E-1	5.18E-1	2.28E-1	4.87E-1	2.61E-1	2.09E-2	2.22E-2	2.27E-2	2.60E-2	2.79E-2
700	6.46E-1	2.42E-1	6.05E-1	2.50E-1	5.74E-1	2.57E-1	1.19E-2	1.21E-2	1.30E-2	1.41E-2	1.59E-2

!

! MOCE1 Station 05 Point Sur 06-Sep-1992

!

! Ed top

M103	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN11_1M_ED_23.MLDAT	#Var=1-10	06Sep92 22:26 to 06Sep92 22:29
S118	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN11_WMOS_1M_ED_23.MLDAT	#Var=1-10	06Sep92 22:27 to 06Sep92 22:28

! Lu top

M104	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN11_1M_LU_20.MLDAT	#Var=1-10	06Sep92 22:08 to 06Sep92 22:11
S119	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN11_WMOS_1M_LU_20.MLDAT	#Var=1-10	06Sep92 22:10 to 06Sep92 22:10

! Ed mid

M106	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN11_5M_ED_17.MLDAT	#Var=1-10	06Sep92 21:39 to 06Sep92 21:43
M107	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN11_5M_ED_18.MLDAT	#Var=1-10	06Sep92 21:44 to 06Sep92 21:49
S121	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN11_WMOS_5M_ED_17.MLDAT	#Var=1-10	06Sep92 21:41 to 06Sep92 21:42
S122	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN11_WMOS_5M_ED_18.MLDAT	#Var=1-10	06Sep92 21:47 to 06Sep92 21:47

! Lu mid

M111	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN11_5M_LU_16.MLDAT	#Var=1-10	06Sep92 21:31 to 06Sep92 21:35
S128	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN11_WMOS_5M_LU_16B.MLDAT	#Var=1-10	06Sep92 21:33 to 06Sep92 21:33

! Ed bot

M92	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN11_10M_ED_12.MLDAT	#Var=1-10	06Sep92 20:40 to 06Sep92 20:44
M93	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN11_10M_ED_13.MLDAT	#Var=1-10	06Sep92 20:46 to 06Sep92 20:50
S108	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN11_WMOS_10M_ED_12.MLDAT	#Var=1-10	06Sep92 20:42 to 06Sep92 20:42
S109	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN11_WMOS_10M_ED_13.MLDAT	#Var=1-10	06Sep92 20:48 to 06Sep92 20:48

! Lu bot

M97	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN11_10M_LU_10.MLDAT	#Var=1-10	06Sep92 20:20 to 06Sep92 20:27
M98	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN11_10M_LU_11.MLDAT	#Var=1-10	06Sep92 20:29 to 06Sep92 20:35
M99	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN11_10M_LU_14.MLDAT	#Var=1,4-12	06Sep92 20:52 to 06Sep92 20:58
S125	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN11_WMOS_5M_LU_10M.MLDAT	#Var=1-10	06Sep92 20:24 to 06Sep92 20:24
S113	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN11_WMOS_10M_LU_11.MLDAT	#Var=1-10	06Sep92 20:33 to 06Sep92 20:34
S114	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN11_WMOS_10M_LU_14.MLDAT	#Var=1-10	06Sep92 20:56 to 06Sep92 20:56

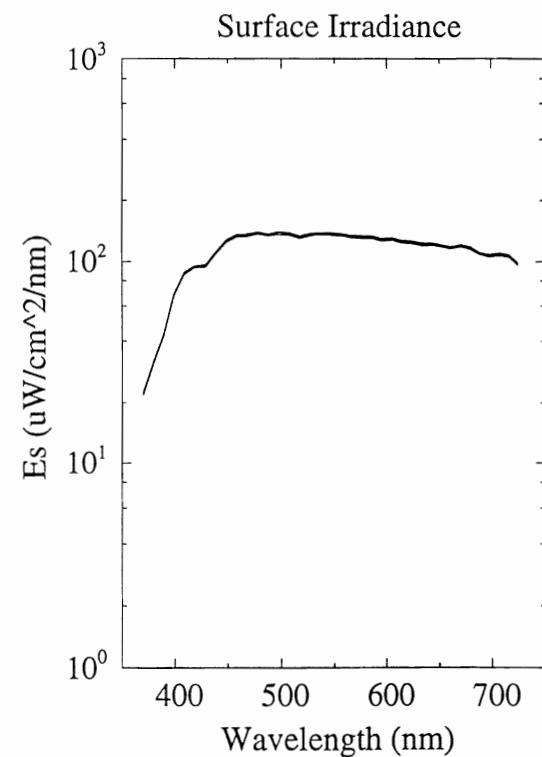
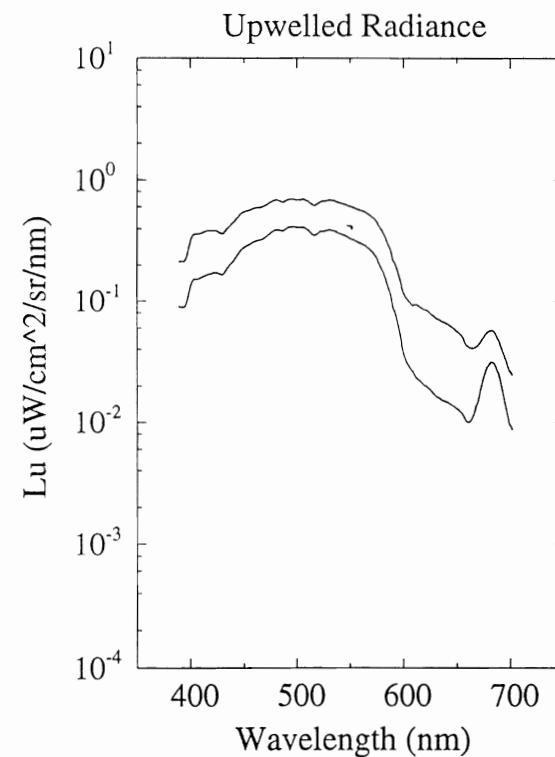
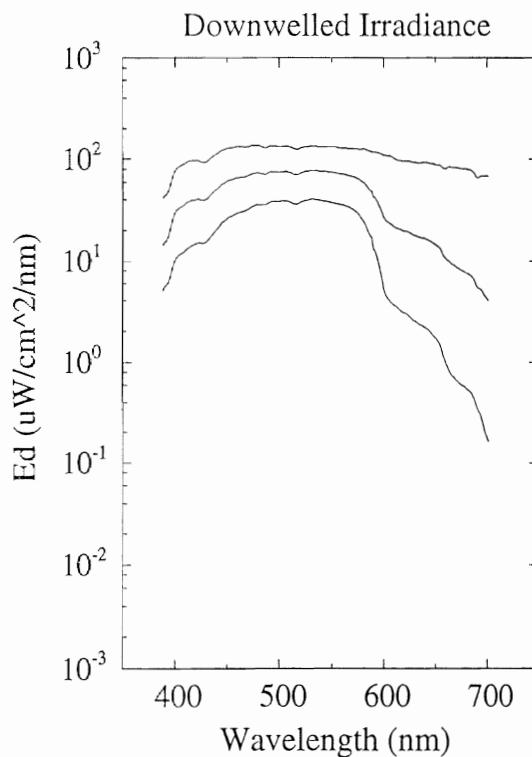
Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
STATION: 6 Santa Cruz

Top = 1 m
Mid = 5 m
Bot = 10 m

POSITION: 36°52.5 N 121°59.8 W
DATE: 19:50 (GMT) 07 Sep 1992

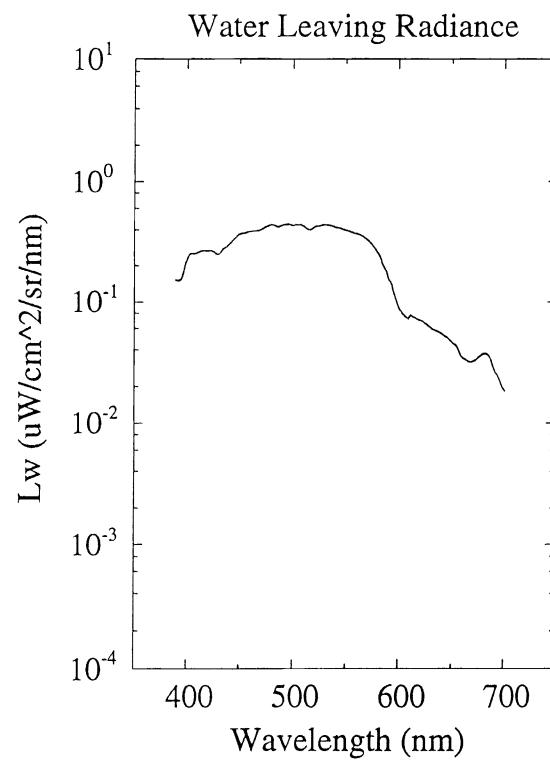
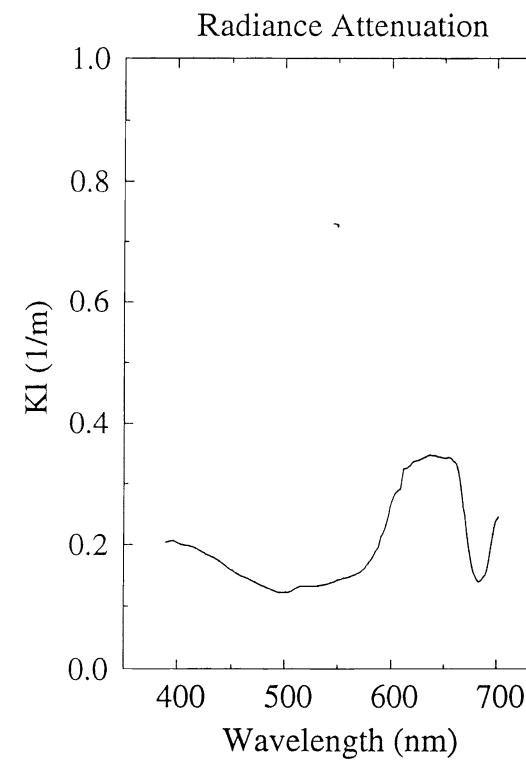
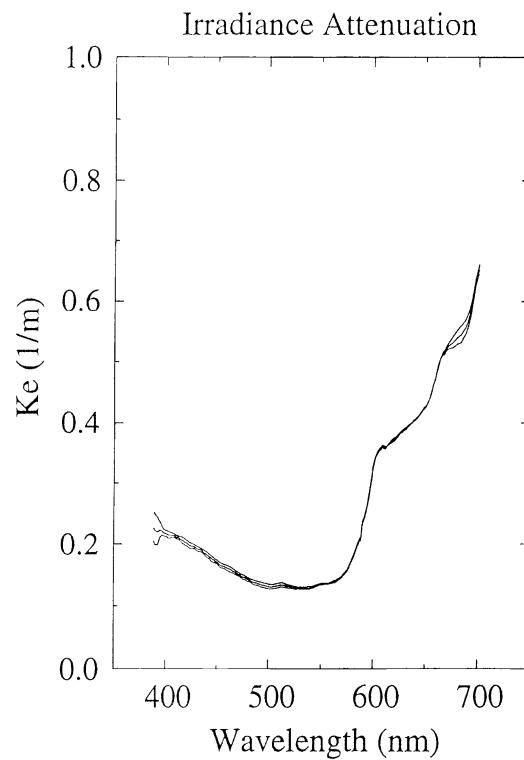


MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
STATION: 6 Santa Cruz

Top = 1 to 5 m
Mid = 1 to 10 m
Bot = 5 to 10 m

POSITION: 36°52.5 N 121°59.8 W
DATE: 19:50 (GMT) 07 Sep 1992



File: MOCE1:[MOS.PRC]STN06_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 19:50 (GMT) 07 Sep 1992

STATION: 6 Santa Cruz
POSITION: 36°52.5' N 121°59.8' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm):	412	443	490	510	555	670	765	865
Lwn (uW/cm^2/sr):	3.77E-1	4.53E-1	5.81E-1	5.64E-1	5.07E-1	4.30E-2	4.61E-3	nil

	Top	Top	Mid	Mid	Bot
Depth (m)	0.6	1.2	4.9	5.5	9.8
Time (GMT)	20:33	20:30	20:06	19:47	19:08

λ (nm)	Ed_1	Es_1	Lu_1	Es_1	Ed_2	Es_2	Lu_2	Es_2	Ed_3	Es_3
400	7.66E+1	6.81E+1	3.26E-1	6.83E+1	2.97E+1	6.90E+1	1.37E-1	6.88E+1	1.01E+1	6.71E+1
410	9.07E+1	8.67E+1	3.65E-1	8.69E+1	3.63E+1	8.78E+1	1.56E-1	8.75E+1	1.26E+1	8.53E+1
420	9.70E+1	9.38E+1	3.84E-1	9.41E+1	4.00E+1	9.50E+1	1.70E-1	9.47E+1	1.46E+1	9.24E+1
430	9.33E+1	9.50E+1	3.62E-1	9.53E+1	4.03E+1	9.61E+1	1.67E-1	9.59E+1	1.54E+1	9.36E+1
440	1.12E+2	1.10E+2	4.43E-1	1.10E+2	5.02E+1	1.11E+2	2.13E-1	1.11E+2	2.02E+1	1.08E+2
450	1.27E+2	1.26E+2	5.47E-1	1.27E+2	6.09E+1	1.28E+2	2.78E-1	1.27E+2	2.60E+1	1.24E+2
460	1.32E+2	1.34E+2	5.85E-1	1.34E+2	6.57E+1	1.35E+2	3.11E-1	1.35E+2	2.94E+1	1.31E+2
470	1.33E+2	1.35E+2	6.12E-1	1.35E+2	6.86E+1	1.36E+2	3.35E-1	1.36E+2	3.20E+1	1.33E+2
480	1.36E+2	1.38E+2	6.83E-1	1.38E+2	7.34E+1	1.40E+2	3.89E-1	1.39E+2	3.59E+1	1.36E+2
490	1.33E+2	1.35E+2	6.81E-1	1.35E+2	7.38E+1	1.37E+2	4.00E-1	1.36E+2	3.73E+1	1.33E+2
500	1.32E+2	1.38E+2	6.85E-1	1.38E+2	7.48E+1	1.39E+2	4.08E-1	1.39E+2	3.87E+1	1.36E+2
510	1.32E+2	1.36E+2	6.68E-1	1.37E+2	7.41E+1	1.38E+2	3.87E-1	1.38E+2	3.80E+1	1.34E+2
520	1.28E+2	1.32E+2	6.44E-1	1.32E+2	7.29E+1	1.33E+2	3.66E-1	1.33E+2	3.76E+1	1.30E+2
530	1.35E+2	1.36E+2	6.83E-1	1.36E+2	7.78E+1	1.37E+2	3.88E-1	1.37E+2	4.05E+1	1.34E+2
540	1.32E+2	1.37E+2	6.47E-1	1.37E+2	7.60E+1	1.39E+2	3.62E-1	1.38E+2	3.95E+1	1.35E+2
550	1.33E+2	1.37E+2	6.05E-1	1.37E+2	7.50E+1	1.38E+2	3.30E-1	1.38E+2	3.78E+1	1.35E+2
560	1.29E+2	1.35E+2	5.63E-1	1.35E+2	7.17E+1	1.36E+2	3.01E-1	1.36E+2	3.57E+1	1.33E+2
570	1.27E+2	1.33E+2	5.00E-1	1.33E+2	6.80E+1	1.34E+2	2.60E-1	1.34E+2	3.26E+1	1.31E+2
580	1.26E+2	1.32E+2	3.78E-1	1.32E+2	6.00E+1	1.33E+2	1.81E-1	1.33E+2	2.50E+1	1.30E+2
590	1.18E+2	1.32E+2	2.26E-1	1.32E+2	4.40E+1	1.33E+2	9.29E-2	1.33E+2	1.41E+1	1.30E+2
600	1.10E+2	1.28E+2	1.17E-1	1.29E+2	2.70E+1	1.30E+2	3.69E-2	1.29E+2	5.30E+0	1.26E+2
610	1.03E+2	1.25E+2	9.29E-2	1.26E+2	2.19E+1	1.27E+2	2.52E-2	1.26E+2	3.65E+0	1.23E+2
620	9.57E+1	1.25E+2	8.50E-2	1.25E+2	1.98E+1	1.26E+2	2.04E-2	1.26E+2	3.05E+0	1.23E+2
630	9.31E+1	1.22E+2	7.28E-2	1.22E+2	1.78E+1	1.23E+2	1.68E-2	1.23E+2	2.52E+0	1.20E+2
640	9.34E+1	1.22E+2	6.56E-2	1.22E+2	1.66E+1	1.23E+2	1.49E-2	1.23E+2	2.18E+0	1.20E+2
650	8.88E+1	1.20E+2	5.56E-2	1.20E+2	1.44E+1	1.21E+2	1.28E-2	1.20E+2	1.70E+0	1.17E+2
660	8.14E+1	1.17E+2	4.20E-2	1.17E+2	1.05E+1	1.18E+2	9.99E-3	1.18E+2	9.66E-1	1.15E+2
670	8.31E+1	1.19E+2	4.35E-2	1.20E+2	8.79E+0	1.21E+2	1.56E-2	1.20E+2	6.68E-1	1.17E+2
680	8.04E+1	1.17E+2	5.66E-2	1.17E+2	7.61E+0	1.18E+2	3.05E-2	1.17E+2	5.45E-1	1.15E+2
690	6.69E+1	1.10E+2	4.41E-2	1.10E+2	5.71E+0	1.11E+2	2.29E-2	1.10E+2	3.63E-1	1.08E+2
700	6.88E+1	1.07E+2	2.59E-2	1.07E+2	4.22E+0	1.08E+2	9.21E-3	1.07E+2	1.73E-1	1.05E+2

File: MOCE1:[MOS.PRC]STN06_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 19:50 (GMT) 07 Sep 1992STATION: 6 Santa Cruz
POSITION: 36°52.5' N 121°59.8' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm):	412	443	490	510	555	670	765	865
Lwn (uW/cm^2/sr):	3.77E-1	4.53E-1	5.81E-1	5.64E-1	5.07E-1	4.30E-2	4.61E-3	nil

Depth(m)	1-5	1-5	1-10	5-10	Top KL_1	Mid KL_1	Lw_1
Res	0.990	0.995	1.017	1.027			
λ (nm)	Ke_1	KL_1	Ke_2	Ke_3	Lw_1	Lw_2	Lwn
400	2.23E-1	2.03E-1	2.18E-1	2.13E-1	2.28E-1	2.29E-1	3.43E-1
410	2.16E-1	1.99E-1	2.12E-1	2.09E-1	2.54E-1	2.55E-1	3.74E-1
420	2.08E-1	1.91E-1	2.03E-1	1.99E-1	2.64E-1	2.66E-1	3.83E-1
430	1.98E-1	1.82E-1	1.94E-1	1.90E-1	2.47E-1	2.48E-1	3.51E-1
440	1.88E-1	1.72E-1	1.83E-1	1.79E-1	2.98E-1	2.99E-1	4.18E-1
450	1.74E-1	1.59E-1	1.70E-1	1.67E-1	3.62E-1	3.64E-1	5.02E-1
460	1.65E-1	1.49E-1	1.61E-1	1.57E-1	3.82E-1	3.85E-1	5.26E-1
470	1.56E-1	1.42E-1	1.52E-1	1.49E-1	3.97E-1	3.99E-1	5.40E-1
480	1.46E-1	1.32E-1	1.42E-1	1.40E-1	4.38E-1	4.40E-1	5.93E-1
490	1.40E-1	1.25E-1	1.36E-1	1.33E-1	4.32E-1	4.34E-1	5.80E-1
500	1.36E-1	1.22E-1	1.32E-1	1.28E-1	4.33E-1	4.36E-1	5.80E-1
510	1.37E-1	1.29E-1	1.33E-1	1.30E-1	4.26E-1	4.28E-1	5.69E-1
520	1.34E-1	1.33E-1	1.31E-1	1.29E-1	4.13E-1	4.15E-1	5.50E-1
530	1.31E-1	1.33E-1	1.28E-1	1.27E-1	4.38E-1	4.40E-1	5.84E-1
540	1.31E-1	1.36E-1	1.29E-1	1.27E-1	4.16E-1	4.18E-1	5.55E-1
550	1.36E-1	1.42E-1	1.35E-1	1.33E-1	3.92E-1	3.95E-1	5.23E-1
560	1.38E-1	1.47E-1	1.37E-1	1.36E-1	3.67E-1	3.69E-1	4.90E-1
570	1.47E-1	1.54E-1	1.45E-1	1.44E-1	3.29E-1	3.31E-1	4.42E-1
580	1.75E-1	1.73E-1	1.73E-1	1.72E-1	2.55E-1	2.56E-1	3.41E-1
590	2.33E-1	2.09E-1	2.30E-1	2.27E-1	1.59E-1	1.60E-1	2.11E-1
600	3.30E-1	2.70E-1	3.27E-1	3.25E-1	8.87E-2	8.92E-2	1.18E-1
610	3.62E-1	3.05E-1	3.60E-1	3.58E-1	7.38E-2	7.42E-2	9.79E-2
620	3.69E-1	3.34E-1	3.72E-1	3.74E-1	7.00E-2	7.03E-2	9.21E-2
630	3.87E-1	3.42E-1	3.89E-1	3.91E-1	6.05E-2	6.09E-2	7.90E-2
640	4.04E-1	3.47E-1	4.05E-1	4.06E-1	5.49E-2	5.52E-2	7.10E-2
650	4.26E-1	3.42E-1	4.27E-1	4.27E-1	4.63E-2	4.65E-2	5.95E-2
660	4.80E-1	3.36E-1	4.79E-1	4.78E-1	3.46E-2	3.48E-2	4.43E-2
670	5.25E-1	2.41E-1	5.21E-1	5.17E-1	3.19E-2	3.20E-2	4.05E-2
680	5.51E-1	1.45E-1	5.39E-1	5.29E-1	3.68E-2	3.70E-2	4.65E-2
690	5.75E-1	1.55E-1	5.64E-1	5.54E-1	2.90E-2	2.92E-2	3.66E-2
700	6.52E-1	2.42E-1	6.47E-1	6.42E-1	1.90E-2	1.91E-2	2.38E-2

```

!
! MOCE1 Station 06 Santa Cruz 07-Sep-1992
!

! Ed top

M123  _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN12_1M_ED_18.MLDAT      #Var=1-10      07Sep92 20:29 to 07Sep92 20:32
M124  _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN12_1M_ED_19.MLDAT      #Var=1-10      07Sep92 20:33 to 07Sep92 20:36
S143  _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN12_WMOS_1M_ED_18.MLDAT    #Var=1-10      07Sep92 17:32 to 07Sep92 20:32
S144  _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN12_WMOS_1M_ED_19.MLDAT    #Var=1-10      07Sep92 17:32 to 07Sep92 20:35

! Lu top

M125  _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN12_1M_LU_16.MLDAT      #Var=1-10      07Sep92 20:20 to 07Sep92 20:23
M126  _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN12_1M_LU_17.MLDAT      #Var=1-10      07Sep92 20:25 to 07Sep92 20:28
M127  _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN12_1M_LU_20.MLDAT      #Var=1-10      07Sep92 20:38 to 07Sep92 20:41
S145  _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN12_WMOS_1M_LU_16.MLDAT    #Var=1-10      07Sep92 17:32 to 07Sep92 20:22
S146  _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN12_WMOS_1M_LU_17.MLDAT    #Var=1-10      07Sep92 17:32 to 07Sep92 20:28
S147  _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN12_WMOS_1M_LU_20.MLDAT    #Var=1-10      07Sep92 17:32 to 07Sep92 20:40

! Ed mid

M129  _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN12_5M_ED_13.MLDAT      #Var=1-10      07Sep92 20:01 to 07Sep92 20:05
M130  _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN12_5M_ED_14.MLDAT      #Var=1-10      07Sep92 20:06 to 07Sep92 20:09
S149  _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN12_WMOS_5M_ED_13.MLDAT    #Var=1-10      07Sep92 17:32 to 07Sep92 20:04
S150  _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN12_WMOS_5M_ED_14.MLDAT    #Var=1-10      07Sep92 17:32 to 07Sep92 20:08

! Lu mid

M134  _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN12_5M_LU_9.MLDAT      #Var=1-10      07Sep92 19:26 to 07Sep92 19:30
M131  _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN12_5M_LU_10.MLDAT      #Var=1-10      07Sep92 19:32 to 07Sep92 19:36
M132  _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN12_5M_LU_11.MLDAT      #Var=1-10      07Sep92 19:49 to 07Sep92 19:54
M133  _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN12_5M_LU_15.MLDAT      #Var=1-10      07Sep92 20:10 to 07Sep92 20:15
S154  _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN12_WMOS_5M_LU_9.MLDAT    #Var=1-10      07Sep92 17:32 to 07Sep92 19:29
S151  _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN12_WMOS_5M_LU_10.MLDAT    #Var=1-10      07Sep92 17:32 to 07Sep92 19:34
S152  _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN12_WMOS_5M_LU_11.MLDAT    #Var=1-10      07Sep92 17:32 to 07Sep92 19:52
S153  _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN12_WMOS_5M_LU_15.MLDAT    #Var=1-10      07Sep92 17:32 to 07Sep92 20:13

! Ed bot

M118  _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN12_10M_ED_8.MLDAT      #Var=1-10      07Sep92 19:06 to 07Sep92 19:10
S138  _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN12_WMOS_10M_ED_8.MLDAT    #Var=1-10      07Sep92 17:32 to 07Sep92 19:08

! Lu bot

M122  _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN12_10M_LU_6.MLDAT      #Var=1-10      07Sep92 18:54 to 07Sep92 18:59
S142  _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN12_WMOS_10M_LU_6.MLDAT    #Var=1-10      07Sep92 17:32 to 07Sep92 18:56

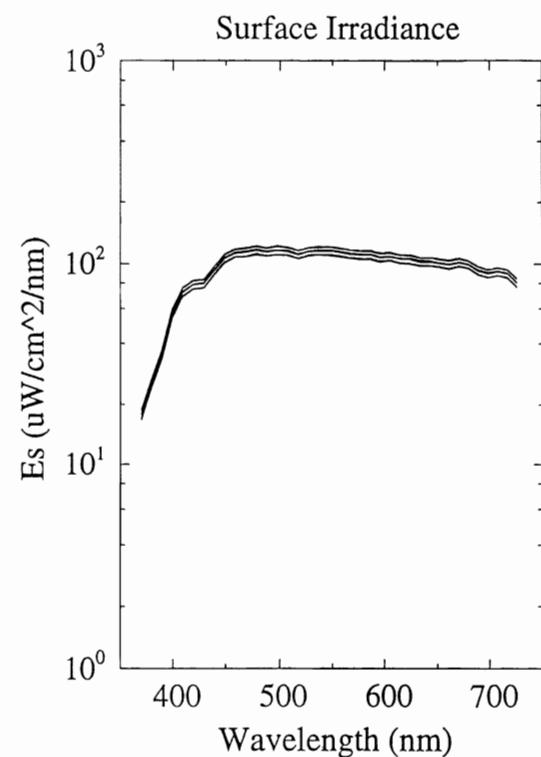
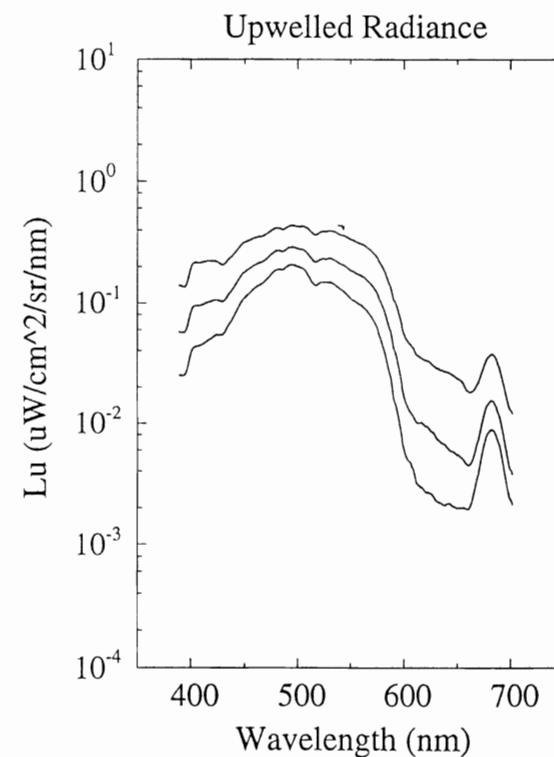
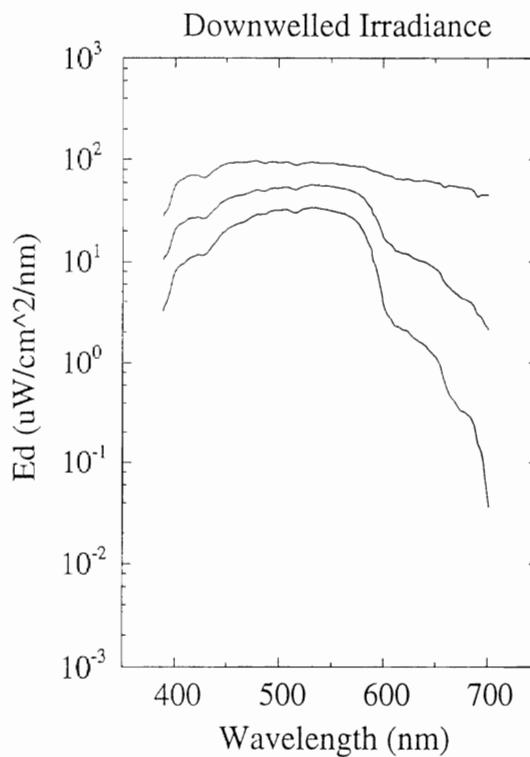
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MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
STATION: 7-1 Mulligan Hill

Top = 1 m
Mid = 5 m
Bot = 10 m

POSITION: 36°44.4 N 121°51.2 W
DATE: 22:13 (GMT) 08 Sep 1992

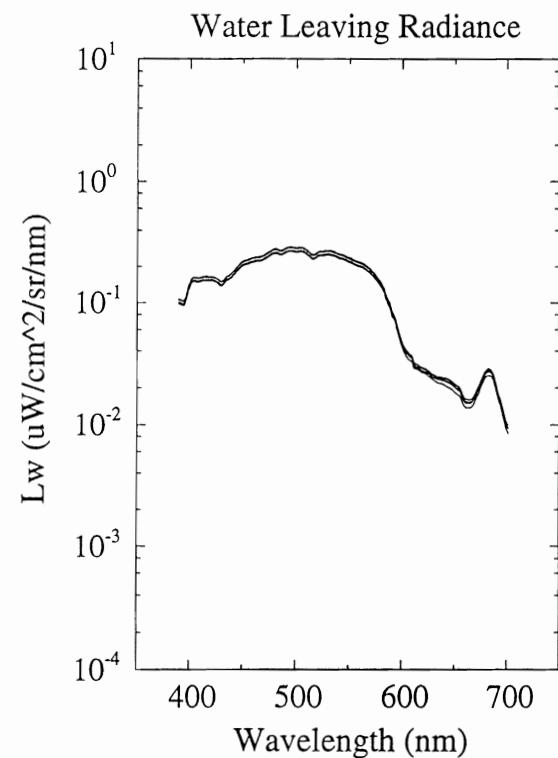
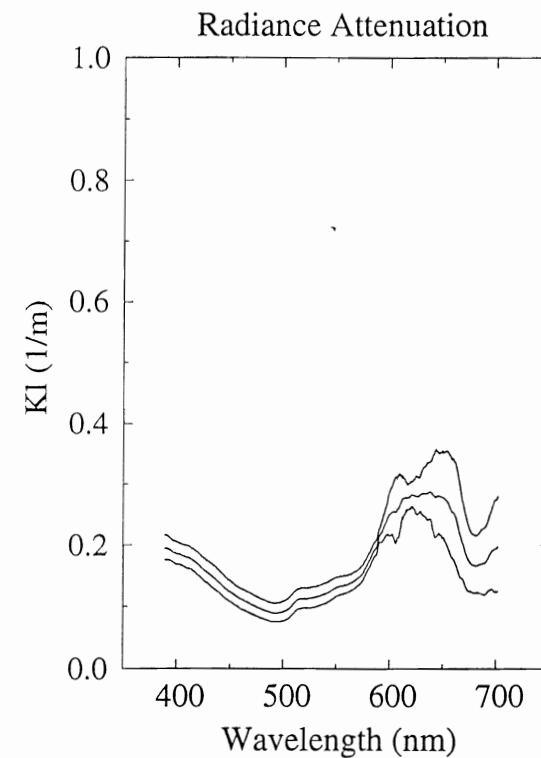
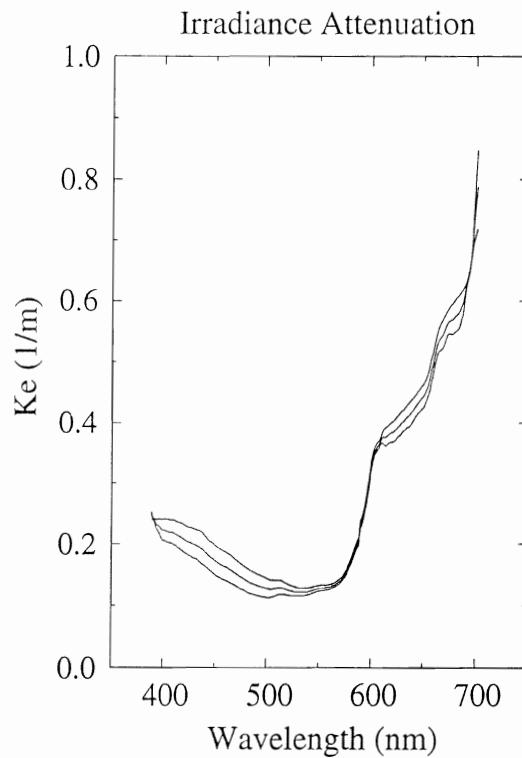


MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
STATION: 7-1 Mulligan Hill

Top = 1 to 5 m
Mid = 1 to 10 m
Bot = 5 to 10 m

POSITION: 36°44.4 N 121°51.2 W
DATE: 22:13 (GMT) 08 Sep 1992



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MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 22:13 (GMT) 08 Sep 1992STATION: 7-1 Mulligan Hill
POSITION: 36°44.4' N 121°51.2' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm):	412	443	490	510	555	670	765	865
Lwn (uW/cm^2/sr):	2.69E-1	3.08E-1	4.20E-1	4.04E-1	3.37E-1	2.82E-2	2.99E-3	nil

	Top	Top	Mid	Mid	Bot	Bot
Depth (m)	0.6	1.3	5.0	5.6	9.8	10.5
Time (GMT)	22:29	22:22	22:15	22:09	22:01	21:55

λ (nm)	Ed_1	Es_1	Lu_1	Es_1	Ed_2	Es_2	Lu_2	Es_2	Ed_3	Es_3	Lu_3	Es_3
400	5.52E+1	5.34E+1	1.97E-1	5.40E+1	2.05E+1	5.63E+1	8.57E-2	5.70E+1	7.91E+0	5.90E+1	3.90E-2	5.97E+1
410	6.60E+1	6.84E+1	2.15E-1	6.91E+1	2.47E+1	7.19E+1	9.56E-2	7.27E+1	9.78E+0	7.54E+1	4.49E-2	7.59E+1
420	7.00E+1	7.43E+1	2.21E-1	7.51E+1	2.69E+1	7.81E+1	1.04E-1	7.91E+1	1.13E+1	8.18E+1	5.13E-2	8.23E+1
430	6.69E+1	7.55E+1	2.06E-1	7.61E+1	2.66E+1	7.93E+1	1.03E-1	8.05E+1	1.18E+1	8.31E+1	5.48E-2	8.37E+1
440	7.95E+1	8.77E+1	2.50E-1	8.86E+1	3.29E+1	9.22E+1	1.33E-1	9.33E+1	1.55E+1	9.65E+1	7.60E-2	9.71E+1
450	9.05E+1	1.01E+2	3.15E-1	1.02E+2	4.04E+1	1.06E+2	1.80E-1	1.07E+2	2.04E+1	1.11E+2	1.10E-1	1.11E+2
460	9.39E+1	1.07E+2	3.43E-1	1.08E+2	4.39E+1	1.12E+2	2.06E-1	1.14E+2	2.32E+1	1.17E+2	1.33E-1	1.18E+2
470	9.38E+1	1.08E+2	3.63E-1	1.09E+2	4.62E+1	1.13E+2	2.26E-1	1.15E+2	2.53E+1	1.18E+2	1.52E-1	1.20E+2
480	9.61E+1	1.11E+2	4.14E-1	1.12E+2	5.03E+1	1.16E+2	2.69E-1	1.18E+2	2.90E+1	1.21E+2	1.88E-1	1.22E+2
490	9.38E+1	1.08E+2	4.20E-1	1.10E+2	5.11E+1	1.14E+2	2.80E-1	1.15E+2	3.04E+1	1.19E+2	2.00E-1	1.19E+2
500	9.35E+1	1.11E+2	4.26E-1	1.11E+2	5.26E+1	1.16E+2	2.81E-1	1.17E+2	3.18E+1	1.21E+2	2.00E-1	1.22E+2
510	9.32E+1	1.10E+2	4.03E-1	1.10E+2	5.31E+1	1.15E+2	2.49E-1	1.16E+2	3.16E+1	1.20E+2	1.67E-1	1.21E+2
520	9.01E+1	1.06E+2	3.76E-1	1.07E+2	5.27E+1	1.11E+2	2.25E-1	1.12E+2	3.12E+1	1.16E+2	1.45E-1	1.16E+2
530	9.43E+1	1.09E+2	3.93E-1	1.10E+2	5.66E+1	1.14E+2	2.33E-1	1.16E+2	3.38E+1	1.19E+2	1.49E-1	1.20E+2
540	9.23E+1	1.10E+2	3.65E-1	1.12E+2	5.56E+1	1.15E+2	2.11E-1	1.17E+2	3.29E+1	1.21E+2	1.31E-1	1.21E+2
550	9.26E+1	1.10E+2	3.35E-1	1.11E+2	5.48E+1	1.15E+2	1.87E-1	1.17E+2	3.16E+1	1.20E+2	1.10E-1	1.21E+2
560	8.92E+1	1.08E+2	3.06E-1	1.09E+2	5.25E+1	1.13E+2	1.68E-1	1.15E+2	2.98E+1	1.19E+2	9.56E-2	1.19E+2
570	8.70E+1	1.06E+2	2.66E-1	1.08E+2	4.95E+1	1.11E+2	1.41E-1	1.13E+2	2.70E+1	1.17E+2	7.61E-2	1.17E+2
580	8.55E+1	1.05E+2	1.97E-1	1.06E+2	4.28E+1	1.10E+2	9.35E-2	1.12E+2	2.04E+1	1.15E+2	4.42E-2	1.16E+2
590	7.77E+1	1.05E+2	1.12E-1	1.06E+2	3.00E+1	1.10E+2	4.53E-2	1.12E+2	1.09E+1	1.15E+2	1.77E-2	1.16E+2
600	7.16E+1	1.02E+2	5.52E-2	1.03E+2	1.75E+1	1.07E+2	1.67E-2	1.08E+2	3.87E+0	1.12E+2	6.01E-3	1.13E+2
610	6.68E+1	1.01E+2	4.03E-2	1.01E+2	1.37E+1	1.05E+2	1.08E-2	1.06E+2	2.43E+0	1.10E+2	3.75E-3	1.11E+2
620	6.43E+1	9.98E+1	3.37E-2	1.01E+2	1.20E+1	1.05E+2	9.48E-3	1.06E+2	2.10E+0	1.09E+2	2.75E-3	1.10E+2
630	6.23E+1	9.74E+1	2.93E-2	9.81E+1	1.07E+1	1.02E+2	7.65E-3	1.04E+2	1.74E+0	1.07E+2	2.32E-3	1.07E+2
640	6.28E+1	9.77E+1	2.69E-2	9.85E+1	9.92E+0	1.02E+2	6.46E-3	1.04E+2	1.47E+0	1.07E+2	2.15E-3	1.07E+2
650	5.97E+1	9.58E+1	2.37E-2	9.66E+1	8.49E+0	1.00E+2	5.46E-3	1.01E+2	1.13E+0	1.05E+2	1.99E-3	1.05E+2
660	5.44E+1	9.44E+1	1.84E-2	9.50E+1	6.02E+0	9.87E+1	4.48E-3	9.96E+1	5.94E-1	1.03E+2	1.96E-3	1.04E+2
670	5.50E+1	9.66E+1	2.26E-2	9.72E+1	4.89E+0	1.01E+2	7.71E-3	1.02E+2	3.94E-1	1.06E+2	4.03E-3	1.06E+2
680	5.30E+1	9.45E+1	3.68E-2	9.51E+1	4.18E+0	9.89E+1	1.52E-2	9.97E+1	3.06E-1	1.03E+2	8.68E-3	1.04E+2
690	4.41E+1	8.82E+1	2.70E-2	8.87E+1	3.13E+0	9.23E+1	1.05E-2	9.34E+1	1.74E-1	9.65E+1	6.07E-3	9.67E+1
700	4.51E+1	8.54E+1	1.26E-2	8.57E+1	2.22E+0	8.93E+1	4.05E-3	9.05E+1	4.57E-2	9.35E+1	2.29E-3	9.35E+1

File: MOCE1:[MOS.PRC]STN07_1_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 22:13 (GMT) 08 Sep 1992STATION: 7-1 Mulligan Hill
POSITION: 36°44.4' N 121°51.2' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm):	412	443	490	510	555	670	765	865
Lwn (uW/cm^2/sr):	2.69E-1	3.08E-1	4.20E-1	4.04E-1	3.37E-1	2.82E-2	2.99E-3	nil

Depth(m)	1-5	1-5	1-10	1-10	5-10	5-10	Top	Top	Mid	Bot	Lw_1
Res	0.954	0.951	0.912	0.916	0.956	0.963	KL_1	KL_2	KL_1	KL_2	

λ (nm)	Ke_1	KL_1	Ke_2	KL_2	Ke_3	KL_3	Lw_1	Lw_1	Lw_2	Lw_3	Lwn
----------------	------	------	------	------	------	------	------	------	------	------	-----

400	2.40E-1	2.05E-1	2.22E-1	1.86E-1	2.06E-1	1.68E-1	1.40E-1	1.37E-1	1.48E-1	1.50E-1	2.56E-1
410	2.39E-1	2.00E-1	2.19E-1	1.80E-1	2.00E-1	1.62E-1	1.52E-1	1.48E-1	1.60E-1	1.62E-1	2.71E-1
420	2.33E-1	1.88E-1	2.09E-1	1.68E-1	1.88E-1	1.51E-1	1.54E-1	1.50E-1	1.62E-1	1.64E-1	2.68E-1
430	2.25E-1	1.73E-1	2.00E-1	1.53E-1	1.77E-1	1.36E-1	1.40E-1	1.37E-1	1.47E-1	1.49E-1	2.40E-1
440	2.15E-1	1.58E-1	1.89E-1	1.39E-1	1.65E-1	1.22E-1	1.67E-1	1.63E-1	1.75E-1	1.78E-1	2.81E-1
450	1.98E-1	1.42E-1	1.73E-1	1.24E-1	1.50E-1	1.08E-1	2.06E-1	2.01E-1	2.17E-1	2.20E-1	3.42E-1
460	1.87E-1	1.30E-1	1.63E-1	1.12E-1	1.41E-1	9.68E-2	2.21E-1	2.16E-1	2.33E-1	2.36E-1	3.64E-1
470	1.75E-1	1.22E-1	1.53E-1	1.04E-1	1.33E-1	8.88E-2	2.32E-1	2.26E-1	2.43E-1	2.47E-1	3.76E-1
480	1.61E-1	1.12E-1	1.41E-1	9.56E-2	1.23E-1	8.12E-2	2.61E-1	2.55E-1	2.74E-1	2.79E-1	4.21E-1
490	1.52E-1	1.06E-1	1.33E-1	9.00E-2	1.17E-1	7.59E-2	2.62E-1	2.57E-1	2.76E-1	2.80E-1	4.19E-1
500	1.44E-1	1.08E-1	1.28E-1	9.17E-2	1.13E-1	7.68E-2	2.67E-1	2.61E-1	2.81E-1	2.85E-1	4.25E-1
510	1.41E-1	1.23E-1	1.28E-1	1.05E-1	1.17E-1	8.98E-2	2.57E-1	2.51E-1	2.70E-1	2.74E-1	4.09E-1
520	1.35E-1	1.31E-1	1.26E-1	1.13E-1	1.17E-1	9.77E-2	2.42E-1	2.37E-1	2.55E-1	2.59E-1	3.84E-1
530	1.29E-1	1.33E-1	1.22E-1	1.15E-1	1.16E-1	9.94E-2	2.54E-1	2.48E-1	2.67E-1	2.71E-1	4.04E-1
540	1.28E-1	1.39E-1	1.23E-1	1.21E-1	1.18E-1	1.05E-1	2.38E-1	2.33E-1	2.50E-1	2.54E-1	3.77E-1
550	1.32E-1	1.48E-1	1.28E-1	1.31E-1	1.23E-1	1.16E-1	2.21E-1	2.16E-1	2.32E-1	2.36E-1	3.51E-1
560	1.34E-1	1.51E-1	1.30E-1	1.36E-1	1.26E-1	1.23E-1	2.03E-1	1.99E-1	2.13E-1	2.17E-1	3.22E-1
570	1.42E-1	1.59E-1	1.38E-1	1.46E-1	1.34E-1	1.34E-1	1.78E-1	1.75E-1	1.88E-1	1.91E-1	2.85E-1
580	1.72E-1	1.84E-1	1.67E-1	1.72E-1	1.62E-1	1.61E-1	1.36E-1	1.34E-1	1.43E-1	1.46E-1	2.16E-1
590	2.32E-1	2.23E-1	2.25E-1	2.11E-1	2.19E-1	2.01E-1	8.18E-2	8.06E-2	8.60E-2	8.80E-2	1.29E-1
600	3.38E-1	2.89E-1	3.29E-1	2.50E-1	3.21E-1	2.17E-1	4.38E-2	4.16E-2	4.60E-2	4.55E-2	6.94E-2
610	3.79E-1	3.17E-1	3.72E-1	2.68E-1	3.66E-1	2.25E-1	3.33E-2	3.12E-2	3.50E-2	3.40E-2	5.24E-2
620	4.00E-1	3.06E-1	3.83E-1	2.82E-1	3.68E-1	2.61E-1	2.74E-2	2.65E-2	2.88E-2	2.90E-2	4.27E-2
630	4.19E-1	3.23E-1	4.01E-1	2.85E-1	3.84E-1	2.51E-1	2.44E-2	2.31E-2	2.56E-2	2.53E-2	3.76E-2
640	4.39E-1	3.43E-1	4.20E-1	2.84E-1	4.02E-1	2.33E-1	2.30E-2	2.13E-2	2.41E-2	2.32E-2	3.52E-2
650	4.64E-1	3.52E-1	4.43E-1	2.78E-1	4.25E-1	2.13E-1	2.04E-2	1.85E-2	2.15E-2	2.02E-2	3.10E-2
660	5.22E-1	3.39E-1	5.03E-1	2.52E-1	4.87E-1	1.76E-1	1.56E-2	1.39E-2	1.64E-2	1.52E-2	2.36E-2
670	5.73E-1	2.61E-1	5.49E-1	1.97E-1	5.28E-1	1.41E-1	1.73E-2	1.59E-2	1.82E-2	1.74E-2	2.59E-2
680	6.01E-1	2.16E-1	5.73E-1	1.67E-1	5.48E-1	1.23E-1	2.66E-2	2.49E-2	2.80E-2	2.72E-2	3.97E-2
690	6.25E-1	2.30E-1	6.15E-1	1.72E-1	6.06E-1	1.20E-1	1.98E-2	1.84E-2	2.08E-2	2.00E-2	2.94E-2
700	7.10E-1	2.75E-1	7.64E-1	1.95E-1	8.13E-1	1.24E-1	9.85E-3	8.86E-3	1.04E-2	9.68E-3	1.45E-2

```

!
! MOCE1 Station 07 (#1) Mulligan Hill 08-Sep-1992
!

! Ed top

M140 _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN13_1M_ED_14.MLDAT      #Var=1-10      08Sep92 22:26 to 08Sep92 22:29
M141 _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN13_1M_ED_15.MLDAT      #Var=1-10      08Sep92 22:30 to 08Sep92 22:33
S162 _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN13_WMOS_1M_ED_14.MLDAT  #Var=1-10      08Sep92 22:27 to 08Sep92 22:28
S163 _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN13_WMOS_1M_ED_15.MLDAT  #Var=1-10      08Sep92 22:31 to 08Sep92 22:32

! Lu top

M142 _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN13_1M_LU_13.MLDAT      #Var=1-10      08Sep92 22:20 to 08Sep92 22:24
S164 _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN13_WMOS_1M_LU_13.MLDAT  #Var=1-10      08Sep92 22:22 to 08Sep92 22:22

! Ed mid

M146 _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN13_5M_ED_12.MLDAT      #Var=1-10      08Sep92 22:13 to 08Sep92 22:17
S166 _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN13_WMOS_5M_ED_12.MLDAT  #Var=1-10      08Sep92 22:15 to 08Sep92 22:15

! Lu mid

M149 _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN13_5M_LU_11.MLDAT      #Var=1-10      08Sep92 22:07 to 08Sep92 22:11
S167 _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN13_WMOS_5M_LU_11.MLDAT  #Var=1-10      08Sep92 22:09 to 08Sep92 22:09

! Ed bot

M136 _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN13_10M_ED_10.MLDAT     #Var=1-10      08Sep92 21:59 to 08Sep92 22:04
S157 _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN13_WMOS_10M_ED_10.MLDAT #Var=1-10      08Sep92 22:01 to 08Sep92 22:02

! Lu bot

M145 _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN13_1M_LU_9.MLDAT       #Var=1,11-19    08Sep92 21:43 to 08Sep92 21:57
S161 _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN13_WMOS_10M_LU_9.MLDAT  #Var=1-10      08Sep92 21:55 to 08Sep92 21:55

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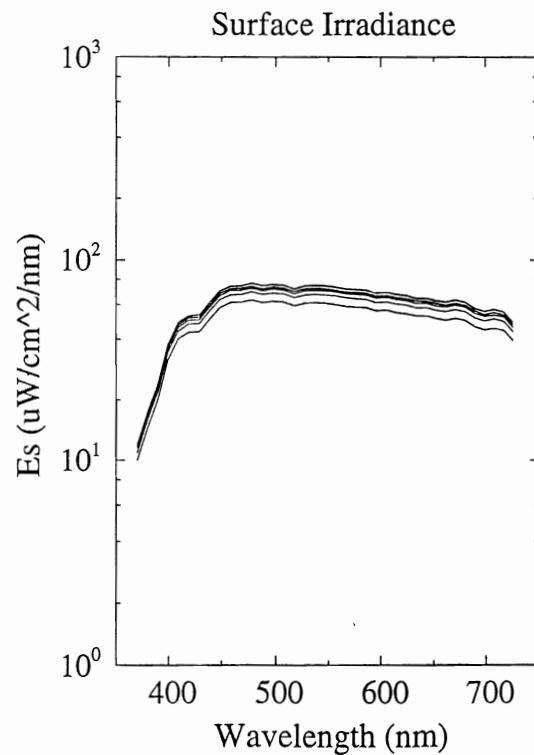
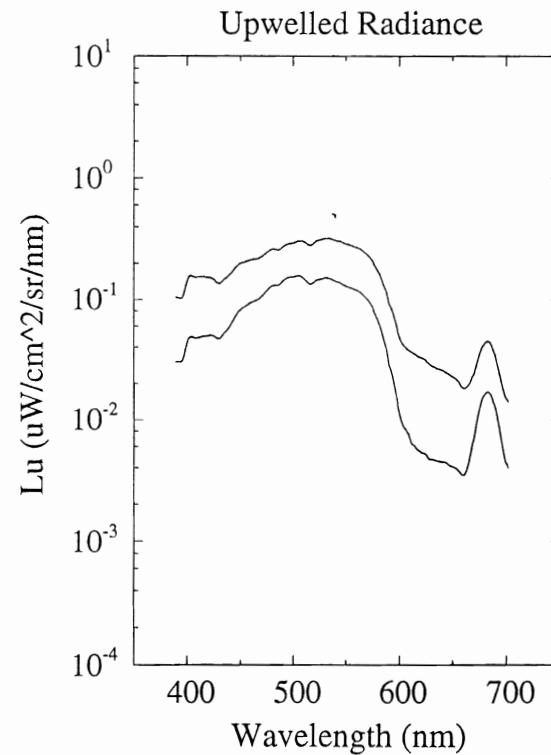
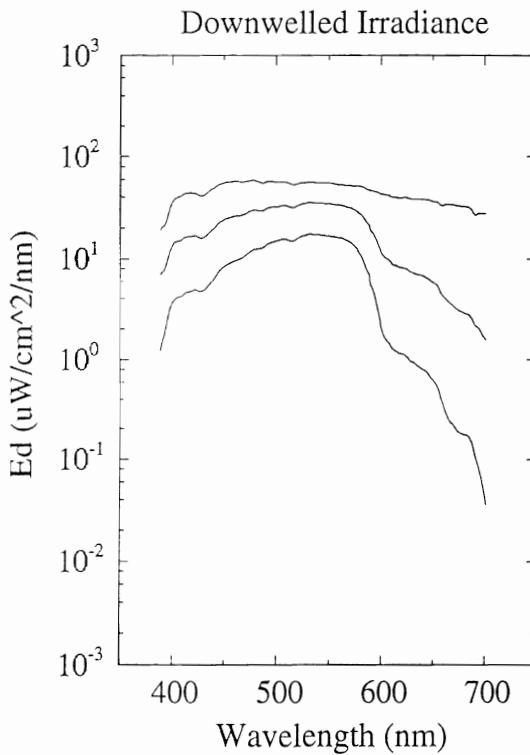

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
STATION: 7-2 Mulligan Hill

Top = 1 m
Mid = 5 m
Bot = 10 m

POSITION: 36°44.4 N 121°51.2 W
DATE: 19:40 (GMT) 09 Sep 1992

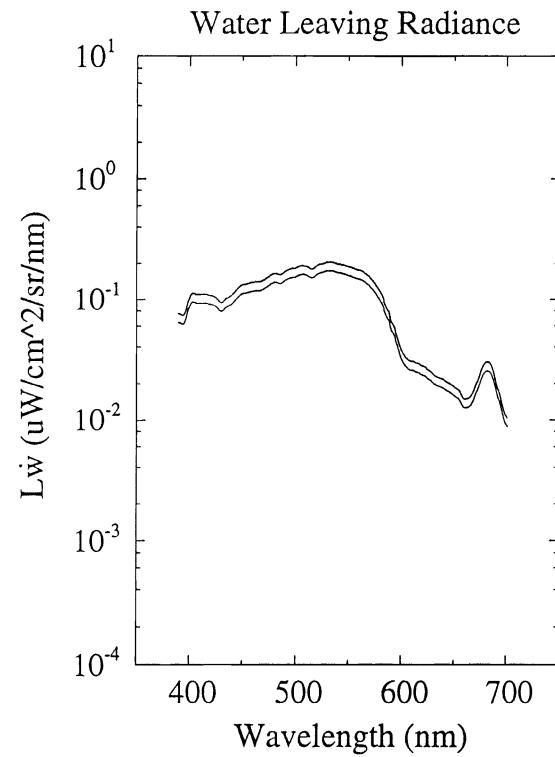
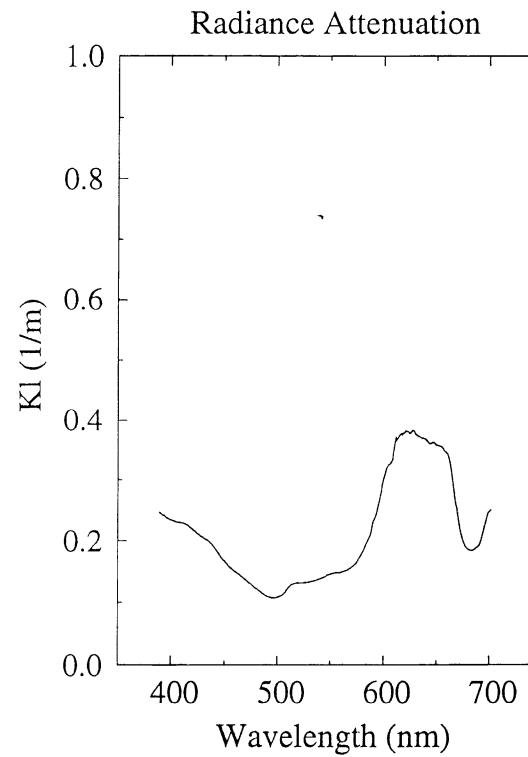
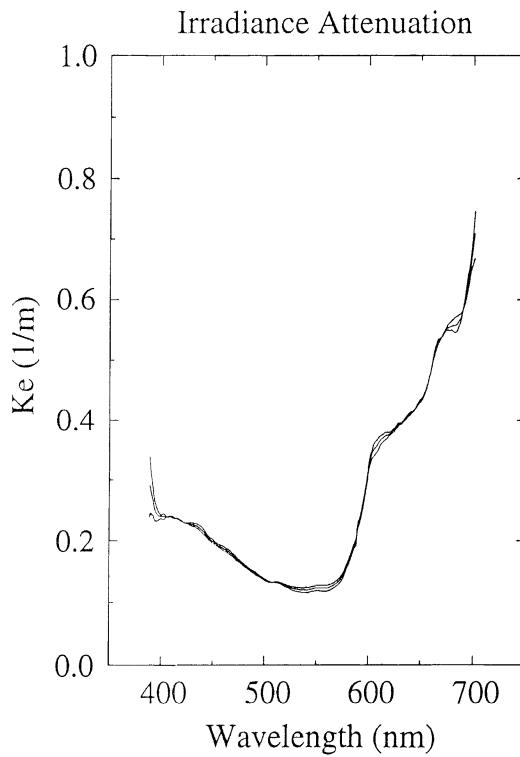


MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
STATION: 7-2 Mulligan Hill

Top = 1 to 5 m
Mid = 1 to 10 m
Bot = 5 to 10 m

POSITION: 36°44.4 N 121°51.2 W
DATE: 19:40 (GMT) 09 Sep 1992



File: MOCE1:[MOS.PRC]STN07_2_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 19:40 (GMT) 09 Sep 1992

STATION: 7-2 Mulligan Hill
POSITION: 36°44.4' N 121°51.2' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm)	412	443	490	510	555	670	765	865
Lwn (uW/cm^2/sr)	1.60E-1	1.68E-1	2.31E-1	2.50E-1	2.43E-1	2.52E-2	2.82E-3	nil

Depth (m)	Top	Mid	Mid	Bot	
	0.5				4.9
Time (GMT)	20:31	20:16	19:42	19:26	19:08

λ (nm)	Ed_1	Es_1	Lu_1	Es_1	Ed_2	Es_2	Lu_2	Es_2	Ed_3	Es_3
400	3.56E+1	3.63E+1	1.46E-1	3.73E+1	1.34E+1	3.82E+1	4.49E-2	3.17E+1	3.65E+0	3.48E+1
410	4.19E+1	4.62E+1	1.54E-1	4.74E+1	1.56E+1	4.87E+1	4.79E-2	4.03E+1	4.29E+0	4.42E+1
420	4.39E+1	4.99E+1	1.53E-1	5.12E+1	1.67E+1	5.26E+1	4.99E-2	4.36E+1	4.80E+0	4.78E+1
430	4.15E+1	5.03E+1	1.36E-1	5.16E+1	1.60E+1	5.31E+1	4.72E-2	4.39E+1	4.81E+0	4.81E+1
440	4.89E+1	5.82E+1	1.59E-1	5.96E+1	1.95E+1	6.14E+1	5.89E-2	5.06E+1	6.18E+0	5.56E+1
450	5.52E+1	6.65E+1	1.99E-1	6.81E+1	2.40E+1	7.02E+1	8.16E-2	5.79E+1	8.29E+0	6.36E+1
460	5.70E+1	7.01E+1	2.13E-1	7.19E+1	2.60E+1	7.41E+1	9.39E-2	6.10E+1	9.47E+0	6.70E+1
470	5.66E+1	7.07E+1	2.25E-1	7.24E+1	2.73E+1	7.47E+1	1.05E-1	6.15E+1	1.05E+1	6.75E+1
480	5.77E+1	7.23E+1	2.61E-1	7.41E+1	2.99E+1	7.65E+1	1.30E-1	6.29E+1	1.24E+1	6.91E+1
490	5.63E+1	7.04E+1	2.72E-1	7.21E+1	3.08E+1	7.45E+1	1.43E-1	6.11E+1	1.35E+1	6.72E+1
500	5.60E+1	7.16E+1	2.93E-1	7.33E+1	3.22E+1	7.58E+1	1.55E-1	6.21E+1	1.49E+1	6.83E+1
510	5.57E+1	7.08E+1	3.00E-1	7.25E+1	3.30E+1	7.50E+1	1.49E-1	6.15E+1	1.54E+1	6.76E+1
520	5.40E+1	6.80E+1	2.95E-1	6.96E+1	3.30E+1	7.19E+1	1.41E-1	5.90E+1	1.57E+1	6.48E+1
530	5.64E+1	7.01E+1	3.20E-1	7.18E+1	3.55E+1	7.42E+1	1.52E-1	6.08E+1	1.73E+1	6.69E+1
540	5.51E+1	7.07E+1	3.07E-1	7.24E+1	3.51E+1	7.49E+1	1.43E-1	6.13E+1	1.72E+1	6.74E+1
550	5.51E+1	7.02E+1	2.89E-1	7.19E+1	3.47E+1	7.44E+1	1.30E-1	6.08E+1	1.67E+1	6.70E+1
560	5.32E+1	6.93E+1	2.70E-1	7.09E+1	3.35E+1	7.34E+1	1.19E-1	6.00E+1	1.61E+1	6.61E+1
570	5.20E+1	6.79E+1	2.35E-1	6.95E+1	3.16E+1	7.20E+1	1.01E-1	5.87E+1	1.46E+1	6.47E+1
580	5.11E+1	6.70E+1	1.71E-1	6.87E+1	2.73E+1	7.11E+1	6.59E-2	5.80E+1	1.10E+1	6.39E+1
590	4.65E+1	6.66E+1	9.62E-2	6.83E+1	1.94E+1	7.07E+1	3.04E-2	5.76E+1	5.80E+0	6.35E+1
600	4.33E+1	6.45E+1	4.80E-2	6.60E+1	1.16E+1	6.84E+1	1.10E-2	5.57E+1	2.07E+0	6.14E+1
610	4.07E+1	6.33E+1	3.74E-2	6.48E+1	9.18E+0	6.71E+1	6.94E-3	5.46E+1	1.34E+0	6.03E+1
620	3.96E+1	6.24E+1	3.30E-2	6.39E+1	8.18E+0	6.62E+1	5.44E-3	5.38E+1	1.14E+0	5.94E+1
630	3.85E+1	6.09E+1	2.84E-2	6.24E+1	7.33E+0	6.46E+1	4.70E-3	5.24E+1	9.47E-1	5.79E+1
640	3.86E+1	6.08E+1	2.60E-2	6.23E+1	6.82E+0	6.45E+1	4.47E-3	5.24E+1	8.04E-1	5.79E+1
650	3.65E+1	5.91E+1	2.27E-2	6.06E+1	5.84E+0	6.27E+1	4.06E-3	5.08E+1	6.17E-1	5.62E+1
660	3.35E+1	5.80E+1	1.83E-2	5.94E+1	4.20E+0	6.15E+1	3.48E-3	4.99E+1	3.39E-1	5.51E+1
670	3.39E+1	5.93E+1	2.48E-2	6.07E+1	3.38E+0	6.28E+1	7.22E-3	5.09E+1	2.17E-1	5.63E+1
680	3.27E+1	5.81E+1	4.39E-2	5.95E+1	2.89E+0	6.15E+1	1.66E-2	4.99E+1	1.77E-1	5.52E+1
690	2.74E+1	5.42E+1	3.20E-2	5.55E+1	2.26E+0	5.75E+1	1.18E-2	4.65E+1	1.17E-1	5.15E+1
700	2.79E+1	5.21E+1	1.47E-2	5.34E+1	1.63E+0	5.52E+1	4.24E-3	4.47E+1	4.38E-2	4.95E+1

File: MOCE1:[MOS.PRC]STN07_2_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 19:40 (GMT) 09 Sep 1992STATION: 7-2 Mulligan Hill
POSITION: 36°44.4' N 121°51.2' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm):	412	443	490	510	555	670	765	865
Lwn (μW/cm^2/sr):	1.60E-1	1.68E-1	2.31E-1	2.50E-1	2.43E-1	2.52E-2	2.82E-3	nil

Depth(m)	1-5	1-5	1-10	5-10	Top KL_1	Mid KL_1	Lw_1
λ (nm)	Ke_1	KL_1	Ke_2	Ke_3	Lw_1	Lw_2	Lwn
400	2.37E-1	2.34E-1	2.40E-1	2.43E-1	1.05E-1	8.85E-2	1.59E-1
410	2.39E-1	2.30E-1	2.40E-1	2.41E-1	1.10E-1	9.25E-2	1.63E-1
420	2.33E-1	2.20E-1	2.33E-1	2.32E-1	1.08E-1	9.09E-2	1.57E-1
430	2.30E-1	2.05E-1	2.26E-1	2.24E-1	9.42E-2	7.95E-2	1.36E-1
440	2.22E-1	1.91E-1	2.17E-1	2.13E-1	1.09E-1	9.16E-2	1.54E-1
450	2.03E-1	1.67E-1	1.99E-1	1.95E-1	1.32E-1	1.11E-1	1.85E-1
460	1.91E-1	1.50E-1	1.88E-1	1.84E-1	1.38E-1	1.17E-1	1.92E-1
470	1.79E-1	1.37E-1	1.76E-1	1.73E-1	1.44E-1	1.21E-1	1.98E-1
480	1.63E-1	1.22E-1	1.60E-1	1.57E-1	1.64E-1	1.38E-1	2.24E-1
490	1.50E-1	1.10E-1	1.48E-1	1.46E-1	1.68E-1	1.42E-1	2.28E-1
500	1.39E-1	1.08E-1	1.37E-1	1.36E-1	1.81E-1	1.53E-1	2.45E-1
510	1.32E-1	1.23E-1	1.33E-1	1.33E-1	1.89E-1	1.59E-1	2.55E-1
520	1.25E-1	1.32E-1	1.28E-1	1.30E-1	1.87E-1	1.58E-1	2.52E-1
530	1.18E-1	1.34E-1	1.22E-1	1.25E-1	2.04E-1	1.72E-1	2.75E-1
540	1.16E-1	1.38E-1	1.20E-1	1.24E-1	1.97E-1	1.66E-1	2.65E-1
550	1.19E-1	1.46E-1	1.23E-1	1.27E-1	1.87E-1	1.58E-1	2.51E-1
560	1.18E-1	1.49E-1	1.23E-1	1.28E-1	1.75E-1	1.48E-1	2.36E-1
570	1.26E-1	1.57E-1	1.31E-1	1.35E-1	1.54E-1	1.30E-1	2.09E-1
580	1.56E-1	1.81E-1	1.61E-1	1.65E-1	1.15E-1	9.73E-2	1.56E-1
590	2.13E-1	2.28E-1	2.19E-1	2.25E-1	6.84E-2	5.78E-2	9.18E-2
600	3.14E-1	3.02E-1	3.22E-1	3.29E-1	3.73E-2	3.15E-2	5.02E-2
610	3.52E-1	3.51E-1	3.62E-1	3.71E-1	3.08E-2	2.60E-2	4.13E-2
620	3.73E-1	3.78E-1	3.76E-1	3.79E-1	2.81E-2	2.37E-2	3.73E-2
630	3.91E-1	3.77E-1	3.93E-1	3.95E-1	2.41E-2	2.04E-2	3.18E-2
640	4.08E-1	3.68E-1	4.11E-1	4.13E-1	2.18E-2	1.84E-2	2.85E-2
650	4.31E-1	3.59E-1	4.34E-1	4.36E-1	1.89E-2	1.60E-2	2.45E-2
660	4.86E-1	3.44E-1	4.89E-1	4.91E-1	1.50E-2	1.26E-2	1.93E-2
670	5.39E-1	2.47E-1	5.38E-1	5.37E-1	1.80E-2	1.52E-2	2.31E-2
680	5.66E-1	1.86E-1	5.56E-1	5.47E-1	2.97E-2	2.51E-2	3.79E-2
690	5.83E-1	1.92E-1	5.82E-1	5.82E-1	2.18E-2	1.84E-2	2.77E-2
700	6.61E-1	2.49E-1	6.90E-1	7.16E-1	1.08E-2	9.08E-3	1.36E-2

! MOCE1 Station 07 (#2) Mulligan Hill 09-Sep-1992
!

! Ed top

M156	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN14_1M_ED_12.MLDAT	#Var=1-10	09Sep92 20:03 to 09Sep92 20:06
M157	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN14_1M_ED_13.MLDAT	#Var=1-10	09Sep92 20:08 to 09Sep92 20:11
M158	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN14_1M_ED_15.MLDAT	#Var=1,11-19	09Sep92 20:33 to 09Sep92 20:42
M159	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN14_1M_ED_17.MLDAT	#Var=1,11-19	09Sep92 21:00 to 09Sep92 21:09
S177	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN14_WMOS_1M_ED_12.MLDAT	#Var=1-10	09Sep92 20:05 to 09Sep92 20:05
S178	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN14_WMOS_1M_ED_13.MLDAT	#Var=1-10	09Sep92 20:09 to 09Sep92 20:09
S179	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN14_WMOS_1M_ED_15.MLDAT	#Var=1-10	09Sep92 20:41 to 09Sep92 20:41
S180	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN14_WMOS_1M_ED_17.MLDAT	#Var=1-10	09Sep92 21:08 to 09Sep92 21:08

! Lu top

M161	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN14_1M_LU_11.MLDAT	#Var=1-10	09Sep92 19:56 to 09Sep92 20:01
M162	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN14_1M_LU_14.MLDAT	#Var=1-10	09Sep92 20:33 to 09Sep92 20:36
S182	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN14_WMOS_1M_LU_11.MLDAT	#Var=1-10	09Sep92 19:58 to 09Sep92 19:58
S183	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN14_WMOS_1M_LU_14.MLDAT	#Var=1-10	09Sep92 20:34 to 09Sep92 20:35

! Ed mid

M164	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN14_5M_ED_9.MLDAT	#Var=1-10	09Sep92 19:40 to 09Sep92 19:44
S186	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN14_WMOS_5M_ED_9.MLDAT	#Var=1-10	09Sep92 19:42 to 09Sep92 19:42

! Lu mid

M165	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN14_5M_LU_6.MLDAT	#Var=1-10	09Sep92 19:20 to 09Sep92 19:25
M166	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN14_5M_LU_7.MLDAT	#Var=1-10	09Sep92 19:28 to 09Sep92 19:32
S187	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN14_WMOS_5M_LU_6.MLDAT	#Var=1-10	09Sep92 19:22 to 09Sep92 19:23
S188	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN14_WMOS_5M_LU_7.MLDAT	#Var=1-10	09Sep92 19:30 to 09Sep92 19:30

! Ed bot

M151	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN14_10M_ED_4.MLDAT	#Var=1-10	09Sep92 19:02 to 09Sep92 19:06
M152	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN14_10M_ED_5.MLDAT	#Var=1-10	09Sep92 19:08 to 09Sep92 19:13
S172	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN14_WMOS_10M_ED_4.MLDAT	#Var=1-10	09Sep92 19:04 to 09Sep92 19:04
S173	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN14_WMOS_10M_ED_5.MLDAT	#Var=1-10	09Sep92 19:10 to 09Sep92 19:11

! Lu bot

M155	_DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN14_10M_LU_3.MLDAT	#Var=1-10	09Sep92 18:53 to 09Sep92 19:00
S176	_DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN14_WMOS_10M_LU_3.MLDAT	#Var=1-10	09Sep92 18:56 to 09Sep92 18:56

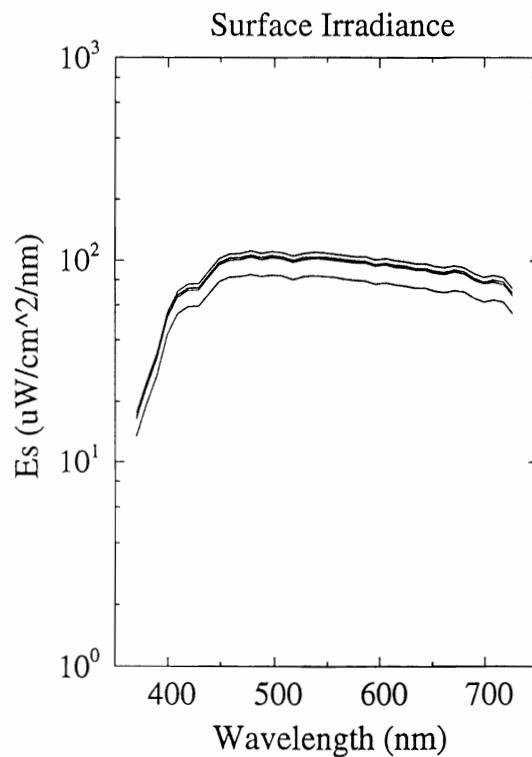
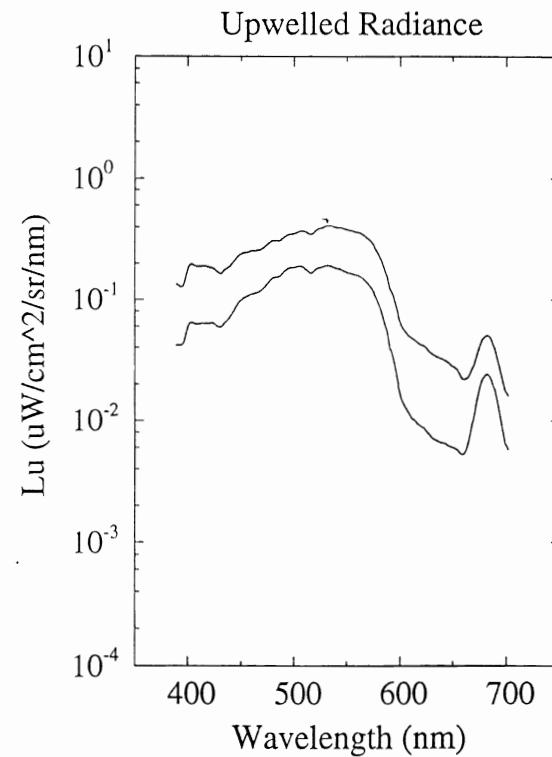
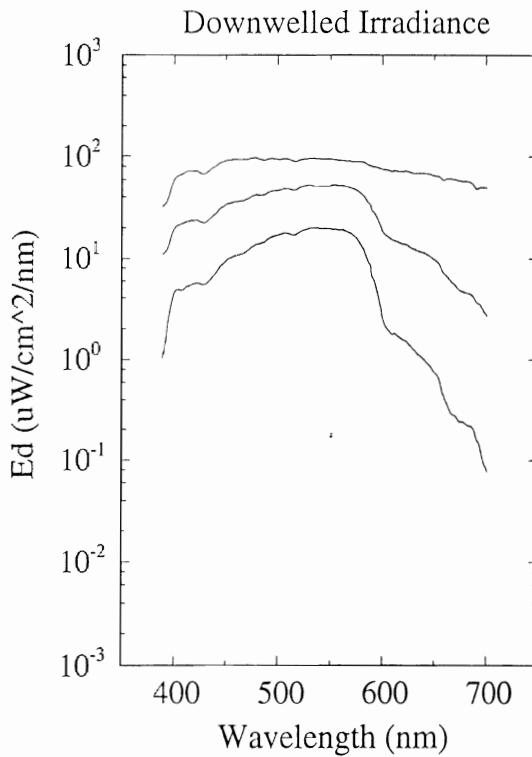
Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
 STATION: 7-3 Mulligan Hill

Top = 1 m
 Mid = 5 m
 Bot = 10 m

POSITION: 36°44.4 N 121°51.2 W
 DATE: 20:13 (GMT) 10 Sep 1992

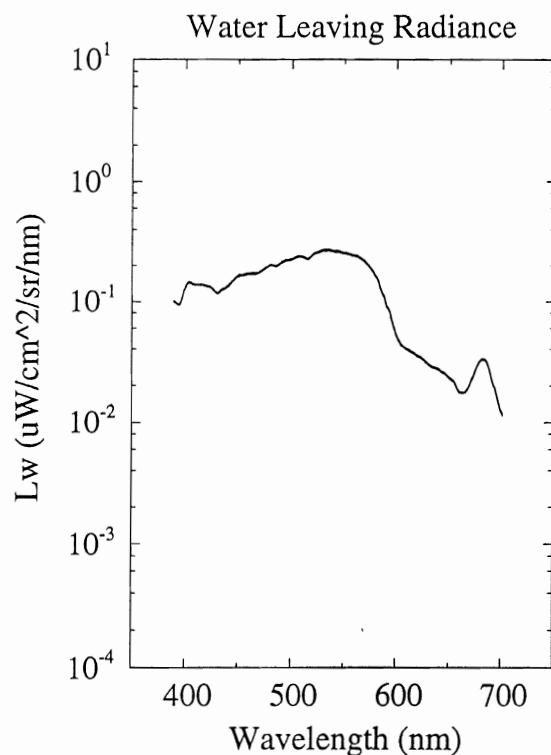
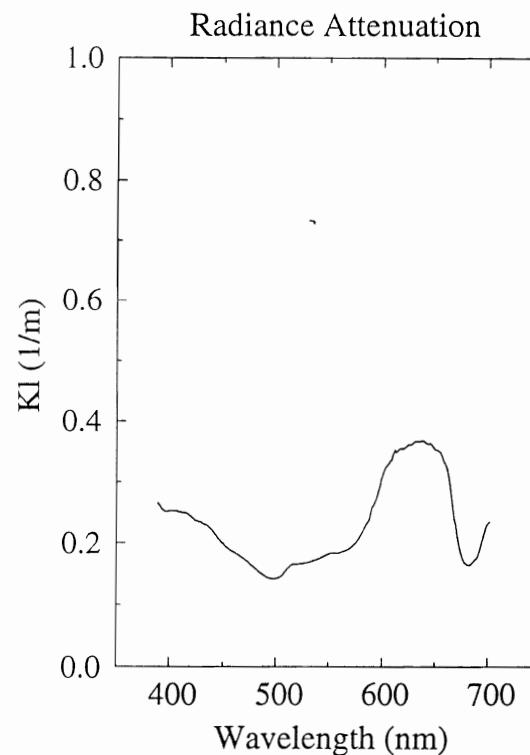
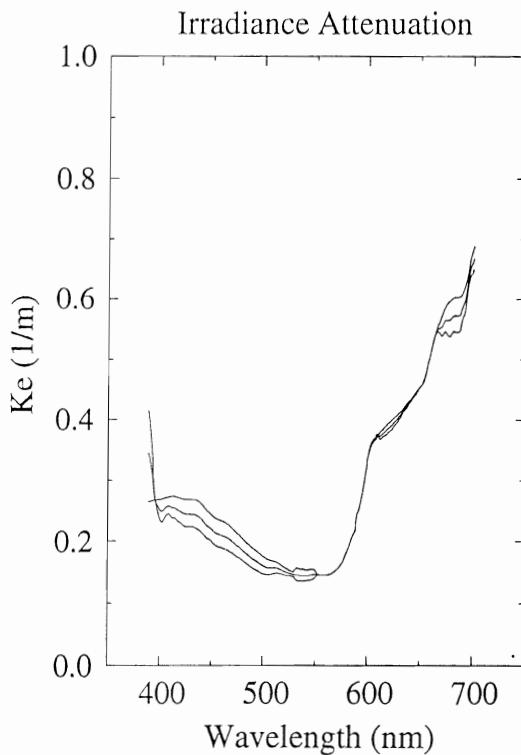


MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
 STATION: 7-3 Mulligan Hill

Top = 1 to 5 m
 Mid = 1 to 10 m
 Bot = 5 to 10 m

POSITION: 36°44.4 N 121°51.2 W
 DATE: 20:13 (GMT) 10 Sep 1992



File: MOCE1:[MOS.PRC]STN07_3_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 20:13 (GMT) 10 Sep 1992STATION: 7-3 Mulligan Hill
POSITION: 36°44.4' N 121°51.2' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm):	412	443	490	510	555	670	765	865
Lwn (μW/cm²/sr):	2.05E-1	2.10E-1	2.90E-1	3.20E-1	3.38E-1	2.91E-2	3.48E-3	nil

	Top	Top	Mid	Mid	Bot
Depth (m)	0.6	1.2	4.9	5.5	9.9
Time (GMT)	21:02	20:48	20:26	20:26	19:12

λ (nm)	Ed_1	Es_1	Lu_1	Es_1	Ed_2	Es_2	Lu_2	Es_2	Ed_3	Es_3
--------	------	------	------	------	------	------	------	------	------	------

400	5.86E+1	5.29E+1	1.83E-1	5.31E+1	1.94E+1	5.54E+1	6.03E-2	5.14E+1	4.51E+0	4.27E+1
410	6.86E+1	6.71E+1	1.90E-1	6.74E+1	2.24E+1	7.03E+1	6.29E-2	6.53E+1	5.00E+0	5.42E+1
420	7.19E+1	7.24E+1	1.86E-1	7.29E+1	2.37E+1	7.60E+1	6.37E-2	7.06E+1	5.64E+0	5.86E+1
430	6.81E+1	7.31E+1	1.65E-1	7.36E+1	2.26E+1	7.68E+1	5.91E-2	7.14E+1	5.56E+0	5.91E+1
440	8.03E+1	8.45E+1	1.91E-1	8.51E+1	2.74E+1	8.89E+1	7.19E-2	8.26E+1	7.01E+0	6.84E+1
450	9.10E+1	9.66E+1	2.38E-1	9.73E+1	3.37E+1	1.02E+2	9.89E-2	9.44E+1	9.40E+0	7.81E+1
460	9.41E+1	1.02E+2	2.53E-1	1.03E+2	3.63E+1	1.07E+2	1.11E-1	9.97E+1	1.06E+1	8.25E+1
470	9.37E+1	1.03E+2	2.63E-1	1.04E+2	3.80E+1	1.08E+2	1.21E-1	1.00E+2	1.16E+1	8.31E+1
480	9.61E+1	1.05E+2	3.08E-1	1.06E+2	4.23E+1	1.11E+2	1.52E-1	1.03E+2	1.38E+1	8.52E+1
490	9.42E+1	1.03E+2	3.26E-1	1.04E+2	4.43E+1	1.08E+2	1.70E-1	1.01E+2	1.53E+1	8.31E+1
500	9.41E+1	1.04E+2	3.51E-1	1.05E+2	4.67E+1	1.10E+2	1.86E-1	1.02E+2	1.69E+1	8.45E+1
510	9.42E+1	1.03E+2	3.66E-1	1.04E+2	4.84E+1	1.09E+2	1.82E-1	1.01E+2	1.75E+1	8.36E+1
520	9.17E+1	9.92E+1	3.68E-1	1.00E+2	4.90E+1	1.05E+2	1.76E-1	9.74E+1	1.79E+1	8.03E+1
530	9.63E+1	1.02E+2	4.06E-1	1.03E+2	5.28E+1	1.08E+2	1.92E-1	1.01E+2	1.98E+1	8.30E+1
540	9.45E+1	1.03E+2	3.95E-1	1.04E+2	5.14E+1	1.09E+2	1.82E-1	1.02E+2	1.98E+1	8.37E+1
550	9.51E+1	1.03E+2	3.79E-1	1.04E+2	5.18E+1	1.09E+2	1.69E-1	1.01E+2	1.96E+1	8.33E+1
560	9.21E+1	1.01E+2	3.61E-1	1.03E+2	5.22E+1	1.08E+2	1.59E-1	9.98E+1	1.92E+1	8.22E+1
570	9.02E+1	9.96E+1	3.18E-1	1.01E+2	4.96E+1	1.06E+2	1.36E-1	9.81E+1	1.76E+1	8.06E+1
580	8.90E+1	9.83E+1	2.33E-1	9.96E+1	4.32E+1	1.04E+2	9.07E-2	9.70E+1	1.33E+1	7.96E+1
590	8.03E+1	9.79E+1	1.30E-1	9.92E+1	3.04E+1	1.04E+2	4.26E-2	9.66E+1	7.04E+0	7.92E+1
600	7.56E+1	9.44E+1	6.42E-2	9.56E+1	1.87E+1	1.00E+2	1.65E-2	9.30E+1	2.61E+0	7.63E+1
610	7.24E+1	9.36E+1	4.88E-2	9.47E+1	1.53E+1	9.93E+1	1.08E-2	9.22E+1	1.77E+0	7.55E+1
620	7.20E+1	9.27E+1	4.24E-2	9.37E+1	1.39E+1	9.84E+1	9.01E-3	9.13E+1	1.57E+0	7.46E+1
630	6.91E+1	9.02E+1	3.58E-2	9.14E+1	1.24E+1	9.60E+1	7.26E-3	8.90E+1	1.26E+0	7.27E+1
640	6.93E+1	9.00E+1	3.25E-2	9.13E+1	1.14E+1	9.58E+1	6.56E-3	8.90E+1	1.00E+0	7.26E+1
650	6.52E+1	8.75E+1	2.81E-2	8.88E+1	9.67E+0	9.32E+1	6.00E-3	8.64E+1	7.47E-1	7.03E+1
660	5.99E+1	8.61E+1	2.21E-2	8.75E+1	6.96E+0	9.18E+1	5.30E-3	8.51E+1	4.05E-1	6.92E+1
670	6.00E+1	8.83E+1	2.93E-2	8.98E+1	5.44E+0	9.42E+1	1.10E-2	8.73E+1	2.75E-1	7.10E+1
680	5.79E+1	8.63E+1	4.98E-2	8.78E+1	4.59E+0	9.22E+1	2.39E-2	8.55E+1	2.27E-1	6.96E+1
690	4.89E+1	8.01E+1	3.62E-2	8.19E+1	3.74E+0	8.60E+1	1.65E-2	7.97E+1	1.67E-1	6.48E+1
700	4.99E+1	7.68E+1	1.70E-2	7.86E+1	2.80E+0	8.27E+1	6.11E-3	7.65E+1	8.38E-2	6.21E+1

File: MOCE1:[MOS.PRC]STN07_3_PRC.MLDAT;1

MODIS Marine Optical Characterization Experiment - 1 NOAA/MLML

CRUISE: MOCE-1 SHIP: De Steiguer
DATE: 20:13 (GMT) 10 Sep 1992STATION: 7-3 Mulligan Hill
POSITION: 36°44.4' N 121°51.2' W

SeaWiFS-weighted normalized water-leaving radiance:

Wavelength (nm): 412 443 490 510 555 670 765 865
Lwn (W/cm^2/sr): 2.05E-1 2.10E-1 2.90E-1 3.20E-1 3.38E-1 2.91E-2 3.48E-3 nil

Depth(m)	1-5	1-5	1-10	5-10	Top KL_1	Mid KL_1	Lw_1
Res	0.943	1.029	1.237	1.312			
λ (nm)	Ke_1	KL_1	Ke_2	Ke_3	Lw_1	Lw_2	Lwn
400	2.69E-1	2.53E-1	2.51E-1	2.36E-1	1.36E-1	1.32E-1	2.06E-1
410	2.73E-1	2.51E-1	2.57E-1	2.43E-1	1.40E-1	1.36E-1	2.09E-1
420	2.71E-1	2.44E-1	2.49E-1	2.31E-1	1.37E-1	1.33E-1	2.00E-1
430	2.69E-1	2.33E-1	2.45E-1	2.24E-1	1.20E-1	1.16E-1	1.72E-1
440	2.63E-1	2.21E-1	2.38E-1	2.16E-1	1.36E-1	1.32E-1	1.93E-1
450	2.43E-1	1.99E-1	2.20E-1	2.00E-1	1.66E-1	1.61E-1	2.32E-1
460	2.34E-1	1.85E-1	2.10E-1	1.90E-1	1.73E-1	1.68E-1	2.40E-1
470	2.23E-1	1.75E-1	2.01E-1	1.82E-1	1.77E-1	1.72E-1	2.44E-1
480	2.03E-1	1.59E-1	1.85E-1	1.68E-1	2.04E-1	1.98E-1	2.79E-1
490	1.88E-1	1.46E-1	1.71E-1	1.56E-1	2.12E-1	2.06E-1	2.88E-1
500	1.76E-1	1.42E-1	1.61E-1	1.48E-1	2.27E-1	2.21E-1	3.07E-1
510	1.68E-1	1.57E-1	1.57E-1	1.48E-1	2.41E-1	2.34E-1	3.25E-1
520	1.59E-1	1.66E-1	1.52E-1	1.46E-1	2.45E-1	2.38E-1	3.29E-1
530	1.52E-1	1.68E-1	1.46E-1	1.41E-1	2.71E-1	2.64E-1	3.65E-1
540	1.54E-1	1.74E-1	1.44E-1	1.36E-1	2.66E-1	2.59E-1	3.58E-1
550	1.54E-1	1.82E-1	1.46E-1	1.40E-1	2.58E-1	2.51E-1	3.47E-1
560	1.45E-1	1.84E-1	1.45E-1	1.45E-1	2.46E-1	2.39E-1	3.31E-1
570	1.52E-1	1.91E-1	1.52E-1	1.52E-1	2.19E-1	2.13E-1	2.96E-1
580	1.81E-1	2.14E-1	1.80E-1	1.80E-1	1.65E-1	1.60E-1	2.23E-1
590	2.39E-1	2.54E-1	2.38E-1	2.38E-1	9.63E-2	9.36E-2	1.29E-1
600	3.37E-1	3.11E-1	3.37E-1	3.38E-1	5.12E-2	4.98E-2	6.89E-2
610	3.74E-1	3.44E-1	3.74E-1	3.74E-1	4.05E-2	3.94E-2	5.43E-2
620	3.94E-1	3.55E-1	3.86E-1	3.79E-1	3.56E-2	3.46E-2	4.73E-2
630	4.12E-1	3.66E-1	4.06E-1	4.01E-1	3.05E-2	2.97E-2	4.02E-2
640	4.32E-1	3.67E-1	4.30E-1	4.28E-1	2.77E-2	2.70E-2	3.62E-2
650	4.55E-1	3.54E-1	4.55E-1	4.55E-1	2.36E-2	2.29E-2	3.06E-2
660	5.12E-1	3.27E-1	5.11E-1	5.11E-1	1.80E-2	1.75E-2	2.32E-2
670	5.69E-1	2.23E-1	5.53E-1	5.39E-1	2.09E-2	2.03E-2	2.68E-2
680	6.00E-1	1.65E-1	5.69E-1	5.43E-1	3.31E-2	3.22E-2	4.23E-2
690	6.08E-1	1.77E-1	5.85E-1	5.64E-1	2.44E-2	2.38E-2	3.10E-2
700	6.81E-1	2.32E-1	6.60E-1	6.43E-1	1.23E-2	1.20E-2	1.56E-2

```

!
! MOCE1 Station 07 (#3) Mulligan Hill 10-Sep-1992
!

! Ed top

M173 _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN15_1M_ED_13.MLDAT      #Var=1,5-13    10Sep92 20:55 to 10Sep92 21:02
M174 _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN15_1M_ED_14.MLDAT      #Var=1-10     10Sep92 21:03 to 10Sep92 21:06
S194 _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN15_WMOS_1M_ED_13.MLDAT  #Var=1-10     10Sep92 21:00 to 10Sep92 21:01
S195 _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN15_WMOS_1M_ED_14.MLDAT  #Var=1-10     10Sep92 21:03 to 10Sep92 21:05

! Lu top

M175 _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN15_1M_LU_11.MLDAT      #Var=1-10     10Sep92 20:42 to 10Sep92 20:47
M176 _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN15_1M_LU_12.MLDAT      #Var=1-10     10Sep92 20:49 to 10Sep92 20:53
S196 _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN15_WMOS_1M_LU_11.MLDAT  #Var=1-10     10Sep92 20:43 to 10Sep92 20:46
S197 _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN15_WMOS_1M_LU_12.MLDAT  #Var=1-10     10Sep92 20:50 to 10Sep92 20:52

! Ed mid

M178 _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN15_5M_ED_8.MLDAT       #Var=1-10     10Sep92 20:18 to 10Sep92 20:22
M177 _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN15_5M_ED_10.MLDAT      #Var=1-10     10Sep92 20:30 to 10Sep92 20:34
S199 _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN15_WMOS_5M_ED_8.MLDAT  #Var=1-10     10Sep92 20:20 to 10Sep92 20:21
S198 _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN15_WMOS_5M_ED_10.MLDAT #Var=1,11-19   10Sep92 20:26 to 10Sep92 20:33

! Lu mid

M181 _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN15_5M_LU_9.MLDAT       #Var=1-10     10Sep92 20:24 to 10Sep92 20:29
S202 _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN15_WMOS_5M_LU_9.MLDAT  #Var=1-10     10Sep92 20:26 to 10Sep92 20:28

! Ed bot

M169 _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN15_10M_ED_4.MLDAT      #Var=1-10     10Sep92 19:09 to 10Sep92 19:14
S190 _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN15_WMOS_10M_ED_4.MLDAT #Var=1-10     10Sep92 19:12 to 10Sep92 19:12

! Lu bot

M172 _DUA1:[DATA.NOAA.MOCE_1.MOS.RAW]STN15_10M_LU_5.MLDAT       #Var=1,11-19   10Sep92 19:09 to 10Sep92 19:20
S193 _DUA1:[DATA.NOAA.MOCE_1.SIS.RAW]STN15_WMOS_10M_LU_5.MLDAT #Var=1-10     10Sep92 19:18 to 10Sep92 19:18

```

Appendix 2. CTD Profiling Results: Vertical profiles and data listings.

Explanation of Data Tables:

Data presented here were obtained from the MLML CTD. All observations have been interpolated to 2 m intervals, but data files contain data at 1 m intervals. Data processing algorithms are those described in Fofonoff and Millard (1983). Oxygen solubility calculations are from Postma, *et al.* 1976.

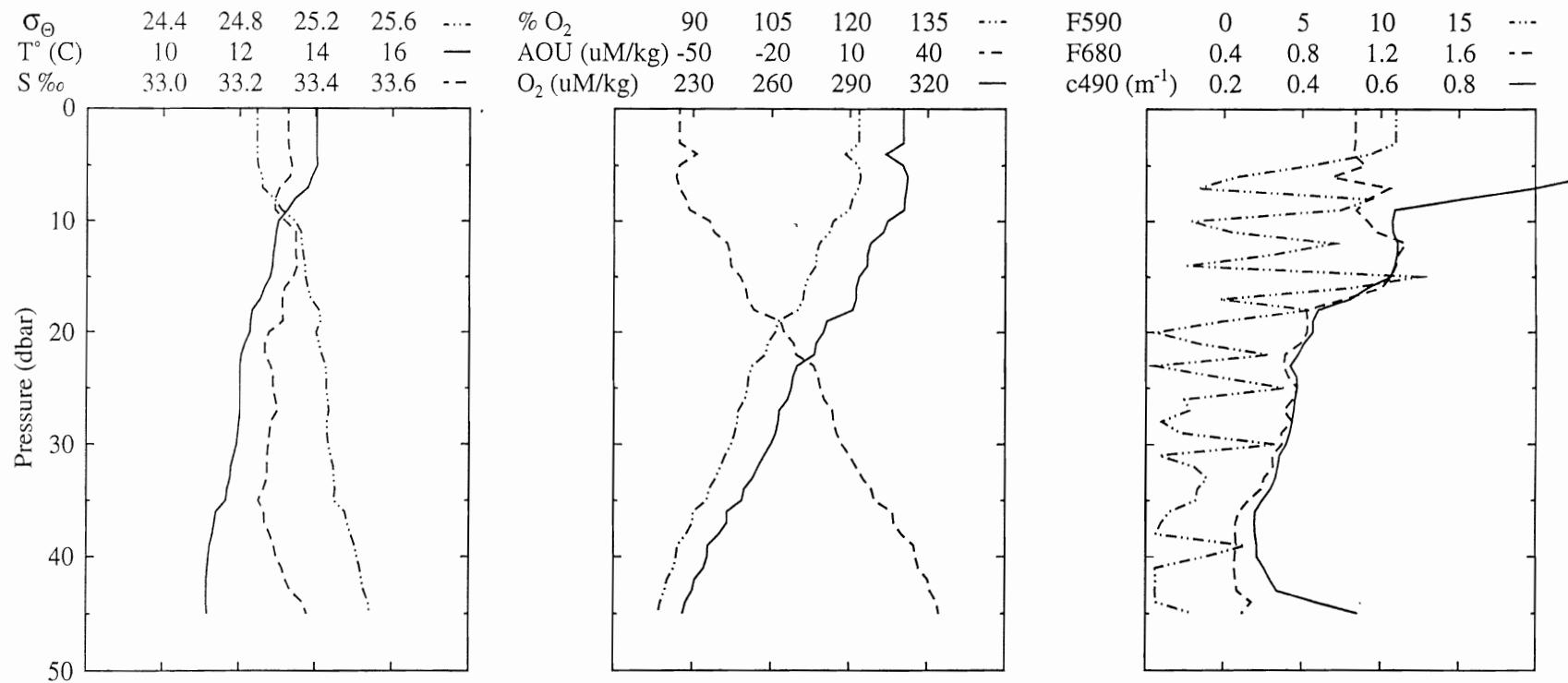
Press db	Pressure in decibars (numerically equivalent to depth in m).
Temp °C	<i>In situ</i> seawater temperature in Celsius.
Theta °C	Potential temperature in Celsius.
Salin PSU	Seawater salinity in Practical Salinity Units (numerically equivalent to gm/kg).
Sigma-θ g/l	Potential seawater density anomaly based on potential temperature in grams per liter.
Oxygen μM/kg	Dissolved oxygen micro-moles per kilogram determined by oxygen electrode.
AOU μM/kg	Apparent oxygen utilization micro-moles per kilogram is the difference between the observed oxygen concentration and oxygen solubility = f(S,T).
Sat %	Oxygen saturation percentage is the 100 x the ratio of observed oxygen concentration to the oxygen solubility.
c(490) 1/m	The total attenuation coefficient in m^{-1} measured by a Martek 1-m transmissometer at 490 nm.
Fluoro (590)	<i>In situ</i> phycoerythrin fluorescence at 590 nm in relative unscaled units. 25 units = 10 x increase in fluorescence.
Fluoro (680)	<i>In situ</i> chlorophyll fluorescence at 680 nm in relative unscaled units. 25 units = 10x increase in fluorescence.

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-0 Mulligan Hill
 DATE: 22:08 (GMT) 28 Aug 1992
 POSITION: $36^{\circ} 44.0' N$ $121^{\circ} 51.0' W$

CTD # 5002
 Wind 0 kts; Waves 1 ft; Sky clear with haze
 Secchi: 5.0 m Munsell: 10G 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer CTD # 5002
 STATION: 01-0 Mulligan Hill Wind 0 kts; Waves 1 ft; Sky clear with haze
 DATE: 22:08 (GMT) 28 Aug 1992 Secchi: 5.0 m Munsell: 10G 7/6
 POSITION: 36° 44.0' N 121° 51.0' W

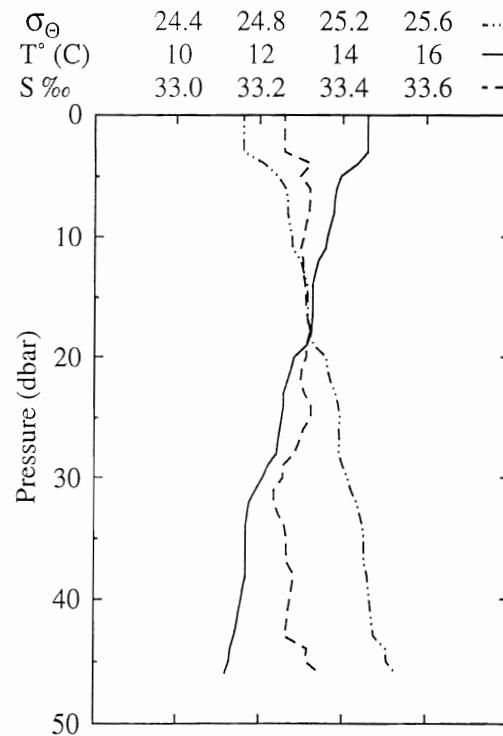
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	14.02	14.02	33.33	24.89	311	-55	122	1.120	10.95 1.07
2	14.02	14.02	33.33	24.89	311	-55	122	1.120	10.95 1.07
4	14.03	14.03	33.33	24.89	304	-49	119	1.096	9.27 1.06
6	13.91	13.91	33.33	24.92	312	-56	122	1.136	0.75 0.95
8	13.45	13.45	33.29	24.98	311	-53	120	0.806	9.31 1.13
10	13.02	13.01	33.32	25.09	304	-44	117	0.630	nil 1.13
12	12.94	12.93	33.35	25.13	298	-37	114	0.645	7.04 1.33
14	12.87	12.87	33.35	25.14	297	-35	114	0.636	nil 1.28
16	12.66	12.66	33.32	25.16	292	-30	111	0.567	8.08 1.20
18	12.33	12.33	33.31	25.22	291	-27	110	0.440	5.48 0.82
20	12.27	12.27	33.28	25.20	280	-15	106	0.426	nil 0.82
22	12.06	12.05	33.27	25.23	277	-10	104	0.389	2.86 0.71
24	12.03	12.02	33.29	25.26	268	-2	101	0.386	nil 0.73
26	12.02	12.02	33.29	25.26	266	0	100	0.382	nil 0.75
28	11.99	11.98	33.28	25.26	263	4	99	0.373	nil 0.75
30	11.93	11.93	33.28	25.26	260	7	97	0.359	3.29 0.70
32	11.77	11.77	33.27	25.29	255	13	95	0.337	nil 0.65
34	11.68	11.68	33.26	25.30	250	18	93	0.320	nil 0.59
36	11.40	11.40	33.27	25.35	243	27	90	0.280	nil 0.48
38	11.31	11.30	33.28	25.38	240	30	89	0.280	nil 0.46
40	11.20	11.19	33.30	25.42	236	35	87	0.284	nil 0.46
42	11.15	11.15	33.32	25.44	231	40	85	0.318	nil 0.46
44	11.15	11.15	33.37	25.48	227	44	84	0.433	nil 0.54
45	11.16	11.16	33.38	25.49	226	45	84	0.542	nil 0.49

Jan 1994

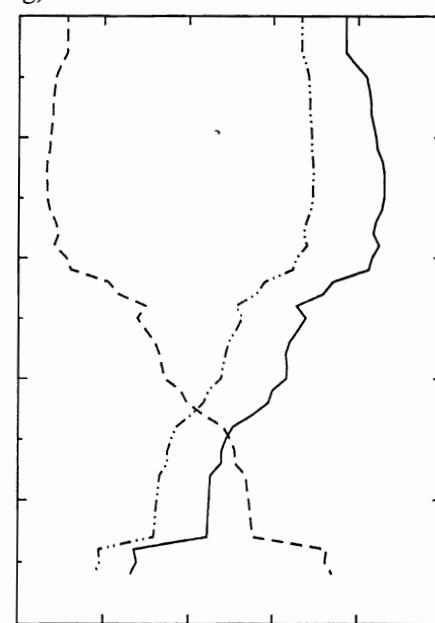
MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-1 Mulligan Hill
 DATE: 21:02 (GMT) 29 Aug 1992
 POSITION: $36^{\circ} 44.5' N$ $121^{\circ} 51.4' W$

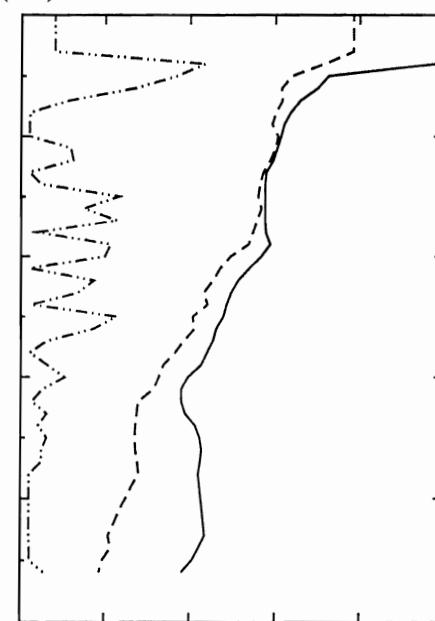
CTD # 5004
 Wind 1 kts; Waves 1 ft; High cirrus
 Secchi: 5.8 m Munsell: 5G 7/6



% O ₂	90	105	120	135	...
AOU (uM/kg)	-50	-20	10	40	--
O ₂ (uM/kg)	230	260	290	320	—



F590	0	5	10	15	...
F680	0.4	0.8	1.2	1.6	--
c490 (m ⁻¹)	0.2	0.4	0.6	0.8	—



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer CTD # 5004
 STATION: 01-1 Mulligan Hill Wind 1 kts; Waves 1 ft; High cirrus
 DATE: 21:02 (GMT) 29 Aug 1992 Secchi: 5.8 m Munsell: 5G 7/6
 POSITION: 36° 44.5' N 121° 51.4' W

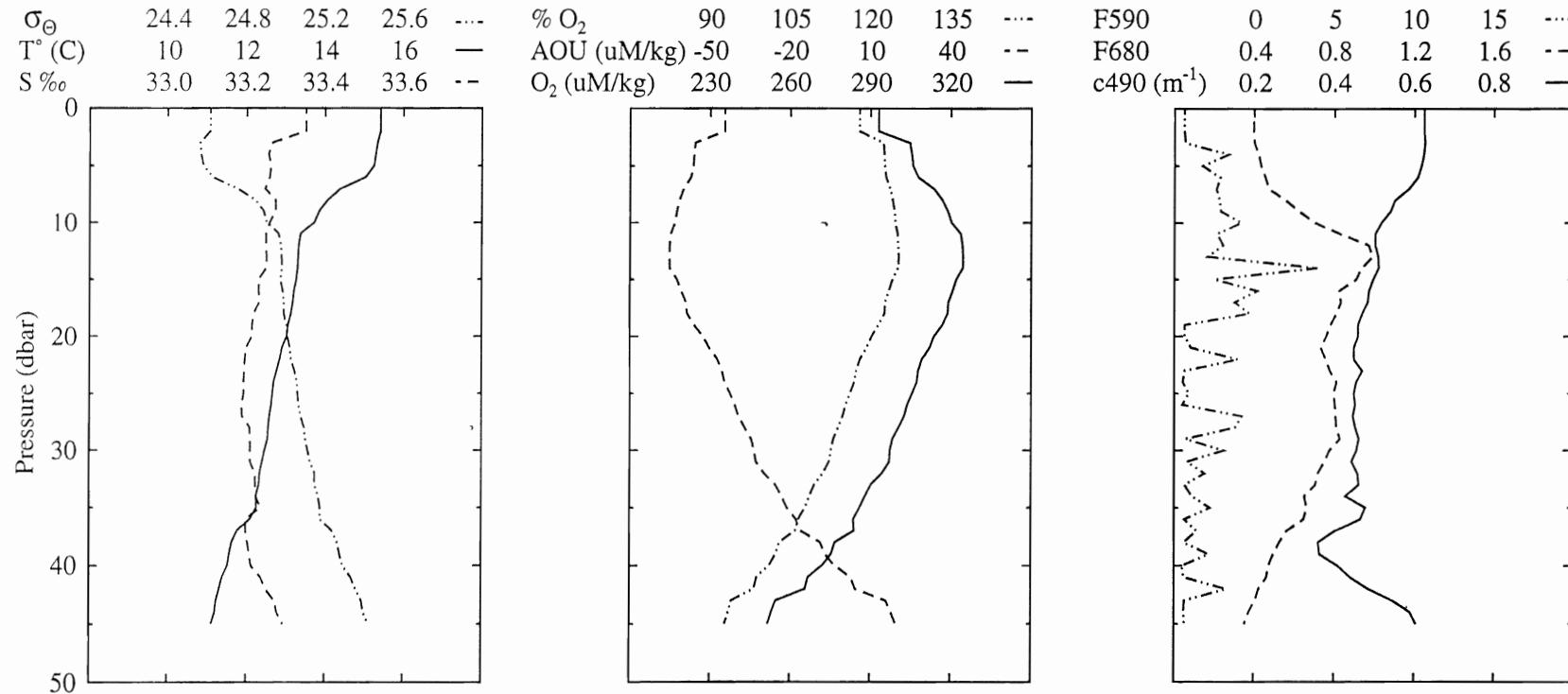
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	14.58	14.58	33.26	24.72	316	-63	125	1.028	nil 1.57
2	14.58	14.58	33.26	24.72	316	-63	125	1.028	nil 1.57
4	14.34	14.34	33.32	24.82	319	-65	126	0.986	5.87 1.43
6	13.84	13.84	33.32	24.92	324	-67	126	0.701	1.71 1.23
8	13.78	13.78	33.32	24.93	325	-68	126	0.637	nil 1.20
10	13.62	13.62	33.31	24.96	326	-69	127	0.614	nil 1.21
12	13.42	13.42	33.30	25.00	329	-70	127	0.595	nil 1.18
14	13.28	13.28	33.31	25.03	329	-70	127	0.576	nil 1.13
16	13.27	13.27	33.31	25.03	328	-69	127	0.576	nil 1.13
18	13.25	13.25	33.32	25.04	325	-66	125	0.578	nil 1.09
20	12.84	12.84	33.31	25.12	325	-63	124	0.567	nil 0.99
22	12.67	12.66	33.30	25.14	311	-48	118	0.513	nil 0.91
24	12.58	12.57	33.32	25.18	298	-35	113	0.485	nil 0.88
26	12.49	12.49	33.31	25.18	299	-35	113	0.461	nil 0.82
28	12.41	12.41	33.28	25.18	294	-30	112	0.440	nil 0.73
30	12.08	12.07	33.26	25.22	295	-29	111	0.395	nil 0.65
32	11.76	11.76	33.24	25.26	288	-21	108	0.379	nil 0.56
34	11.69	11.69	33.26	25.30	276	-8	103	0.413	nil 0.54
36	11.69	11.69	33.27	25.30	272	-4	101	0.427	nil 0.54
38	11.69	11.68	33.28	25.32	268	0	100	0.420	nil 0.56
40	11.58	11.57	33.27	25.33	267	1	99	0.425	nil 0.50
42	11.47	11.46	33.27	25.34	267	3	99	0.431	nil 0.44
44	11.32	11.31	33.32	25.41	241	29	89	0.421	nil 0.43
46	11.19	11.18	33.35	25.46	240	31	89	0.381	nil 0.37

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-2 Mulligan Hill
 DATE: 23:02 (GMT) 30 Aug 1992
 POSITION: $36^{\circ} 44.6' N$ $121^{\circ} 51.4' W$

CTD # 5006
 Wind 2 kts; Waves 1 ft; Sky clear with haze
 Secchi: 10.0 m Munsell: 10G 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer CTD # 5006
 STATION: 01-2 Mulligan Hill Wind 2 kts; Waves 1 ft; Sky clear with haze
 DATE: 23:02 (GMT) 30 Aug 1992 Secchi: 10.0 m Munsell: 10G 7/6
 POSITION: 36° 44.6' N 121° 51.4' W

Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	15.40	15.40	33.35	24.61	293	-44	118	0.625	nil 0.40
2	15.40	15.40	33.35	24.61	293	-44	118	0.625	nil 0.40
4	15.28	15.28	33.25	24.57	305	-56	123	0.623	nil 0.42
6	15.02	15.02	33.26	24.63	308	-57	123	0.607	nil 0.45
8	14.05	14.05	33.27	24.84	317	-62	124	0.550	nil 0.56
10	13.72	13.71	33.26	24.90	320	-63	125	0.516	nil 0.70
12	13.32	13.32	33.25	24.97	324	-65	125	0.501	nil 0.97
14	13.30	13.30	33.25	24.98	324	-65	125	0.511	3.95 0.93
16	13.20	13.20	33.23	24.98	321	-61	123	0.486	0.17 0.82
18	13.13	13.13	33.22	24.99	319	-59	123	0.470	nil 0.81
20	13.02	13.02	33.21	25.01	314	-53	120	0.458	nil 0.76
22	12.84	12.84	33.20	25.03	309	-47	118	0.449	nil 0.76
24	12.69	12.69	33.19	25.05	307	-45	117	0.455	nil 0.81
26	12.62	12.62	33.19	25.06	304	-41	115	0.451	nil 0.80
28	12.55	12.55	33.21	25.09	300	-37	114	0.451	nil 0.81
30	12.46	12.46	33.21	25.11	297	-33	113	0.454	nil 0.78
32	12.33	12.33	33.22	25.15	294	-30	111	0.458	nil 0.72
34	12.25	12.24	33.22	25.17	288	-23	109	0.427	nil 0.65
36	12.09	12.09	33.20	25.17	284	-18	107	0.465	nil 0.65
38	11.64	11.64	33.20	25.26	277	-8	103	0.361	nil 0.53
40	11.53	11.53	33.21	25.29	272	-3	101	0.409	nil 0.47
42	11.32	11.32	33.25	25.36	266	4	98	0.485	nil 0.42
44	11.22	11.21	33.28	25.40	253	18	94	0.590	nil 0.37
45	11.13	11.13	33.29	25.42	252	19	93	0.604	nil 0.35

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer

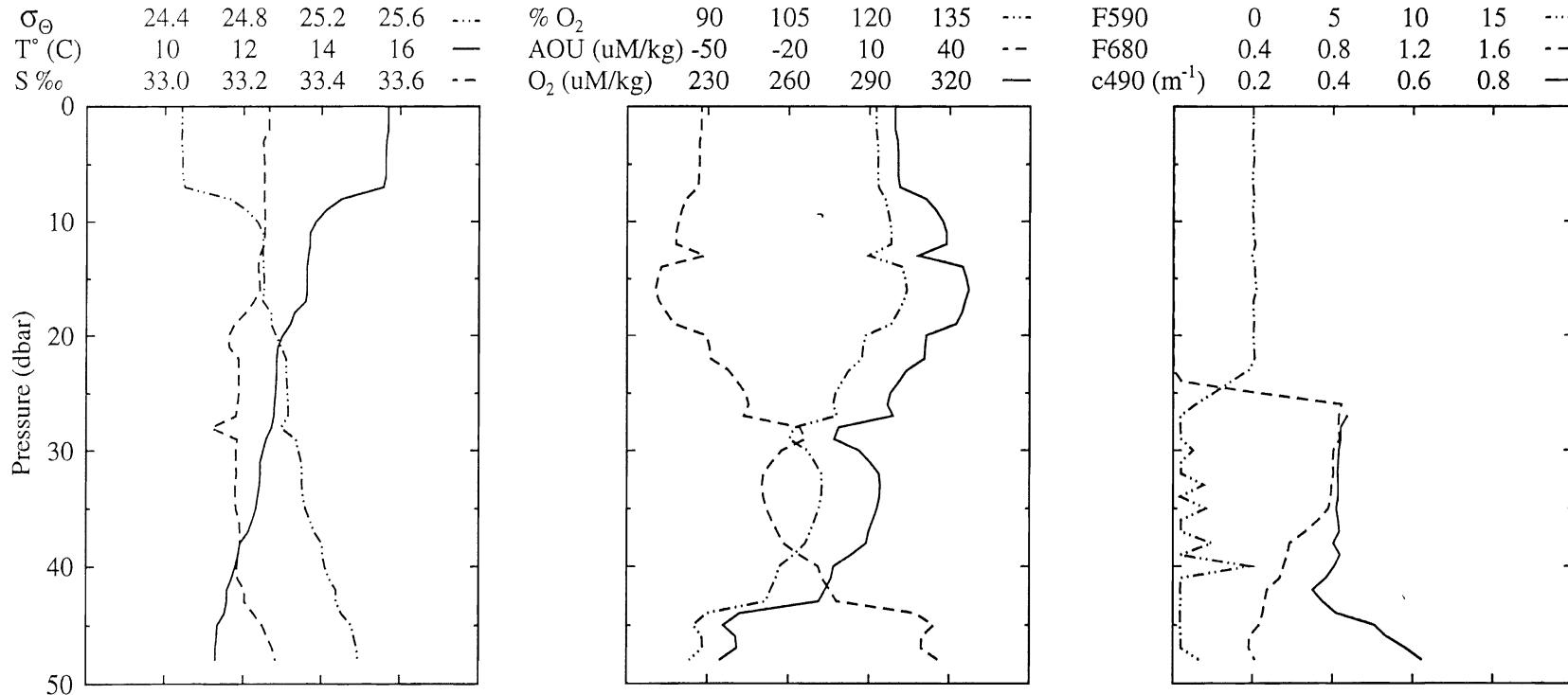
CTD # 5007

STATION: 01-2 Mulligan Hill

Wind 2 kts; Waves 1 ft; Sky clear with haze

DATE: 00:19 (GMT) 31 Aug 1992

Secchi: 10.0 m Munsell: 10G 7/6

POSITION: $36^{\circ} 44.6' N$ $121^{\circ} 51.4' W$ 

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

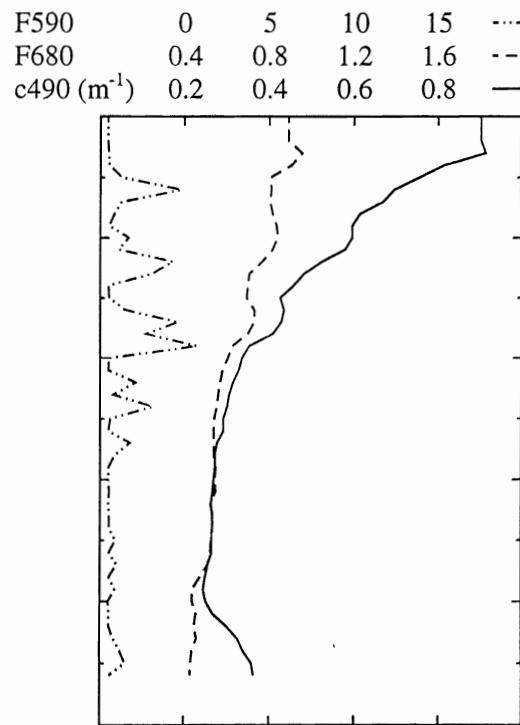
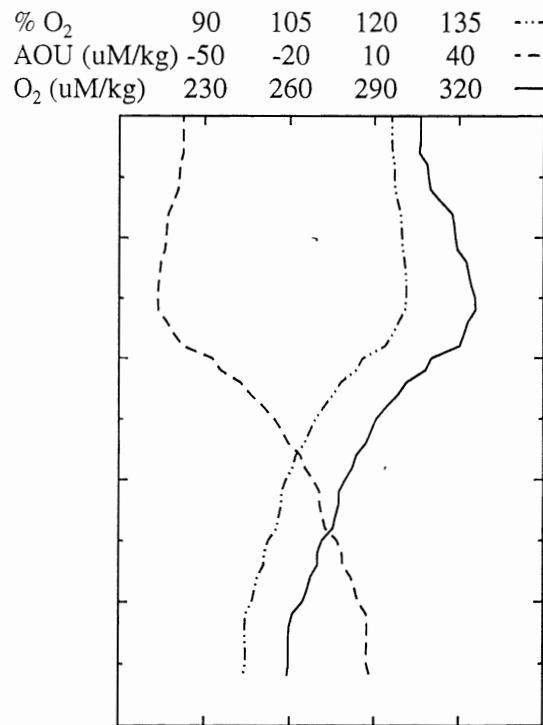
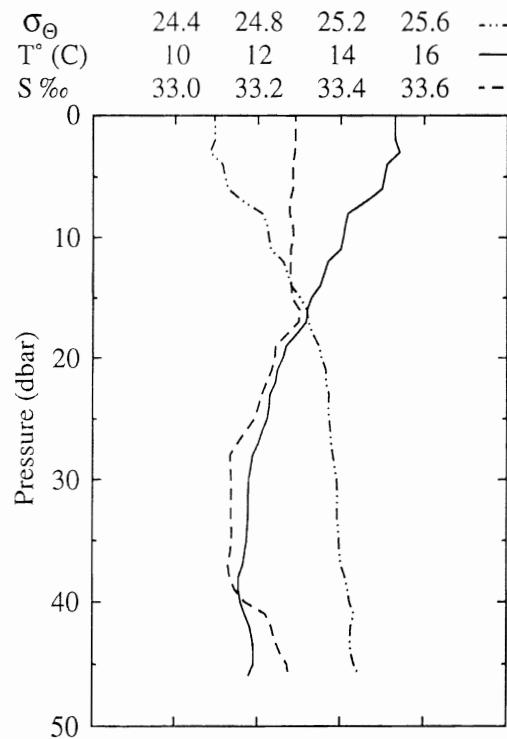
CRUISE: MOCE-1 SHIP: USNS De Steiguer CTD # 5007
 STATION: 01-2 Mulligan Hill Wind 2 kts; Waves 1 ft; Sky clear with haze
 DATE: 00:19 (GMT) 31 Aug 1992 Secchi: 10.0 m Munsell: 10G 7/6
 POSITION: 36° 44.6' N 121° 51.4' W

Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	15.69	15.69	33.27	24.48	300	-53	121		0.00 0.00
2	15.69	15.69	33.27	24.48	300	-53	121		0.00 0.00
4	15.63	15.63	33.25	24.49	301	-53	122		0.05 0.00
6	15.63	15.63	33.25	24.49	301	-53	122		nil 0.00
8	14.52	14.51	33.25	24.73	311	-58	123		0.04 0.00
10	13.85	13.85	33.26	24.87	317	-61	124		0.03 0.00
12	13.70	13.70	33.25	24.90	319	-62	124		0.14 0.00
14	13.63	13.63	33.24	24.90	325	-67	126		0.11 0.00
16	13.62	13.62	33.24	24.91	327	-70	127		0.19 0.00
18	13.32	13.31	33.21	24.94	325	-66	125		0.03 0.00
20	13.01	13.01	33.16	24.97	311	-50	119		0.01 0.00
22	12.85	12.85	33.19	25.02	311	-49	119		0.10 0.00
24	12.84	12.83	33.19	25.02	301	-39	115		nil 0.04
26	12.79	12.79	33.19	25.03	297	-35	113		nil 0.84
28	12.71	12.71	33.12	24.99	279	-16	106	0.419	nil 0.83
30	12.51	12.51	33.18	25.08	286	-22	109	0.414	nil 0.80
32	12.43	12.42	33.18	25.10	293	-29	111	0.412	nil 0.80
34	12.37	12.37	33.18	25.11	294	-29	111	0.413	nil 0.79
36	12.24	12.23	33.19	25.14	291	-26	110	0.414	nil 0.73
38	11.91	11.91	33.19	25.20	289	-22	108	0.401	nil 0.58
40	11.80	11.79	33.18	25.22	277	-9	103	0.404	nil 0.55
42	11.58	11.57	33.20	25.27	274	-5	102	0.349	nil 0.47
44	11.51	11.51	33.23	25.30	242	27	90	0.409	nil 0.45
46	11.33	11.32	33.26	25.36	240	30	89	0.533	nil 0.38
48	11.29	11.28	33.28	25.39	234	36	87	0.623	nil 0.41

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-3 Mulligan Hill
 DATE: 17:41 (GMT) 31 Aug 1992
 POSITION: $36^{\circ} 44.6' N$ $121^{\circ} 51.4' W$

CTD # 5008
 Wind 0 kts; Waves 1 ft; Overcast
 Secchi: 6.5 m Munsell: 10G 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-3 Mulligan Hill
 DATE: 17:41 (GMT) 31 Aug 1992
 POSITION: 36° 44.6' N 121° 51.4' W

CTD # 5008
 Wind 0 kts; Waves 1 ft; Overcast
 Secchi: 6.5 m Munsell: 10G 7/6

Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	15.30	15.30	33.29	24.59	306	-57	123	0.904	nil 0.89
2	15.30	15.30	33.29	24.59	306	-57	123	0.904	nil 0.89
4	15.10	15.10	33.28	24.63	309	-59	123	0.815	nil 0.91
6	14.98	14.98	33.28	24.65	310	-59	124	0.695	nil 0.81
8	14.16	14.16	33.28	24.82	318	-63	125	0.614	nil 0.81
10	14.06	14.06	33.29	24.85	319	-63	125	0.595	nil 0.84
12	13.69	13.69	33.28	24.92	322	-65	125	0.525	nil 0.76
14	13.50	13.50	33.28	24.96	324	-66	126	0.457	nil 0.70
16	13.19	13.19	33.30	25.04	326	-66	125	0.434	nil 0.73
18	12.95	12.95	33.27	25.06	322	-61	123	0.408	nil 0.70
20	12.62	12.61	33.24	25.11	310	-47	118	0.335	nil 0.60
22	12.43	12.42	33.22	25.13	301	-37	114	0.314	nil 0.57
24	12.28	12.28	33.20	25.14	294	-29	111	0.301	nil 0.55
26	12.11	12.11	33.17	25.15	289	-23	109	0.293	nil 0.54
28	11.89	11.88	33.13	25.16	284	-16	106	0.272	nil 0.54
30	11.80	11.79	33.14	25.18	280	-12	104	0.269	nil 0.55
32	11.78	11.78	33.14	25.18	277	-9	104	0.264	nil 0.52
34	11.77	11.76	33.14	25.19	275	-7	103	0.266	nil 0.53
36	11.71	11.70	33.14	25.20	270	-2	101	0.264	nil 0.52
38	11.55	11.55	33.13	25.22	267	2	99	0.249	nil 0.47
40	11.60	11.59	33.17	25.24	265	4	98	0.251	nil 0.44
42	11.83	11.82	33.23	25.25	260	8	97	0.299	nil 0.45
44	11.91	11.91	33.25	25.25	260	7	97	0.339	nil 0.44
46	11.79	11.78	33.28	25.29	259	8	97	0.363	nil 0.43

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer

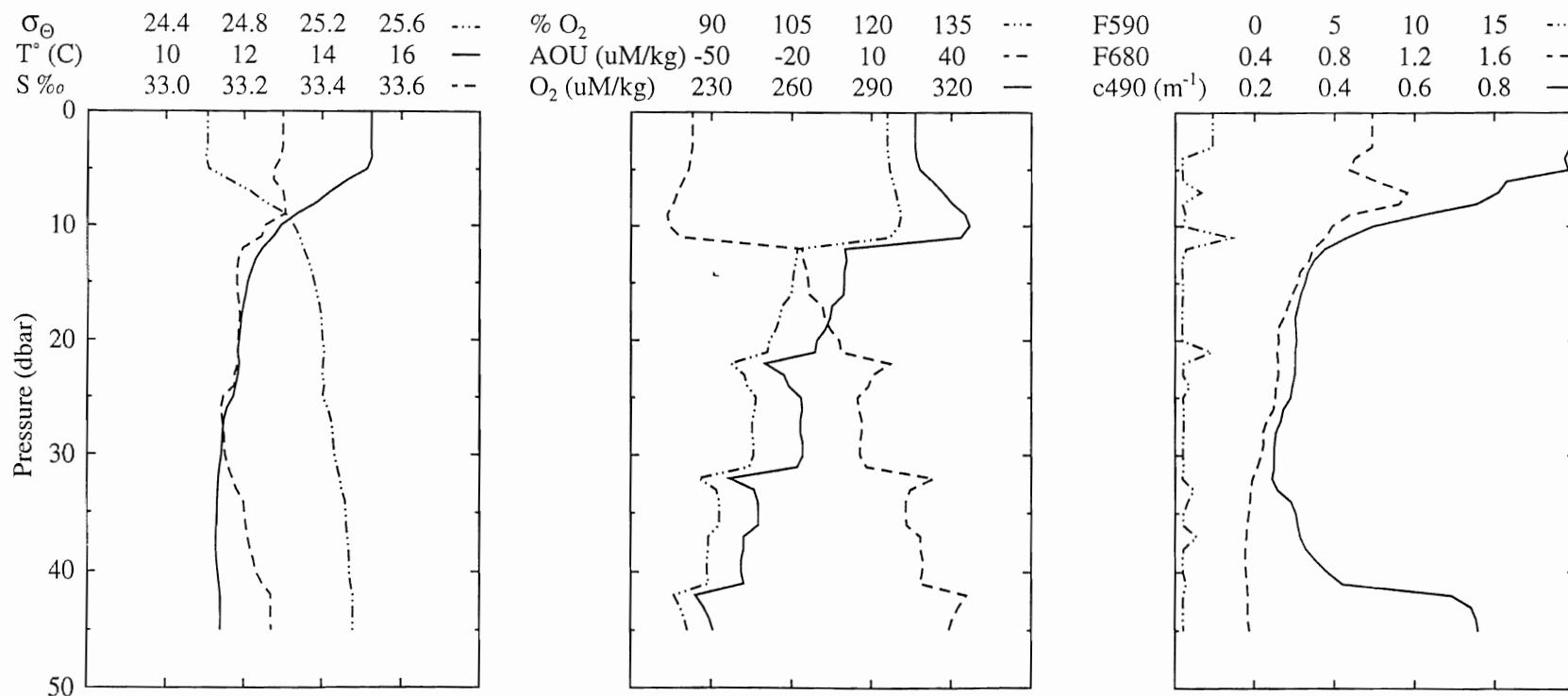
CTD # 5009

STATION: 01-3 Mulligan Hill

Wind 0 kts; Waves 1 ft; Overcast

DATE: 19:20 (GMT) 31 Aug 1992

Secchi: 6.5 m Munsell: 10G 7/6

POSITION: $36^{\circ} 44.6' N$ $121^{\circ} 51.4' W$ 

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-3 Mulligan Hill
 DATE: 19:20 (GMT) 31 Aug 1992
 POSITION: 36° 44.6' N 121° 51.4' W

CTD # 5009
 Wind 0 kts; Waves 1 ft; Overcast
 Secchi: 6.5 m Munsell: 10G 7/6

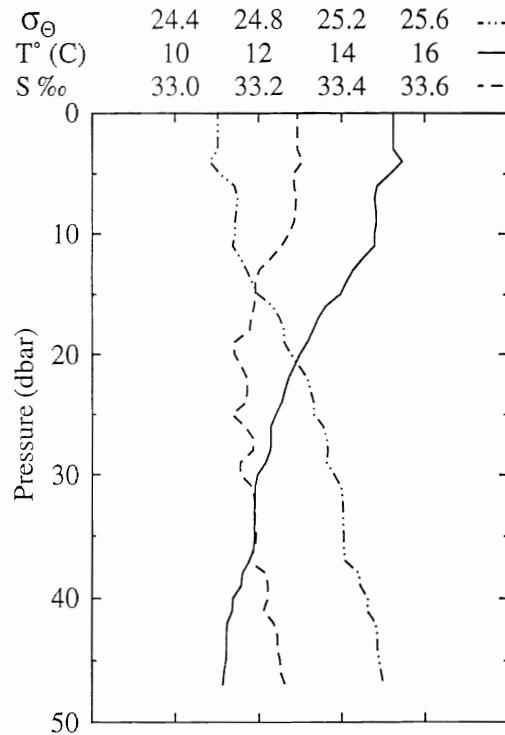
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	15.23	15.23	33.30	24.61	306	-57	123	0.987	nil 0.99
2	15.23	15.23	33.30	24.61	306	-57	123	0.987	nil 0.99
4	15.25	15.25	33.29	24.60	307	-58	123	0.974	nil 0.90
6	14.63	14.63	33.28	24.72	313	-60	124	0.831	nil 1.01
8	13.84	13.83	33.30	24.91	320	-64	125	0.756	nil 1.12
10	12.94	12.94	33.26	25.05	327	-66	125	0.495	nil 0.79
12	12.47	12.47	33.20	25.10	280	-16	106	0.375	nil 0.69
14	12.18	12.18	33.18	25.14	280	-14	105	0.333	nil 0.63
16	12.05	12.05	33.18	25.17	279	-13	105	0.315	nil 0.59
18	11.94	11.94	33.19	25.20	274	-8	103	0.302	nil 0.54
20	11.88	11.88	33.18	25.20	269	-2	101	0.304	nil 0.52
22	11.88	11.88	33.19	25.20	250	17	94	0.300	nil 0.52
24	11.80	11.79	33.18	25.21	259	9	97	0.293	nil 0.50
26	11.56	11.56	33.14	25.23	264	5	98	0.271	nil 0.49
28	11.46	11.46	33.15	25.25	263	6	98	0.253	nil 0.44
30	11.42	11.42	33.15	25.26	264	6	98	0.248	nil 0.43
32	11.35	11.35	33.17	25.29	237	33	88	0.243	nil 0.39
34	11.32	11.32	33.20	25.32	247	23	92	0.291	nil 0.38
36	11.30	11.30	33.20	25.32	247	23	91	0.307	nil 0.36
38	11.30	11.29	33.22	25.33	242	28	89	0.327	nil 0.35
40	11.33	11.33	33.23	25.34	241	29	89	0.382	nil 0.36
42	11.40	11.39	33.27	25.36	224	46	83	0.692	nil 0.36
44	11.41	11.40	33.27	25.36	229	40	85	0.753	nil 0.37
45	11.40	11.40	33.27	25.36	231	39	86	0.758	nil 0.37

Jan 1994

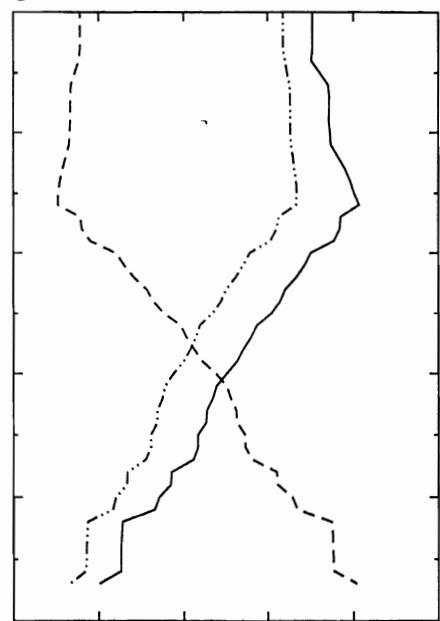
MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-3 Mulligan Hill
 DATE: 21:35 (GMT) 31 Aug 1992
 POSITION: 36° 44.6' N 121° 51.4' W

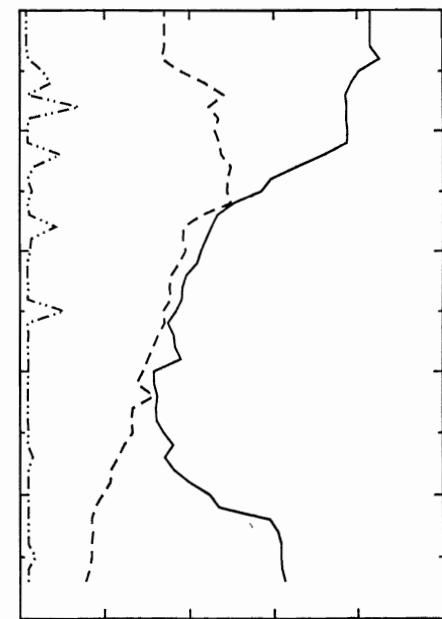
CTD # 5010
 Wind 13 kts; Waves 2 ft; Sky clear with haze
 Secchi: 6.5 m Munsell: 10G 7/6



% O ₂	90	105	120	135	...
AOU (uM/kg)	-50	-20	10	40	--
O ₂ (uM/kg)	230	260	290	320	—



F590	0	5	10	15	...
F680	0.4	0.8	1.2	1.6	--
c490 (m ⁻¹)	0.2	0.4	0.6	0.8	—



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer CTD # 5010
 STATION: 01-3 Mulligan Hill Wind 13 kts; Waves 2 ft; Sky clear with haze
 DATE: 21:35 (GMT) 31 Aug 1992 Secchi: 6.5 m Munsell: 10G 7/6
 POSITION: 36° 44.6' N 121° 51.4' W

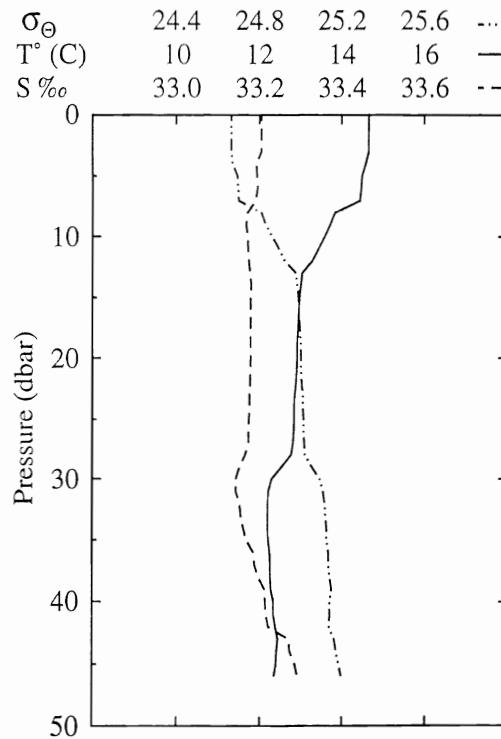
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590)	Fluoro (680)
0	15.23	15.23	33.29	24.61	306	-56	123	0.830	nil	0.68
2	15.23	15.23	33.29	24.61	306	-56	123	0.830	nil	0.68
4	15.46	15.46	33.31	24.57	305	-57	123	0.852	nil	0.67
6	14.85	14.85	33.29	24.68	311	-60	124	0.785	nil	0.87
8	14.81	14.81	33.29	24.69	311	-60	124	0.774	nil	0.89
10	14.79	14.79	33.27	24.69	312	-60	124	0.776	nil	0.92
12	14.51	14.51	33.23	24.71	315	-62	124	0.719	nil	0.95
14	14.10	14.10	33.19	24.77	319	-64	125	0.593	nil	0.98
16	13.62	13.61	33.19	24.87	322	-64	125	0.505	nil	0.99
18	13.31	13.31	33.18	24.92	315	-56	122	0.451	nil	0.77
20	13.00	12.99	33.14	24.96	305	-44	117	0.426	nil	0.78
22	12.72	12.71	33.17	25.03	300	-37	114	0.392	nil	0.72
24	12.55	12.55	33.17	25.06	294	-31	112	0.381	nil	0.71
26	12.29	12.29	33.17	25.11	286	-21	108	0.348	nil	0.68
28	12.27	12.27	33.19	25.13	281	-16	106	0.365	nil	0.63
30	11.98	11.98	33.16	25.16	275	-9	103	0.314	nil	0.58
32	11.92	11.91	33.19	25.20	270	-3	101	0.323	nil	0.63
34	11.90	11.89	33.19	25.21	268	-1	100	0.321	nil	0.52
36	11.89	11.88	33.19	25.21	265	2	99	0.361	nil	0.49
38	11.61	11.60	33.22	25.28	256	13	95	0.361	nil	0.43
40	11.38	11.37	33.22	25.32	251	19	93	0.447	nil	0.39
42	11.24	11.24	33.24	25.36	239	32	88	0.590	nil	0.34
44	11.23	11.22	33.24	25.37	238	33	88	0.617	nil	0.34
46	11.17	11.16	33.25	25.39	238	33	88	0.619	nil	0.33
47	11.14	11.13	33.26	25.40	230	41	85	0.626	nil	0.31

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

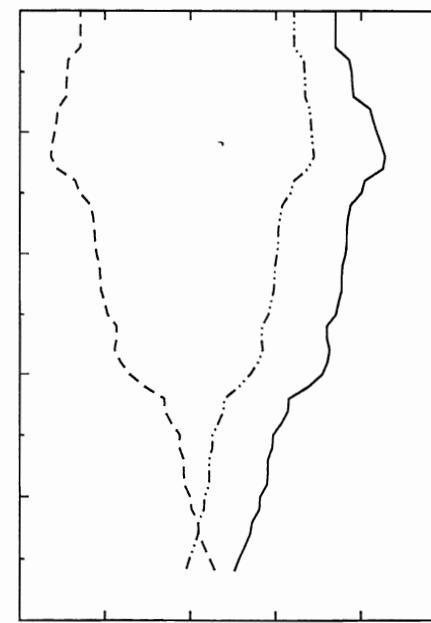
Jan 1994

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-4 Mulligan Hill
 DATE: 17:40 (GMT) 01 Sep 1992
 POSITION: $36^{\circ} 44.6' N$ $121^{\circ} 51.4' W$

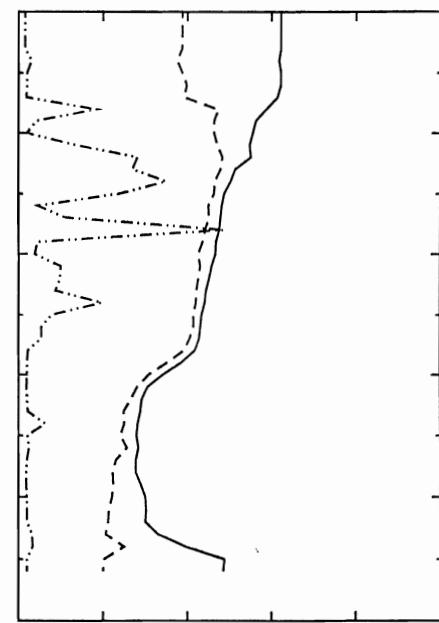
CTD # 5011
 Wind 0 kts; Waves 0 ft; Fog
 Secchi: 11.0 m Munsell: 10G 7/6



% O ₂	90	105	120	135	---
AOU (uM/kg)	-50	-20	10	40	--
O ₂ (uM/kg)	230	260	290	320	--



F590	0	5	10	15	---
F680	0.4	0.8	1.2	1.6	--
c490 (m ⁻¹)	0.2	0.4	0.6	0.8	--



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-4 Mulligan Hill
 DATE: 17:40 (GMT) 01 Sep 1992
 POSITION: 36° 44.6' N 121° 51.4' W

CTD # 5011
 Wind 0 kts; Waves 0 ft; Fog
 Secchi: 11.0 m Munsell: 10G 7/6

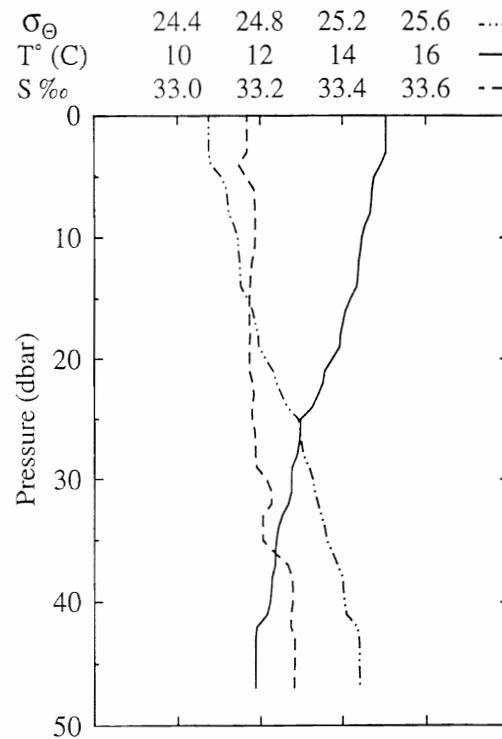
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	14.64	14.64	33.20	24.67	311	-59	123	0.622	nil 0.77
2	14.64	14.64	33.20	24.67	311	-59	123	0.622	nil 0.77
4	14.58	14.58	33.19	24.67	316	-63	125	0.619	nil 0.75
6	14.46	14.46	33.20	24.70	317	-64	125	0.622	nil 0.80
8	13.83	13.83	33.17	24.81	323	-67	126	0.589	nil 0.95
10	13.59	13.58	33.17	24.86	326	-68	126	0.556	nil 0.93
12	13.29	13.28	33.17	24.92	329	-69	127	0.552	2.02 0.97
14	13.00	13.00	33.18	24.98	321	-60	123	0.503	3.73 0.93
16	12.95	12.95	33.18	24.99	316	-55	121	0.482	nil 0.90
18	12.93	12.93	33.18	25.00	315	-54	120	0.475	7.21 0.88
20	12.91	12.91	33.18	25.00	314	-53	120	0.467	nil 0.85
22	12.89	12.88	33.18	25.00	313	-51	120	0.451	nil 0.85
24	12.84	12.84	33.18	25.01	312	-50	119	0.441	nil 0.84
26	12.83	12.82	33.17	25.01	308	-46	118	0.430	nil 0.83
28	12.77	12.77	33.17	25.02	309	-46	118	0.416	nil 0.78
30	12.30	12.29	33.14	25.09	306	-41	116	0.341	nil 0.61
32	12.20	12.20	33.15	25.12	294	-29	111	0.291	nil 0.53
34	12.20	12.19	33.16	25.12	292	-27	110	0.281	nil 0.50
36	12.25	12.25	33.19	25.13	289	-24	109	0.283	nil 0.51
38	12.27	12.26	33.20	25.14	287	-22	108	0.277	nil 0.45
40	12.34	12.33	33.21	25.14	285	-20	108	0.300	nil 0.44
42	12.38	12.37	33.22	25.14	282	-17	107	0.300	nil 0.42
44	12.41	12.40	33.27	25.17	279	-15	106	0.395	nil 0.50
46	12.36	12.35	33.29	25.20	276	-11	104	0.485	nil 0.40

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

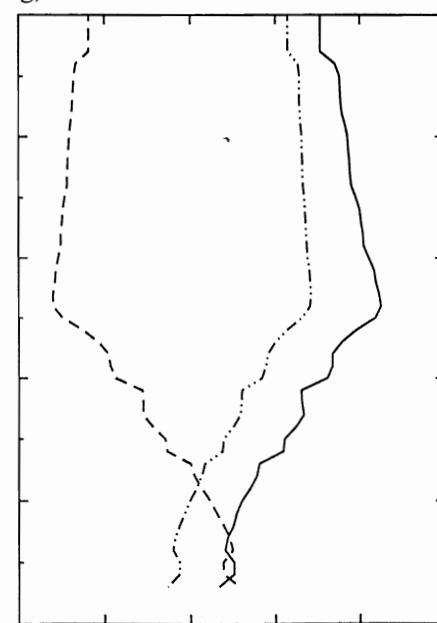
Jan 1994

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-4 Mulligan Hill
 DATE: 21:39 (GMT) 01 Sep 1992
 POSITION: $36^{\circ} 44.6' N$ $121^{\circ} 51.4' W$

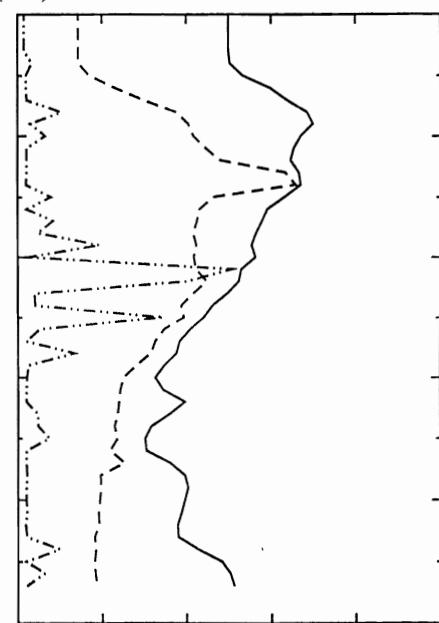
CTD # 5012
 Wind 0 kts; Waves 0 ft; Sky clear
 Secchi: 11.0 m Munsell: 10G 7/6



% O ₂	90	105	120	135	...
AOU (uM/kg)	-50	-20	10	40	--
O ₂ (uM/kg)	230	260	290	320	—



F590	0	5	10	15	...
F680	0.4	0.8	1.2	1.6	--
c490 (m ⁻¹)	0.2	0.4	0.6	0.8	—



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer

CTD # 5012

STATION: 01-4 Mulligan Hill

Wind 0 kts; Waves 0 ft; Sky clear

DATE: 21:39 (GMT) 01 Sep 1992

Secchi: 11.0 m Munsell: 10G 7/6

POSITION: 36° 44.6' N 121° 51.4' W

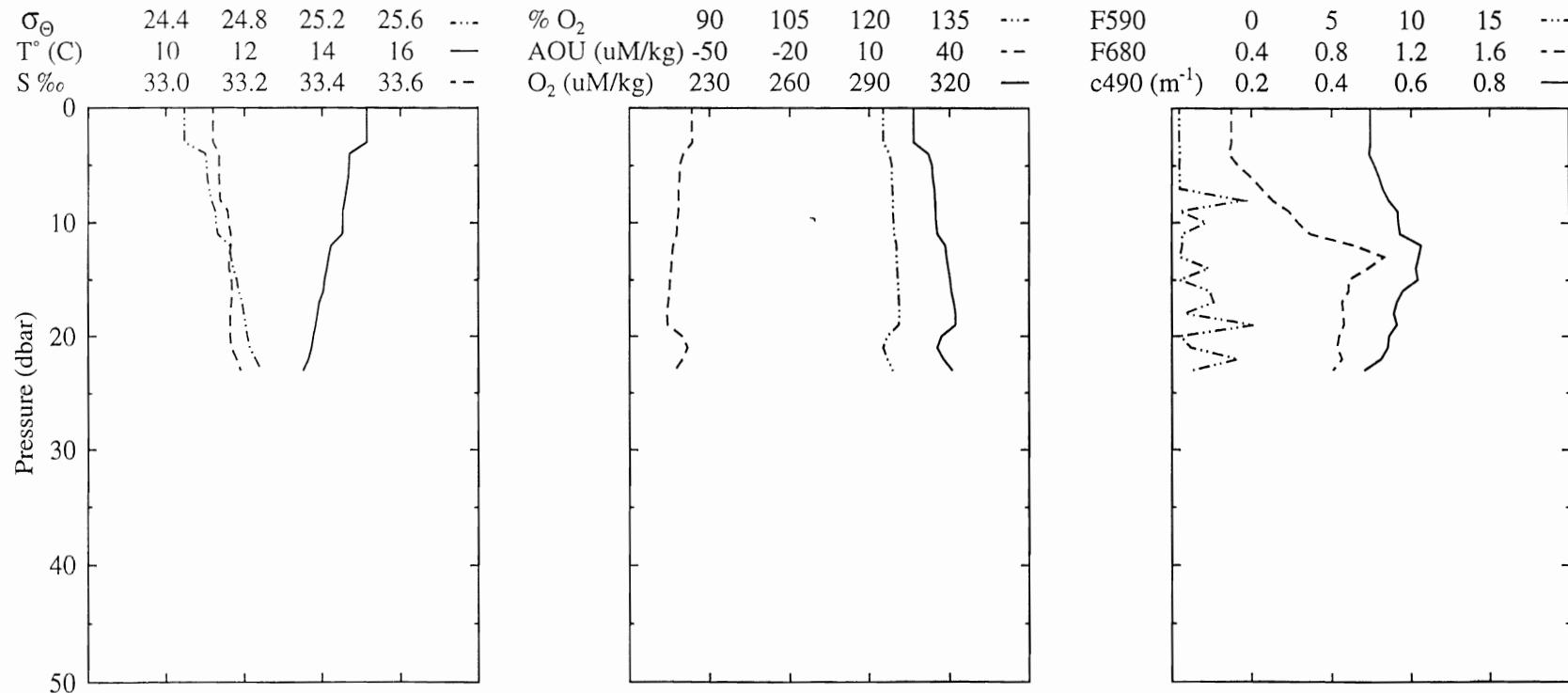
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	15.04	15.04	33.17	24.55	306	-55	122	0.501	nil 0.29
2	15.04	15.04	33.17	24.55	306	-55	122	0.501	nil 0.29
4	14.92	14.92	33.15	24.56	311	-60	124	0.503	nil 0.28
6	14.70	14.70	33.18	24.64	313	-61	124	0.597	nil 0.46
8	14.66	14.65	33.19	24.65	314	-61	124	0.686	nil 0.75
10	14.46	14.46	33.19	24.69	316	-62	125	0.671	nil 0.83
12	14.40	14.39	33.18	24.70	316	-63	125	0.645	nil 0.96
14	14.35	14.34	33.18	24.71	317	-63	125	0.670	nil 1.32
16	14.07	14.06	33.17	24.76	320	-64	125	0.591	nil 0.86
18	13.94	13.94	33.18	24.79	321	-65	125	0.565	nil 0.83
20	13.76	13.75	33.17	24.83	323	-66	126	0.563	nil 0.83
22	13.52	13.51	33.18	24.88	326	-67	126	0.525	5.02 0.90
24	13.26	13.26	33.18	24.93	327	-68	126	0.462	nil 0.78
26	12.97	12.97	33.19	24.99	319	-58	122	0.409	nil 0.69
28	12.89	12.89	33.19	25.01	310	-49	119	0.376	nil 0.63
30	12.77	12.77	33.22	25.06	308	-46	118	0.325	nil 0.50
32	12.69	12.69	33.23	25.08	299	-37	114	0.395	nil 0.48
34	12.44	12.44	33.21	25.11	297	-33	113	0.316	nil 0.46
36	12.37	12.37	33.23	25.15	293	-28	111	0.304	nil 0.43
38	12.30	12.29	33.28	25.20	283	-19	107	0.396	nil 0.39
40	12.25	12.25	33.28	25.21	278	-13	105	0.396	nil 0.39
42	11.91	11.90	33.27	25.27	275	-8	103	0.378	nil 0.38
44	11.89	11.88	33.28	25.28	272	-5	102	0.427	nil 0.37
46	11.88	11.87	33.28	25.28	275	-8	103	0.502	nil 0.36
47	11.88	11.87	33.28	25.28	270	-3	101	0.512	nil 0.38

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-4 Mulligan Hill
 DATE: 22:34 (GMT) 01 Sep 1992
 POSITION: $36^{\circ} 44.6' N$ $121^{\circ} 51.4' W$

CTD # 5014
 Wind 0 kts; Waves 0 ft; Sky clear
 Secchi: 11.0 m Munsell: 10G 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer

CTD # 5014

STATION: 01-4 Mulligan Hill

Wind 0 kts; Waves 0 ft; Sky clear

DATE: 22:34 (GMT) 01 Sep 1992

Secchi: 11.0 m Munsell: 10G 7/6

POSITION: 36° 44.6' N 121° 51.4' W

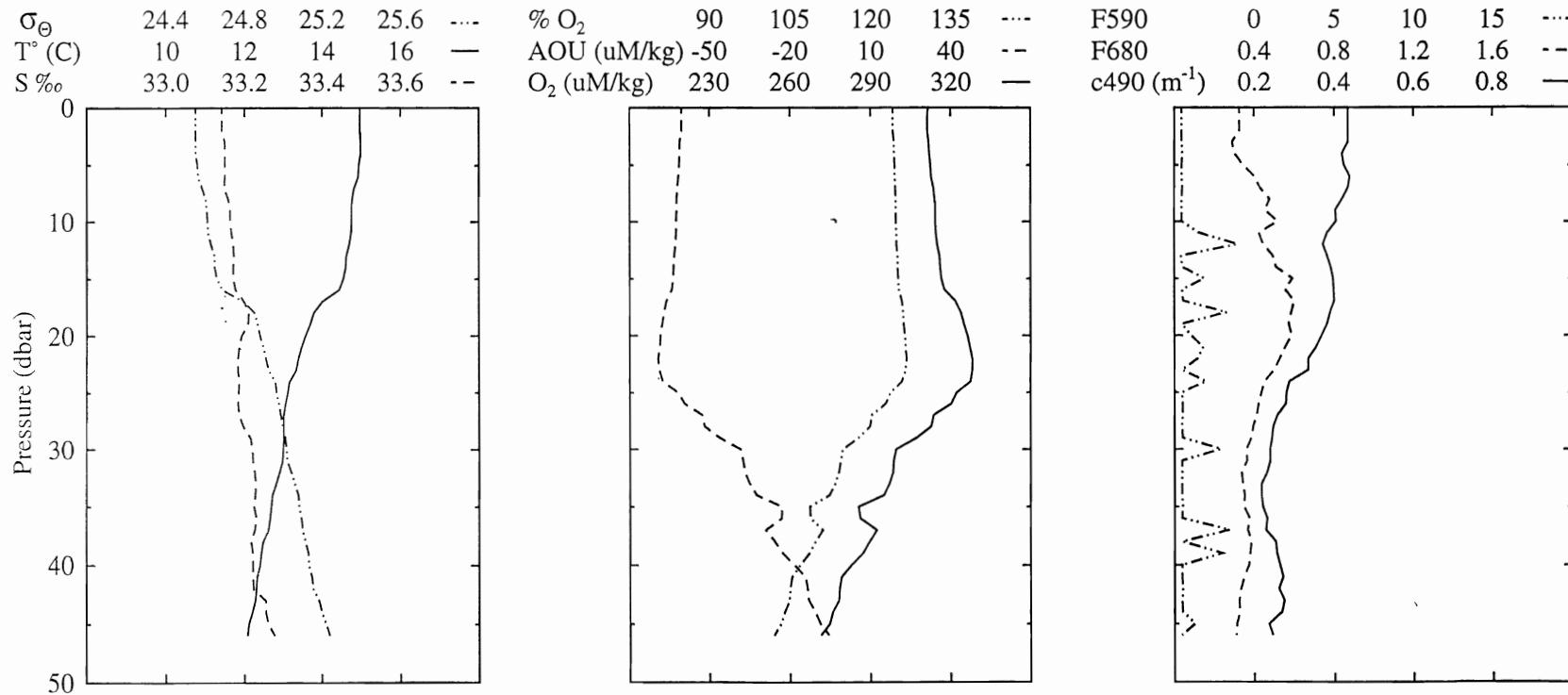
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590)	Fluoro (680)
0	15.13	15.13	33.12	24.50	307	-56	123	0.496	nil	0.30
2	15.13	15.13	33.12	24.50	307	-56	123	0.496	nil	0.30
4	14.70	14.70	33.13	24.60	312	-60	124	0.494	nil	0.29
6	14.66	14.66	33.14	24.61	314	-61	124	0.520	nil	0.40
8	14.57	14.57	33.14	24.63	314	-62	124	0.544	nil	0.51
10	14.53	14.53	33.16	24.65	315	-62	124	0.568	nil	0.63
12	14.22	14.22	33.17	24.73	318	-64	125	0.627	nil	0.92
14	14.11	14.11	33.16	24.74	319	-64	125	0.612	nil	0.98
16	14.02	14.02	33.17	24.77	321	-65	125	0.578	nil	0.88
18	13.87	13.87	33.16	24.80	322	-66	126	0.556	nil	0.86
20	13.77	13.77	33.16	24.82	317	-60	123	0.543	nil	0.83
22	13.64	13.64	33.18	24.86	318	-60	123	0.525	nil	0.85
23	13.51	13.51	33.19	24.89	321	-63	124	0.482	nil	0.81

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

Jan 1994

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-5 Mulligan Hill
 DATE: 17:34 (GMT) 02 Sep 1992
 POSITION: $36^{\circ} 44.6' N$ $121^{\circ} 51.4' W$

CTD # 5015
 Wind 0 kts; Waves 1 ft; Fog
 Secchi: 12.5 m Munsell: 10G 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-5 Mulligan Hill
 DATE: 17:34 (GMT) 02 Sep 1992
 POSITION: 36° 44.6' N 121° 51.4' W

CTD # 5015
 Wind 0 kts; Waves 1 ft; Fog
 Secchi: 12.5 m Munsell: 10G 7/6

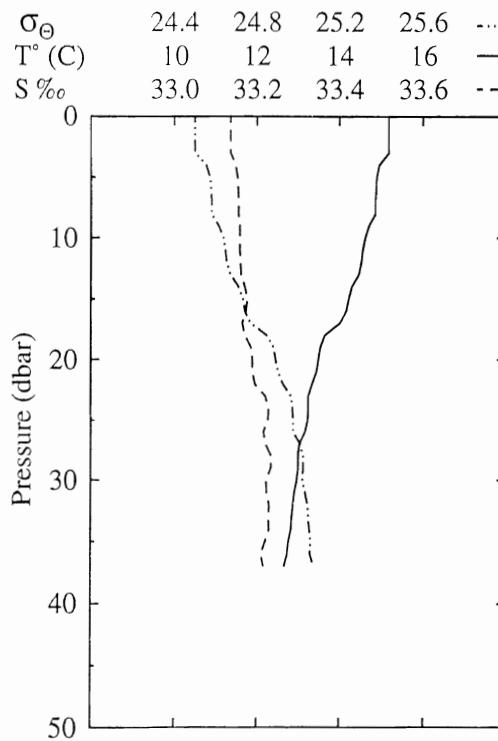
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	14.96	14.96	33.14	24.55	311	-61	124	0.434	nil 0.33
2	14.96	14.96	33.14	24.55	311	-61	124	0.434	nil 0.33
4	14.97	14.97	33.15	24.55	312	-61	124	0.419	nil 0.30
6	14.92	14.92	33.15	24.56	313	-62	125	0.439	nil 0.40
8	14.76	14.76	33.16	24.60	314	-62	125	0.420	nil 0.48
10	14.75	14.75	33.16	24.61	314	-62	125	0.404	nil 0.52
12	14.69	14.69	33.17	24.63	315	-63	125	0.371	nil 0.44
14	14.60	14.60	33.17	24.65	316	-63	125	0.390	nil 0.51
16	14.43	14.43	33.18	24.69	318	-64	125	0.399	nil 0.55
18	13.78	13.78	33.21	24.85	324	-67	126	0.389	nil 0.59
20	13.57	13.56	33.19	24.88	326	-68	126	0.368	nil 0.59
22	13.39	13.39	33.18	24.91	328	-69	127	0.334	nil 0.52
24	13.16	13.16	33.19	24.96	328	-67	126	0.287	nil 0.45
26	13.05	13.05	33.18	24.98	320	-59	123	0.278	nil 0.42
28	13.01	13.01	33.20	25.00	313	-52	120	0.247	nil 0.39
30	13.00	12.99	33.22	25.02	299	-38	115	0.238	nil 0.36
32	12.90	12.90	33.23	25.04	298	-37	114	0.231	nil 0.34
34	12.72	12.72	33.23	25.08	295	-32	112	0.217	nil 0.35
36	12.65	12.65	33.23	25.09	286	-23	109	0.231	nil 0.37
38	12.48	12.48	33.22	25.11	289	-26	110	0.252	nil 0.38
40	12.41	12.40	33.22	25.13	283	-18	107	0.263	nil 0.37
42	12.30	12.30	33.22	25.15	278	-13	105	0.260	nil 0.33
44	12.20	12.19	33.25	25.20	276	-11	104	0.268	nil 0.33
46	12.09	12.08	33.28	25.24	272	-6	102	0.244	nil 0.31

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

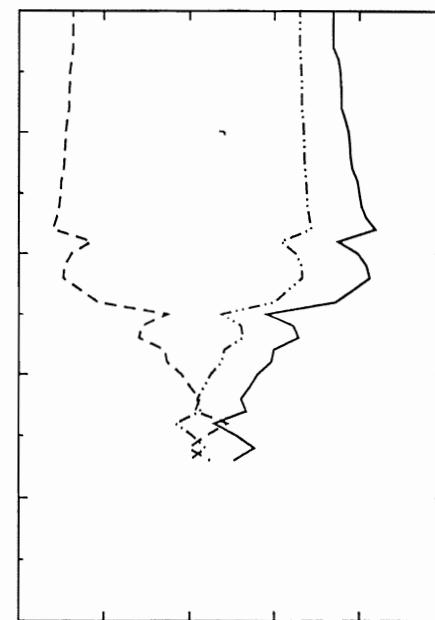
Jan 1994

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-5 Mulligan Hill
 DATE: 18:33 (GMT) 02 Sep 1992
 POSITION: $36^{\circ} 44.6' N$ $121^{\circ} 51.4' W$

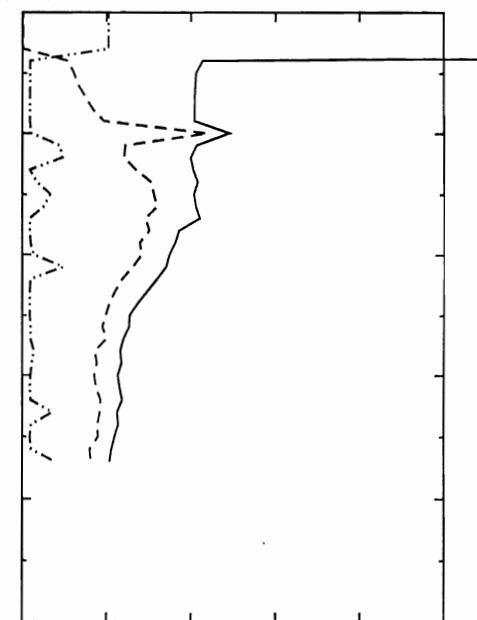
CTD # 5016
 Wind 5 kts; Waves 2 ft; Sky clear
 Secchi: 12.5 m Munsell: 10G 7/6



% O ₂	90	105	120	135	...
AOU (uM/kg)	-50	-20	10	40	—
O ₂ (uM/kg)	230	260	290	320	—



F590	0	5	10	15	...
F680	0.4	0.8	1.2	1.6	—
c490 (m ⁻¹)	0.2	0.4	0.6	0.8	—



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-5 Mulligan Hill
 DATE: 18:33 (GMT) 02 Sep 1992
 POSITION: 36° 44.6' N 121° 51.4' W

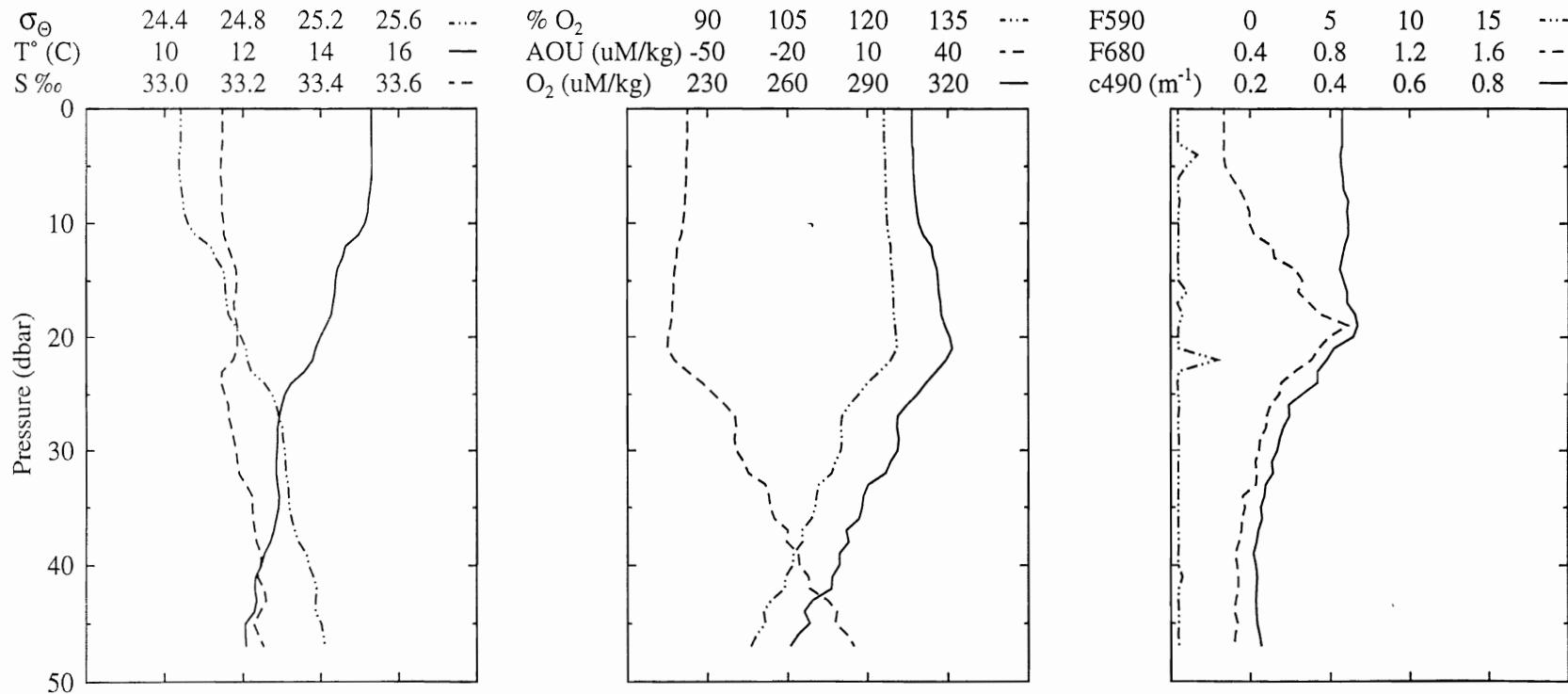
CTD # 5016
 Wind 5 kts; Waves 2 ft; Sky clear
 Secchi: 12.5 m Munsell: 10G 7/6

Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	15.17	15.17	33.14	24.50	311	-61	124	3.727	0.10 0.00
2	15.17	15.17	33.14	24.50	311	-61	124	3.727	0.10 0.00
4	14.95	14.95	33.15	24.56	312	-61	124	0.427	nil 0.22
6	14.87	14.87	33.15	24.58	313	-62	125	0.411	nil 0.26
8	14.86	14.86	33.16	24.58	314	-62	125	0.408	nil 0.34
10	14.61	14.61	33.16	24.64	316	-63	125	0.491	nil 0.88
12	14.53	14.53	33.16	24.66	317	-64	125	0.400	nil 0.48
14	14.30	14.30	33.17	24.71	319	-65	126	0.417	nil 0.61
16	14.16	14.16	33.17	24.74	321	-66	126	0.412	nil 0.64
18	13.64	13.64	33.17	24.85	326	-68	126	0.372	nil 0.61
20	13.50	13.50	33.19	24.89	320	-61	124	0.349	nil 0.57
22	13.34	13.34	33.20	24.93	324	-64	125	0.320	nil 0.47
24	13.24	13.24	33.23	24.97	312	-52	120	0.275	nil 0.41
26	13.18	13.18	33.22	24.98	297	-37	114	0.254	nil 0.38
28	13.01	13.01	33.24	25.03	290	-29	111	0.233	nil 0.35
30	12.97	12.97	33.22	25.02	284	-23	109	0.227	nil 0.34
32	12.88	12.88	33.23	25.05	278	-17	106	0.237	nil 0.37
34	12.84	12.84	33.23	25.05	268	-7	103	0.228	nil 0.36
36	12.74	12.74	33.21	25.06	283	-20	108	0.211	nil 0.32
37	12.67	12.66	33.22	25.08	276	-13	105	0.206	nil 0.32

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-5 Mulligan Hill
 DATE: 21:49 (GMT) 02 Sep 1992
 POSITION: $36^{\circ} 44.6' N$ $121^{\circ} 51.4' W$

CTD # 5017
 Wind 10 kts; Waves 3 ft; Sky clear
 Secchi: 12.5 m Munsell: 10G 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer CTD # 5017
 STATION: 01-5 Mulligan Hill Wind 10 kts; Waves 3 ft; Sky clear
 DATE: 21:49 (GMT) 02 Sep 1992 Secchi: 12.5 m Munsell: 10G 7/6
 POSITION: 36° 44.6' N 121° 51.4' W

Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	15.29	15.29	33.15	24.48	307	-57	123	0.431	nil 0.27
2	15.29	15.29	33.15	24.48	307	-57	123	0.431	nil 0.27
4	15.32	15.32	33.14	24.47	307	-58	123	0.426	nil 0.27
6	15.30	15.30	33.14	24.48	307	-58	123	0.432	nil 0.31
8	15.23	15.23	33.15	24.49	308	-58	123	0.446	nil 0.37
10	15.13	15.13	33.15	24.52	309	-59	124	0.446	nil 0.39
12	14.63	14.63	33.16	24.63	314	-61	124	0.437	nil 0.51
14	14.41	14.41	33.18	24.70	316	-62	125	0.424	nil 0.62
16	14.35	14.35	33.18	24.71	317	-63	125	0.442	nil 0.64
18	14.27	14.27	33.18	24.73	317	-63	125	0.462	nil 0.75
20	13.98	13.97	33.19	24.79	321	-65	125	0.458	nil 0.79
22	13.78	13.78	33.17	24.82	319	-62	124	0.391	nil 0.70
24	13.23	13.23	33.14	24.91	312	-52	120	0.367	nil 0.55
26	12.99	12.99	33.16	24.97	304	-43	117	0.295	nil 0.50
28	12.88	12.88	33.17	25.00	301	-39	115	0.281	nil 0.48
30	12.87	12.86	33.18	25.01	301	-39	115	0.266	nil 0.44
32	12.85	12.85	33.19	25.02	296	-35	113	0.255	nil 0.43
34	12.93	12.92	33.23	25.03	288	-27	110	0.235	nil 0.36
36	12.85	12.84	33.23	25.05	287	-25	110	0.228	nil 0.36
38	12.70	12.70	33.24	25.09	283	-20	108	0.215	nil 0.34
40	12.48	12.47	33.25	25.14	279	-16	106	0.213	nil 0.33
42	12.31	12.30	33.25	25.18	277	-12	104	0.215	nil 0.34
44	12.30	12.29	33.24	25.17	266	-1	101	0.215	nil 0.32
46	12.07	12.06	33.24	25.21	264	2	99	0.222	nil 0.32
47	12.08	12.07	33.25	25.22	261	5	98	0.226	nil 0.32

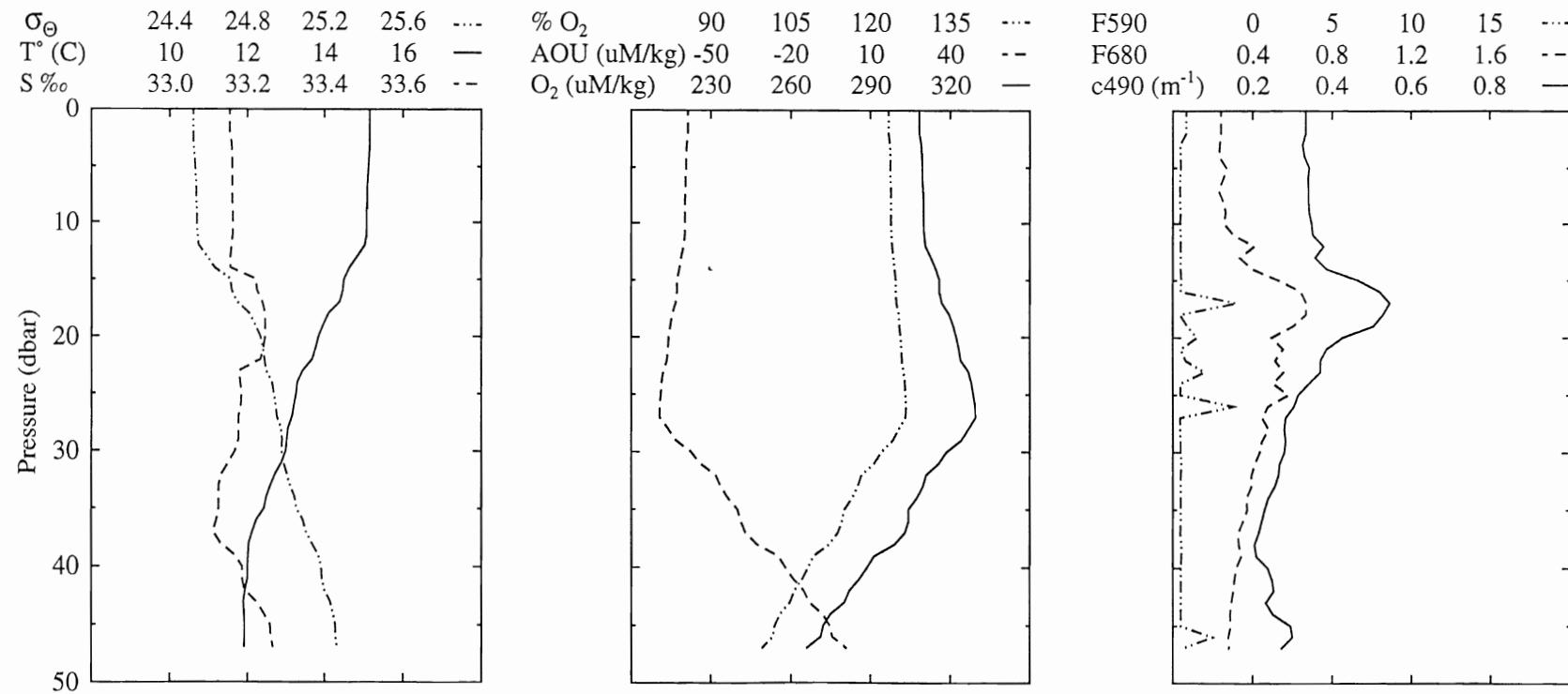
Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-6 Mulligan Hill
 DATE: 17:37 (GMT) 03 Sep 1992
 POSITION: $36^{\circ} 44.6' N$ $121^{\circ} 51.4' W$

CTD # 5018

Wind 0 kts; Waves 0 ft; Sky clear with fog
 Secchi: 13.5 m Munsell: 10G 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer CTD # 5018
 STATION: 01-6 Mulligan Hill Wind 0 kts; Waves 0 ft; Sky clear with fog
 DATE: 17:37 (GMT) 03 Sep 1992 Secchi: 13.5 m Munsell: 10G 7/6
 POSITION: 36° 44.6' N 121° 51.4' W

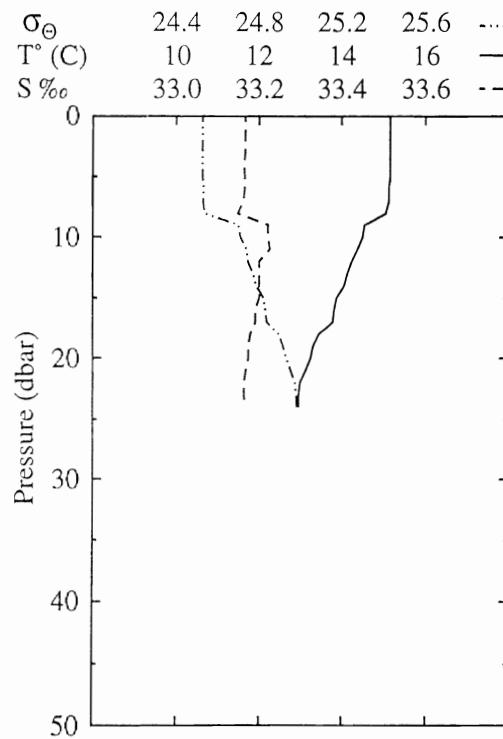
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	15.14	15.14	33.16	24.52	308	-59	123	0.332	nil 0.24
2	15.14	15.14	33.16	24.52	308	-59	123	0.332	nil 0.24
4	15.13	15.13	33.16	24.53	309	-59	124	0.330	nil 0.23
6	15.10	15.10	33.16	24.53	310	-59	124	0.339	nil 0.25
8	15.09	15.08	33.16	24.54	310	-60	124	0.341	nil 0.25
10	15.07	15.07	33.16	24.54	310	-60	124	0.348	nil 0.26
12	15.03	15.03	33.16	24.55	311	-60	124	0.378	nil 0.41
14	14.64	14.63	33.16	24.63	314	-62	125	0.386	nil 0.40
16	14.47	14.47	33.22	24.72	316	-63	125	0.520	nil 0.64
18	14.11	14.10	33.25	24.81	320	-64	125	0.529	nil 0.67
20	13.84	13.83	33.25	24.87	322	-66	126	0.427	nil 0.50
22	13.68	13.67	33.23	24.89	324	-67	126	0.371	nil 0.52
24	13.30	13.29	33.18	24.93	328	-69	126	0.342	nil 0.50
26	13.20	13.20	33.18	24.95	329	-69	127	0.304	nil 0.48
28	13.05	13.04	33.18	24.97	327	-66	125	0.280	nil 0.48
30	12.99	12.98	33.17	24.98	319	-57	122	0.280	nil 0.43
32	12.72	12.71	33.13	25.00	311	-48	118	0.264	nil 0.39
34	12.49	12.48	33.13	25.04	308	-44	117	0.239	nil 0.37
36	12.24	12.23	33.12	25.09	304	-39	115	0.223	nil 0.35
38	12.03	12.03	33.13	25.13	299	-33	112	0.204	nil 0.33
40	12.01	12.00	33.19	25.18	288	-22	108	0.237	nil 0.32
42	11.95	11.95	33.19	25.20	282	-15	106	0.253	nil 0.30
44	11.91	11.90	33.24	25.24	275	-8	103	0.251	nil 0.29
46	11.92	11.92	33.26	25.25	271	-4	102	0.299	nil 0.28
47	11.91	11.90	33.27	25.26	266	1	100	0.270	nil 0.28

Jan 1994

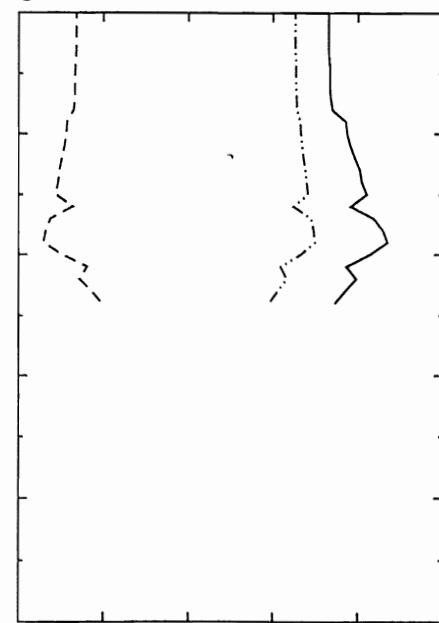
MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-6 Mulligan Hill
 DATE: 18:37 (GMT) 03 Sep 1992
 POSITION: $36^{\circ} 44.6' N$ $121^{\circ} 51.4' W$

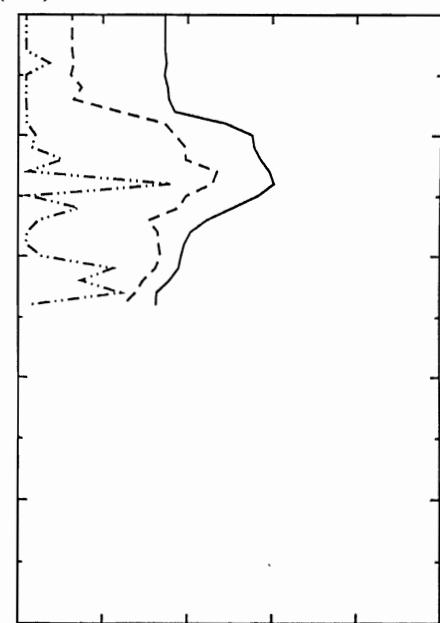
CTD # 5019
 Wind 3 kts; Waves 2 ft; Sky clear
 Secchi: 13.5 m Munsell: 10G 7/6



% O ₂	90	105	120	135	...
AOU (uM/kg)	-50	-20	10	40	—
O ₂ (uM/kg)	230	260	290	320	—



F590	0	5	10	15	...
F680	0.4	0.8	1.2	1.6	—
c490 (m ⁻¹)	0.2	0.4	0.6	0.8	—



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer

CTD # 5019

STATION: 01-6 Mulligan Hill

Wind 3 kts; Waves 2 ft; Sky clear

DATE: 18:37 (GMT) 03 Sep 1992

Secchi: 13.5 m Munsell: 10G 7/6

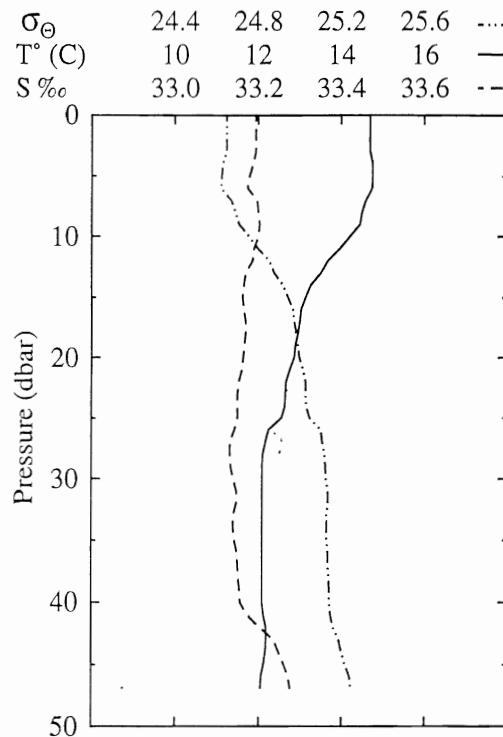
POSITION: 36° 44.6' N 121° 51.4' W

Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	15.14	15.14	33.17	24.53	309	-60	124	0.347	nil 0.25
2	15.14	15.14	33.17	24.53	309	-60	124	0.347	nil 0.25
4	15.14	15.14	33.16	24.53	310	-60	124	0.349	nil 0.26
6	15.12	15.12	33.17	24.53	310	-60	124	0.353	nil 0.30
8	15.04	15.04	33.15	24.54	311	-60	124	0.370	nil 0.48
10	14.50	14.49	33.22	24.71	316	-63	125	0.553	nil 0.74
12	14.24	14.24	33.20	24.75	319	-65	125	0.573	nil 0.79
14	14.05	14.05	33.20	24.79	321	-66	126	0.604	4.04 0.92
16	13.81	13.81	33.19	24.83	317	-61	124	0.507	nil 0.76
18	13.45	13.45	33.18	24.89	329	-70	127	0.407	nil 0.66
20	13.25	13.24	33.17	24.93	324	-65	125	0.385	nil 0.67
22	13.00	12.99	33.16	24.97	319	-58	122	0.357	nil 0.59
24	12.96	12.96	33.17	24.98	312	-50	119	0.325	nil 0.50

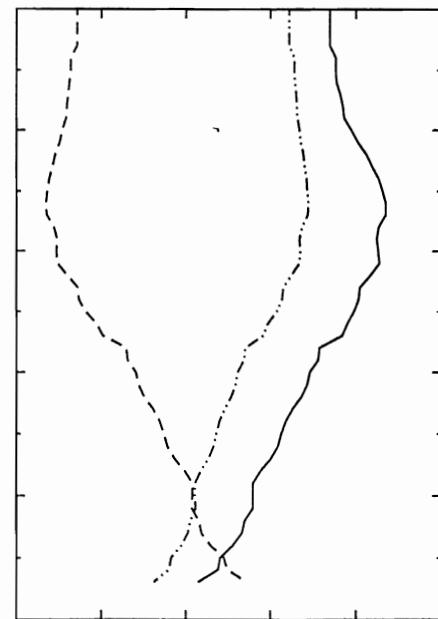
MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-6 Mulligan Hill
 DATE: 21:42 (GMT) 03 Sep 1992
 POSITION: $36^{\circ} 44.6' N$ $121^{\circ} 51.4' W$

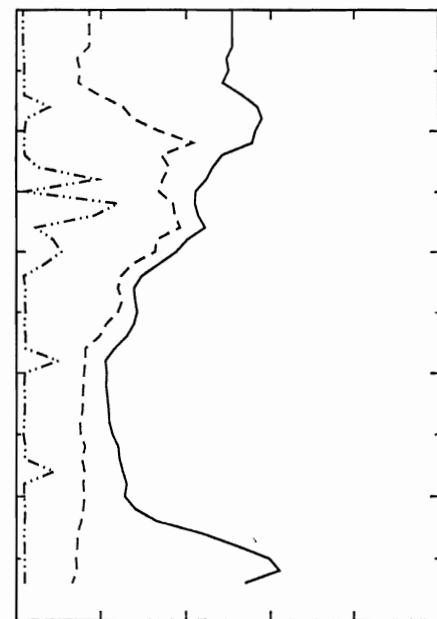
CTD # 5021
 Wind 8 kts; Waves 3 ft; Sky clear
 Secchi: 13.5 m Munsell: 10G 7/6



% O ₂	90	105	120	135	...
AOU (uM/kg)	-50	-20	10	40	--
O ₂ (uM/kg)	230	260	290	320	—



F590	0	5	10	15	...
F680	0.4	0.8	1.2	1.6	--
c490 (m ⁻¹)	0.2	0.4	0.6	0.8	—



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-6 Mulligan Hill
 DATE: 21:42 (GMT) 03 Sep 1992
 POSITION: 36° 44.6' N 121° 51.4' W

CTD # 5021
 Wind 8 kts; Waves 3 ft; Sky clear
 Secchi: 13.5 m Munsell: 10G 7/6

Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	14.69	14.69	33.19	24.65	311	-59	123	0.509	nil 0.34
2	14.69	14.68	33.19	24.65	311	-59	123	0.509	nil 0.34
4	14.75	14.75	33.19	24.63	313	-61	124	0.496	nil 0.29
6	14.73	14.73	33.17	24.62	313	-61	124	0.487	nil 0.29
8	14.50	14.50	33.20	24.69	315	-62	125	0.569	nil 0.50
10	14.20	14.20	33.20	24.76	318	-64	125	0.563	nil 0.67
12	13.68	13.68	33.19	24.85	324	-66	126	0.486	nil 0.69
14	13.27	13.27	33.17	24.92	328	-68	126	0.448	nil 0.69
16	13.03	13.03	33.17	24.97	330	-69	127	0.421	1.02 0.74
18	12.96	12.96	33.17	24.98	328	-67	126	0.445	nil 0.77
20	12.87	12.86	33.16	25.00	328	-66	125	0.377	nil 0.65
22	12.67	12.67	33.15	25.03	325	-62	124	0.294	nil 0.49
24	12.64	12.64	33.15	25.03	321	-58	122	0.280	nil 0.50
26	12.25	12.25	33.14	25.10	317	-52	120	0.276	nil 0.42
28	12.11	12.10	33.13	25.12	307	-41	115	0.231	nil 0.33
30	12.10	12.10	33.14	25.13	304	-38	114	0.212	nil 0.32
32	12.09	12.09	33.15	25.13	301	-35	113	0.214	nil 0.31
34	12.10	12.09	33.14	25.13	295	-29	111	0.219	nil 0.30
36	12.10	12.09	33.15	25.14	293	-26	110	0.240	nil 0.33
38	12.10	12.09	33.15	25.14	286	-20	108	0.250	nil 0.32
40	12.10	12.09	33.16	25.14	284	-18	107	0.256	nil 0.32
42	12.19	12.18	33.20	25.16	281	-15	106	0.332	nil 0.31
44	12.18	12.17	33.25	25.20	277	-11	104	0.521	nil 0.29
46	12.07	12.06	33.27	25.24	271	-5	102	0.621	nil 0.29
47	12.04	12.04	33.28	25.24	264	2	99	0.539	nil 0.26

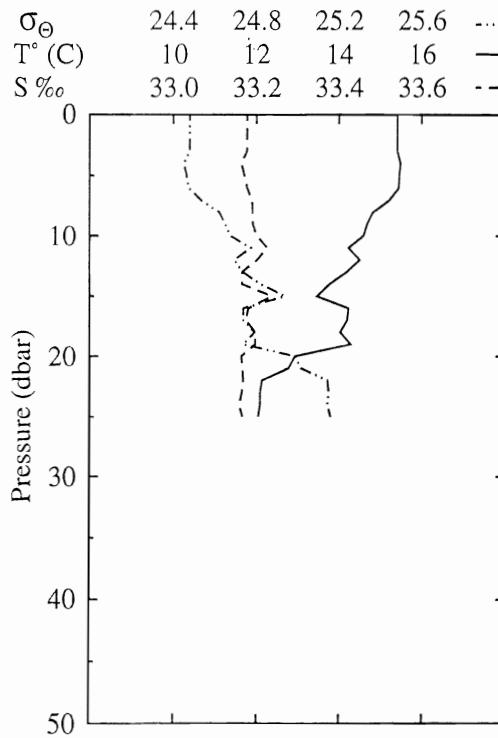
Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

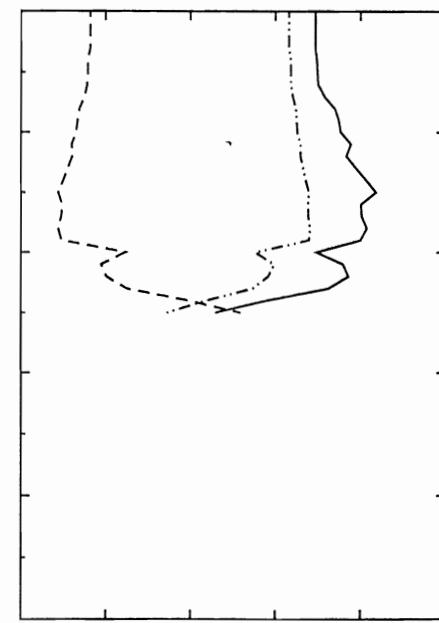
CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-6 Mulligan Hill
 DATE: 22:51 (GMT) 03 Sep 1992
 POSITION: $36^{\circ} 44.6' N$ $121^{\circ} 51.4' W$

CTD # 5023

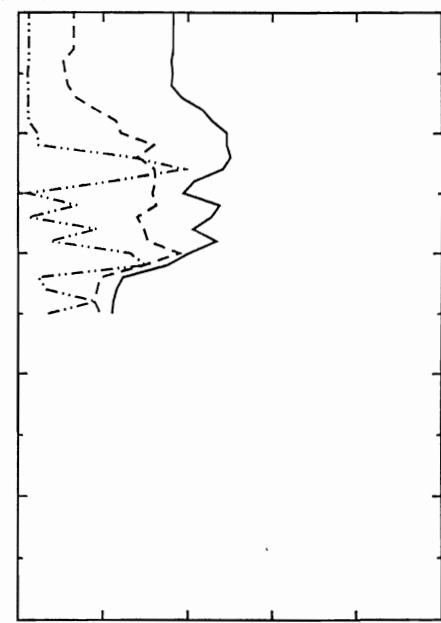
Wind 8 kts; Waves 3 ft; Sky clear
 Secchi: 13.5 m Munsell: 10G 7/6



% O ₂	90	105	120	135	...
AOU (uM/kg)	-50	-20	10	40	--
O ₂ (uM/kg)	230	260	290	320	—



F590	0	5	10	15	...
F680	0.4	0.8	1.2	1.6	--
c490 (m ⁻¹)	0.2	0.4	0.6	0.8	—



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer CTD # 5023
 STATION: 01-6 Mulligan Hill Wind 8 kts; Waves 3 ft; Sky clear
 DATE: 22:51 (GMT) 03 Sep 1992 Secchi: 13.5 m Munsell: 10G 7/6
 POSITION: 36° 44.6' N 121° 51.4' W

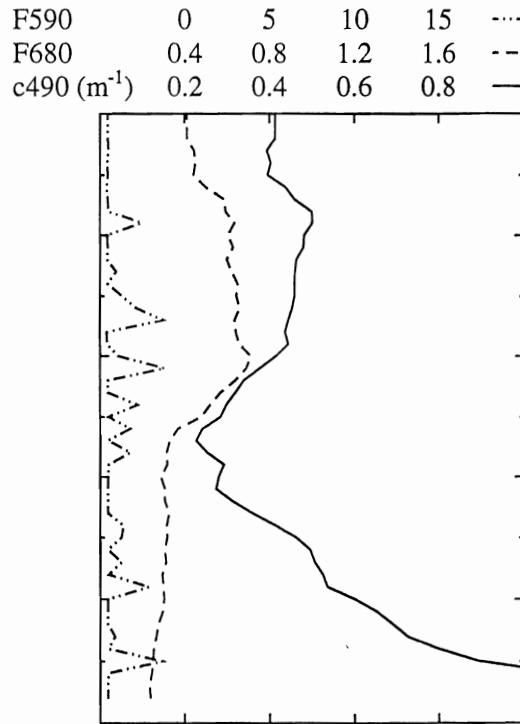
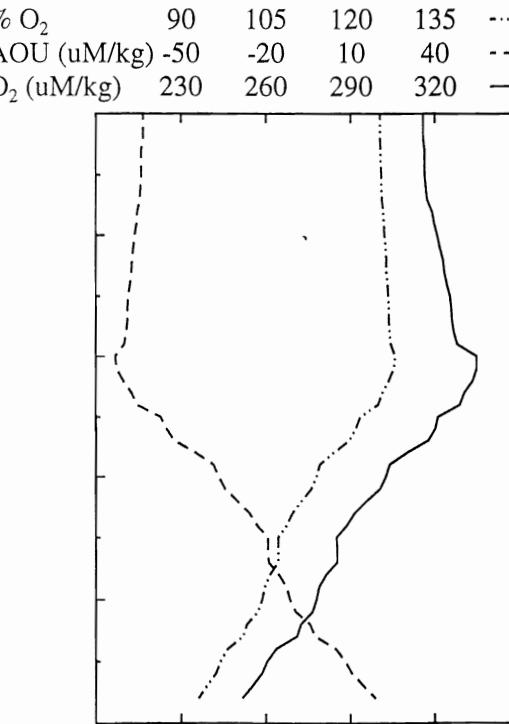
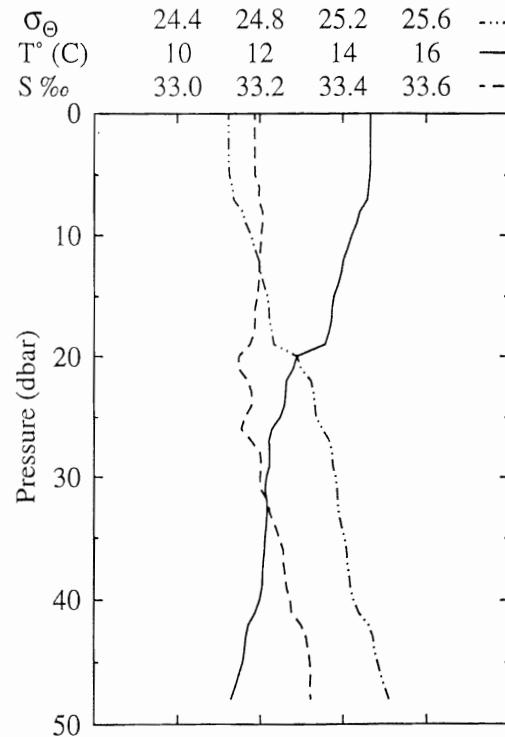
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	15.41	15.41	33.18	24.48	304	-56	122	0.364	nil 0.26
2	15.41	15.41	33.18	24.48	304	-56	122	0.364	nil 0.26
4	15.48	15.48	33.16	24.45	305	-56	123	0.360	nil 0.21
6	15.43	15.43	33.18	24.47	305	-57	123	0.359	nil 0.23
8	14.81	14.81	33.19	24.62	311	-59	124	0.433	nil 0.36
10	14.59	14.59	33.20	24.67	313	-60	124	0.490	nil 0.48
12	14.50	14.50	33.20	24.69	315	-62	124	0.500	1.63 0.56
14	13.77	13.77	33.17	24.82	322	-65	125	0.415	0.54 0.65
16	14.22	14.22	33.18	24.74	320	-66	126	0.474	nil 0.65
18	14.02	14.02	33.20	24.79	322	-67	126	0.412	nil 0.59
20	12.93	12.92	33.16	24.99	304	-43	116	0.403	1.58 0.76
22	12.14	12.13	33.17	25.14	316	-50	119	0.247	nil 0.39
24	12.09	12.09	33.16	25.14	287	-21	108	0.223	nil 0.36
25	12.05	12.04	33.17	25.16	269	-2	101	0.220	nil 0.39

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-7 Mulligan Hill
 DATE: 15:35 (GMT) 04 Sep 1992
 POSITION: 36° 44.6' N 121° 51.4' W

CTD # 5024
 Wind 0 kts; Waves 2 ft; Sky clear
 Secchi: 9.5 m Munsell: 10G 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer CTD # 5024
 STATION: 01-7 Mulligan Hill Wind 0 kts; Waves 2 ft; Sky clear
 DATE: 15:35 (GMT) 04 Sep 1992 Secchi: 9.5 m Munsell: 10G 7/6
 POSITION: 36° 44.6' N 121° 51.4' W

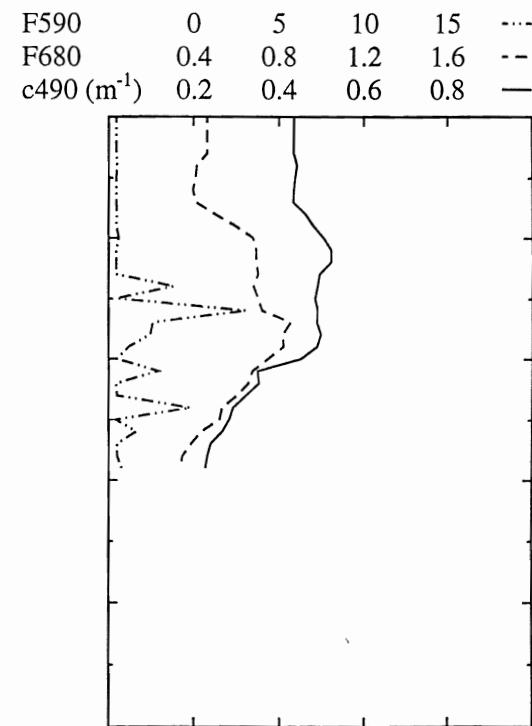
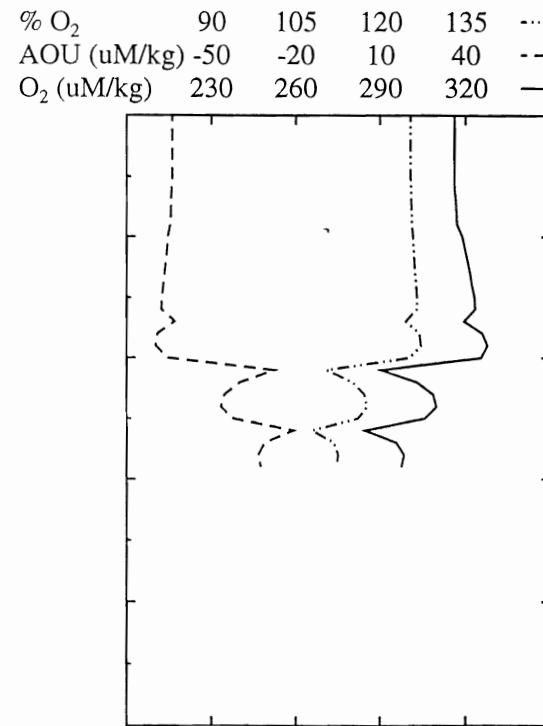
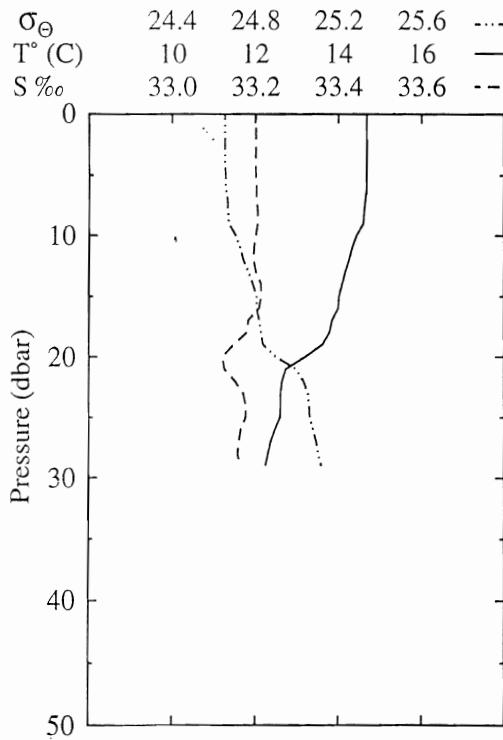
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590)	Fluoro (680)
0	14.66	14.66	33.19	24.65	316	-63	125	0.413	nil	0.41
2	14.66	14.66	33.19	24.65	316	-63	125	0.413	nil	0.41
4	14.66	14.66	33.19	24.65	316	-64	125	0.403	nil	0.45
6	14.61	14.61	33.20	24.67	317	-64	125	0.438	nil	0.50
8	14.41	14.41	33.21	24.72	319	-65	126	0.499	nil	0.59
10	14.20	14.20	33.20	24.76	321	-66	126	0.482	nil	0.61
12	14.01	14.01	33.20	24.79	323	-67	126	0.464	nil	0.60
14	13.89	13.89	33.20	24.82	324	-68	127	0.459	nil	0.65
16	13.74	13.74	33.19	24.84	326	-69	127	0.452	nil	0.66
18	13.65	13.65	33.19	24.86	327	-69	127	0.436	nil	0.64
20	12.89	12.89	33.15	24.98	335	-73	128	0.415	nil	0.71
22	12.64	12.64	33.17	25.05	334	-71	127	0.339	nil	0.64
24	12.59	12.59	33.18	25.06	329	-66	125	0.299	nil	0.52
26	12.29	12.29	33.16	25.10	320	-55	121	0.241	nil	0.37
28	12.24	12.23	33.20	25.15	310	-45	117	0.253	nil	0.31
30	12.15	12.15	33.20	25.16	303	-37	114	0.280	nil	0.28
32	12.17	12.17	33.22	25.18	296	-30	111	0.312	nil	0.30
34	12.16	12.15	33.24	25.19	289	-23	109	0.413	nil	0.31
36	12.11	12.10	33.26	25.22	285	-19	107	0.495	nil	0.30
38	12.07	12.06	33.26	25.23	281	-15	106	0.526	nil	0.29
40	12.00	11.99	33.27	25.25	278	-12	104	0.601	nil	0.30
42	11.72	11.71	33.30	25.32	272	-4	102	0.691	nil	0.27
44	11.63	11.62	33.32	25.35	264	5	98	0.800	nil	0.25
46	11.49	11.48	33.32	25.38	259	10	96	1.084	nil	0.24
48	11.28	11.28	33.32	25.42	252	19	93	1.078	nil	0.24

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 01-7 Mulligan Hill
 DATE: 16:42 (GMT) 04 Sep 1992
 POSITION: $36^{\circ} 44.6' N$ $121^{\circ} 51.4' W$

CTD # 5025
 Wind 0 kts; Waves 3 ft; Sky clear
 Secchi: 9.5 m Munsell: 10G 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer

CTD # 5025

STATION: 01-7 Mulligan Hill

Wind 0 kts; Waves 3 ft; Sky clear

DATE: 16:42 (GMT) 04 Sep 1992

Secchi: 9.5 m Munsell: 10G 7/6

POSITION: 36° 44.6' N 121° 51.4' W

Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	14.68	14.68	33.20	24.66	316	-64	125	0.435	nil 0.46
2	14.68	14.68	33.20	24.66	316	-64	125	0.435	nil 0.46
4	14.68	14.68	33.20	24.66	316	-64	125	0.442	nil 0.42
6	14.68	14.68	33.20	24.66	316	-64	125	0.435	nil 0.40
8	14.62	14.62	33.21	24.67	317	-64	125	0.461	nil 0.50
10	14.44	14.44	33.20	24.71	319	-65	126	0.504	nil 0.68
12	14.24	14.24	33.20	24.74	321	-66	126	0.522	nil 0.69
14	14.09	14.09	33.21	24.79	322	-67	126	0.491	nil 0.68
16	13.99	13.99	33.21	24.81	323	-68	126	0.491	3.05 0.72
18	13.77	13.77	33.18	24.83	326	-69	127	0.499	nil 0.82
20	13.20	13.20	33.12	24.90	326	-66	125	0.452	nil 0.75
22	12.64	12.64	33.15	25.03	303	-40	115	0.353	nil 0.66
24	12.61	12.60	33.18	25.06	310	-47	118	0.292	nil 0.53
26	12.47	12.47	33.17	25.08	285	-21	108	0.267	nil 0.44
28	12.31	12.30	33.16	25.10	298	-33	113	0.231	nil 0.35
29	12.25	12.25	33.16	25.12	298	-32	112	0.227	nil 0.33

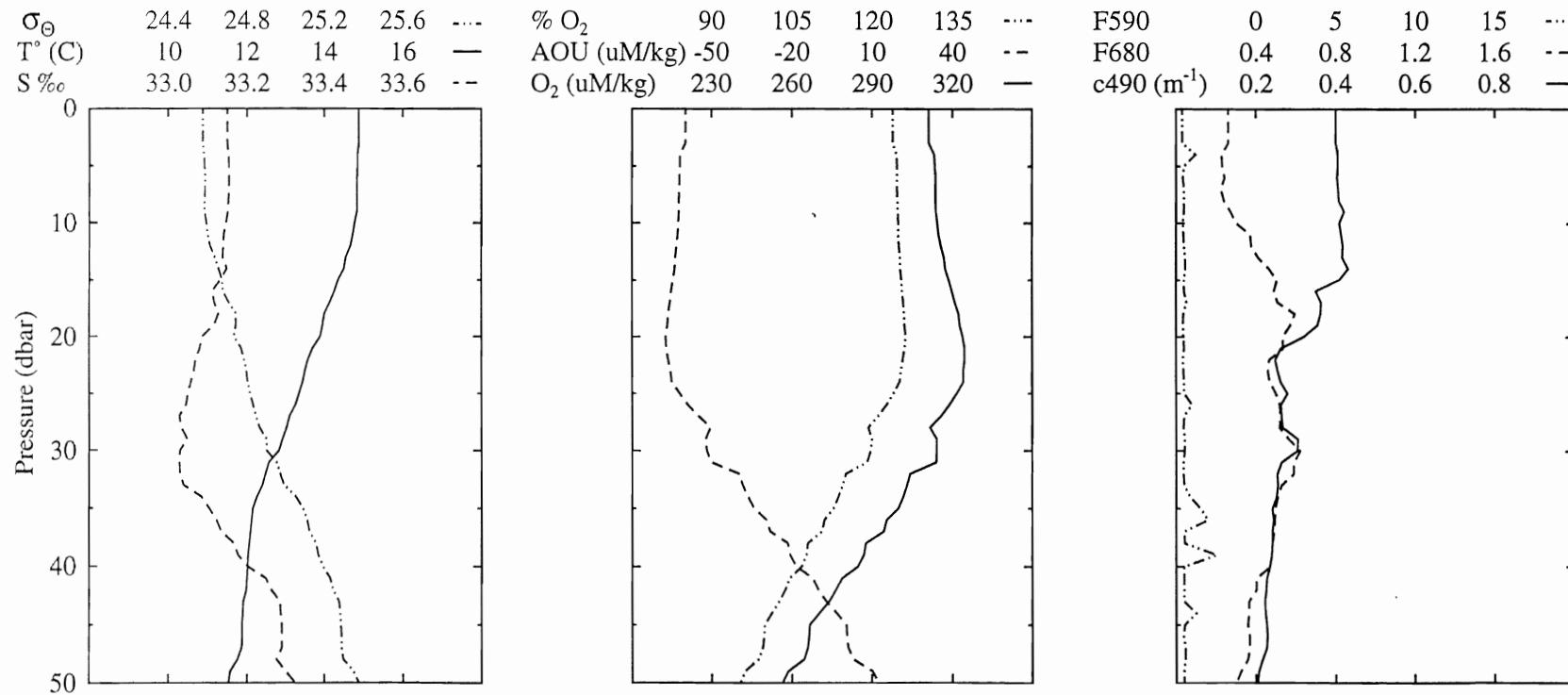
Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 02 Monterey Bay Mouth
 DATE: 21:22 (GMT) 04 Sep 1992
 POSITION: $36^{\circ} 43.2' N$ $122^{\circ} 02.2' W$

CTD # 5026

Wind 0 kts; Waves 3 ft; Sky clear
 Secchi: 13.0 m Munsell: 10G 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 02 Monterey Bay Mouth
 DATE: 21:22 (GMT) 04 Sep 1992
 POSITION: 36° 43.2' N 122° 02.2' W

CTD # 5026
 Wind 0 kts; Waves 3 ft; Sky clear
 Secchi: 13.0 m Munsell: 10G 7/6

Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	14.87	14.87	33.15	24.58	311	-60	124	0.400	nil 0.26
2	14.87	14.87	33.15	24.58	311	-60	124	0.400	nil 0.26
4	14.85	14.85	33.15	24.58	313	-62	125	0.405	nil 0.23
6	14.83	14.83	33.16	24.59	314	-62	125	0.402	nil 0.24
8	14.83	14.83	33.15	24.59	314	-62	125	0.407	nil 0.24
10	14.76	14.76	33.15	24.60	314	-63	125	0.409	nil 0.30
12	14.65	14.65	33.14	24.61	316	-63	125	0.418	nil 0.38
14	14.49	14.49	33.15	24.66	317	-64	125	0.431	nil 0.47
16	14.25	14.25	33.11	24.68	320	-65	126	0.350	nil 0.49
18	13.99	13.99	33.13	24.74	322	-66	126	0.361	nil 0.59
20	13.88	13.88	33.09	24.73	324	-67	126	0.319	nil 0.53
22	13.58	13.57	33.07	24.78	325	-66	126	0.247	nil 0.47
24	13.43	13.43	33.06	24.80	324	-65	125	0.261	nil 0.47
26	13.25	13.25	33.05	24.83	319	-59	123	0.261	nil 0.52
28	13.02	13.02	33.03	24.87	312	-50	119	0.265	nil 0.52
30	12.83	12.83	33.03	24.90	314	-52	120	0.302	nil 0.62
32	12.48	12.47	33.03	24.97	304	-40	115	0.252	nil 0.59
34	12.26	12.26	33.09	25.05	301	-36	114	0.250	nil 0.51
36	12.13	12.12	33.12	25.11	295	-29	111	0.244	nil 0.49
38	12.06	12.06	33.17	25.16	288	-21	108	0.240	nil 0.48
40	12.01	12.01	33.20	25.19	285	-18	107	0.235	nil 0.47
42	11.99	11.98	33.26	25.24	277	-10	104	0.225	nil 0.40
44	11.89	11.89	33.29	25.28	270	-3	101	0.224	nil 0.37
46	11.88	11.87	33.29	25.29	266	1	100	0.228	nil 0.37
48	11.76	11.76	33.28	25.30	265	3	99	0.216	nil 0.36
50	11.54	11.53	33.32	25.37	257	12	95	0.203	nil 0.30

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer

STATION: 02 Monterey Bay Mouth

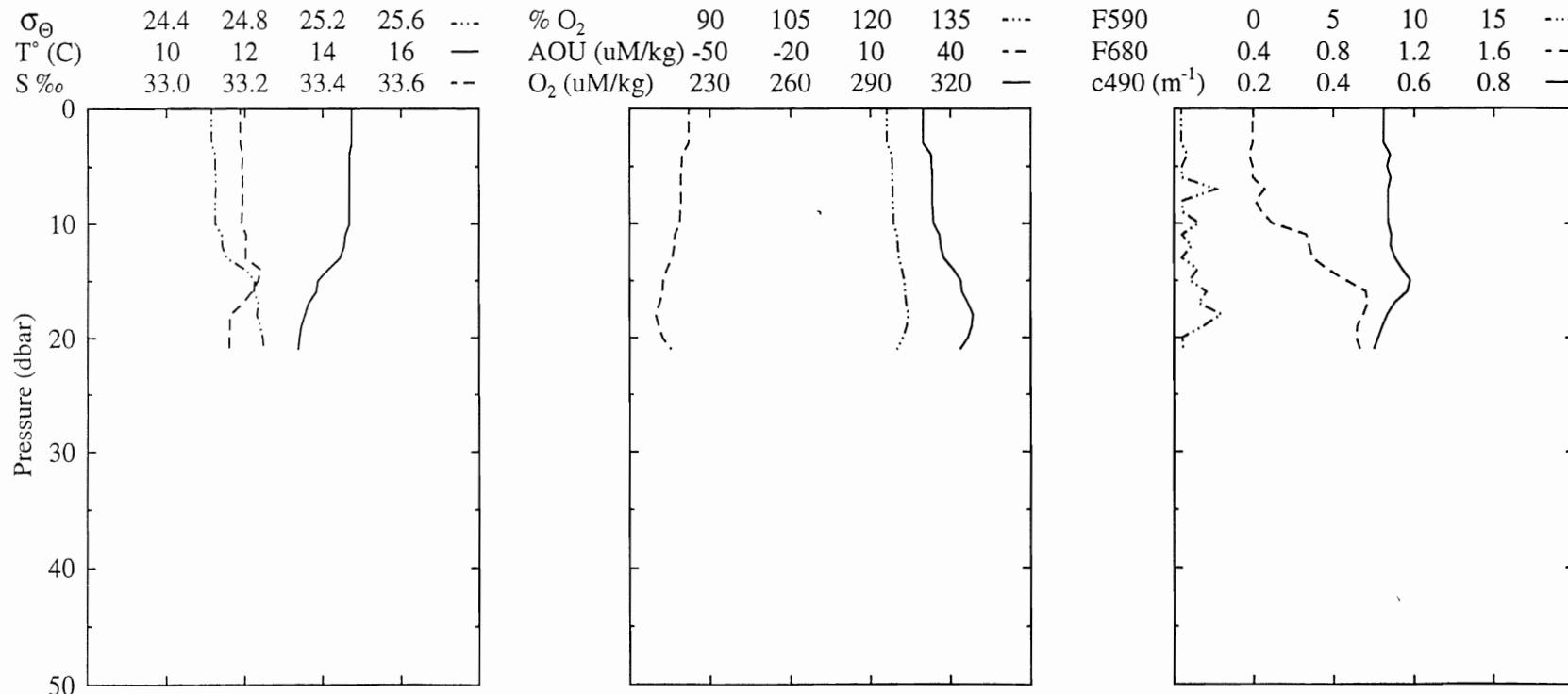
DATE: 22:38 (GMT) 04 Sep 1992

POSITION: $36^{\circ} 41.3' N$ $122^{\circ} 01.6' W$

CTD # 5027

Wind 0 kts; Waves 4 ft; Sky clear

Secchi: 13.0 m Munsell: 10G 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer CTD # 5027
 STATION: 02 Monterey Bay Mouth Wind 0 kts; Waves 4 ft; Sky clear
 DATE: 22:38 (GMT) 04 Sep 1992 Secchi: 13.0 m Munsell: 10G 7/6
 POSITION: 36° 41.3' N 122° 01.6' W

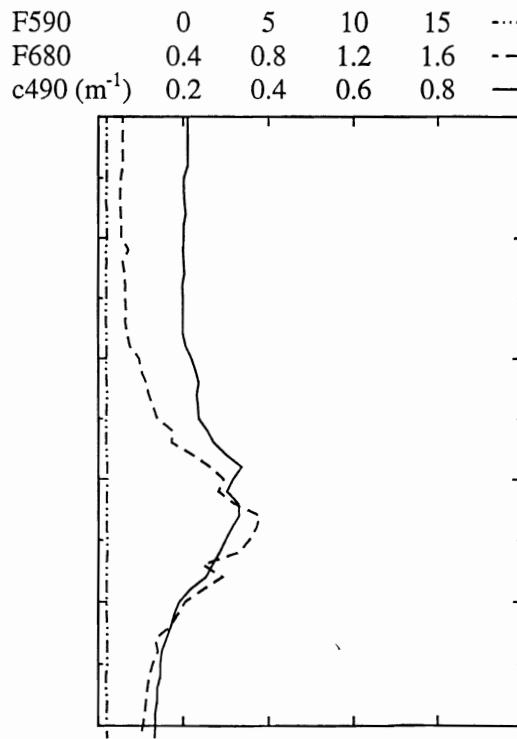
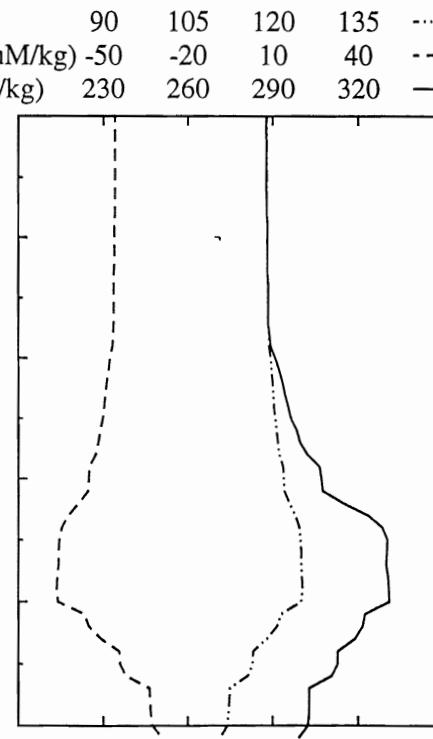
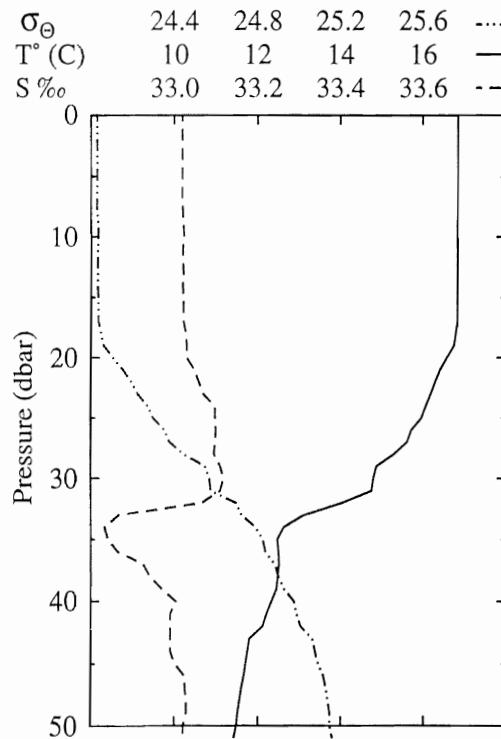
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590)	Fluoro (680)
0	14.74	14.74	33.19	24.63	310	-58	123	0.524	nil	0.40
2	14.74	14.74	33.19	24.63	310	-58	123	0.524	nil	0.40
4	14.68	14.68	33.19	24.65	313	-61	124	0.540	nil	0.38
6	14.68	14.67	33.19	24.65	313	-61	124	0.542	nil	0.40
8	14.68	14.68	33.19	24.65	313	-61	124	0.537	nil	0.41
10	14.67	14.67	33.19	24.65	314	-61	124	0.536	nil	0.49
12	14.54	14.54	33.20	24.69	316	-63	125	0.543	nil	0.68
14	14.12	14.12	33.24	24.80	321	-66	126	0.572	nil	0.77
16	13.83	13.82	33.22	24.85	324	-68	126	0.584	nil	0.96
18	13.54	13.54	33.16	24.86	328	-70	127	0.534	nil	0.95
20	13.39	13.39	33.16	24.89	327	-68	126	0.510	nil	0.91
21	13.37	13.36	33.16	24.90	324	-65	125	0.500	nil	0.93

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 03 Outside Monterey Bay
 DATE: 15:54 (GMT) 05 Sep 1992
 POSITION: 36° 40.9' N 122° 40.3' W

CTD # 5028
 Wind 0 kts; Waves 4 ft; Sky clear
 Secchi: 15.0 m Munsell: 10B 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer

CTD # 5028

STATION: 03 Outside Monterey Bay

Wind 0 kts; Waves 4 ft; Sky clear

DATE: 15:54 (GMT) 05 Sep 1992

Secchi: 15.0 m Munsell: 10B 7/6

POSITION: 36° 40.9' N 122° 40.3' W

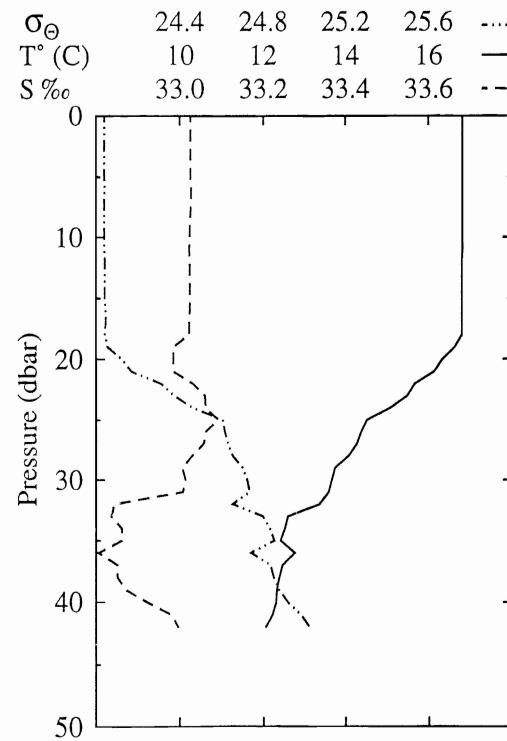
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590)	Fluoro (680)
0	16.85	16.85	33.02	24.03	288	-46	119	0.210	nil	0.12
2	16.85	16.85	33.02	24.03	288	-46	119	0.210	nil	0.12
4	16.85	16.85	33.02	24.03	288	-46	119	0.210	nil	0.12
6	16.86	16.86	33.02	24.03	288	-46	119	0.201	nil	0.10
8	16.85	16.85	33.02	24.03	288	-46	119	0.205	nil	0.11
10	16.84	16.84	33.02	24.04	288	-46	119	0.201	nil	0.11
12	16.85	16.84	33.02	24.03	288	-46	119	0.201	nil	0.12
14	16.85	16.84	33.02	24.03	288	-46	119	0.198	nil	0.13
16	16.84	16.84	33.02	24.04	288	-46	119	0.200	nil	0.13
18	16.81	16.81	33.03	24.05	289	-47	119	0.200	nil	0.14
20	16.57	16.57	33.03	24.10	291	-48	120	0.218	nil	0.19
22	16.28	16.28	33.06	24.19	293	-49	120	0.236	nil	0.23
24	16.06	16.05	33.10	24.27	295	-50	120	0.235	nil	0.26
26	15.71	15.71	33.10	24.35	298	-51	121	0.255	nil	0.35
28	15.29	15.28	33.09	24.44	302	-53	121	0.299	nil	0.44
30	14.78	14.78	33.12	24.57	307	-55	122	0.316	nil	0.59
32	14.00	14.00	33.07	24.69	315	-59	123	0.329	nil	0.64
34	12.63	12.62	32.83	24.79	329	-65	125	0.314	nil	0.74
36	12.50	12.50	32.87	24.84	330	-66	125	0.285	nil	0.66
38	12.49	12.49	32.94	24.90	331	-66	125	0.252	nil	0.58
40	12.33	12.33	33.00	24.98	331	-66	125	0.190	nil	0.41
42	12.12	12.12	32.99	25.01	322	-55	121	0.170	nil	0.34
44	11.75	11.75	32.99	25.08	313	-44	117	0.150	nil	0.28
46	11.67	11.67	33.02	25.12	311	-42	116	0.146	nil	0.24
48	11.57	11.56	33.03	25.14	303	-33	112	0.138	nil	0.22
50	11.49	11.49	33.02	25.15	302	-32	112	0.133	nil	0.21
51	11.43	11.43	33.02	25.16	299	-29	111	0.133	nil	0.20

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

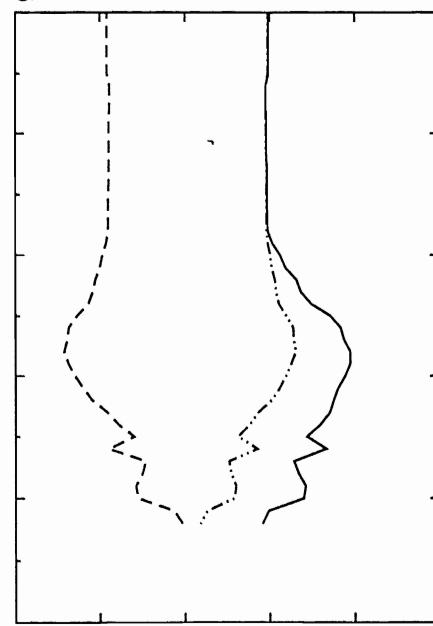
Jan 1994

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 03 Outside Monterey Bay
 DATE: 17:10 (GMT) 05 Sep 1992
 POSITION: $36^{\circ} 39.9' N$ $122^{\circ} 39.8' W$

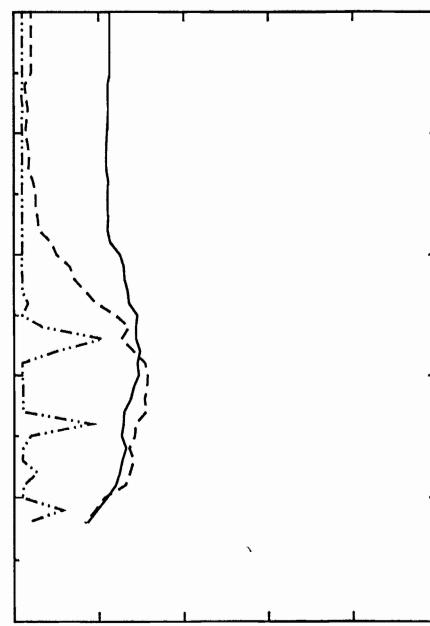
CTD # 5029
 Wind 0 kts; Waves 5 ft; Sky clear
 Secchi: 15.0 m Munsell: 10B 7/6



% O ₂	90	105	120	135	...
AOU (uM/kg)	-50	-20	10	40	—
O ₂ (uM/kg)	230	260	290	320	—



F590	0	5	10	15	...
F680	0.4	0.8	1.2	1.6	—
c490 (m ⁻¹)	0.2	0.4	0.6	0.8	—



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 03 Outside Monterey Bay
 DATE: 17:10 (GMT) 05 Sep 1992
 POSITION: 36° 39.9' N 122° 39.8' W

CTD # 5029
 Wind 0 kts; Waves 5 ft; Sky clear
 Secchi: 15.0 m Munsell: 10B 7/6

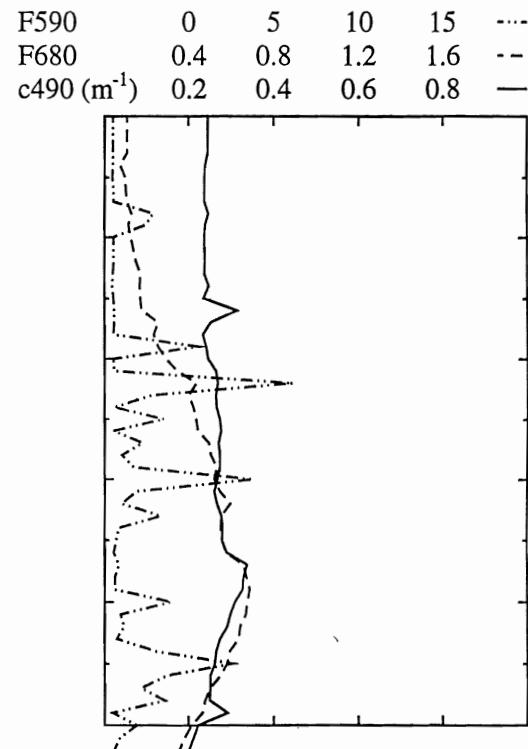
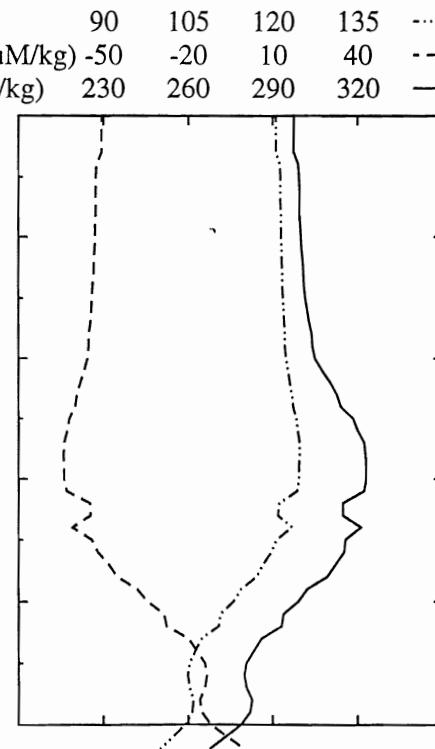
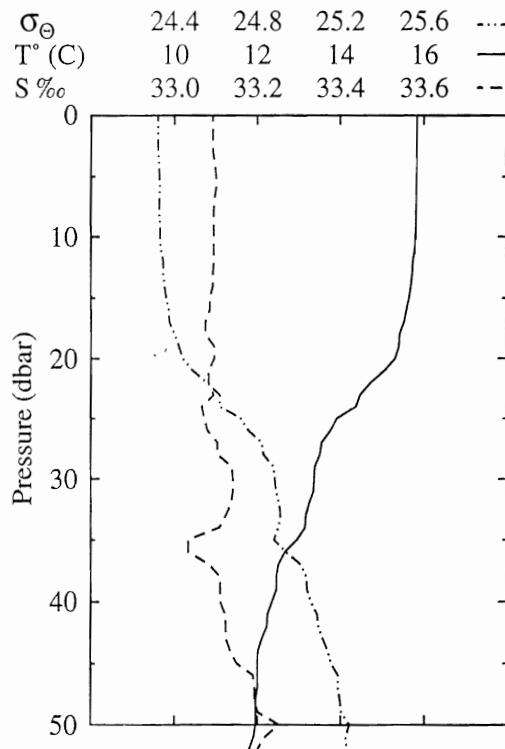
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	16.83	16.83	33.03	24.04	289	-47	120	0.225	nil 0.08
2	16.83	16.83	33.03	24.04	289	-47	120	0.225	nil 0.08
4	16.83	16.83	33.03	24.04	289	-47	120	0.225	nil 0.08
6	16.83	16.83	33.03	24.04	289	-47	119	0.221	nil 0.05
8	16.84	16.84	33.03	24.04	289	-47	119	0.222	nil 0.07
10	16.83	16.83	33.02	24.04	289	-47	119	0.219	nil 0.06
12	16.82	16.82	33.02	24.04	289	-47	119	0.217	nil 0.07
14	16.82	16.82	33.02	24.04	289	-47	119	0.223	nil 0.09
16	16.81	16.81	33.02	24.04	289	-47	119	0.220	nil 0.10
18	16.81	16.81	33.02	24.04	289	-47	119	0.221	nil 0.12
20	16.33	16.33	32.98	24.12	293	-49	120	0.250	nil 0.20
22	15.66	15.66	33.03	24.31	299	-52	121	0.260	nil 0.28
24	15.08	15.07	33.06	24.46	305	-54	122	0.271	nil 0.39
26	14.37	14.36	33.06	24.62	315	-61	124	0.287	nil 0.54
28	14.07	14.06	33.03	24.65	318	-63	125	0.296	nil 0.56
30	13.66	13.66	33.01	24.72	317	-59	123	0.293	nil 0.63
32	13.36	13.36	32.84	24.65	312	-53	120	0.273	nil 0.61
34	12.52	12.52	32.86	24.83	308	-43	116	0.257	nil 0.57
36	12.77	12.77	32.81	24.74	310	-47	118	0.264	nil 0.54
38	12.39	12.38	32.85	24.85	300	-35	113	0.247	nil 0.54
40	12.31	12.31	32.92	24.92	302	-36	114	0.218	nil 0.42
42	12.06	12.05	33.00	25.02	287	-21	108	0.172	nil 0.33

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 04 Monterey Peninsula
 DATE: 21:12 (GMT) 05 Sep 1992
 POSITION: $36^{\circ} 31.1' N$ $122^{\circ} 29.9' W$

CTD # 5030
 Wind 0 kts; Waves 4 ft; Sky clear
 Secchi: 18.0 m Munsell: 10B 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 04 Monterey Peninsula
 DATE: 21:12 (GMT) 05 Sep 1992
 POSITION: 36° 31.1' N 122° 29.9' W

CTD # 5030
 Wind 0 kts; Waves 4 ft; Sky clear
 Secchi: 18.0 m Munsell: 10B 7/6

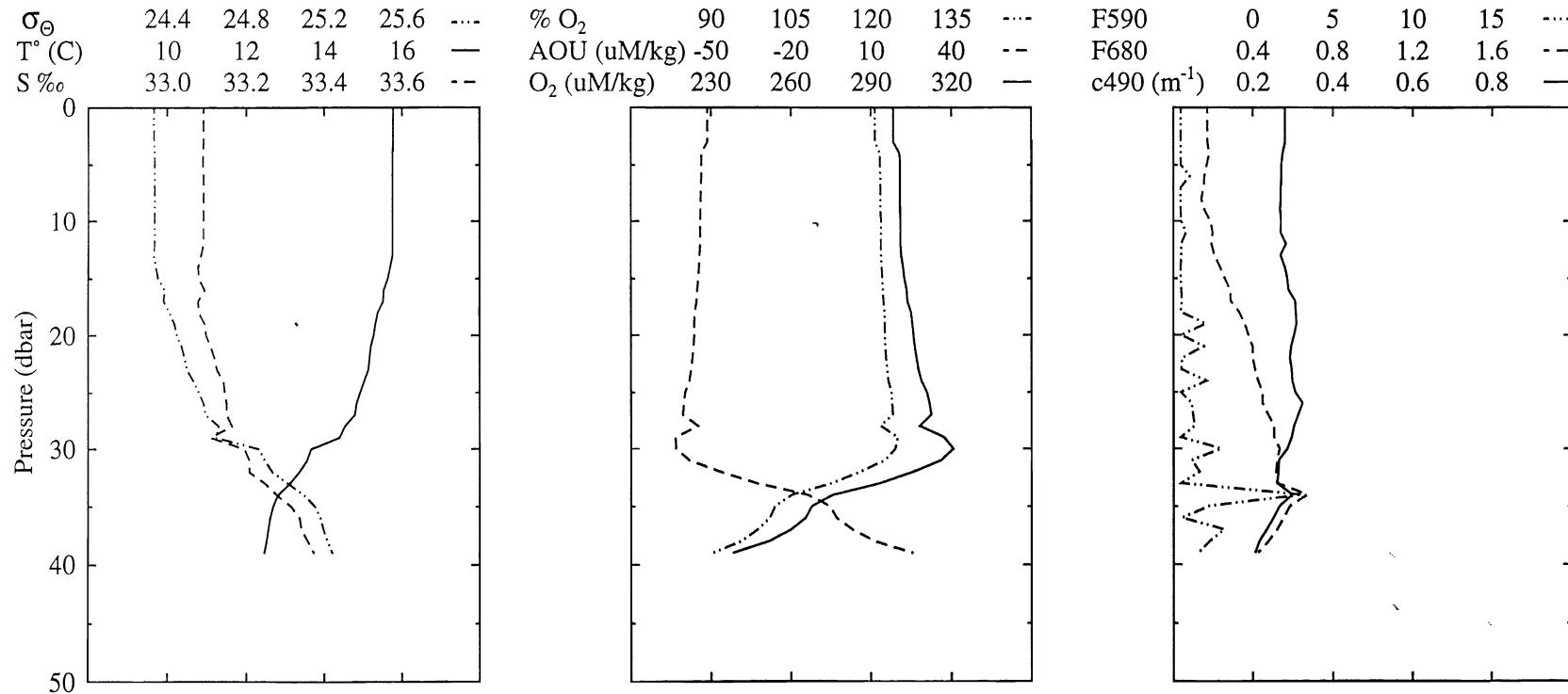
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	15.83	15.83	33.09	24.32	297	-51	121	0.245	nil 0.11
2	15.83	15.83	33.09	24.32	297	-51	121	0.245	nil 0.11
4	15.83	15.83	33.10	24.32	299	-52	121	0.239	nil 0.08
6	15.81	15.81	33.10	24.33	299	-53	121	0.237	nil 0.10
8	15.81	15.81	33.09	24.33	300	-53	121	0.247	nil 0.13
10	15.79	15.79	33.09	24.33	300	-53	121	0.238	nil 0.13
12	15.72	15.72	33.09	24.35	301	-53	122	0.239	nil 0.15
14	15.68	15.68	33.09	24.35	301	-54	122	0.247	nil 0.17
16	15.56	15.56	33.09	24.37	302	-54	122	0.314	nil 0.18
18	15.41	15.41	33.07	24.40	304	-55	122	0.234	nil 0.23
20	15.30	15.29	33.10	24.44	305	-56	122	0.247	nil 0.29
22	14.71	14.71	33.08	24.56	310	-58	123	0.270	6.12 0.44
24	14.36	14.36	33.07	24.62	314	-60	124	0.266	nil 0.42
26	13.76	13.75	33.08	24.75	320	-63	124	0.277	nil 0.45
28	13.48	13.48	33.10	24.83	323	-64	125	0.274	nil 0.50
30	13.36	13.36	33.14	24.88	323	-64	125	0.268	3.79 0.52
32	13.23	13.22	33.14	24.91	315	-55	121	0.266	nil 0.60
34	13.14	13.14	33.11	24.90	321	-61	123	0.280	nil 0.55
36	12.66	12.66	33.03	24.94	315	-52	120	0.289	nil 0.57
38	12.47	12.46	33.11	25.04	309	-45	117	0.328	nil 0.67
40	12.36	12.35	33.11	25.06	299	-34	113	0.309	nil 0.67
42	12.23	12.22	33.12	25.09	293	-28	110	0.290	nil 0.64
44	12.03	12.02	33.14	25.14	283	-17	106	0.264	nil 0.59
46	12.00	11.99	33.19	25.19	280	-13	105	0.251	nil 0.55
48	11.96	11.95	33.19	25.20	283	-16	106	0.249	nil 0.48
50	11.96	11.95	33.25	25.24	279	-12	104	0.223	nil 0.41
52	11.81	11.80	33.20	25.23	268	0	100	0.200	nil 0.36

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

Jan 1994

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 04 Monterey Peninsula
 DATE: 23:02 (GMT) 05 Sep 1992
 POSITION: $36^{\circ} 31.1' N$ $122^{\circ} 21.9' W$

CTD # 5031
 Wind 0 kts; Waves 5 ft; Sky clear
 Secchi: 18.0 m Munsell: 10B 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

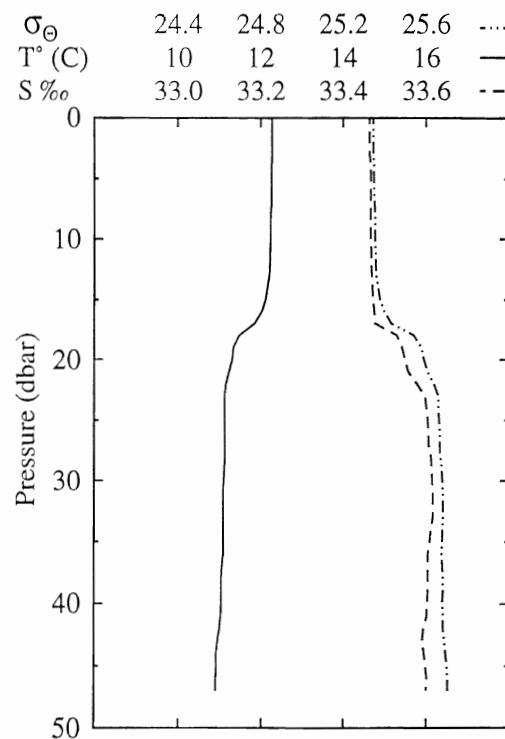
CRUISE: MOCE-1 SHIP: USNS De Steiguer CTD # 5031
 STATION: 04 Monterey Peninsula Wind 0 kts; Waves 5 ft; Sky clear
 DATE: 23:02 (GMT) 05 Sep 1992 Secchi: 18.0 m Munsell: 10B 7/6
 POSITION: 36° 31.1' N 122° 21.9' W

Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	15.77	15.77	33.09	24.33	298	-51	121	0.279	nil 0.17
2	15.77	15.77	33.09	24.33	298	-51	121	0.279	nil 0.17
4	15.75	15.75	33.09	24.34	301	-54	122	0.273	nil 0.18
6	15.75	15.75	33.09	24.34	301	-54	122	0.270	nil 0.16
8	15.76	15.76	33.09	24.34	301	-54	122	0.269	nil 0.14
10	15.76	15.76	33.09	24.34	301	-54	122	0.271	nil 0.19
12	15.76	15.75	33.09	24.34	301	-54	122	0.283	nil 0.19
14	15.69	15.69	33.08	24.34	302	-54	122	0.279	nil 0.23
16	15.53	15.53	33.10	24.39	303	-55	122	0.289	nil 0.29
18	15.37	15.37	33.08	24.41	305	-56	123	0.307	nil 0.33
20	15.27	15.27	33.10	24.45	306	-56	123	0.303	nil 0.38
22	15.17	15.16	33.12	24.49	307	-57	123	0.292	nil 0.40
24	15.03	15.03	33.14	24.54	309	-58	123	0.298	nil 0.43
26	14.82	14.82	33.15	24.59	312	-60	124	0.324	nil 0.45
28	14.52	14.52	33.16	24.66	308	-55	122	0.303	nil 0.51
30	13.66	13.65	33.20	24.87	321	-63	124	0.286	nil 0.53
32	13.36	13.35	33.21	24.94	306	-46	118	0.263	nil 0.51
34	12.81	12.80	33.28	25.10	276	-14	105	0.299	3.04 0.67
36	12.62	12.61	33.34	25.18	266	-3	101	0.251	nil 0.55
38	12.52	12.52	33.36	25.22	252	11	96	0.217	nil 0.48
39	12.46	12.45	33.37	25.24	238	26	90	0.206	nil 0.43

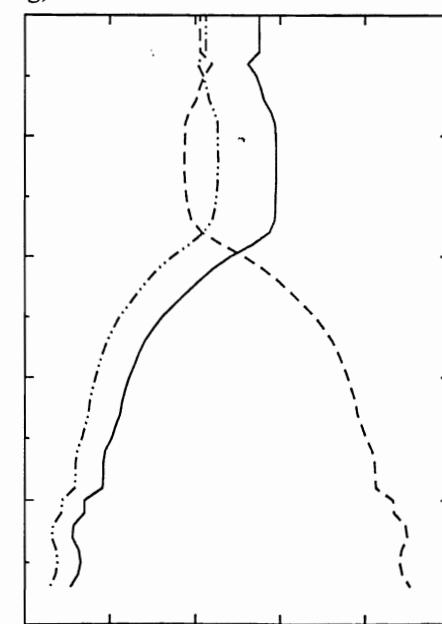
MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 05 Point Sur
 DATE: 16:16 (GMT) 06 Sep 1992
 POSITION: $36^{\circ} 12.9' N$ $121^{\circ} 47.9' W$

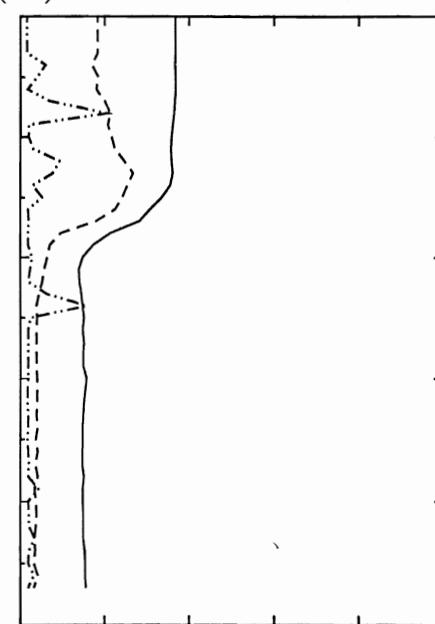
CTD # 5032
 Wind 22 kts; Waves 2 ft; Overcast
 Secchi: 12.5 m Munsell: 10G 7/6



% O ₂	90	105	120	135	...
AOU (uM/kg)	-50	-20	10	40	--
O ₂ (uM/kg)	230	260	290	320	—



F590	0	5	10	15	...
F680	0.4	0.8	1.2	1.6	--
c490 (m ⁻¹)	0.2	0.4	0.6	0.8	—



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 05 Point Sur
 DATE: 16:16 (GMT) 06 Sep 1992
 POSITION: 36° 12.9' N 121° 47.9' W

CTD # 5032
 Wind 22 kts; Waves 2 ft; Overcast
 Secchi: 12.5 m Munsell: 10G 7/6

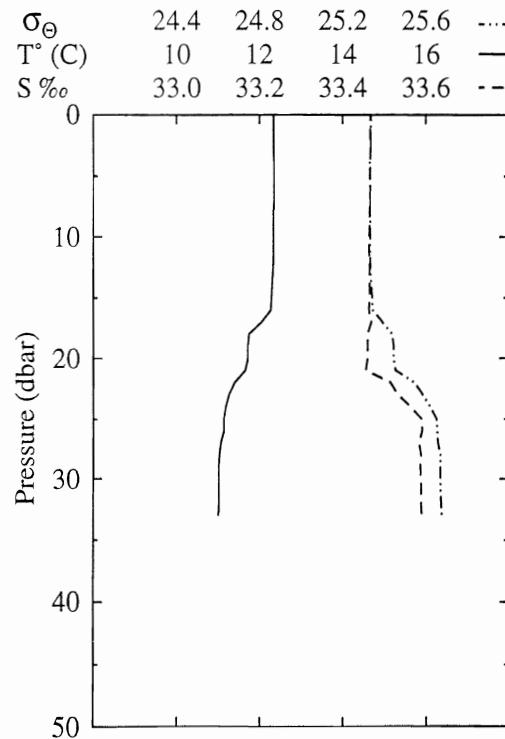
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590)	Fluoro (680)
0	12.27	12.27	33.46	25.34	283	-18	107	0.367	nil	0.37
2	12.27	12.27	33.46	25.34	283	-18	107	0.367	nil	0.37
4	12.27	12.27	33.47	25.35	279	-14	105	0.367	nil	0.34
6	12.26	12.26	33.47	25.35	283	-19	107	0.368	nil	0.36
8	12.24	12.24	33.47	25.35	287	-22	108	0.364	0.15	0.43
10	12.24	12.24	33.47	25.35	288	-24	109	0.358	nil	0.43
12	12.23	12.23	33.47	25.36	289	-24	109	0.359	nil	0.49
14	12.18	12.17	33.47	25.37	289	-24	109	0.356	nil	0.51
16	12.04	12.04	33.47	25.40	288	-22	108	0.308	nil	0.45
18	11.49	11.48	33.53	25.54	286	-18	107	0.213	nil	0.19
20	11.32	11.31	33.55	25.59	272	-3	101	0.148	nil	0.13
22	11.17	11.17	33.58	25.64	261	9	97	0.140	nil	0.10
24	11.14	11.14	33.60	25.66	253	18	93	0.147	nil	0.08
26	11.14	11.14	33.61	25.67	245	25	91	0.148	nil	0.08
28	11.14	11.13	33.61	25.67	240	30	89	0.149	nil	0.08
30	11.10	11.10	33.62	25.68	237	34	87	0.156	nil	0.08
32	11.09	11.09	33.62	25.68	234	37	87	0.151	nil	0.08
34	11.09	11.09	33.61	25.68	232	39	86	0.148	nil	0.08
36	11.09	11.08	33.60	25.67	228	43	84	0.148	nil	0.08
38	11.05	11.04	33.60	25.68	228	44	84	0.151	nil	0.08
40	11.05	11.05	33.60	25.68	221	50	82	0.147	nil	0.07
42	11.00	10.99	33.59	25.68	217	54	80	0.150	nil	0.07
44	10.93	10.93	33.59	25.69	219	53	81	0.152	nil	0.07
46	10.92	10.91	33.60	25.70	219	53	80	0.154	nil	0.08
47	10.91	10.91	33.60	25.70	216	56	79	0.156	nil	0.06

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

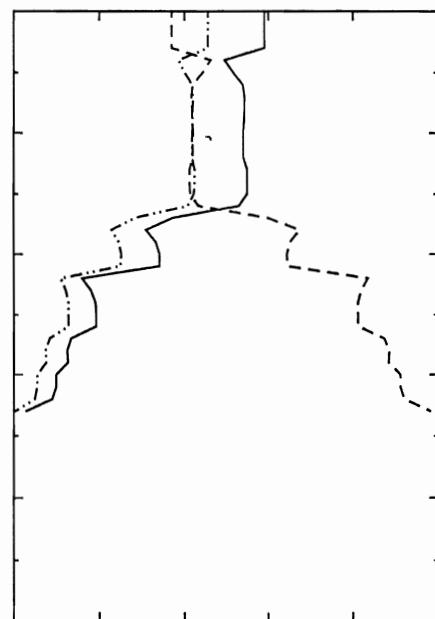
Jan 1994

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 05 Point Sur
 DATE: 17:16 (GMT) 06 Sep 1992
 POSITION: $36^{\circ} 12.9' N$ $121^{\circ} 47.9' W$

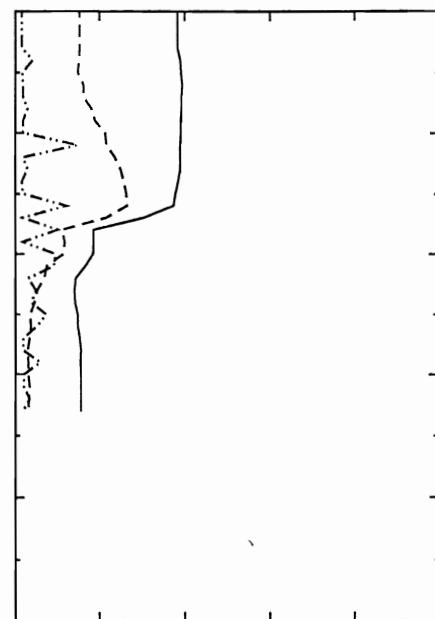
CTD # 5033
 Wind 20 kts; Waves 3 ft; Sky clear
 Secchi: 12.5 m Munsell: 10B 7/6



% O₂ 90 105 120 135 ...
 AOU (uM/kg) -50 -20 10 40 ...
 O₂ (uM/kg) 230 260 290 320 ...



F590 0 5 10 15 ...
 F680 0.4 0.8 1.2 1.6 ...
 c490 (m⁻¹) 0.2 0.4 0.6 0.8 ...



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 05 Point Sur
 DATE: 17:16 (GMT) 06 Sep 1992
 POSITION: 36° 12.9' N 121° 47.9' W

CTD # 5033
 Wind 20 kts; Waves 3 ft; Sky clear
 Secchi: 12.5 m Munsell: 10B 7/6

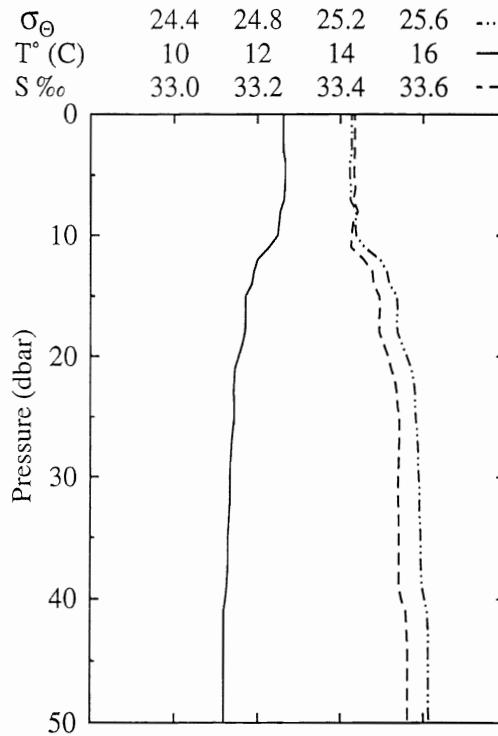
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	12.33	12.33	33.47	25.34	289	-24	109	0.383	nil 0.30
2	12.33	12.33	33.47	25.34	289	-24	109	0.383	nil 0.30
4	12.36	12.36	33.47	25.33	274	-10	104	0.389	nil 0.30
6	12.36	12.36	33.47	25.33	281	-17	106	0.393	nil 0.32
8	12.34	12.34	33.46	25.33	281	-17	107	0.391	nil 0.36
10	12.33	12.33	33.46	25.33	281	-17	106	0.391	nil 0.42
12	12.34	12.33	33.46	25.33	281	-17	106	0.389	nil 0.47
14	12.31	12.31	33.47	25.34	282	-18	107	0.385	nil 0.51
16	12.27	12.27	33.46	25.34	279	-15	106	0.374	nil 0.53
18	11.76	11.76	33.46	25.44	246	21	92	0.186	nil 0.22
20	11.73	11.72	33.46	25.44	251	16	94	0.185	nil 0.23
22	11.41	11.41	33.51	25.55	224	45	83	0.144	nil 0.14
24	11.21	11.20	33.56	25.62	229	42	85	0.142	nil 0.09
26	11.15	11.15	33.59	25.65	229	42	85	0.147	nil 0.07
28	11.04	11.04	33.59	25.67	219	53	81	0.156	nil 0.06
30	11.04	11.03	33.59	25.67	215	57	79	0.155	nil 0.06
32	11.03	11.03	33.59	25.67	213	58	79	0.155	nil 0.07
33	11.01	11.01	33.59	25.68	204	67	75	0.156	nil 0.06

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

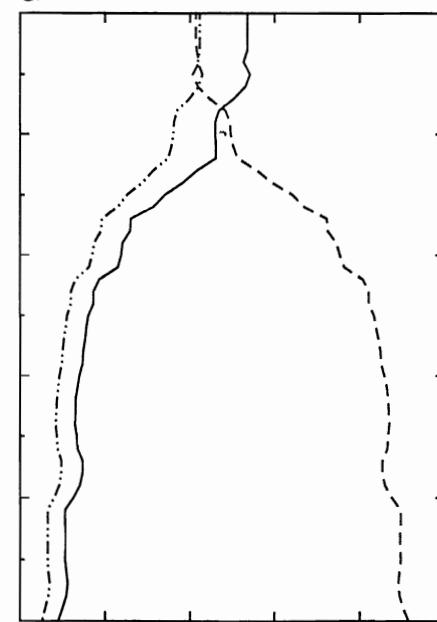
Jan 1994

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 05 Point Sur
 DATE: 21:42 (GMT) 06 Sep 1992
 POSITION: $36^{\circ} 12.9' N$ $121^{\circ} 47.9' W$

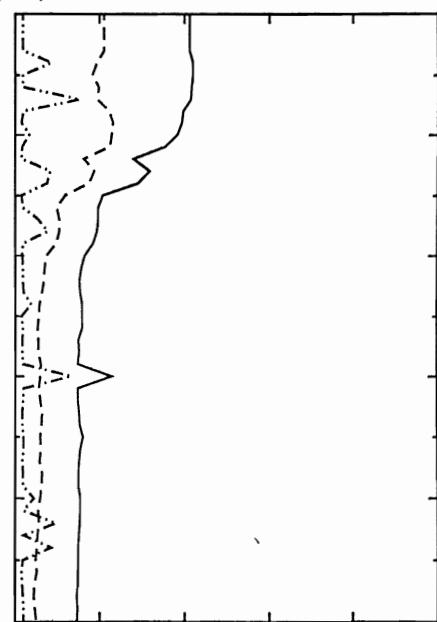
CTD # 5034
 Wind 20 kts; Waves 3 ft; Sky clear
 Secchi: 12.5 m Munsell: 10B 7/6



% O ₂	90	105	120	135	...
AOU (uM/kg)	-50	-20	10	40	—
O ₂ (uM/kg)	230	260	290	320	—



F590	0	5	10	15	...
F680	0.4	0.8	1.2	1.6	—
c490 (m ⁻¹)	0.2	0.4	0.6	0.8	—



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 05 Point Sur
 DATE: 21:42 (GMT) 06 Sep 1992
 POSITION: 36° 12.9' N 121° 47.9' W

CTD # 5034
 Wind 20 kts; Waves 3 ft; Sky clear
 Secchi: 12.5 m Munsell: 10B 7/6

Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	12.63	12.63	33.43	25.25	280	-18	107	0.412	nil 0.42
2	12.63	12.63	33.43	25.25	280	-18	107	0.412	nil 0.42
4	12.67	12.67	33.43	25.24	279	-17	106	0.419	nil 0.39
6	12.66	12.66	33.44	25.25	280	-17	107	0.417	nil 0.40
8	12.55	12.55	33.44	25.28	270	-7	103	0.397	nil 0.45
10	12.49	12.49	33.43	25.27	269	-6	102	0.383	nil 0.46
12	12.00	12.00	33.46	25.39	269	-3	101	0.280	nil 0.33
14	11.86	11.86	33.48	25.44	258	9	97	0.290	nil 0.35
16	11.71	11.71	33.49	25.47	247	21	92	0.196	nil 0.20
18	11.71	11.70	33.49	25.48	239	29	89	0.194	nil 0.21
20	11.55	11.55	33.51	25.52	236	33	88	0.164	nil 0.15
22	11.44	11.43	33.53	25.55	228	41	85	0.153	nil 0.14
24	11.44	11.43	33.54	25.56	226	43	84	0.158	nil 0.12
26	11.41	11.40	33.54	25.57	224	46	83	0.158	nil 0.11
28	11.36	11.36	33.54	25.58	222	47	82	0.150	nil 0.11
30	11.33	11.33	33.54	25.58	221	49	82	0.227	nil 0.12
32	11.33	11.33	33.54	25.58	220	50	81	0.148	nil 0.12
34	11.30	11.30	33.54	25.59	219	50	81	0.153	nil 0.13
36	11.29	11.29	33.54	25.59	220	50	82	0.153	nil 0.12
38	11.28	11.28	33.54	25.59	222	48	82	0.150	nil 0.13
40	11.22	11.22	33.55	25.60	219	51	81	0.154	nil 0.12
42	11.19	11.18	33.56	25.62	216	54	80	0.152	nil 0.11
44	11.19	11.19	33.56	25.62	216	54	80	0.150	nil 0.10
46	11.19	11.18	33.56	25.62	216	54	80	0.149	nil 0.10
48	11.19	11.18	33.56	25.62	216	54	80	0.146	nil 0.09
50	11.18	11.17	33.56	25.63	213	57	79	0.146	nil 0.10

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer

STATION: 05 Point Sur

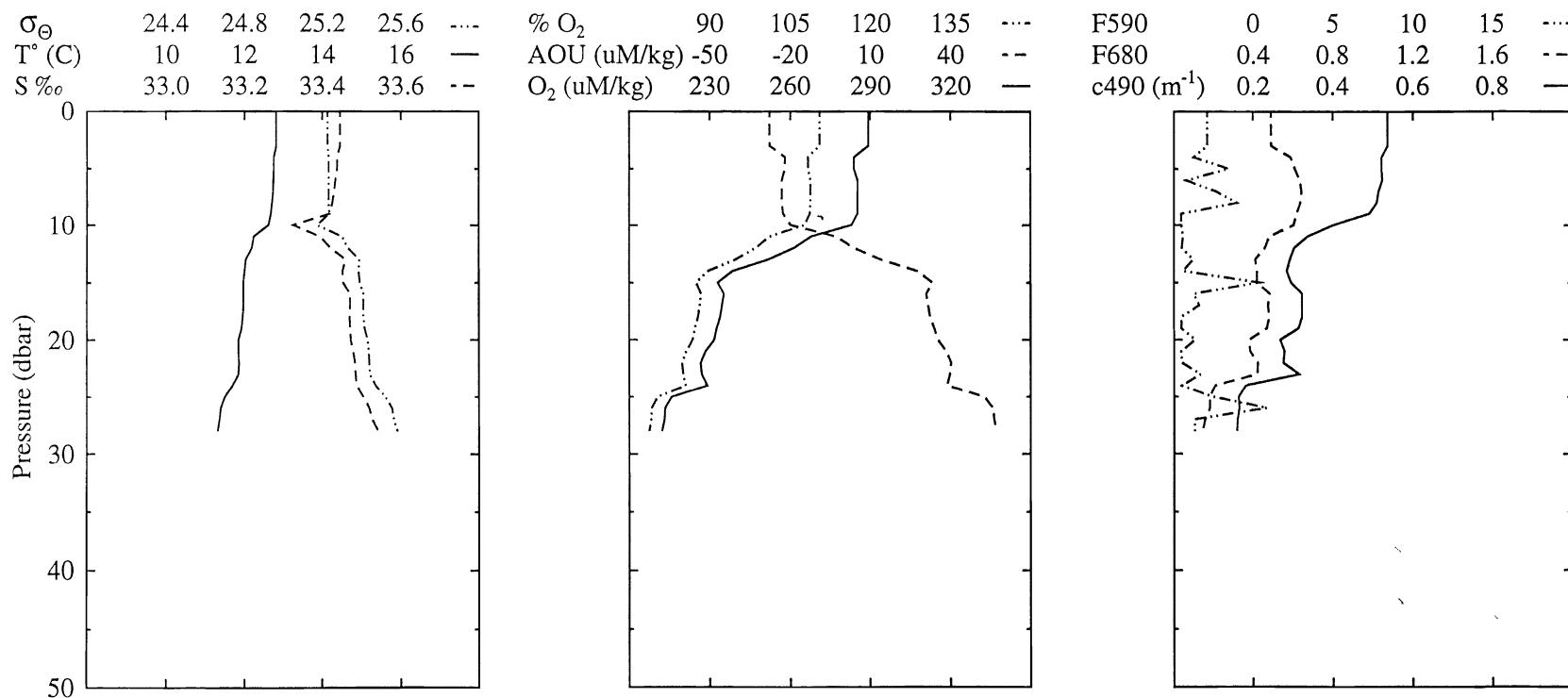
DATE: 22:52 (GMT) 06 Sep 1992

POSITION: $36^{\circ} 12.9' N$ $121^{\circ} 47.9' W$

CTD # 5036

Wind 20 kts; Waves 3 ft; Sky clear

Secchi: 12.5 m Munsell: 10B 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer

CTD # 5036

STATION: 05 Point Sur

Wind 20 kts; Waves 3 ft; Sky clear

DATE: 22:52 (GMT) 06 Sep 1992

Secchi: 12.5 m Munsell: 10B 7/6

POSITION: 36° 12.9' N 121° 47.9' W

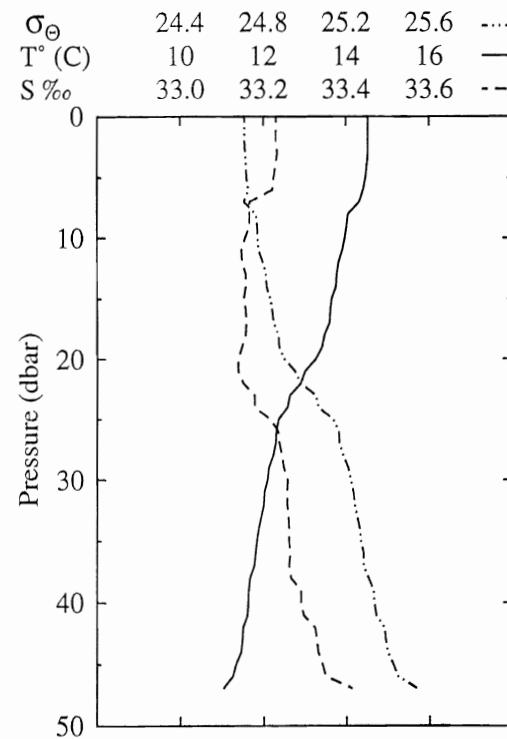
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	12.81	12.81	33.45	25.23	289	-28	111	0.536	nil 0.49
2	12.81	12.81	33.45	25.23	289	-28	111	0.536	nil 0.49
4	12.76	12.76	33.44	25.23	284	-22	108	0.521	nil 0.59
6	12.74	12.74	33.43	25.23	285	-23	109	0.522	nil 0.63
8	12.71	12.70	33.43	25.23	285	-23	109	0.509	nil 0.63
10	12.62	12.61	33.33	25.17	283	-20	108	0.401	nil 0.60
12	12.19	12.18	33.42	25.33	261	4	99	0.303	nil 0.46
14	12.01	12.01	33.45	25.38	238	28	90	0.285	nil 0.42
16	11.97	11.97	33.47	25.41	235	31	88	0.323	nil 0.48
18	11.96	11.96	33.47	25.41	234	32	88	0.322	nil 0.48
20	11.86	11.85	33.47	25.43	232	35	87	0.268	nil 0.38
22	11.86	11.86	33.48	25.44	227	40	85	0.275	nil 0.42
24	11.70	11.69	33.49	25.47	229	39	86	0.181	nil 0.21
26	11.39	11.39	33.52	25.55	213	56	79	0.165	0.86 0.18
28	11.32	11.32	33.54	25.58	212	57	79	0.158	nil 0.14

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

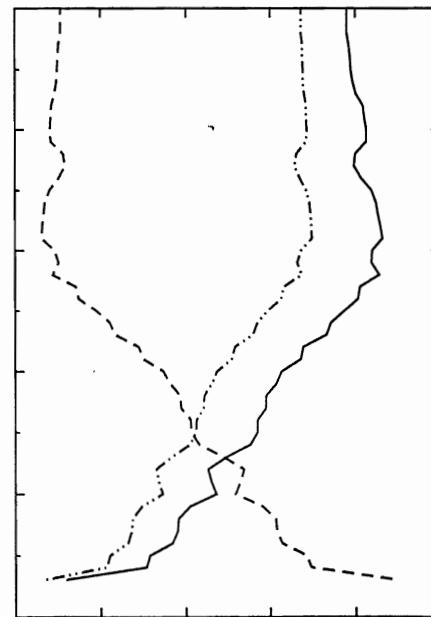
Jan 1994

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 06 Santa Cruz
 DATE: 16:43 (GMT) 07 Sep 1992
 POSITION: $36^{\circ} 52.5' N$ $121^{\circ} 59.8' W$

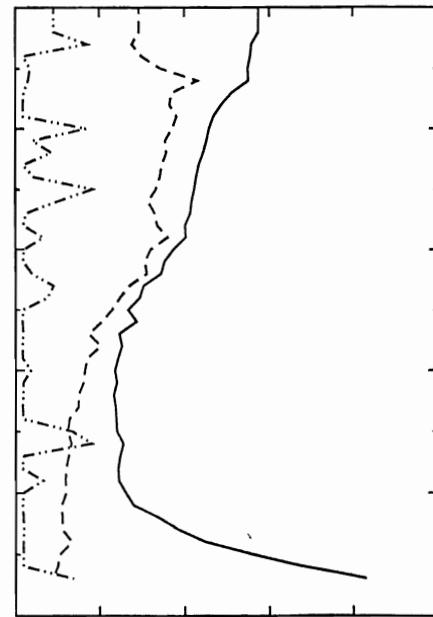
CTD # 5037
 Wind 0 kts; Waves 0 ft; Fog
 Secchi: 11.0 m Munsell: 10G 7/6



% O ₂	90	105	120	135	...
AOU (uM/kg)	-50	-20	10	40	--
O ₂ (uM/kg)	230	260	290	320	—



F590	0	5	10	15	...
F680	0.4	0.8	1.2	1.6	--
c490 (m ⁻¹)	0.2	0.4	0.6	0.8	—



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 06 Santa Cruz
 DATE: 16:43 (GMT) 07 Sep 1992
 POSITION: 36° 52.5' N 121° 59.8' W

CTD # 5037
 Wind 0 kts; Waves 0 ft; Fog
 Secchi: 11.0 m Munsell: 10G 7/6

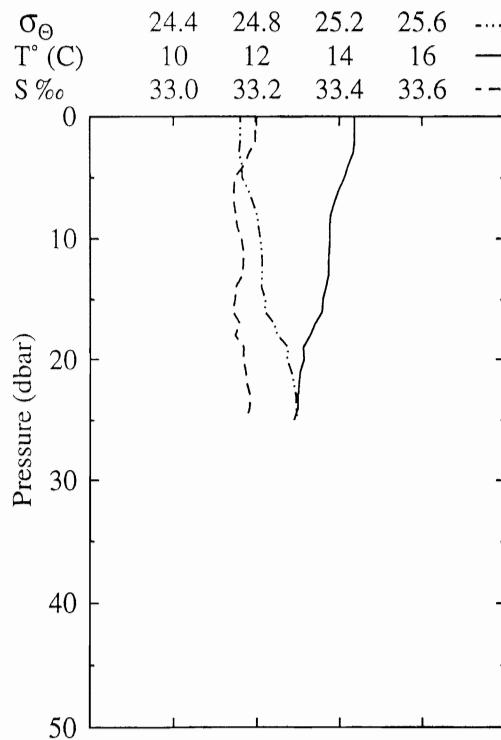
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	14.53	14.53	33.23	24.71	317	-64	125	0.574	nil 0.59
2	14.53	14.53	33.23	24.71	317	-64	125	0.574	nil 0.59
4	14.49	14.49	33.23	24.72	318	-65	126	0.555	nil 0.60
6	14.41	14.41	33.22	24.73	319	-65	126	0.550	nil 0.86
8	14.03	14.03	33.17	24.76	323	-67	126	0.486	nil 0.73
10	13.96	13.95	33.16	24.77	324	-68	126	0.458	nil 0.74
12	13.81	13.80	33.15	24.80	320	-63	125	0.444	nil 0.72
14	13.75	13.75	33.16	24.82	322	-65	125	0.428	nil 0.68
16	13.61	13.61	33.16	24.84	327	-70	127	0.416	nil 0.63
18	13.47	13.47	33.16	24.87	329	-70	127	0.401	nil 0.67
20	13.27	13.27	33.14	24.90	326	-66	125	0.375	nil 0.64
22	12.90	12.90	33.15	24.98	328	-67	126	0.346	nil 0.62
24	12.58	12.58	33.18	25.07	321	-58	122	0.296	nil 0.50
26	12.31	12.31	33.24	25.16	311	-47	118	0.287	nil 0.41
28	12.23	12.23	33.24	25.18	302	-36	114	0.253	nil 0.41
30	12.09	12.09	33.26	25.22	294	-28	110	0.236	nil 0.33
32	12.00	12.00	33.26	25.24	288	-22	108	0.233	nil 0.30
34	11.88	11.87	33.26	25.26	285	-18	107	0.239	nil 0.26
36	11.81	11.80	33.26	25.28	283	-15	106	0.256	nil 0.26
38	11.68	11.67	33.27	25.30	268	0	100	0.243	nil 0.24
40	11.63	11.62	33.29	25.33	271	-2	101	0.262	nil 0.24
42	11.51	11.51	33.32	25.38	257	12	96	0.340	nil 0.22
44	11.46	11.45	33.33	25.39	255	14	95	0.449	nil 0.27
46	11.26	11.26	33.35	25.44	246	24	91	0.677	nil 0.20
47	11.03	11.03	33.41	25.54	218	54	80	0.831	nil 0.18

Jan 1994

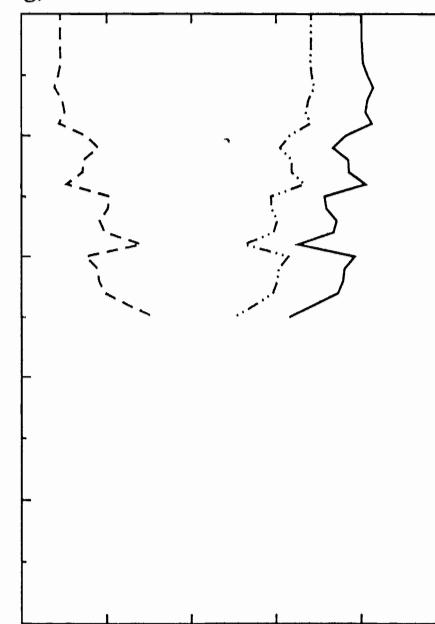
MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 06 Santa Cruz
 DATE: 17:43 (GMT) 07 Sep 1992
 POSITION: $36^{\circ} 52.5' N$ $121^{\circ} 59.8' W$

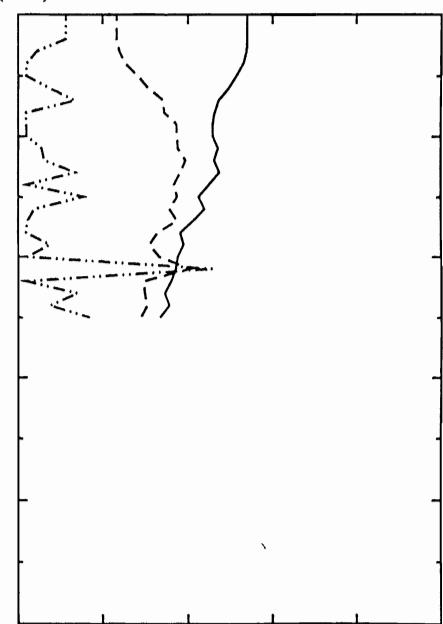
CTD # 5038
 Wind 0 kts; Waves 0 ft; Fog
 Secchi: 11.0 m Munsell: 10G 7/6



% O ₂	90	105	120	135	...
AOU (uM/kg)	-50	-20	10	40	—
O ₂ (uM/kg)	230	260	290	320	—



F590	0	5	10	15	...
F680	0.4	0.8	1.2	1.6	—
c490 (m ⁻¹)	0.2	0.4	0.6	0.8	—



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer

CTD # 5038

STATION: 06 Santa Cruz

Wind 0 kts; Waves 0 ft; Fog

DATE: 17:43 (GMT) 07 Sep 1992

Secchi: 11.0 m Munsell: 10G 7/6

POSITION: 36° 52.5' N 121° 59.8' W

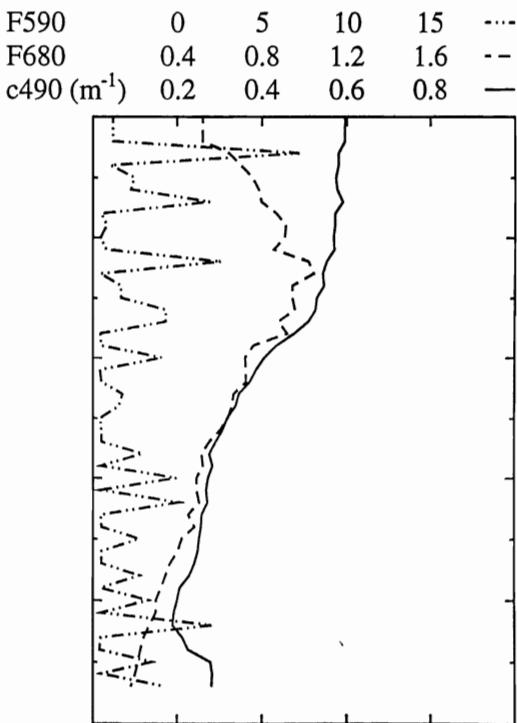
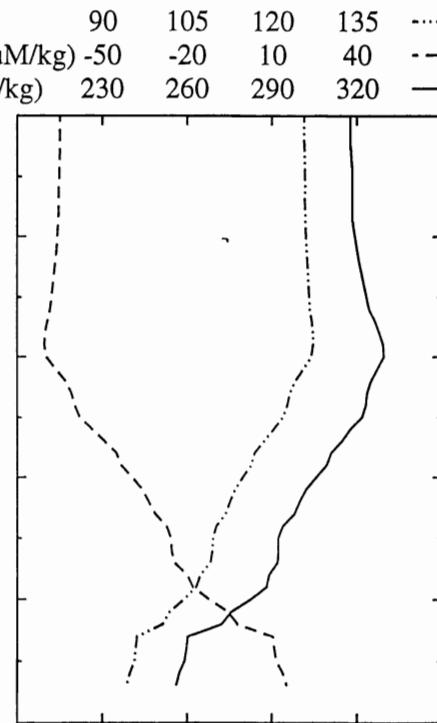
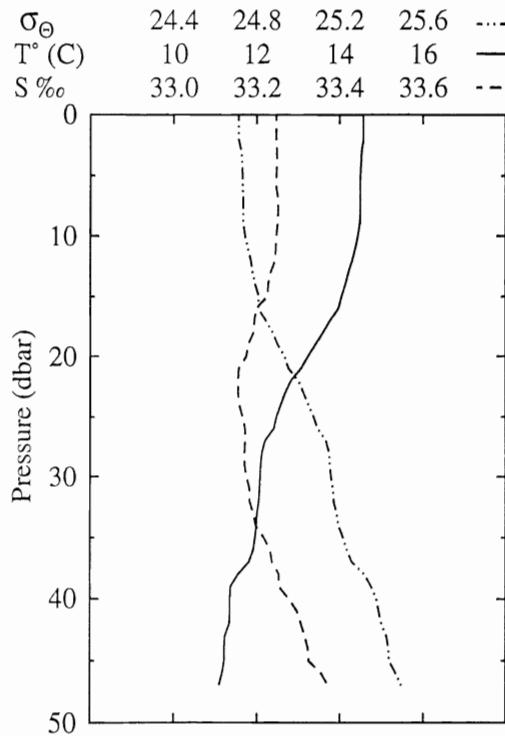
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590)	Fluoro (680)
0	14.35	14.35	33.20	24.72	320	-66	126	0.540	nil	0.47
2	14.35	14.35	33.20	24.72	320	-66	126	0.540	nil	0.47
4	14.21	14.21	33.17	24.73	321	-66	126	0.530	nil	0.50
6	13.97	13.97	33.15	24.76	324	-68	127	0.495	nil	0.61
8	13.78	13.78	33.15	24.80	322	-65	125	0.462	nil	0.69
10	13.76	13.76	33.16	24.82	315	-58	122	0.457	nil	0.75
12	13.73	13.73	33.17	24.83	315	-58	123	0.460	nil	0.79
14	13.67	13.67	33.15	24.83	322	-64	125	0.448	nil	0.73
16	13.58	13.58	33.14	24.84	308	-50	119	0.438	nil	0.71
18	13.30	13.30	33.15	24.90	310	-51	120	0.381	nil	0.66
20	13.15	13.14	33.17	24.95	318	-58	122	0.376	nil	0.66
22	13.02	13.01	33.18	24.98	314	-53	120	0.360	nil	0.59
24	13.00	12.99	33.18	24.99	303	-42	116	0.356	nil	0.61
25	12.89	12.89	33.17	25.00	295	-33	113	0.335	nil	0.58

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 06 Santa Cruz
 DATE: 21:49 (GMT) 07 Sep 1992
 POSITION: $36^{\circ} 52.4' N$ $121^{\circ} 59.7' W$

CTD # 5039
 Wind 14 kts; Waves 3 ft; Sky clear
 Secchi: 10.0 m Munsell: 10G 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 06 Santa Cruz
 DATE: 21:49 (GMT) 07 Sep 1992
 POSITION: 36° 52.4' N 121° 59.7' W

CTD # 5039
 Wind 14 kts; Waves 3 ft; Sky clear
 Secchi: 10.0 m Munsell: 10G 7/6

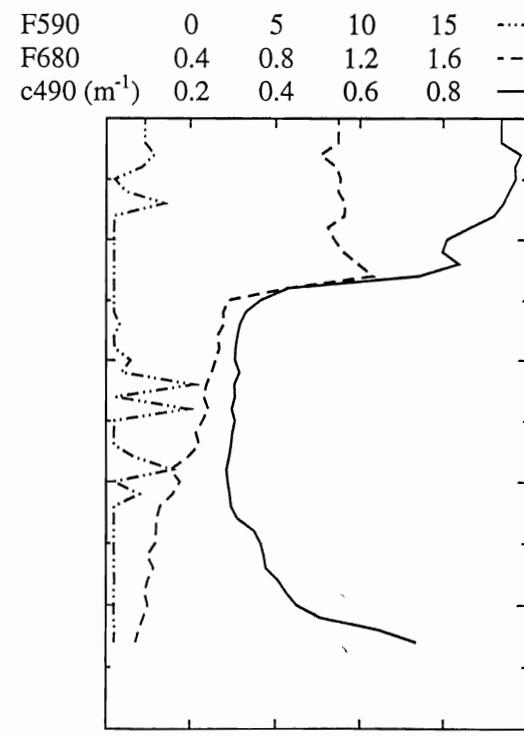
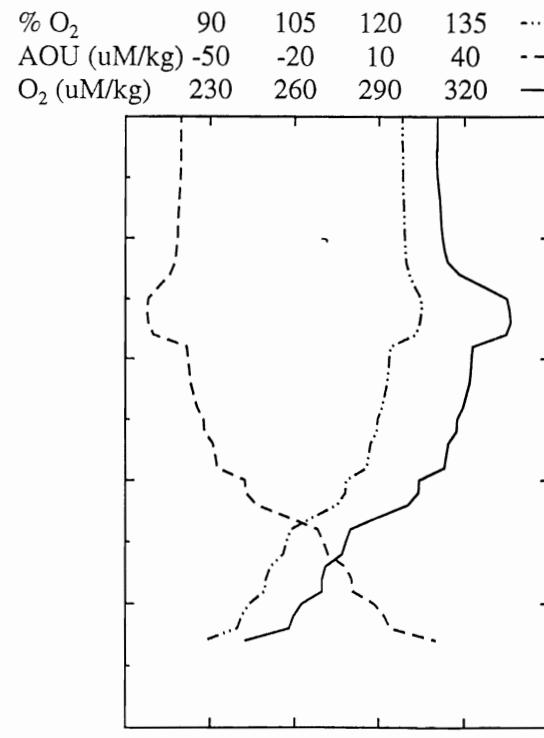
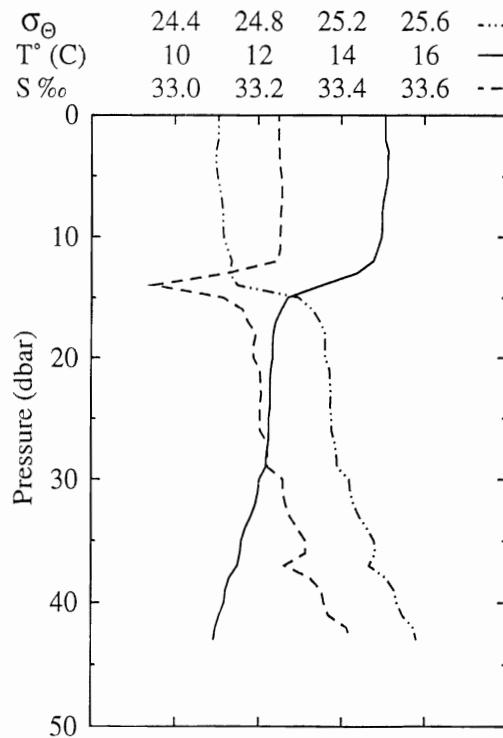
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	14.57	14.57	33.25	24.71	318	-65	126	0.595	nil 0.52
2	14.57	14.57	33.25	24.71	318	-65	126	0.595	nil 0.52
4	14.50	14.50	33.25	24.73	318	-65	126	0.580	nil 0.70
6	14.49	14.49	33.25	24.73	318	-65	126	0.577	nil 0.78
8	14.49	14.49	33.25	24.73	318	-65	126	0.572	nil 0.87
10	14.43	14.43	33.25	24.74	319	-66	126	0.569	nil 0.91
12	14.29	14.29	33.24	24.77	321	-67	126	0.553	2.61 1.02
14	14.13	14.13	33.23	24.79	322	-67	126	0.546	nil 0.94
16	13.96	13.96	33.20	24.81	324	-68	127	0.527	nil 0.96
18	13.59	13.59	33.19	24.88	328	-70	127	0.478	nil 0.92
20	13.23	13.23	33.17	24.93	330	-70	127	0.406	nil 0.72
22	12.82	12.82	33.15	25.00	325	-63	124	0.370	nil 0.72
24	12.58	12.57	33.16	25.05	323	-60	123	0.338	nil 0.66
26	12.42	12.41	33.17	25.09	318	-54	120	0.307	nil 0.60
28	12.12	12.12	33.17	25.15	311	-45	117	0.275	nil 0.51
30	12.08	12.08	33.17	25.16	306	-40	115	0.272	nil 0.49
32	12.05	12.05	33.18	25.17	300	-34	113	0.271	0.07 0.50
34	11.99	11.98	33.20	25.19	294	-27	110	0.256	nil 0.48
36	11.92	11.92	33.23	25.23	292	-25	109	0.248	nil 0.40
38	11.55	11.55	33.25	25.32	289	-20	107	0.228	nil 0.34
40	11.35	11.34	33.28	25.37	282	-12	105	0.200	nil 0.30
42	11.34	11.33	33.31	25.40	272	-2	101	0.188	2.05 0.27
44	11.22	11.22	33.32	25.43	260	11	96	0.226	nil 0.23
46	11.17	11.16	33.35	25.47	257	14	95	0.283	nil 0.20
47	11.09	11.08	33.37	25.49	256	15	94	0.282	nil 0.18

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 07-1 Mulligan Hill
 DATE: 17:40 (GMT) 08 Sep 1992
 POSITION: $36^{\circ} 44.4' N$ $121^{\circ} 51.2' W$

CTD # 5040
 Wind 0 kts; Waves 3 ft; Overcast
 Secchi: 6.5 m Munsell: 10GY 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer

CTD # 5040

STATION: 07-1 Mulligan Hill

Wind 0 kts; Waves 3 ft; Overcast

DATE: 17:40 (GMT) 08 Sep 1992

Secchi: 6.5 m Munsell: 10GY 7/6

POSITION: 36° 44.4' N 121° 51.2' W

Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590)	Fluoro (680)
0	15.06	15.06	33.25	24.61	310	-60	124	0.941	nil	1.10
2	15.06	15.06	33.25	24.61	310	-60	124	0.941	nil	1.10
4	15.12	15.12	33.25	24.60	310	-60	124	0.972	nil	1.09
6	15.07	15.06	33.26	24.61	311	-61	124	0.958	nil	1.10
8	14.98	14.98	33.25	24.63	312	-61	124	0.922	nil	1.13
10	14.96	14.96	33.25	24.63	312	-61	124	0.809	nil	1.08
12	14.76	14.76	33.25	24.67	314	-62	125	0.839	nil	1.19
14	13.53	13.52	32.95	24.70	327	-68	126	0.430	nil	0.86
16	12.56	12.55	33.16	25.06	336	-72	127	0.329	nil	0.55
18	12.36	12.36	33.19	25.12	335	-70	126	0.311	nil	0.53
20	12.34	12.33	33.19	25.12	322	-58	122	0.304	nil	0.52
22	12.27	12.27	33.20	25.14	322	-57	121	0.302	0.17	0.47
24	12.27	12.27	33.20	25.14	319	-54	121	0.297	nil	0.48
26	12.25	12.24	33.20	25.15	317	-52	120	0.298	nil	0.43
28	12.18	12.18	33.22	25.17	314	-48	118	0.290	nil	0.39
30	12.01	12.01	33.26	25.24	304	-38	114	0.287	nil	0.35
32	11.93	11.93	33.26	25.25	300	-33	113	0.295	nil	0.26
34	11.68	11.68	33.29	25.32	280	-12	104	0.350	nil	0.24
36	11.56	11.56	33.31	25.36	277	-8	103	0.372	nil	0.20
38	11.31	11.31	33.32	25.42	270	0	100	0.406	nil	0.20
40	11.18	11.17	33.36	25.47	263	8	97	0.449	nil	0.20
42	10.98	10.97	33.41	25.54	258	14	95	0.646	nil	0.15
43	10.92	10.92	33.42	25.56	242	30	89	0.736	nil	0.14

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer

STATION: 07-1 Mulligan Hill

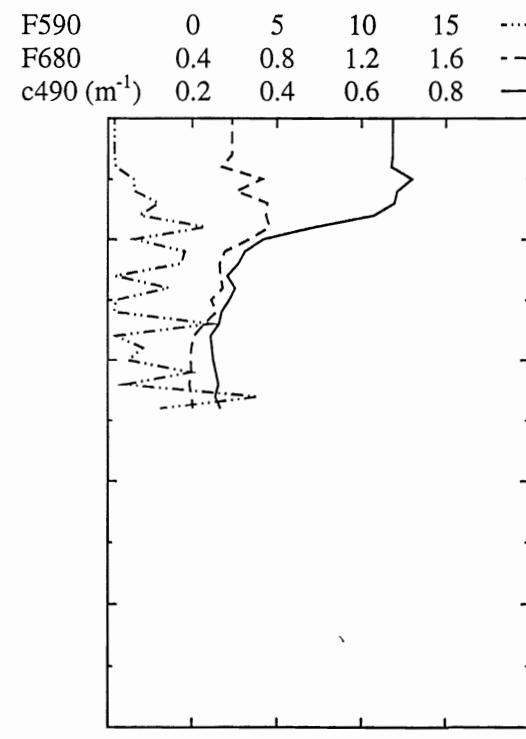
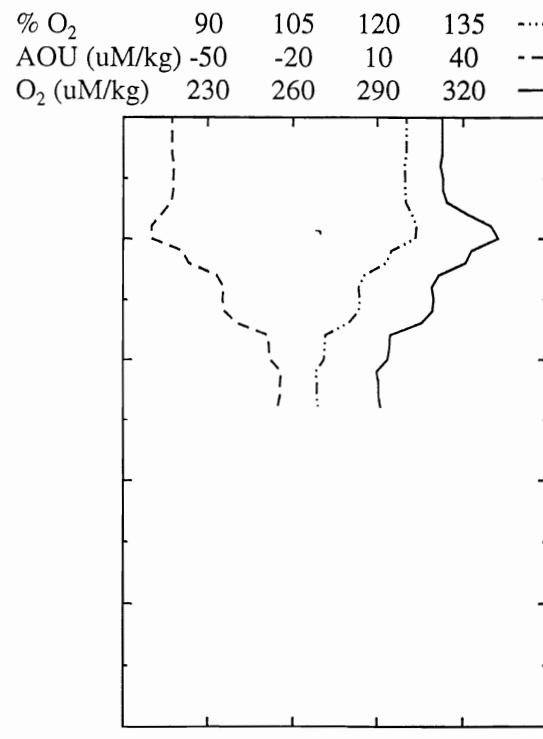
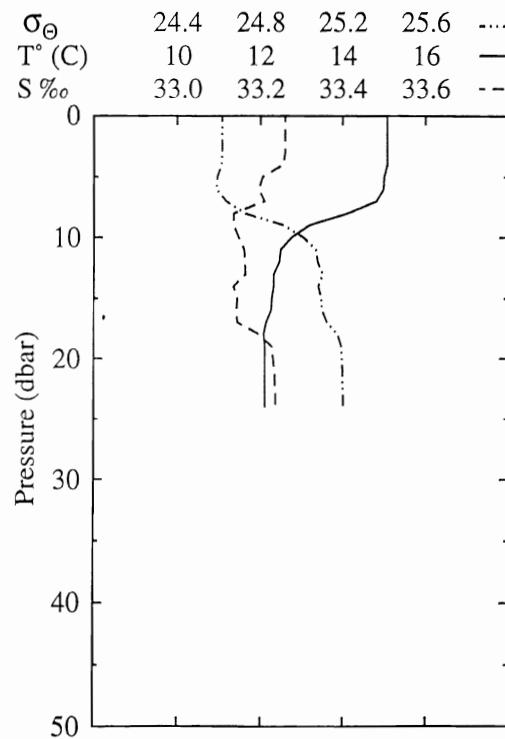
DATE: 19:37 (GMT) 08 Sep 1992

POSITION: $36^{\circ} 44.4' N$ $121^{\circ} 51.2' W$

CTD # 5041

Wind 0 kts; Waves 3 ft; Overcast

Secchi: 6.5 m Munsell: 10GY 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 07-1 Mulligan Hill
 DATE: 19:37 (GMT) 08 Sep 1992
 POSITION: 36° 44.4' N 121° 51.2' W

CTD # 5041
 Wind 0 kts; Waves 3 ft; Overcast
 Secchi: 6.5 m Munsell: 10GY 7/6

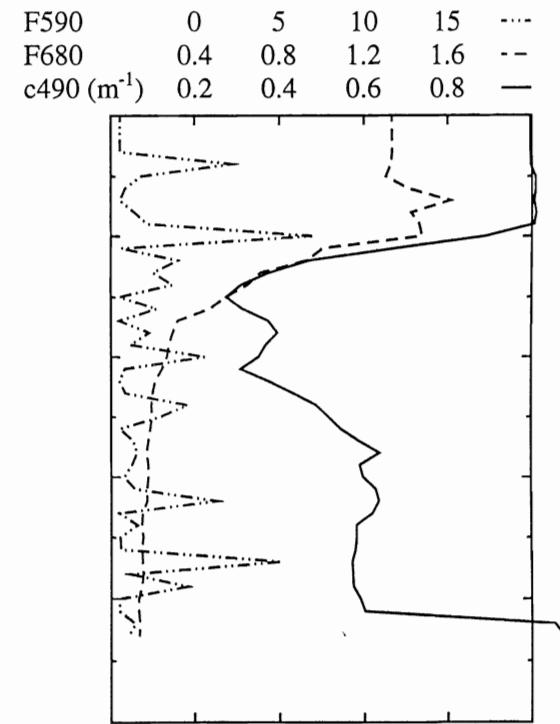
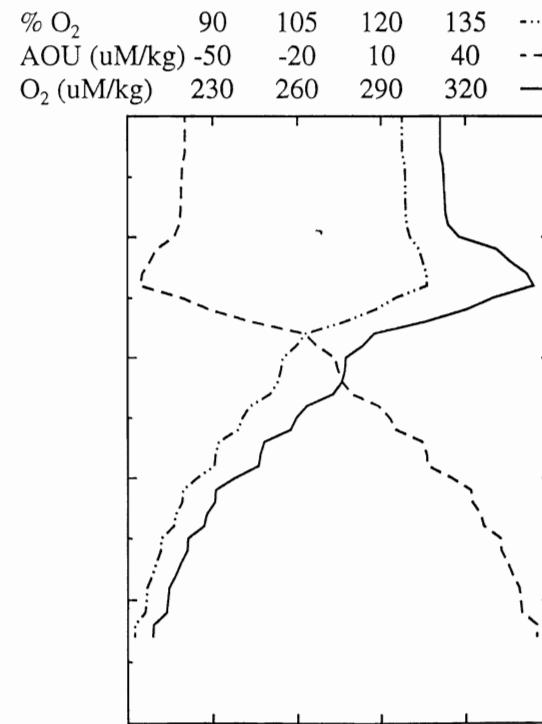
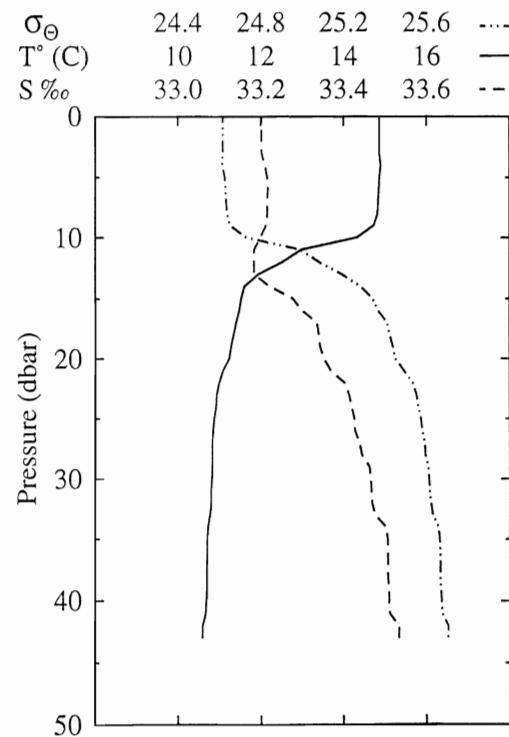
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590)	Fluoro (680)
0	15.07	15.07	33.26	24.62	313	-63	125	0.675	nil	0.59
2	15.07	15.07	33.26	24.62	313	-63	125	0.675	nil	0.59
4	15.06	15.06	33.25	24.61	312	-62	125	0.671	nil	0.54
6	14.97	14.97	33.20	24.59	313	-62	125	0.684	nil	0.60
8	14.11	14.11	33.13	24.72	322	-67	126	0.630	nil	0.75
10	12.75	12.75	33.15	25.01	332	-70	127	0.368	nil	0.67
12	12.46	12.46	33.16	25.08	321	-57	122	0.308	nil	0.53
14	12.32	12.32	33.14	25.08	309	-44	117	0.301	nil	0.55
16	12.26	12.26	33.14	25.10	309	-44	117	0.268	nil	0.51
18	12.09	12.09	33.20	25.17	294	-28	111	0.244	nil	0.41
20	12.11	12.11	33.23	25.19	294	-28	110	0.249	nil	0.39
22	12.11	12.11	33.24	25.20	290	-24	109	0.262	nil	0.39
24	12.10	12.10	33.24	25.20	291	-25	110	0.266	nil	0.40

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 07-2 Mulligan Hill
 DATE: 20:57 (GMT) 09 Sep 1992
 POSITION: $36^{\circ} 44.4' N$ $121^{\circ} 51.2' W$

CTD # 5042
 Wind 5 kts; Waves 2 ft; Overcast
 Secchi: 6.5 m Munsell: 5G 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 07-2 Mulligan Hill
 DATE: 20:57 (GMT) 09 Sep 1992
 POSITION: 36° 44.4' N 121° 51.2' W

CTD # 5042
 Wind 5 kts; Waves 2 ft; Overcast
 Secchi: 6.5 m Munsell: 5G 7/6

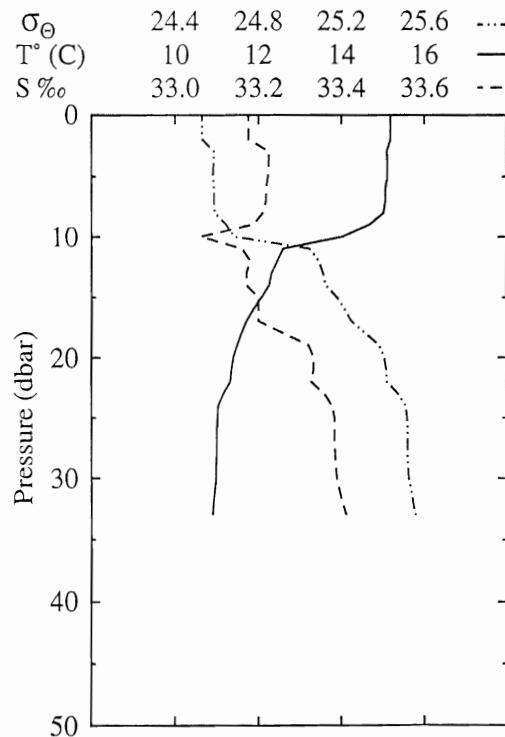
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	14.85	14.85	33.20	24.62	311	-60	124	0.996	nil 1.33
2	14.85	14.85	33.20	24.62	311	-60	124	0.996	nil 1.33
4	14.89	14.89	33.21	24.62	312	-61	124	0.996	2.18 1.33
6	14.85	14.85	33.22	24.63	312	-61	124	1.008	nil 1.41
8	14.81	14.81	33.21	24.64	313	-61	124	1.010	nil 1.42
10	14.31	14.31	33.20	24.73	318	-64	125	0.892	6.94 1.48
12	12.52	12.51	33.18	25.08	336	-72	127	0.469	nil 0.93
14	11.62	11.61	33.22	25.28	344	-76	128	0.310	nil 0.65
16	11.49	11.49	33.30	25.36	320	-51	119	0.314	nil 0.47
18	11.35	11.35	33.34	25.42	287	-17	106	0.395	nil 0.30
20	11.25	11.25	33.35	25.45	277	-7	102	0.351	0.60 0.27
22	11.01	11.00	33.40	25.53	276	-4	101	0.374	nil 0.21
24	10.92	10.92	33.42	25.56	263	9	97	0.487	nil 0.19
26	10.85	10.85	33.43	25.58	258	15	94	0.544	nil 0.19
28	10.83	10.83	33.44	25.59	247	26	90	0.637	nil 0.17
30	10.82	10.82	33.46	25.61	238	35	87	0.597	nil 0.18
32	10.80	10.80	33.47	25.62	231	42	85	0.635	1.28 0.17
34	10.73	10.73	33.50	25.66	227	46	83	0.582	nil 0.15
36	10.71	10.70	33.51	25.66	221	52	81	0.579	nil 0.15
38	10.71	10.70	33.51	25.67	217	57	79	0.572	nil 0.15
40	10.68	10.68	33.51	25.67	214	59	78	0.592	nil 0.13
42	10.60	10.59	33.53	25.70	209	65	76	1.054	nil 0.14
43	10.60	10.59	33.53	25.70	209	65	76	1.077	nil 0.13

Jan 1994

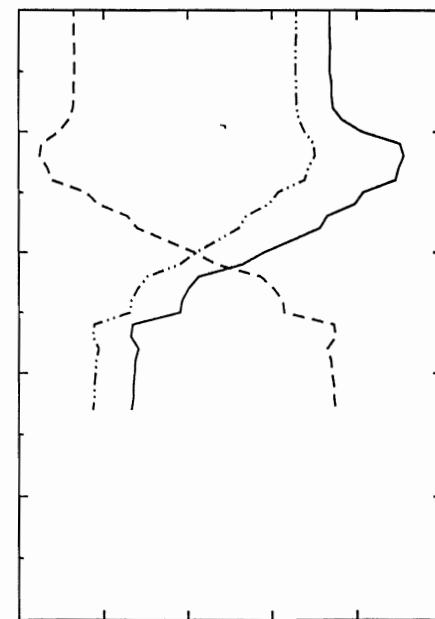
MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 07-2 Mulligan Hill
 DATE: 22:03 (GMT) 09 Sep 1992
 POSITION: $36^{\circ} 44.4' N$ $121^{\circ} 51.2' W$

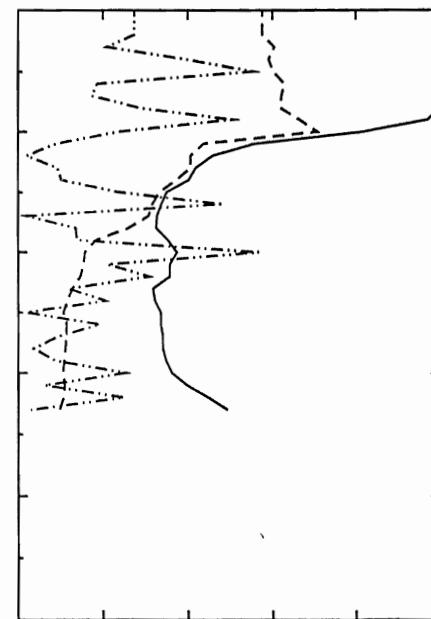
CTD # 5043
 Wind 5 kts; Waves 2 ft; Overcast
 Secchi: 6.5 m Munsell: 5G 7/6



% O ₂	90	105	120	135	...
AOU (uM/kg)	-50	-20	10	40	—
O ₂ (uM/kg)	230	260	290	320	—



F590	0	5	10	15	...
F680	0.4	0.8	1.2	1.6	—
c490 (m ⁻¹)	0.2	0.4	0.6	0.8	—



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 07-2 Mulligan Hill
 DATE: 22:03 (GMT) 09 Sep 1992
 POSITION: 36° 44.4' N 121° 51.2' W

CTD # 5043
 Wind 5 kts; Waves 2 ft; Overcast
 Secchi: 6.5 m Munsell: 5G 7/6

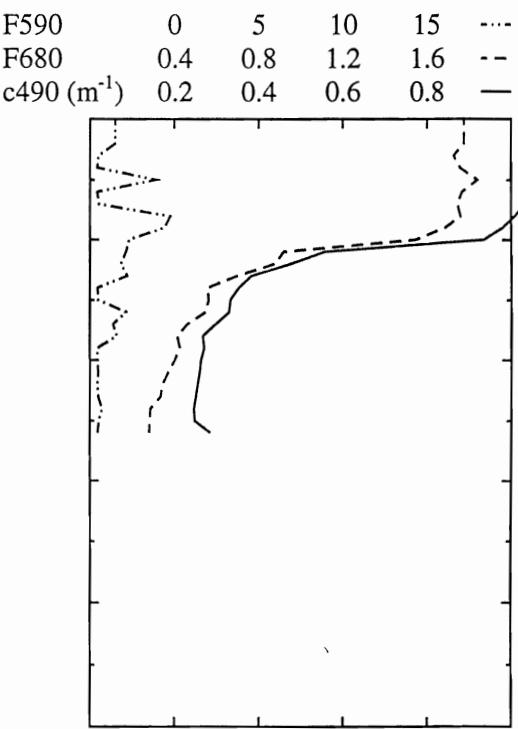
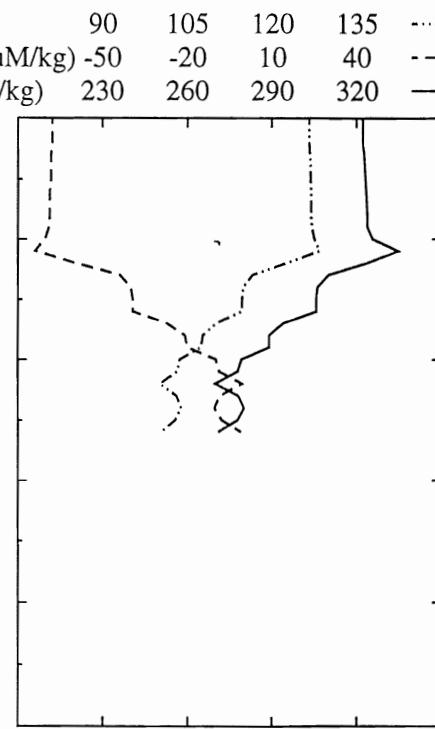
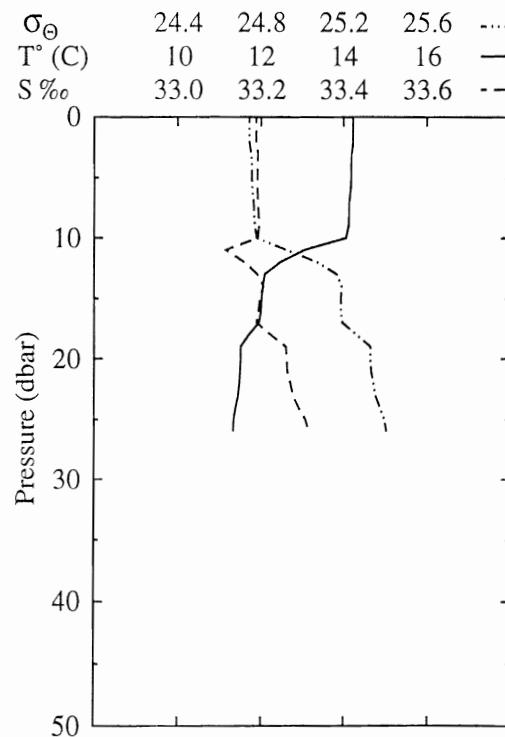
Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590)	Fluoro (680)
0	15.17	15.17	33.18	24.53	310	-61	124	1.001	1.85	1.15
2	15.17	15.17	33.18	24.53	310	-61	124	1.001	1.85	1.15
4	15.09	15.09	33.23	24.58	310	-60	124	1.001	4.84	1.18
6	15.05	15.05	33.22	24.59	311	-61	124	1.001	nil	1.26
8	15.01	15.01	33.21	24.59	312	-61	124	0.995	2.20	1.24
10	14.02	14.02	33.06	24.69	322	-66	126	0.819	0.94	1.41
12	12.47	12.46	33.18	25.09	337	-73	128	0.458	nil	0.81
14	12.25	12.25	33.17	25.12	334	-68	126	0.402	nil	0.75
16	11.88	11.88	33.20	25.21	319	-52	120	0.338	7.08	0.63
18	11.59	11.59	33.26	25.31	307	-38	114	0.325	nil	0.52
20	11.40	11.40	33.33	25.41	287	-18	107	0.374	9.17	0.31
22	11.31	11.31	33.33	25.42	264	6	98	0.357	2.71	0.29
24	11.03	11.03	33.38	25.51	258	14	95	0.322	0.12	0.23
26	11.00	11.00	33.38	25.52	240	32	88	0.336	nil	0.23
28	11.00	10.99	33.38	25.52	242	30	89	0.340	nil	0.22
30	10.99	10.98	33.39	25.52	241	31	89	0.361	1.28	0.21
32	10.93	10.93	33.40	25.54	240	32	88	0.447	1.19	0.21
33	10.91	10.90	33.41	25.56	240	33	88	0.493	nil	0.20

Jan 1994

MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer
 STATION: 07-3 Mulligan Hill
 DATE: 17:08 (GMT) 10 Sep 1992
 POSITION: $36^{\circ} 44.4' N$ $121^{\circ} 51.3' W$

CTD # 5045
 Wind 0 kts; Waves 2 ft; Overcast
 Secchi: 6.0 m Munsell: 5G 7/6



MODIS Marine Optical Characterization Experiment - I NOAA/MLML

CRUISE: MOCE-1 SHIP: USNS De Steiguer

CTD # 5045

STATION: 07-3 Mulligan Hill

Wind 0 kts; Waves 2 ft; Overcast

DATE: 17:08 (GMT) 10 Sep 1992

Secchi: 6.0 m Munsell: 5G 7/6

POSITION: 36° 44.4' N 121° 51.3' W

Press db	Temp °C	Theta °C	Salin PSU	Sigma-θ g/l	Oxygen uM/kg	AOU uM/kg	Sat %	c(490) 1/m	Fluoro (590) (680)
0	14.22	14.22	33.19	24.74	322	-68	127	1.050	nil 1.78
2	14.22	14.22	33.19	24.74	322	-68	127	1.050	nil 1.78
4	14.18	14.17	33.19	24.75	323	-68	127	1.043	nil 1.76
6	14.16	14.16	33.19	24.76	323	-69	127	1.034	nil 1.77
8	14.13	14.13	33.19	24.77	324	-69	127	1.008	nil 1.76
10	14.06	14.06	33.19	24.78	326	-70	127	0.935	nil 1.55
12	12.47	12.47	33.16	25.07	324	-60	123	0.478	nil 0.88
14	12.05	12.04	33.21	25.19	306	-40	115	0.353	nil 0.56
16	12.00	12.00	33.19	25.19	306	-39	115	0.330	nil 0.55
18	11.72	11.71	33.22	25.26	289	-21	108	0.268	nil 0.41
20	11.52	11.52	33.26	25.33	279	-10	104	0.263	nil 0.40
22	11.48	11.48	33.27	25.34	270	-1	100	0.255	nil 0.35
24	11.39	11.39	33.29	25.38	280	-10	104	0.246	nil 0.29
26	11.34	11.33	33.32	25.40	271	-1	100	0.284	nil 0.28

Appendix 3. Total Suspended Material and Particulate Organic Carbon and Nitrogen.

Explanation of Data Tables:

CTD#	CTD sequential cast number provide cross-reference to Appendix 2.
Bot#	GoFlo Bottle Number
Sal	Salinity from MLML CTD (PSU)
Temp	Temperature from MLML CTD (°C)
Press	Pressure from MLML CTD (dbar)
c490	Beam Attenuation Coefficient from MLML CTD (490 nm) (m^{-1})
F680	Chlorophyll fluorescence from MLML CTD (excitation @ 490 nm, emission @ 680 nm) in unscaled units. 25 units indicate a 10x increase in fluorescence.
TSM_V	Water filtered (ml) for Total Suspended Material
TSM	Total Suspended Material (mg l^{-1})
POC_V	Water filtered (ml) for POC and PON
POC	Particulate Organic Carbon ($\mu\text{g l}^{-1}$)
PON	Particulate Organic Nitrogen ($\mu\text{g l}^{-1}$)
OM	Organic Matter = 2xPOM ($\mu\text{g l}^{-1}$)
%OM	Weight percent of organic matter in TSM

Appendix 3. (continued) Total Suspended Material and Particulate Organic Carbon and Nitrogen

Station 1 Mulligan Hill 36° 44.6'N 121° 51.4'W 28 Aug 1992

CTD# 5007

Bot#	Sal	Temp	Press	c490	F680	TSM_V	TSM	POC_V	POC	PON	OM	%OM
6	33.265	15.69	2.0			980	1.40					
8	33.241	13.63	15.0			975	0.63		560	154.6	28.1	308
10	33.181	12.43	31.0	0.41	65	880	2.04		1620	154.8	20.2	310

Station 1 Mulligan Hill 36° 44.6' N 121° 51.4'W 29 Aug 1992

CTD# 5009

Bot#	Sal	Temp	Press	c490	F680	TSM_V	TSM	POC_V	POC	PON	OM	%OM
10	33.299	15.23	2.0	0.99	67	940	1.36		1224	374.4	62.3	748
9	33.250	12.85	10.5	0.43	64	950	1.93		1850	150.0	28.2	300
8	33.185	11.86	21.5	0.30	60	950	1.06		1820	75.6	13.2	151
6	33.151	11.44	29.0	0.25	58	1000	0.47		1620	43.2	9.0	86
	33.270	11.40	45.0	0.76	56	990	1.06		1980	76.8	11.8	154

Station 1 Mulligan Hill 36° 44.6'N 121° 51.4'W 30 Aug 1992

CTD# 5014

Bot#	Sal	Temp	Press	c490	F680	TSM_V	TSM	POC_V	POC	PON	OM	%OM
6	33.120	15.13	2.0	0.50	54	1010	0.34		1715	140.4	23.4	280
	33.135	14.66	6.0	0.52	57	1040	1.24		975	145.2	28.6	290
	33.160	14.17	13.0	0.62	68	900	0.89		1450	272.4	50.3	544

Station 1 Mulligan Hill 36° 44.6'N 121° 51.4'W 31 Aug 1992

CTD# 5015

Bot#	Sal	Temp	Press	c490	F680	TSM_V	TSM	POC_V	POC	PON	OM	%OM
9	33.143	14.96	2.0	0.43	55	780	1.27					
		18.5				905	0.72					
		18.5				880	1.82					

Station 1 Mulligan Hill 36° 44.6'N 121° 51.4'W 01 Sep 1992

CTD# 5025

Bot#	Sal	Temp	Press	c490	F680	TSM_V	TSM	POC_V	POC	PON	OM	%OM
9	33.201	14.68	0.0	0.43	59	950						
8	33.200	14.68	4.0	0.44	58	930	0.45					
6	33.206	14.61	9.0	0.48	62	915	0.56					
	33.164	12.25	29.0	0.23	55	900	0.51					

Appendix 3. (continued) Total Suspended Material and Particulate Organic Carbon and Nitrogen

Station 2 Monterey Bay Mouth 36° 44.6'N 121° 51.4'W 04 Sep 1992

CTD# 5027

Bot#	Sal	Temp	Press	c490	F680	TSM_V	TSM	POC_V	POC	PON	OM	%OM
9	33.188	14.74	0.0	0.52	57	885	0.69					
8	33.194	14.68	4.0	0.54	56	815	0.50					
8	33.194	14.68	8.0	0.54	57	945						
	33.162	13.37	22.0	0.50	67	930	0.71					

Station 3 Outside Monterey Bay 36 39.9'N 122° 39.8'W 04 Sep 1992

CTD# 5029

Bot#	Sal	Temp	Press	c490	F680	TSM_V	TSM	POC_V	POC	PON	OM	%OM
9	33.026	16.83	0.0	0.23	39	925	0.18	1310	57.6	11.6	115	63
8	33.026	16.83	5.0	0.23	39	900	0.74	1180	42.0	8.5	84	11
6	33.024	16.83	10.0	0.22	35	930	0.41	1110	49.2	9.9	98	24
	32.997	12.06	42.0	0.17	55	930	0.99	1920	26.4	4.9	53	5

Station 4 Monterey Peninsula 36° 31.2'N 122° 22.2'W 05 Sep 1992

CTD# 5031

Bot#	Sal	Temp	Press	c490	F680	TSM_V	TSM	POC_V	POC	PON	OM	%OM
9	33.092	15.77	0.0	0.28	47	850	0.36	1025	57.6	12.1	115	32
8	33.091	15.75	4.0	0.27	48	805	0.76	1395	52.8	10.2	106	14
6	33.092	15.76	9.0	0.27	46	940	0.18	1230	52.8	10.1	106	59
	33.358	12.52	38.0	0.22	59	830	0.19	1430	54.0	9.2	108	57

Station 5 Point Sur 36° 12.9'N 121° 47.9'W 06 Sep 1992

CTD# 5033

Bot#	Sal	Temp	Press	c490	F680	TSM_V	TSM	POC_V	POC	PON	OM	%OM
9	33.466	12.33	0.0	0.38	54	930	0.54	1430	70.8	18.0	142	26
8	33.466	12.36	5.0	0.39	54	960	0.59	1410	56.4	12.3	113	19
6	33.463	12.33	10.0	0.39	58	920	0.53	1380	57.6	12.3	115	22
	33.587	11.03	32.0	0.15	37	910	0.49	1905	18.0	3.4	36	7
CTD# 5036												
9	33.445	12.81	0.0	0.54	59	945	1.39	1700	87.6	18.1	175	13
8	33.437	12.76	4.0	0.52	61	930	0.69	2030	94.8	19.3	190	28
6	33.425	12.71	8.0	0.51	62	865	0.72	1435	54.0	12.5	108	15
	33.527	11.36	27.0	0.16	47	920	0.12	1910	25.2	4.6	50	42

Station 6 Santa Cruz 36° 52.5'N 121° 59.8'W 07 Sep 1992

CTD# 5038

Bot#	Sal	Temp	Press	c490	F680	TSM_V	TSM	POC_V	POC	PON	OM	%OM
10	33.197	14.35	0.0	0.54	59	940	0.78	1750	126.0	23.0	252	32
9	33.170	14.21	4.0	0.53	60	925	1.34	1810	103.2	19.9	206	15
8	33.152	13.78	8.5	0.46	64	930	0.45	1795	99.6	19.9	199	44
	33.175	12.89	25.0	0.33	61	855	0.70	1860	85.2	17.5	170	24
CTD# 5039												
6	33.247	14.57	0.0	0.60	60	880	0.98	1460	186.0	34.9	372	38
	33.316	11.23	43.0	0.21	51	895	1.69	1840	33.6	6.0	67	4
				0.0		940	1.57					
				15.0		920	0.81					

Appendix 3. (continued) Total Suspended Material and Particulate Organic Carbon and Nitrogen

Station 7 Mulligan Hill 36° 44.4'N 121° 51.2'W										08 Sep 1992		
Bot#	Sal	Temp	Press	c490	F680	TSM_V	TSM	POC_V	POC	PON	OM	%OM
10	33.260	15.07	0.0	0.67	61	910	1.42	1515	151.2	26.9	302	21
9	33.255	15.06	4.0	0.67	60	890	0.93	1790	157.2	36.8	314	34
8	33.135	14.11	8.0	0.63	64	890	0.58	1425	147.6	27.9	295	51
	33.237	12.10	24.0	0.27	57	820	0.97	1585	44.4	8.3	89	9
				0.0		890	1.26					
CTD# 5041												
10	33.177	15.17	0.0	1.00	69	880	0.67	1480	214.8	36.5	430	64
9	33.225	15.09	4.0	1.00	69	935	0.48	1715	223.2	42.4	446	93
8	33.211	15.01	8.0	1.00	70	930	0.41	1740	147.6	27.3	295	72
	33.411	10.91	33.0	0.49	49	915	0.56	2140	43.2	7.0	86	15
				0.0		915	0.63	1610	123.6	21.4	247	39
				15.0		920	0.30					
				38.0		885	0.66					
CTD# 5043												
10	33.184	14.22	0.0	1.05	74	895	0.79	1450	199.2	37.4	398	50
9	33.192	14.18	4.0	1.04	74	940	1.23	1690	183.6	36.4	367	30
8	33.196	14.12	9.0	0.98	73	930	0.67	1670	100.8	20.4	202	30
	33.315	11.34	26.0	0.28	53	890	0.17	1850	38.4	7.0	77	45