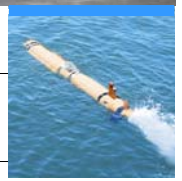
OOI: ANNOUNCEMENT OF CORE INSTRUMENT MODELS AND LOCATIONS

Neely, M.B.; Heilman, L.A.; Stamey, B.A.; Ferlaino, A.M.
Consortium for Ocean Leadership, 1201 New York Ave NW, Suite 400, Washington, D.C. 20005

To date, the Ocean Observatories Initiative has selected the vendors and models for 29 of the 49 Core Instrument Families that will be located on the arrays. The sensor models and their location-specific features are presented here, with reference to their generalized data product available from OOI's Integrated Observatory Network data portal. Approximately 750 instruments are expected to complement the OOI arrays at the time of commissioning, with future space for Principle Investigators to deploy instruments (arranged through a separate NSF proposal process). Fixed instruments will be located at the air-sea interface, at the seafloor and at up to 14 locations throughout the water column (dependent upon depth at the buoy location). In addition, up to 46 mobile assets will be deployed within the OOI at any one time. These include gliders, AUV's, surface piercing profilers, and deep or shallow wire-following profilers.



Where Deployed: Endurance	Pioneer	Global	Regional	Instrument Class	Number Deployed	Vendor-provided Biofouling Mitigation?	Vendor/Model	Instrument Function
✔	✔	✔		**GLIDER**	24	NO	**Teledyne Webb**	
				ADCPA			TRDI	Water velocity profile
				CTDGV			SeaBird	Conductivity, temperature and depth
				FLORD			WetLabs ECO	Two-wavelength fluorometer for chlorophyll
				PARAD			Biospherical instruments Inc. QSP-2100	Photosynthetically Active Radiation
				DOFST			AADI 3830	Dissolved oxygen
	✔			**AUV**	2	NO	**Hydroid**	
				ADCPA			TRDI	Water velocity profile
				CTDAV			SeaBird	Conductivity, temperature and depth
				NUTR4				Nitrate, nitrite, phosphate, and silicate analyzer
				PARAD			Biospherical Instruments Inc. QSP-2100	Photosynthetically Active Radiation
✔	✔	✔	✔	ADCPS	16	NO	Award Pending	Water velocity profile measured near surface (<300m)
✔	✔	✔	✔	CTDMO	135	YES	SeaBird 16+V2 and 37IM	Conductivity, temperature and depth measured at fixed depths on moorings
✔	✔	✔	✔	CTDPF	30	YES	SeaBird 16+V2 with +19 firmware, 37SMP	Conductivity, temperature and depth measured on a wire-following or surface-piercing profiler
✔	✔	✔	✔	DOSTA	67	YES	AADI 4330/4385	Dissolved oxygen
✔	✔	✔	✔	FLOR	64	YES	Award Pending	Three-wavelength fluorometer for chlorophyll, colored dissolved organic matter, and optical backscatter
✔	✔	✔	✔	NUTNR	22	YES	Satlantic ISUS/Deep SUNA	Nitrate concentration
✔	✔	✔	✔	OPTAA	35	YES	Award Pending	Optical attenuation and absorption
✔	✔	✔	✔	PCO2W	25	YES	Sunburst SAMI-CO_2	Water pCO_2
✔	✔	✔	✔	PHSEN	33	YES	Sunburst SAMI-pH	pH
✔	✔	✔	✔	SPKIR	22	YES	Award Pending	Spectral, down-welling irradiance
✔	✔	✔	✔	VEL3D	32		Award Pending	Three-dimensional single point current meter
✔	✔	✔	✔	PARAD	15		Biospherical Instruments Inc. QSP-2100 Satlantic PAR LIN 600m	Photosynthetically Active Radiation
✔	✔		✔	ADCPT	17	NO	Award Pending	Water velocity profile measured near surface (<300m)
✔	✔		✔	DOFST	16	YES	SeaBird SBE-43/43F	Dissolved oxygen
✔			✔	CAMDS	10		Award Pending	Digital still camera and strobe positioned on the deep ocean floor
✔			✔	HYDBB	6		RFP Pending	Passive, broad-band hydrophone
✔	✔	✔		METBK	18		Award Pending	Bulk meteorology instruments
✔	✔	✔		PCO2A	10		Pro-Oceanus CO_2 Pro	Atmospheric pCO_2
✔	✔	✔		VELPT	21	NO	Nortek Aquadopp	Single Point current meter
✔	✔			WAVSS	10		Award Pending	Surface wave spectra instruments for surface buoys in both coastal and global moorings
✔	✔	✔		FDCHP/ FDCLP	10		Award Pending	Direct air-sea fluxes of heat, moisture, and momentum (anemometer-thermometer plus orthogonal angular rate sensors plus accelerometers)
✔	✔			CTDBP	18	YES	SeaBird 16+V2	Conductivity, temperature and depth measured at the deep ocean floor
✔	✔			PRESF	9		SeaBird SBE-54	Seafloor pressure sensor
✔	✔			ZPLSC	8		Award Pending	Bio-acoustical zooplankton sensor for deployment on coastal moorings
		✔		ZPLSG	4		Award Pending	Bio-acoustical zooplankton sensor for deployment on global moorings
			✔	BOTPT	3		PMEL Custom Assembly	Bottom Pressure-Tilt measured at the deep ocean floor
			✔	CAMHD	1		Award Pending	Digital high definition video camera positioned on the deep ocean floor
			✔	HPIES	2		RFP Pending	Horizontal electric field pressure inverted echo sounder
			✔	HYDLF	5		Award Pending	Passive, low-frequency hydrophone
			✔	MASSP	2		Award Pending	Mass spectrometer
			✔	OBSBB/ OBSBK	5		Award Pending	Ocean bottom seismometer
			✔	OBSSP	8		Award Pending	Short Period Ocean bottom seismometer
			✔	OSMOI	2		TLR, Inc.	Osmotic Water sampler for trace chemical analyses
			✔	OTISF	1		RFP Pending	*in situ* measurements of fluid flow at the seabed of a methane seep environment
			✔	PPSDN	1		PMEL Custom Assembly	Microbial DNA sampler
			✔	PREST	3		SeaBird SBE-54	Seafloor pressure sensor for measuring depth and tides
			✔	RASFL	1		PMEL Custom Assembly	Water sampler for analyses of H_2S and pH
			✔	THSPH	1		Award Pending	Sensor package to measure temperature, H_2, H_2S, and pH at deep sea vents
			✔	TMPSF	1		UW Custom Assembly	Seafloor water temperature thermistor array
			✔	TRHPH	1		UW Custom Assembly	Seafloor temperature and resistivity at hydrothermal vents
			✔	VADCP	2	NO	TRDI Workhorse	Vertical 5-beam acoustic current profiler, 300 kHz

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