Appendix 1

Satellite Missions in Support of IGOS Ocean Theme

Agency	Missions	Lead Agency	Category*	Basic Technologies	Ocean Variables Measured**
NASDA	ADEOS-II/SeaWinds	NASDA	1	scatterometry	winds
NASDA	ADEOS-II/GLI	NASDA	1	spectrometry, radiometry	color, SST, ice
NASDA	ADEOS-II/AMSR	NASDA	1	microwave radiometry	SST, ice, winds
NASDA	ALOS/PALSAR	NASDA	1	SAR	ice, surface props.
NASDA	EOS-Aqua/AMSR-E	NASA	1	microwave radiometry	SST, ice, winds
NASDA	GCOM-B1/AlphaSCAT	NASDA	2	scatterometry	winds
NASDA	GCOM-B1/SGLI	NASDA	2	spectrometry	color, SST, ice
NASDA	GCOM-B1/AMSR F/O	NASDA	2	microwave radiometry	SST, ice, winds
NASDA	POLDER-2	CNES	1	multi-angle spectrometry	color, aerosols
NASDA	TRMM	NASA	1	passive microwave, radar	precipitation
NASDA	GPM	NASA	2	passive microwave, radar	precipitation
NASDA	EOIS	NASDA	5	—	data system
NOAA	GOES I,J,K,L,M	NOAA-NESDIS	1	imager, sounder	SST, feature tracking
NOAA	GOES N,O,P,Q	NOAA-NESDIS	1	imager, sounder	SST, feature tracking
NOAA	SEI (GOES Special Events Imager)	NOAA-NESDIS	3/4	VIS-NIR radiometry	color
NOAA	POES—K,L,M,N,N	NOAA-NESDIS	1	spectrometry, radiometry, passive microwave	winds, SST, ice, color
NOAA	WindSat/Coriolis	U.S. Navy—Naval Research Laboratory	1	passive microwave, polarimetric radiometry	winds, SST
NOAA	DMSP (Defense Meteorological Satellite Program)	NOAA-NESDIS	1		meteorology
NOAA	NPP (NPOESS Preparatory Project)	U.S. Air Force	3	radiometry, microwave, radar altimetry	SST, SSH, color, ice
NOAA	NPOESS (National Polar-Orbiting Operational Environmental Satellite System)	NOAA/NPOESS/ Integrated Program Office	1	radiometry, microwave, radar altimetry	SST, SSH, color, ice
NOAA	Jason-2	NOAA/NPOESS/ Integrated Program Office NASA/CNES	3	radar altimetry	SSH
EUMETSAT	MSG Series 1-3	EUMETSAT	1		SST, ice
EUMETSAT	EPS METOP	EUMETSAT	1	radiometry, altimetry, scatterometry	SSH, winds, ice
EUMETSAT	Jason-2	CNES/NASA	3	radar altimetry	SSH
EUMETSAT	Relay (DPC)			—	communications
CNES	TOPEX/POSEIDON	CNES/NASA	1	radar altimetry	SSH
CNES	Jason-1	CNES/NASA	1	radar altimetry	SSH
CNES	Jason-2	CNES/NASA	3	radar altimetry	SSH
CNES	Altika	CNES	4	—	
CNES	Polder-2	CNES	1	spectrometry	color, aerosols
CNES	Advanced Wide FOV	CNES	4	spectrometry	color
CNES	VAGSAT	CNES	2	real-aperture radar	wave spectra
CNES	ARGOS	CNES/CLS	1	—	communications
CNES	SMOS	CNES/ESA	1	passive microwave	SSS
CNES	Modeling MERCATOR	CNES	5	—	data systems
CNES	Multimission (PAC + Gd. Segmt.)	CNES	5	—	data systems

* 1 = confirmation and timing of missions already planned; 2 = proposed missions using known technology; 3 = transitioning of research instruments/missions into operational; 4 = development of new technologies, products, or missions; 5 = data and information systems.
** SST = sea surface temperature; SSH = sea surface height,; SSS = sea surface salinity

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Agency	Missions	Lead Agency	Category*	Basic Technologies	Ocean Variables Measured**
INPE	CBERS-2	CAST	1	spectrometry	imaging
INPE	SCD-3	INPE	2	scatterometry, radiometry, microwave	winds, SST, SSS
INPE	CBERS-3	CAST	2	scatterometry, radiometry, microwav	winds, SST, SSS
INPE	CBERS-4	CAST	2	scatterometry, radiometry, microwav	winds, SST, SSS
INPE	CBERS-5	CAST	2	scatterometry, radiometry, microwav	winds, SST, SSS
DLR	CHAMP	DLR	1	magnetometers, accelero.	gravity, magnetics, SST, GPS
DLR	MAPP-MERIS Application and Regional Products Project	DLR	4	spectrometry	color
DLR	ISIS	DLR	5	—	data system
DLR	GRACE	NASA	1	gradiometry	geoid, gravity
DLR	MOS on IRS-P3	DLR	1	spectrometry	color
DLR	EOWEB	DLR	5	—	data system
NRSCC	HY-1 Chinese Ocean Color Satellite	CNSA (China National Space Administration)	1	spectrometry, radiometry	color, ice, SST
NASA	TOPEX-POSEIDON	NASA/CNES	1	radar altimetry	SSH
NASA	QuickSCAT	NASA	1	scatterometry	winds
NASA	Aqua-MODIS	NASA	1	spectrometry	color
NASA	Terra-ASTER, CERES, MISR, MODIS, MOPITT	NASA	1	spectrometry	multiple
NASA	SeaWIFS	NASA	1	spectrometry	color
NASA	Radarsat 1	CSA	1	SAR	ice, surf. props.
NASA	Jason-1	NASA/CNES	1	radar altimetry	SSH
NASA	Follow-on Altimeter Mission (Jason-2)		3	radar altimetry	SSH
NASA	Seawinds/ADEOS-2	NASDA	1	scatterometry	
NASA	Follow-on Scatterometer (alphaScat)	NASDA	4	scatterometry	winds
NASA	NPOESS Bridging Mission	NASA, NOAA	3	scatterometry	multiple
NASA	ICESAT		1	altimetry, lidar	sea ice
NASA	GRACE	NASA	1	gradiometer	geoid
NASA	Modelling/Data Assimilation	NASA	5	—	data system
NASA	EOS Data Information System (EOSDIS)	NASA	5	—	data system
NASA	Salinity Technical Demo	NASA	4		SSS
NASA	TRMM	NASA/NASDA	1	passive microwave, radar	precipitation
NASA	GPM	NASA/NASDA	2	passive microwave, radar	precipitation
ESA	ERS-2	ESA	1	radar altimetry, microwave, spectrometry, radiometry	SSH
ESA	ENVISAT	ESA	1	radar altimetry, radiometry, SAR, spectrometer	SST, color, ice, SSH
ESA	GOCE	ESA	1	gradiometry	geoid
ESA	CRYOSAT	ESA	1	radar	ice
ESA	SMOS	ESA	1	passive microwave	SSS
BNSC	Ice Thickness, Geoid retrieval	NERC	5		ice
	Small satellite initiative: GANDER	NERC	2		winds, waves
CSA	Radarsat 1	CSA	1	SAR	ice
CSA	Radarsat 2	CSA	1	SAR	ice
CSA	Products from Radarsat	CSA	5	—	

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Agency	Missions	Lead Agency	Category*	Basic Technologies	Ocean Variables Measured**
ISRO	IRS-P4/OCM	ISRO	1	spectrometry	color
ISRO	IRS-P4/MSMR	ISRO	1	microwave, radiometry	waves, SST, winds
ISRO	Oceansat-2/Advanced OCM	ISRO	3	spectrometry	color
ISRO	Oceansat-2/Scatterometer	ISRO	3	scatterometry	winds, sea-state
ISRO	Oceansat-2/Radiometer	ISRO	3	microwave, radiometry	waves, SST, winds

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