

Oceans 2025 Risk Register

Theme specific risks

Review Date: November 2009

Key at footer

Theme	Summary Risk	Consequence	Analysis		Underlying Cause/Specific Risk	Risk Owner	Latest Movement	Control Mechanisms (risk owner and actions planned/taken)
			Impact %	Probability L,M,H Risk Exposure Index Value				
1	Potential problems with access to RRS <i>James Clark Ross</i> and HMS <i>Endurance</i> .	The Arctic cruise might be delayed until 2011 which will affect the work-up of samples and analysis of data and could coincide with the ramp-down of the Oceans 2025 programme.			BAS is considering an option to make savings by limiting operations of the JCR to Southern Ocean in 2010.	SAMS		Need to plan access to an alternative vessel to the RRS <i>James Clark Ross</i> which has ice-breaking capability.
1	Reduced sea-time for 2008 Arctic cruise [WP 1.6]	Reduced sea-time from 6 to 4 weeks will limit extent and magnitude of observational and experimental data sets.		L	Ship maintenance/cruise allocation time issues	SAMS		Where feasible, significant early warning of likely problems with cruise should be made available to P.Is.
1	Further postponement of Stofjord cruise [WP 1.8]	Delay until 2009 would mean that cruise data could not be used for early validation of sea ice-ocean model.		L	Ship maintenance/cruise allocation time issues	POL		Where feasible, significant early warning of likely problems with cruise should be made available to P.Is.
1	Models may take longer to develop and implement than originally planned [W.P. 1.1 & 1.4]	Analysis procedures may need to be modified depending on model development.		M	Difficulties are to be expected during development of new computer models.	NOCS		Modify analysis procedures as required.
3	Capital overspend re AUV at SAMS (~4% overspend predicted)	Potential consequences for future budgets/expenditure.		H		SAMS		Negotiations on-going. Delivery set for June 2008.
6	Loss of seafloor array elements	Impact for data delivery		M	Loss due to trawl activity or weather	SAMS		Deploy in area protected from fisheries and/or weather
6	No return of data storage tags through fishery	Impact for data delivery		L	Insufficient advance notification to fishermen, inefficient collection mechanism in place.	SAMS		Wide distribution of reward notices to fishermen
8	Legal issues over air-launched AUVs.	Project may have limited potential.		M	Legal issues can be subject to long delays before resolution is attained.	NOCS		Open dialogue with CAA etc. building on links with them on UAV project.
8	Loss of Autosub6000	No deep diving AUV available to NERC scientists after the development programme.		L	Failure of collision avoidance or onboard navigation systems.	NOCS		Use of Risk Management Process-AUV. Detailed analyses of faults and instigate appropriate remedial engineering work.

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8	Failure to transition sensors from lab to the <i>in situ</i> environment	Loss of support from marine scientists; disappointed users.		L/M		Young technologies with new problems that must be solved allied with known generic problems for marine sensors such as fouling, drift, in situ calibration.	NOCS SAMS		These are novel sensors, some setbacks expected. Support related work on these transition challenges. Biennial trials cruises and more frequent coastal experiments planned. Deepen experience within team of in situ challenges.
9	Met Office may choose not to closely align with Theme 9 model development	Lack of harmony with POL/NOC/PML data.		M/H		Miscommunication with Met Office	POL PML NOCS		Align model development with Met Office requirements
9	HPC resources may be inadequate to complete model runs on time.	Progress significantly slowed		L		Hardware/software issues	POL, PML, NOCS		Progress will be monitored on regular basis.
10 (SO1)	Cruises not scheduled as planned	Gaps in datasets affecting interpretation		M		e.g. ship maintenance issues	PML, NOC		P.Is to plan contingency arrangements
10 (SO 2)	Entanglement by long line fishing equipment	Damage to sensors or possibly parting of mooring line		M		Natural hazard	NOCS		Adopt regular programme to monitor sensors for damage
10 (SO2)	Sensor telemetry failure	Some variables may not be measured for the entire duration of the deployment.		H		Faulty/poonly maintained equipment	NOCS		Where possible, instigate back-up/duplicate systems.
10 (SO2)	Corrosion leading to breakage of mooring	Breakage and possible loss of mooring		L		Failure to complete sufficiently regular inspections of moorings.	NOCS		Complete sufficiently regular inspections of moorings.
10 (SO2)	Collision with surface ship	Loss of surface buoy but not of entire mooring		L		Natural hazard	NOCS		Complete sufficiently regular inspections of moorings, replace when damaged.
10 (SO2)	Prevention of recovery due to bad weather (note: cruises are scheduled for summer)	Delay in recovery and gap in data stream		L		Natural hazard	NOCS		No control mechanism feasible
10 (SO2)	Failure of acoustic release	Difficulty in recovery of mooring		L		Faulty/poonly maintained equipment	NOCS		Monitor equipment for damage.
10 (SO4)	Seaglider loss	Loss of temporal data and interruption of our ability to monitor seasonal variations in the section.		M		Collision with shipping, entanglement with nets	NOCS/S AMS		With new technology, teething troubles must be expected; any loss should not be considered failure but a spur to improvement.
10 (SO4)	ADCP mooring loss	Temporary loss of monitoring of the WTR overflow.		L		Damage due to trawling activities.	NOCS/S AMS		A replacement mooring would be required, initially from the NMF pool.

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10 (SO5)	Impact to continuity of programme	Reduction of UK participation in Argo below that of comparable nations; loss of international influence.		H		The split funding responsibilities for UK Argo (between Defra, MoD and NERC).	NOCS		A properly funded UK national Argo programme is needed, to integrate (governmental) float procurement and (NERC-supported) research and data-related activities.
10 (SO6)	Cruise cancellation or re-schedule due to ship operation requirements.	A single missed year would not be a disaster. Multiple missed years would be more damaging.		L		The RRS <i>James Clark Ross</i> schedule has little or no contingency for weather or other delays.	NOCS/POL		No special contingency planning is required. (BAS has made every effort to include our cruise. We have only missed two years since we started the series in 1993).
10 (SO7)	Damage to tide gauges at remote sites	Loss of data continuity.		M			POL		Planned maintenance and equipment redundancy should reduce this risk.
10 (SO9)	Fragmented staff effort	Potential for high pressure on staff working on a range of projects.		H		SO 9 staff have historically had a high commissioned research load.	NOCS		Coordinate SO 9 activities with other funding streams (NCEO, JGS, commissioned research). Work with data group at NOCS to develop a core group of staff involved in the development, delivery and assessment of climate datasets. Hold regular meetings.
10 (SO10)	Boats not available for fieldwork	L4/E1 not sampled.		H		Engine problems, damage	PML, MBA		Two vessels available: <i>PML Quest</i> is primary vessel, <i>MBA Sepia</i> is backup.
10 (SO10)	Late delivery of data buoys	No data from the buoys.		M			PML, MBA		No action possible.
10 (SO11)	Field work conflicts	Overcommitment of staff to fieldwork projects will cause delay to delivery of programme objectives.		H		Failure to plan fieldwork programmes effectively.	POL		Be flexible, although maintaining long term measurements imposes restrictions.
10 (SO11)	Failure to synthesise measurements and models	Impact to delivery of programme objectives		L			POL		Keep under review.
10 (SO12)	Mooring loss/damage due to trawling activities	Data loss until replaced.		M		Damage due to trawling activities	SAMS		Risk minimised by daily checks (by ferry company) and site marked on local shipping charts
10 (SO13)	Mooring hardware failure	No data collection for rest of season.		M			SAMS		With Argos alert and local support in Spitsbergen, good chance of hardware recovery.
10 (SO13)	Cancellation of turn-around cruise	Minimal data collection in year 2.		L			SAMS		Good access to ships in the area means that alternative cruise time should be available.

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10 (SO14)	Loss of key personnel/expertise residing in single employees.	Risk of substantial loss of capability.		H		Specific risk: most vulnerable support areas are instrument software design and annual seal surveys; vulnerable science areas include population dynamics, behaviour and acoustics.	SMRU		Progress made in moving away from relying on single individuals to service key support processes by recruitment of new support staff and promotion of others.
10 (SO14)	Loss of critical mass in terms of key skills.	SMRU may not be able to provide the level of advice currently required by NERC customers.		M		Cause: integrated nature of SMRU science. SMRU already below critical mass in terms of technical support.	SMRU		Re: technical support, continuing efforts are being made to find funding for this requirement.
10 (SO14)	Maritime Coastguard Agency does not renew the license for SMRU boat operations	All SMRU boat operations shut down, loss of critical science capability and non-fulfilment of research contracts.		L			SMRU		A new boat is being purchased, with specifications discussed with MCA.
10 (SO15)	Loss of key taxonomic staff	Threat to quality assurance of samples.		H		Specific risk: Retirement of three taxonomic specialists.	SAHFOS		Initiate immediate succession planning, training and transition of skills to newly recruited analysts.
BODC	Failure of Oceans 2025 centres to address the issue of data management and delivery of calibrated data with metadata	NERC and centres will not meet legal obligations to make available publicly funded environmental information.		M		Specific risk: partners will not be easily able to find/exchange data, multiple and different versions of datasets will exist; as a result, science will suffer.	BODC		BODC to monitor data collection and submissions and implement measures to ensure data submission.
BODC	Data management funding for SOFI and FAB-supported research is not made available	NERC and centres will not meet legal obligations to make available publicly funded environmental information.		M		Specific risk: partners will not be easily able to find/exchange data, multiple and different versions of datasets will exist; as a result, science will suffer.	BODC		BODC to monitor data collection and submissions and implement measures to ensure data submission.
BODC	Funding unavailable to develop and maintain the infrastructure needed to implement and sustain seamless access to distributed data (e.g. NERC Datagrid techniques).	Users will not get ready access to data and discovery will continue to be difficult and disjointed.		M		Financial management issues	BODC		Proposals being developed to secure funding.

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BODC	The effects of significant changes in science direction and subsequent data collection are not planned for.	The potential loss of data and failure to meet legal obligations.		L			BODC		Continual consideration of science activities and dissemination of information.
PSMSL	Failure of authorities to deliver data	Reduced capability to analyse sea level change and provide input to future IPCC reports.		M			PSMSL		Partly offset by maintaining contact with data suppliers.
CCAP	Delays in CCAP-internal sequence database			H			CCAP		Reviewed prioritization of work schedule of two key staff members
CCAP	Slipping timelines due to loss/replacement of 1/3 of total staff	Delay to delivery of programme objectives		M		Staff turnover	CCAP		Reviewed prioritization of work schedule of all CCAP staff members

KEY

Theme #	Research theme	Latest movement	Owners
1	Climate, ocean circulation and sea level	→← no change	Ed Hill/NOCS
2	Marine biogeochemical cycles	↑ increase	Andrew Willmott/POL
3	Shelf and coastal processes	↓ decrease	Colin Brownlee/MBA
4	Biodiversity and ecosystem functioning		Ian Boyd/SMRU
5	Continental margins and the deep ocean		Peter Claridge/PML
6	Sustainable marine resources		Ken Jones/SAMS
8	Technology development		Peter Burkhill/SAHFOS
9	Next generation ocean prediction		Phil Williamson
10	Integration of sustained observations in the marine environment		Jacky Wood