

Torres Strait - UKC Risk Consultation Workshop

Consolidated List of Risks and Mitigations					
	Risk	L	C	Rank	Mitigation
Operational Conditions					
Mariner Proficiency	Obtaining correct data to calculate DUJK	M	H	1	Double check against "Standard" vessels and database of traffic
Mariner Proficiency	Unable to calculate DUJK	H	L	2	Pilots passage plan followed
Passage Planning and Pilotage	Not following passage plan	L	H	3	Realistic plan for each ship
	Passing vessels, interaction	L	H	4	Pilotage expertise, positioning systems, radar
				5	Monitoring (Real Time)
				6	System of consolidation eg Reef/VTS or other for Torres St
				7	Training for pilots in DUJK/ new licence
				8	Enavigation
Pilotage	Too high traffic speeds	L	H	9	License - training
Traffic Issues	Tidal windows restricted for deep draft VLS	H	L	10	More accurate prediction of passage speeds/locations and overall monitoring
Vessel Equipment	Loss of engines or steering	L	H	11	Check all OK before commencing transit, slow up and stop
Mariner Proficiency	Back up for pilot on bridge BRM	L	L	12	Masters, officer, pilot interchange
Mariner Proficiency	Accurate reading of draft	L	L	13	Nil
Pilotage	All checks not followed through	L	L	14	View ships arrival checklist
Traffic Issues	Loading to a greater draft than can get through	L	M	15	Waits or uses alternate route
Vessel Equipment	Loss of navigation equipment	L	L	16	Pilot expertise, use of own monitoring equipment
Vessel Equipment	Inaccurate navigation equipment	M	L	17	Pilot expertise, use of own monitoring equipment
UKC Conditions					
UKC Predictions	Chart soundings	M	H	18	Resurvey of relevant areas
Real Time System	Tide gauge failure/inaccuracy	M	H	19	Regular servicing and monitoring
UKC Predictions	Availability of Tidal data	L	H	20	Early acquisition
UKC Predictions	Accuracy of current information	M	M	21	Long term data monitoring and recording
Real Time System	Accuracy of	M	M	22	Regular calibration
Real Time System	Inaccurate draft reading	L	H	23	Input vessel hydrostatics, remote draft reading on ship
Real Time System	Inaccuracies in squat prediction	L	H	24	Allow safety factor in UKC calculation
UKC Predictions	Tidal predictions - Accuracy of data	L	L	25	Ensure official information used
UKC Predictions	Current predictions	L	M	26	Establishment of RETWACS
UKC Predictions	Quality of Current data	L	M	27	Establishment of RETWACS
UKC Predictions	Availability of Current data	L	M	28	Positioning of current reading equipment
Real Time System	Loss of wave data	L	M	29	Redundancy in equipment
Real Time System	Loss of current data	L	M	30	Redundancy in equipment
Real Time System	Failure of PPU's	M	L	31	Backup from ashore
Infrastructure Requirements	Failure to provide required equipment	L	L	32	Fundamental to UKC system
Provisions for UKC Monitoring	Loss of Reefcentre monitoring	L	L	33	Equipment maintenance, secondary VTS backup ie Cairns
Provisions for UKC Monitoring	Loss of shore monitoring	L	M	34	PPU to have real time information collection capability
Navigational Conditions					
Effect of Climate on UKC	Incidence of unpredictable weather	M	H	35	Improved monitoring and forecasting
Effect of Tides/Currents on UKC	Poor current and tidal stream predictions	H	M	36	Collect more information to improve modelling for UKC system
Effect of Weather on UKC	- long term predictions	M	H	37	Improved monitoring and forecasting
Effect of Weather on UKC	- short term predictions	M	H	38	Accurate forecasting, satellite imagery
Effect of Weather on UKC	Effects of weather on ship movement (sea and swell)	M	H	39	Monitor ocean forecasts consider pitch and roll impacts in the modelling. Include allowances with UKC calculation
Aids to Navigation	Insufficient Aids to Navigation	L	L	40	No significant improvements required
Communications	Climatic/weather effects on communications	L	L	41	Make several alternative means of communication available. Consider alternative Tx/Rx locations.
Waterways Conditions					
Dimensions	Depth - Survey tolerance/currency/unknown	L	H	42	Resurvey. Position sufficient information collection devices. Create historical records.
	Narrowness of shipping channel	L	H	43	Compulsory pilotage/Traffic density/Reef VTS/Well known no variables
Topography	Fluctuations in depth due to sand waves	L	M	44	Further examination of sand/wave areas to establish sand/wave movement pattern
Bottom Type	Granite	L	M	45	Fixed - well defined location
Alternative Routes	No alternate routes	L	M	46	Not considered an option
Water Quality	Density	L	L	47	Naturally a very small change in density
Grounding					
Immediate Consequences					
Media	Misreporting/Exaggerated reporting	H	H	48	Prompt release of factual information
Commercial	Loss of use of vessel	M	H	49	ETV Availability
Emergency Response	Lack of/limited resources	M	H	50	Adequate emergency response plan
Political	Imposition of ship traffic restrictions	M	H	51	Enhanced monitoring through VTS
Political	Criticism of government agencies/government	H	M	52	Effective PR demonstrated strong safety regime
Pollution	Spill - environmental damage	L	H	53	Effective pollution response plan
Media	Lack of confidence in response/regulatory	M	M	54	Build relationship of trust
Emergency Response	Delay in refloating vessel	L	H	55	Provide sentinel vessels. Seek resources from farther afield
Personal Injury	Casualties	L	L	56	Medical response plan
Commercial	Impeding the waterway	L	M	57	Vessel traffic management SRS. Pilot experience and expertise
Long Term Consequences					
Regulatory	Investigations/enquiries	H	H	58	Risk communication strategy. Regular review of framework, incl risk assessment
Environment Impact	Pollution	M	H	59	National cleanup plan
Economic	Adverse impact on fishing/aquatic	M	H	60	Response plan and infrastructure
Social	Impact on indigenous communities from pollution	H	M	61	Better understanding of community needs
Social	Impact on C'wealth/State relations	H	L	62	MOU's, consultative arrangements
Social	Long term adverse publicity and damage to reputation	M	M	63	PR plan, public consultation
Regulatory	Regulatory review - DOTARS/AMSA	H	L	64	Stakeholder consultation
Regulatory	Regulatory control response arrangements	H	L	65	Ensure all emergency response plans are robust
Environment Impact	Physical damage to ecosystem	M	M	66	Cleanup and restoration plan
Environment Impact	Cargo related damage	L	H	67	Containment plan
Environment Impact	Potential wreck dumping	L	L	68	Competent salvage response
Economic	Adverse impact on tourism industry	L	M	69	Unlikely
Economic	Costs of response, compensation	M	L	70	Financial contingency plan
Economic	Disruption to regular shipping services	L	L	71	Unlikely
Legal	Potential prosecution for pollution if any resources impact	M	L	72	Regulatory framework in place, needs to be robust.
Legal	Insurance or IOPC fund compensation for pollution	L	M	73	Regular review of insurance/compensation arrangements
Legal	Recovery of cleanup costs. Legal resources for	L	L	74	Establish contingency fund
Legal	Potential for claims for negligence	M	L	75	