

WORKSHOP OUTPUTS

WORKSHOP 1: CONTINGENCY PLANNING

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Is REEFPLAN adequate and how can it be improved?

- . REEFPLAN is a good overview document, but to be accurate, it is not a contingency plan; it does not have the level of detailed information required on procedures, contacts, telephone numbers and check lists that will guide someone through a spill.
- . Therefore, need to develop real contingency plans for the GBR Region. AMSA should devise a national standard/template (in consultation with States and industry) that can be used by the States and NT throughout Australia.
- . Ring binder format best to facilitate updates.
- . There should be one for each Queensland Department of Transport region and they should be integrated with the National Plan.
- . For the GBR, this should be done as part of the Queensland coastal planning process, which is now beginning.
- . Need to improve contingency plans for chemicals etc - incorporate results of National Review when finished.
- . Agreed REEFPLAN document be retained for updating as an educational publication rather than a contingency plan.

Dispersants

- . Prime method for preventing oil from affecting sensitive sites.
- . Improvements can be made.
- . Stockpiles now old with 1st generation BP-AB dispersants. These are toxic and cannot be applied from aircraft. Upgrades now underway.
- . Need to create a register of suitable spray aircraft and develop a standard contract (this underway AMSA/AMOSC).
- . Need to designate use/no-use zones; the GBRMPA has begun but a huge task given the size of the GBR.
- . Little knowledge about the effects on ecosystem of dispersants. Current use is limited by a cautious approach. Need research and funds.

New response technologies: bio-remediation

- . Was very successful in Alaska and potential in the GBR could be high because of higher temperatures.
- . As little is known about use in tropical waters, potential use is limited until more information is available.
- . Workshop was held recently to assess the potential and a research program has been designed and funds are being sought from industry and government.
- . Scientific Support Co-ordinators are considering.

Research and development for new technologies

- . A national R&D program should be established to investigate possibilities including *in-situ* burning.

Coastal resource atlas

- . A valuable planning and response tool.
- . An important part of any response capability and one now exists for the whole of GBRMP. Need to ensure continued updating and review to ensure integration with a national system.
- . Compatible for GIS technology.

Booms

- . Lack of expertise identified in some ports in how to deploy so need to improve training in use. GBRMPA to provide advice of these locations.

Oiled wildlife

- . Need to develop proper plans: existing plans not adequate.

Occupational Health and Safety

- . Existing plans do not include information about the effects of oil and dispersants on people and how they should be handled. Should be included.

Post spill damage assessment

- . Important for compensation and recovery of costs.
- . Need procedures.

Reception facilities

- . Maybe a problem but need to determine current situation.
- . State authorities should give consideration to providing adequate facilities where needed.
- . Ships need to be informed about facilities if they are to be encouraged to use them.

Military involvement

- . Huge resource that could be used. Should be greater involvement in practice and response and should be a member of the State Committee.

WORKSHOP 2: SHIP OPERATIONS

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DOTC
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Inner vs outer route

- Ships should not be told which one to use - it is their decision - but they should have information about
 - navigation routes;
 - safe passage planning;
 - reliable hydrographic information;
 - available searoom;
 - density of traffic;
 - tidal streams and sea state;
 - adequacy of navigational aids.
- Marine Notice 4/93 which addresses recommended passages in the GBR is relevant.
- Should build on existing recognised methods to promote safe passage advice eg follow International Chamber of Shipping approach following the *Braer* incident which gave explicit and relevant advice to avoid similar events occurring.

Operation of small vessels;

- Small vessels do interfere with large deep craft in channels and many do not understand the draft and manoeuvring limitations of larger craft.
- There is non observance of Collision Regs; and these need to be enforced.
 - Conflict of lighting requirements between national and international collision regulations; need to be fixed.
 - The distance between steaming lights on large vessels can confuse small craft. Could provide illumination along ship sides and deck area on very large ships.
 - See Marine Notice 9/91 Navigation and Working lights on fishing vessel.
 - Should consider introduction of a coastal navigation VHF working channel to allow ships restrained in their manoeuvrability to alert small craft.
 - GBRMPA's Deckhand video could be useful tool to educate small craft.

Onboard oil spill containment equipment

- Requirements now exist under MARPOL for ships to respond to onboard spills.
- Extension of these requirements would not be practicable, because:
 - crew numbers are small and time is directed to ship operation
 - need multilateral agreement on type and standards of equipment
 - deployment problem with limited crew
 - maintenance problem with limited crew
 - crew training required
 - priorities will have to be determined about what the crew does after an accident
 - design limitation with current technology

Crew performance (human element)

- Impossible to generalise but scope exists to build on existing and projected standards.
- STCW under review and Australia should use this avenue to ensure adequate proficiency of crews on ships.
- The International Safety Management Code is addressing communication onboard between officers, port authorities, pilots and has agreed that knowledge of the English language by senior officers is important and there should be a common language between officers and crews to facilitate effective communication.
- The ICS guide is to be adopted as the standard for safe navigation of all vessels in the GBR region and Australian territorial waters.

- . A good idea would be to distribute a video to ships as they enter the Marine Park (perhaps pilots could distribute) to assist in informing and educating crews about the Marine Park and procedures (like the GBRMPA "Deckhand" video which is distributed to commercial fishermen.)
- . Should not forget that crew performance also gets ships out of problems.
- . Public statements about shipping safety should only follow after proper consideration and consultation between interested government and industry parties.

WORKSHOP 3: NAVIGATION SYSTEMS

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Accuracy of charts

- . Safe operation of ships requires accurate and up-to-date information, and charts are the prime information source.
- . Existing charts already indicate where large commercial vessels (Class 1) should navigate but they need to also identify where smaller vessels can go.
- . Therefore, need to identify, classify and rank areas within the Reef suitable for navigation including areas outside the existing routes or channels; the Hydrographer can then develop a survey program that addresses the priority information requirements for these areas.

ECDIS: should it be implemented and if so how and when?

- . This is a technology that deserves detailed consideration.
- . There is considerable work internationally and standards are being developed and the reality is that at some time in the future all ships will have ECDIS and there will be no paper charts.
- . Most effort should be directed towards ECDIS for Category 1 vessels.
- . Data are the most important component of an ECDIS system: not the hardware.
- . Standards for data acquisition, equipment and transmission are important which Australia should seek to work towards. The GBR could be the focal point for Australian activity in the development of ECDIS.
- . Data must be created to a standard acceptable to an international ECDIS.
- . Data control necessary to ensure quality and updating in a controlled manner.
- . Need to ensure all operators use the same data.
- . Do not need to limit hardware so much if data are controlled.
- . Introduction of technology will take time and will depend on acceptability to operators; a national plan for the introduction of ECDIS may be justified.

DGPS: should it be implemented and if so how and when?

- . Should be implemented to the plan advised by AMSA.
- . Need to study the results of the test of the system in Victoria and could consider the establishment of a GBR pilot project for DGPS and ECDIS.
- . Need to adjust paper charts to WGS 84 datum.

Vessel reporting systems

- . Insufficient traffic in the GBR to justify.
- . A compulsory reporting system in the Prince of Wales channel could be justified for safety and environmental reasons. Would apply to ships approaching, in and leaving the channel. However, possible legal problems are recognised.
- . A "flight plan" registration system might be justified in some areas, particularly for high speed craft that carry large numbers of passengers.

WORKSHOP 4 : SHIP DESIGN AND SURVEY

Mr Ken Williamson	ANMA	Facilitator
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Adequacy of present design requirements

- Structural failures due to corrosion can be minimised if tanks are coated with paint or plastics. Tank coatings in ballast tanks are now a requirement in new ships. Quality can be variable and depends on weather conditions and supervision at time of application.
- Ships **can** be designed to meet the specific needs of the GBR, thereby reducing the risk of accident. Limited effectiveness because: special designs focus on a specific type of trade and shipping passing through the GBR represent many different trades. The trend is towards chartering vessels and these types of vessels are of generic design.
- Australia could ensure that new ships are built to proper design safety standards by having its surveyors inspect the ships during construction.
- AMSA can assist by facilitating overseas inspections by its surveyors at request of owners to assure certified compliance with safety requirement is factual.

Self-regulation and quality assurance

- Not seen as substitute for regular survey.
- Could be applied to Australian flag ships which have a good safety record but needs to be proven effective internationally because most ships transiting GBR are under foreign flags.
- Commitment to safety standards declines with frequent crew changes. Also, increased use of ship management companies and crewing agencies can lead to a decline in standards.
- Audit of standards could be possible if records are kept and are adequate.
- Satisfactory survey/safety standards to be verifiable in future by requirement for survey file to be carried onboard tankers (MARPOL) and bulk carriers (SOLAS).
- Noted that lists of tankers that have undergone satisfactory docking inspections (white lists), and lists of tankers that are unsatisfactory (black lists) are maintained by many chartering companies. US anti-trust laws prevents the consolidation and making public of this information, however, publication of the white lists may be acceptable.

Problems with under-powered ships exist.

- Engine control systems in new ships limit available power which can be used in manoeuvring situations. Applies more to berthing situations rather than changing course when under way. There are no international requirements that describe "adequate power".

Blackouts (loss of steering power)

- Existing rules address to a degree. Response time for resumption of power to steering gear is important. Noted that safety could be enhanced if the engine room was manned in manoeuvring situations.

Navigation systems

- Existing regulations are not adequate to deal with rapid pace of technological developments. Many new developments coming on to the market and are a problem for ship owners who choose what is best and ensure crews are properly trained.

Bridge layouts

- Could be standardised but would require considerable international research and co-operation.

Are survey standards adequate?

- . Port State Control is effective in controlling substandard ships coming into Australia including GBR; targeting is useful in catching the likely worst cases.
- . PSC may not be enforced by some countries or class societies; but there is progress.
 - supports a Asia-Pacific PSC regime which is now under development
 - noted the improvements expected to be achieved through IMO flag state implementation sub-committee

Possible mandatory early use of double hulls

- . Costs and benefits need careful analysis.
- . Practicability and effectiveness of double hulls is questionable;
 - may in fact increase likelihood of grounding;
 - likely to increase difficulty of salvage and thus delay containing pollution;
 - ineffective against high energy grounding/collision (eg full speed grounding or collision in the GBR);
 - involves increased risks;
 - possible explosive gas pockets
 - access/inspection/maintenance
- . Policing difficult except maybe through chartering and inspections and will not be able to deal with tankers proceeding through GBR to destinations outside of Australia.
- . Could encourage diversion of traffic to routes outside GBR which may be more hazardous to shipping.

Development and operation of very fast, small passenger ferry vessels and risks of accidents

- . A real problem exists with traffic management and there is increased demand for use of these craft by tourism industry.
- . Satisfactory operation is dependent on enforcement of safety management requirements, particularly the new high-speed craft code which is to be finalised in 1994, by owners and the relevant regulatory authorities (mostly under state jurisdiction).
- . Collisions Regulations apply to close quarters situations with these craft.
- . Noted that a system could be established for reporting navigational incidents involving high-speed vessels.

Questions

How do double hulls increase chance of grounding?

Answer

They are bigger ships with a deeper draft and therefore less sea room.

Question

Do we need another investigation into effectiveness of double hulls when reviews by the Canadians, Americans and IMO conclude that double-hulls do decrease the chance of losing oil in a spill?

Answer

It is generally agreed that they will decrease pollution from tankers but there is a downside. AMSA accepts the international adoption of double hull requirements and realises that the uni-lateral action taken by the United States is not likely to be overcome easily, if at all and that, effectively, double hulls are here whether we like it or not. It should be pointed out that the United States approach is being driven by the Congress rather than the technical people and the technical people are having to come along afterwards and mop up and try and justify the stance being put forward by the congress. IMO has been attempting to put together a rational basis on which the double hull requirements are implemented.

WORKSHOP 5: POLICY, LAW AND ADMINISTRATION

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Trends in accidents, shipping and tanker activity

- . Level of accidents appears static, but may not reflect actual pollution trends.
- . Average size of vessels increasing.
- . More shipping using outer route.
- . Expect increase in maritime traffic to service growing local communities and transit traffic (Kutubu Terminal, Timor Sea/NW Shelf fields).
- . "Quantum leaps" in traffic will occur as new facilities are opened or expanded (eg Hay Point).
- . However, need better information to confirm trends, from sources including:
 - records from Port Authorities
 - records of vessels intransit
 - from Pilots and other sources?
- . Seems to be a view that the standards of crews (competence) may be less than in past, but this needs confirmation.
- . Possible Australian initiative on improving crew standards in IMO. Perhaps can be advanced through the flagging convention to help deal with Flag of Convenience issues.

Banning tankers

- . Banning not yet realistic option so support for the proposal not warranted.
- . Queensland coastal communities need maritime trade and transport.
- . We do not have jurisdiction to do so.
- . Lead to competitive disadvantage for Australian vessels.
- . May divert tankers to Sydney/Melbourne via WA/SA.

Surveillance and enforcement

- . Currently not adequate aerial surveillance in Far Northern Section of the Reef but resource limitations recognise - could examine possibility of more flights.
- . Problems with enforcement do exist where surveillance reveals infringements. Introduction of an EEZ will help.

International standards

- . We should and must conform to international standards.
- . We need to participate in elaboration of these standards to influence the outcome.
- . Development and implementation of standards will be assisted by better communication and co-ordination between agencies and industry; perhaps a newsletter from GBRMPA will help.

Liability/incentives

- . Recognised that these can influence behaviour.
- . Australia should ratify asap International Oil Pollution Compensation Fund Convention Protocol and Civil Liabilities Convention Protocol.
- . Significant criminal penalties already exist, but need to ensure that courts impose adequate fines to deter.
- . Maximum penalties appear adequate but minimum penalties could be introduced
- . Question of liability could exist and should be investigated for:
 - Pilots
 - Hydrographers (accuracy of maps)
 - GBRMPA (for Reg Systems)

Possibility of Torres Strait compulsory pilotage

- . Should be pursued but a high degree of compulsory pilotage has now been achieved through port state jurisdiction (the port of Kutubu now requires a pilot for entry and exit) and compulsory pilotage in the GBR. Most vessels now caught but some target vessels could still avoid by using outer route.
- . Would need to recognise existence of the Torres Strait Treaty so need co-operation between PNG/Australia. Also need IMO approval and there will be international resistance.
- . Very strong Australian community support.

Development of a tighter regulatory scheme

- . Traffic separation scheme should be investigated and introduced if and where feasible. However, need pressure to declare Australia EEZ and give better regulation/enforcement ability.
- . Maybe we should seek an IMO recommendation for an outer route (an area which has significant hazards). This should recommend where vessels should go; perhaps to avoid going too close to the outer reefs. Data shortage a problem; not as good as for inner route. However, should be able to frame a recommendation that will make passage of vessels safer without creating a liability problem for ourselves.
- . Should participate actively in IMO deliberations on mandatory ship reporting systems, which will catch vessels that can avoid the compulsory pilotage requirement.

Reporting and information systems

- . Believe that pilots could provide more information (to AMSA) and Queensland Government could provide more information from ports.
- . Possibility exists for more frequent and comprehensive reporting under AUSREP in Torres Strait and GBR and from other sources (eg pilots). However, recognised that AUSREP only a voluntary scheme.

ECDIS and DGPS

- . Strong view that should accelerate introduction of this new navigational technology and this will need agency cooperation.
- . Not only for improved navigation, but also for position monitoring.
- . IMO will take time to introduce ECDIS standards but Australia could implement evolving North American and European standards.
- . Database creation is expensive.
- . GBR inner route data good but gaps in Great North East Channel and Whitsunday's.
- . Government needs to ensure standardised and authorised ECDIS database (ie. resolve hardware/software issues).

Communication and co-ordination

- . Proper coordination and communication between agencies important.
- . Already good cooperation and communication between key agencies (eg GBRMPA and AMSA).
- . Could be expanded and integrated and include with states and industry.

Information to ships

- . Information should be provided to ships, agents and owners about facilities etc.
- . Need innovative approach: eg videos and computers and in various languages.
- . Perhaps directly to masters from pilots upon entry into inner route.

Port waste reception facilities

- . In general, not adequate.
- . Need to remove disincentives for use on eastern seaboard - examine cost structures.
- . Need more facilities and adequate cost recovery important.

- . Information needs to be provided to vessels about waste facilities when they enter the GBR.

Who pays for increased protection?

For ECDIS etc

- . All industry and government sectors will have a role depending on the specific measures and who benefits, including:
 - users (Navigation System)
 - governments (Monitoring)
- . Need to push the point that the GBR is a *res communis* (ie public good) and that it may not be getting sufficient government attention compared with the terrestrial environment.
- . Benefits of ECDIS etc will flow to others, including the tourism industry.