

1. ETV OVERVIEW

Introduction

This paper addresses the MCA operational requirement that gives a fully informed maritime picture at any given point in time, having taken due account of shipping movements, identification of potential problems and maintaining a clear and up to date record of tug availability through proactive input with the brokers.

Origins

The need for standby Emergency Towing Vessels was first suggested by Lord Donaldson in 1994, in response to the grounding of the Braer off the Shetland (1993).

Recommendation 85 called on the Government to set up a system to ensure tugs with adequate salvage capacity are available at key points around UK shores *“There should be interim arrangements during the winter months until the new is fully operational : the UK Government should be prepared to bear the full cost of such interim arrangements”*

The MCA decided that the interim solution should provide dedicated large ocean going tugs to be on stand-by to assist maritime casualties and disabled vessels at the positions around the coast of the UK that present the greatest risk of oil tankers going aground or being driven onto a lee shore. The initial arrangement was for the charter of two vessels to cover the Dover Strait and The Western Isles during the winter of 1994-1995.

In 1995 a study team led by Captain CPR Belton RN articulated the ETV Principle.

This principle is simply that once a ship has broken down and is drifting towards the shore, tugs in the generic sense, represent the first and only line of defence. Harbour and coastal tugs cannot always be relied upon to provide the level of assistance required and this premise is supported by the experience of other countries that have not placed their trust solely in such vessels (see “2. ETV History 1994 to 2001”).

On Captain Belton’s recommendation a decision was taken to provide publicly funded ETV coverage at four locations around the coast of the UK as follows:

- Dover Strait (Year round)
- South west approaches (Year round),
- The Western Isles :The Minches (Year round)
- The Shetland Islands : Fair Isle (Winter only)

The case for ETVs was further reinforced by two reports following investigation by the Marine Accident Investigation Branch:

- Report 5/99 concerned the grounding of the GREEN LILY off the Shetland Islands on 19th November 1997;
- Report 1/6/109 concerned the grounding of BALTIC CHAMP off Kirkwall on 4th February 1999.

Both reports recommended that the MCA should provide year round cover at each of the four UK stations.

In autumn 1999 the MCA convened an ETV review team to consider the need for ETVs around the UK coast over the succeeding 5-10 years. The group studied the relevant reports and recommendations, took account of the practical experience gained since the deployment of ETVs, a report on pollution statistics from around the UK, Lord Donaldson's recommendation concerning the establishment of Marine Environmental High Risk Areas (MEHRAs) in areas of high sensitivity which were also at risk from shipping and relevant Marine Accident Investigation Branch reports.

The year round provision of four ETVs was formalised in a contract with a commercial towage and offshore operator, Klyne Tugs in 2001. The resulting 10 year contract provided for large seagoing tugs to remain on permanent standby at the four locations.

In 2008 a review of requirements for emergency towing vessels by Marico Marine concluded that the current deployment of four ETVs strategically located throughout the UK Pollution Control Zone (UKPCZ) was still appropriate to the shipping market, though some repositioning of stand-by location may be warranted.

Anticipated Trends

It was recognised that future shipping and port development trends, though inevitably subject to much uncertainty, could exert a need to change this deployment and that this would be a matter for additional investigation as part of any policy review that may be undertaken prior to the renegotiation of the current ETV contract (see 3. ETV Tows 2005 to 2010).

Likewise, the intentions of other relevant national governments with respect to their own ETV capability, notably France but also the Netherlands, Germany, Denmark, Norway and Ireland, would need to be taken into account in order to view this form of emergency response capability in a holistic manner, both within the UKPCZ and beyond.

There are four key documents relating to ETV provision, 3 of which are accessible by hypertext link from this web site.

- Lord Donaldson's Report (1994) Not available in electronic format (ISBN 0-10-125602-7)
- Captain Belton's Report (1995)
- Internal MCA Review (2001)
- Marico Marine Report (2008)

Current Legal Mandate

The UK is a signatory to a number of international conventions that place duties on contracting parties to protect the marine environment. The four principal conventions are:

- i. The United Nations Convention on the Law of the Sea (UNCLOS)¹,

¹ Specifically Part XII

- ii. International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC)²,
- iii. International Convention Relating To Intervention On The High Seas In Cases of Oil Pollution Casualties (The Intervention Convention)³,
- iv. The Convention On The Prevention Of Marine Pollution By Dumping Of Wastes And Other Matter (the London Dumping Convention)⁴.

The Secretary of State for Transport takes the powers needed to discharge these duties from the Merchant Shipping Act 1995, and the Merchant Shipping and Maritime Security Act 1997.

Standing arrangements to discharge these functions are contained within the Department for Transport's National Contingency Plan which sets out the protocol for the deployment and use of emergency towing vessels.

In summary, the Secretary of State has the function of taking, or co-ordinating, measures to prevent, reduce and minimise the effects of marine pollution but this does not extend to any statutory provision of emergency towing.

Emergency Towing Procedure

Once a ship has irreparably broken down and is drifting towards the shore, a tug represents the first and only line of defence. It may not always succeed in rescuing a stricken vessel because it may not reach the scene in time. Harbour or coastal tugs may not always be sufficient to recover or stabilise a situation, particularly in the types of heavy seas and weather that will often accompany a breakdown.

An emergency towing operation may be required to:

- o Intercept ships that are disabled as a result of mechanical failure and to bring them under control thereby preventing them from being driven ashore by wind or current.
- o Assist vessels that are at risk of causing pollution following collision or grounding.
- o Where appropriate to tow a casualty to a place of refuge from the weather.

The intervention invariably needs to take place at short notice and a capable tug is operating within a narrow window of opportunity.

Current Maritime Risk

The maritime risk picture has changed in the last twenty years. On the whole shipping activities are more regulated, better managed and more closely monitored. The average age of the world fleet is lower, ships are more reliable and the subject of greater scrutiny wherever they go. Conversely, ships are on average much larger and their technical complexity makes them more prone to single point failure. These changes mean that there is less likelihood of a maritime casualty occurring in the first place. When they do occur they are more likely to have a greater

² Specifically Article 1

³ Specifically Article 1

⁴ Specifically Article 1

impact although there are now a number of measures in place to protect society from their worst effects.

Emergency towing vessels on their own do not provide any protection against the occurrence of a shipping casualty.. At best and as part of the overall maritime risk management system, they only provide partial assurance that the effects of an incident can be avoided or minimised (see – 4. Change Factors Maritime Risk).

Risk Mitigation

The often short reaction times required and the particular difficulties of towing operations in extremis means that sole reliance upon the market to provide a capable vessel within the available window of opportunity is insufficient to fully mitigate all risk.

As such the first line of defence lies in the monitoring and tracking of shipping around the coasts of the United Kingdom by all available means. These include passive and active sensors supported by maritime patrol aircraft which provides the capability to closely monitor a developing situation.

These tracking and monitoring operations identify ships that present a greater risk, by virtue of their age, construction, cargo, previous history, intended route or prevailing weather. A summation of these individual factors indicates the relative vulnerability of an individual ship, which can be tagged and closely monitored. Any deviation from the norm in the behaviour of such a ship could initiate a process of enquiry, and the early notification and identification of capable tugs in a position to assist.

Tracking operations may also detect ships which although not inherently risky suffer from some kind of machinery failure which then places the ship at the mercy of the prevailing wind. Again, by noting a deviation from the norm the intrusive surveillance of such a ship allows for early identification and alerting of assistance.

The early identification of suitable tugs can be assisted by cooperation with brokers and salvors. Tracking operations provide an independent source of intelligence from brokers or salvors as to the position and proximity of capable tugs.

For less challenging tows, the Coastguard Agreement for Salvage and Towage (CAST) agreement may be a suitable means of securing assistance (this includes other government service vessels such as lighthouse tenders, research ships and offshore patrol vessels). The Coastguard Agreement for Salvage and Towage is a standing agreement with the operators of tugs and other vessels capable of assisting MCA with towage, salvage or other work related to the saving of life or property or environmental protection. It enables the rapid deployment of suitable vessels, if available, under MCA's control and direction, with the terms and conditions of service pre-agreed.

Monitoring and intervention will be implemented through a proactive intelligent risk management matrix. To ensure the coastline remains protected, the MCA will be adopting a hardening of its monitoring procedures ensuring a detailed intelligence picture is maintained, increasing the window of opportunity to manage and mitigate risk. (see - 5. Salvage Industry Resource Availability)

Routine Monitoring/Intelligence

Vessel Traffic Monitoring (VTM) - Currently discharging legal duty to monitor vessel traffic in routing measures, separation and mandatory reporting schemes, developments monitoring, current developments will allow ability to access the SafeSeaNet Graphical Interface to observe the positions and tracks of vessels of interest.

Future aspirations to port data from SafeSeaNet into MCA SeaScope, to define vessel types, risk factors, and sea area polygons to yield a more intelligent and dynamic recognised maritime picture to underpin responsive rather than reactive vessel traffic management

Automatic Identification System (AIS) - Through the proposed future Coastguard structure, AIS will be constantly monitored and high risk vessels identified through the VTM procedures will ensure early indication of any erratic ship movement or ship systems failure.

Tug availability monitoring, weekly intelligence updates can ensure an accurate picture of tug availability and locations is maintained, this can be enhanced with the intelligence picture detailed above ensuring transiting tugs available on an opportunity basis are included in the schedule.

Proactive relationships with tug brokers will ensure an effective communication link is maintained minimising time to charter/deploy tow vessels of opportunity. Brokers will maintain not only maintain intelligence on UK based tugs but all assets available in the near continent.

CAST arrangements are reviewed on an annual basis ensuring contact and contract details remain as accurate as possible. This will be enhanced to encompassing new operators and OGD vessels such as the GLA.

Proactive Action

With notification of a vessel breakdown Coastguard procedures will undertake the following actions:

Immediate DEFREP (Defect Report), will be issued as soon as it becomes clear that a vessel has some form of mechanical problem, circulation of this Defrep⁵ alerts a number of parties to the early indication of an incident including Brokers and Lloyds Maritime Intelligence.

CPSO alerted and engages with casualty, scoping scale of problem and likely time to repair. Communication links established with owners and insurers, any incident with risk implications will result in the immediate release of a SOSREP Initial Caution⁶, alerting the Master/Operator to risk implications as seen by the MCA and potential requirements for a tow and the powers of intervention that SOSREP may impose.

Direct communication will be established with brokers at this early stage, reinforcing the Defrep output and alerting tug operators to the potential contract requirement maximising potential response time for intervention.

⁵ The timing of issuing of the DEFREP has been revised to be undertaken at the outset of a potential incident ensuring maximum information flow with the market

⁶ Initial cautions issued at earliest sign of concern with the casualty, this modifies previous action where the initial caution was not issued until a clear failing in the incident mitigation became evident

SOSREP where situations develop and a casualty owner is at odds with the perceived risk indicated by the UK government, SOSREP intervention powers will be invoked to ensure a vessels compliance with a the requirement for a tow. (see - 6. ETV Areas of Operation)

Enforcement

In the situation where a vessel has polluted it is important to ensure full and proper evidence is provided to support the prosecution argument. The provision of photographic evidence indicating, source, extent and position of the pollution will greatly assist in the prosecution, in summary the more effective the prosecution action, the greater deterrent to pollution, our high profile Aerial Surveillance programme will continue to provide a key deterrent.

Summary

The Risk intelligence picture that has been generated allows careful monitoring of shipping, where failures do occur the communications systems that have been put in place will ensure responses are timely and effective, making best use of the assets available, with the primary intent of avoiding/removing the risk of pollution. The most effective form of pollution control remains prevention, that provides the key driver which this response procedure is based. (see – 7. Risk Mitigation Summary)