

PAJ OIL SPILL SYMPOSIUM '96.

International and Regional Cooperation and Problems
associated with Movement of Resources.

by

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Introduction

I would like to begin this paper by citing a well known quote which is "Time and Tide Waits For No Man". As oil spill responders, we would certainly be ruled by the inevitability of time and tide moving on regardless whether we are ready to respond or otherwise. And if we are not able to manage them, how much less would we be able to deal with the situation when a third element comes into play, which is when oil spills cross over national boundaries. So for any would-be oil spill responders, I would say that for us, the quotation should really read "Time and Tide Waits For No Man, and Oil Spills Knows No Boundaries."

When oil is spilt on the water, it spreads. When it spreads, its characteristics changes over time and this is termed 'weathering'. During all of the time that it is weathering, it is also affected by wind and tide and will drift. This drifting of the oil slick if unchecked, will cross over waterways to neighbouring countries, and this action will require the co-operation of the affected countries to jointly manage the oil spill clean-up.

This paper will stress the importance of regional and international co-operation and the problems associated with the movement of resources to deal with the oil spill incident.

OPRC Convention 1990

When you talk about international and regional co-operation, you cannot help but talk about OPRC Convention 1990.

Why?

Because the OPRC Convention 1990 is probably the most significant step made on a global scale towards international and regional co-operation in pollution response. Two articles of that convention, 6 and 7, clearly lay out the framework for achieving such co-operation.

Article 6 of the OPRC Convention calls for the establishment of a national system for responding promptly and effectively to oil pollution incidents. It calls for:

- o the identification of a national authority which has the responsibility for preparing for a national response,
- o contact points for the receipt and transmission of oil pollution reports,
- o the identification of an authority which has the power to act on behalf of the state to mobilise and deploy resources,
- o the establishment of a national contingency plan.

In addition it seeks co-operation between industry and governments, and between governments in a particular region to establish:

- o a minimum level of pre-positioned oil spill equipment,
- o a programme of training and exercises,
- o detailed plans and communication capabilities for responding to an oil spill,
- o a mechanism to co-ordinate the response with the capabilities to mobilise resources.

It also seeks to ensure that each Party provides the International Maritime Organisation (IMO) with its national contingency plan, communication channels, and information concerning equipment and expertise relating to oil pollution response, which will be available to others upon request.

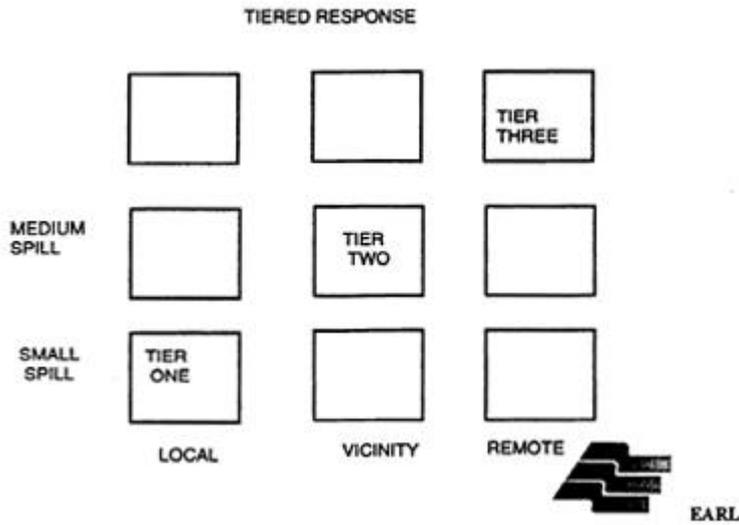
Article 7 calls for international co-operation in pollution response, which includes providing advisory services, technical support and equipment, as necessary, for the purpose of responding to an oil spill incident.

It calls for measures to be in place to facilitate the arrival and movement of men and equipment into, through, and out of each party's territory.

OPRC is unique in that it is probably the first time a convention demands co-operation between industry and government. Obviously, industry encourages ratification of the Convention.

Regional Plans.

Most, if not all of you, are familiar with the Tiered Response concept of contingency planning, where a Tier 1 Plan provides cover for small local spills within the confines of a terminal, where a Tier 2 Plan provides cover for oil spill incidents at a company facility which has limited control over events and the size of the spill is beyond the scope of their Tier 1 response capability, and where a Tier 3 Plan provides cover for oil spills of catastrophic proportions.



Expanding from the basic Tier 1 concept of having a small stockpile of oil spill response equipment for individual terminals, it seems logical and cost effective that companies would get together and pool their resources to cover Tier 2 spills.

Co-operation of this nature is best exemplified by citing two mutual aid groups existing today. They are i) the Gulf Area Oil Companies Mutual Aid Organisation (GAOCMAO), and ii) the Petroleum Industry of Malaysia Mutual Aid Group (PIMMAG). When activated, the member companies operating in the Gulf area (or Malaysian waters for PIMMAG members) will donate their own Tier 1 oil spill equipment in a co-ordinated response to a major incident.

GAOCMAO was formed as early as 1972 and was the first mutual aid organisation of its kind, and its effort was seen as a pioneering approach to collective response capability.

Malaysia was, and still is, equally active in its recognition of the need for regional and international co-operation and since the early 1970s made its own arrangements to meet the threat of large scale oil pollution, arrangements such as the Straits of Malacca Traffic Separation Scheme (TSS), the Straits of Malacca and Singapore Oil Spill Revolving Fund, and various contingency plans for the region.

The Straits of Malacca Traffic Separation Scheme was developed to ensure strict routing of deep drafted vessels using the straits with the aim of avoiding a collision. It was endorsed in 1977 by the International Maritime Organisation and adopted by the three littoral states of Indonesia, Malaysia, and Singapore.

The Straits of Malacca and Singapore Oil Spill Revolving Fund was signed as a Memorandum of Understanding in 1981 between the governments of Indonesia, Malaysia and Singapore with the Japanese Associations (non-governmental) to establish a revolving fund of 400 million yen for the three littoral states to use in combating oil spills.

The Lombok - Macassar Plan developed in mid 1980s between Indonesia, Philippines and Malaysia, and the Bay of Brunei Plan in 1994 between Brunei Darussalam and Malaysia, are regional plans developed for the purposes of fighting oil spills in those areas.

On a bigger scale, the ASEAN Oil Spill Response Action Plan (ASEAN-OSRAP) was put in place during 1993 amongst the six ASEAN countries, namely, Brunei Darussalam, Indonesia, Malaysia, Philippines, Thailand and Singapore, to co-operate regionally and enhance the ability of a member- country to respond to a spill which may be beyond that country's ability to cope with the situation alone. ASEAN is the acronym for the Association of South East Asian Nations.

In addition, the ASEAN Council on Petroleum (ASCOPE) which is made up of national oil companies of ASEAN countries, is considering a plan to provide equipment and manpower to member-countries to supplement the ASEAN-OSRAP Plan in a major spill. The Plan is known as the ASCOPE Plan for the Control and Mitigation of Marine Pollution (APCMMP).

Yet another regional plan to enhance the oil spill response capability in the ASEAN region is the Oil Spill Preparedness and Response (OSPAR) project, which was implemented in 1993 among the six ASEAN countries, Japan and IMO. The Plan had Japan financing 1 billion yen's worth of oil spill equipment at 11 stockpile bases spread among the ASEAN countries.

International Co-operation.

Although in geographical terms, the above described contingency plans may seem to be strictly regional plans, there were strong international involvement with IMO and Japan in the development of some of those plans, as can be seen in the Straits of Malacca and Singapore Traffic Separation Scheme, the Straits of Malacca and Singapore Revolving Fund, and the OSPAR project . Without such commitment and co-operation on an international level the plans may not be as what they are today.

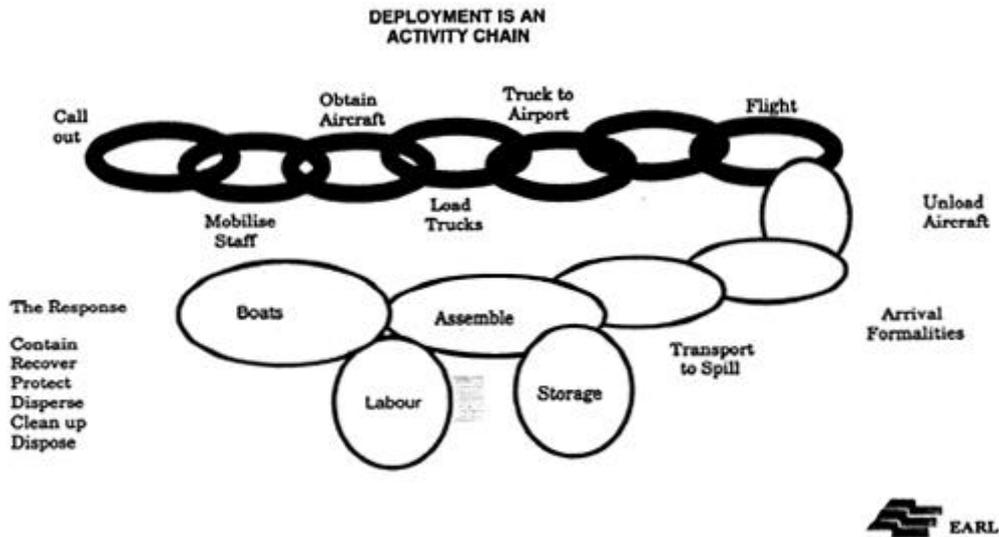
Movement of Resources.

As important as contingency plans and regional / international arrangements / agreements are, they would be totally ineffective if practical problems associated with the movement of men and equipment across national boundaries are not overcome.

The major difficulty in moving resources across national frontiers is twofold, namely, national integrity and bureaucracy. Most countries put a great value on their national integrity and subsequently enforce strict control over their frontiers. It is extremely difficult to bypass these controls even in the event of an emergency. In some cases nationalistic governments may even tighten controls over the import of emergency response resources if they feel that they must be seen to be controlling the emergency themselves.

Even if there are inter-government agreements to allow free movement of equipment across their mutual border, their border control authorities are so bureaucratic that the wishes of one government authority may not be carried out by another.

Let us look at the deployment activity chain pictured here. The diagram is one which we in EARL use to illustrate a point, but the problem is similar for any party which has to move men and equipment around quickly.



The chain represents the logistics activity required to ensure a problem free deployment from activation to operating in the field. Each of the links represents a critical activity and should one of those links fail then the chain fails.

One of the most critical links in the chain holds together the activities which are the responsibility of EARL and those responsibilities of the spiller. Let me explain.

If you look at the upper half of the diagram, at the chain link which lies horizontal and shaded darker than the rest, you will see all those activities which EARL can achieve and is responsible for upon activation ie. we have a full-time dedicated staff which we can mobilise, we have an aircraft (C130 Hercules transport plane) chartered and standing-by for our use all the year around, we have pre- arrangements made with a transport company for the supply of 40ft flat-bed trailers to truck the equipment to the airport and upon completion of loading, can be flown to an agreed destination nominated by the spiller.

However, once having arrived at the destination, we would look upon the spiller to fulfil their end of the responsibility as depicted in the chain link diagram and have already in place, arrangements to assist in the unloading of the aircraft, clearing of customs and arrival formalities, immigration, transporting of men and equipment to the spill site, a storage yard to assemble the equipment, boats and vessels as necessary and a labour force to handle all the required tasks.

Unless all of the above requirements are in place and successfully managed, the response will fail.

Problems Associated with Movement of Resources.

There are 3 ways by which the resources can be moved.

1.By Land.

Men and equipment can be trucked overland across national boundaries in this manner. Trucks and trailers are commonly available in many countries and often at short notice. Their cost is relatively cheaper than the other two options and they can be directed to go just about anywhere where there is good road access with minimal crane and forklift capabilities for unloading purposes.

However, this option is severely restricted as it can be used only in countries which are linked to each other by land, and if trucking is required over long distances, this option will take too long a time to respond effectively. Furthermore, it has the added disadvantage in that the more national boundaries the equipment has to cross, the more delays it may face in coming across different procedures applied by different border customs and immigration. Also, a customs bond for the equipment may be imposed each time at the different border checkpoint. The bond will vary from anything up to 100% of the value of the equipment, and as we know very well how expensive oil spill equipment can be, it will be necessary to pre-arrange a Bank Guarantee to meet the large amount of cash required for the bond.

2. By Sea.

As in the first option, one would consider this option only if the distance to cover is not too great, as otherwise it may take days and even weeks for the vessel to arrive at the nominated destination. Unlike trucking, it has the advantage to cross over water to different continents and depending on the size of the vessel employed, is generally able to carry a large amount of oil spill equipment on board. It has the added advantage that the vessel may be used as an additional oil spill response tool at sea.

The disadvantage is that vessels are not as easily available as trailers, and besides being restricted in certain waterways for depth of water or other reasons, will need developed jetties or terminals to discharge the cargo, after which the oil spill equipment may still require to be transported by trucks and trailers to the spill site.

3. By Air.

The biggest attraction for this option is its speed in response. It can move men and equipment over great distance in the shortest time possible. Its other prime role is the ability to perform aerial dispersant application as needed (only on selected aircraft like the Hercules C130 or the Transall C160) and although not ideal, it can also be used as a reconnaissance plane for surveying purposes.

Obviously this option has some major drawbacks, first of which is that it is not readily available for charter. It is the very reason why EARL has contracted a C130 on 24 hours, 365 days a year on charter to service our member shareholders if the need arises, to speedily respond to an oil spill of their own making, around the region. If we did not have the capability of the C130 and it takes 2 days on an average to source a suitable aircraft out, we would have lost one of our greatest advantages, which is the speed of response.

Depending on the distance to fly to, the Hercules C130 can carry oil spill equipment of about 20 tonnes in weight, while the smaller Transall C160 can carry a payload of about 10 tonnes. These planes have the advantage over other types of aircraft in that they can load bulkier equipment via a large rear ramp while others are side loading and have smaller doors. Also, the C130s are chosen for their ability to land on relatively short runways, requiring about 4500ft paved runway at sea level as against about 6500ft of runway required by other aircraft with equivalent payloads.

If it were required to fly to any airfield with runway length less than 4500 ft, a Transall C160 could be used instead.

If you were to choose the option of using the C130 for aerial dispersant spraying instead of as a cargo transport, you would come across a different set of problems associated with it. When calling for the use of Airborne Dispersant Delivery System (ADDS pack), and depending once again on how far the plane has to fly to its destination, which will affect its payload, the ADDS pack tank may or may not be able to carry its maximum quantity of 5500 US gallons of dispersant concentrate. Whichever the case, the dispersant may all be used up in a single sortie within about 30 minutes of flying and spraying around. The problem then is to find a steady supply of approved bulk dispersant concentrate to replenish the ADDS pack for its next sortie and so on. If it can be sourced locally, then it is well and good but if not, the dispersants will have to be trucked, shipped or flown in by back-up cargo planes. Each back-up C130 plane would be able to load a maximum of about 100 drums of dispersant, which would fill the ADDS pack tank for just one more sortie. And depending on the distance and payload available, the aircraft may even carry less than 100 drums each time.

Aerial spraying brings with it another set of problems. By recommendation, the aircraft is required to fly at 140 knots and at a height of about 100 ft when spraying. At that low height and speed, it is particularly difficult for the pilot to spot oil on the sea surface when he has to give full concentration to the task of low level flying. Therefore, in order to achieve the best results, aerial spraying on the C130 must be under the guidance of another smaller aircraft (known as a spotter plane) such as a helicopter or a surveillance aircraft. Not to do so would mean inefficient use of the system, a waste of costly dispersants, and result in ineffective treatment of the spilled oil.

Fuel.

In transporting oil spill equipment on board an aircraft, the operator has to ensure full compliance when carrying any equipment which falls into any one of the nine classifications of dangerous or hazardous substances as defined by the International Air Transport Association (I.A.T.A) Dangerous Goods Regulations. He has to ensure that correct packing and documentation procedures are followed.

For example, the internal combustion engines of power packs, etc, are considered Class 9 Dangerous Goods and if carried on board an aircraft, their fuel systems would have to be drained and petrol caps securely fitted. An entry has to be made on all documentation to identify the engine(s) carried on board.

Naturally, at the end of the destination the supply of the necessary fuel to operate the engine(s) has/have to be considered.

Documentation.

To ensure a smooth and uninterrupted flow when transporting oil spill equipment out of the country, into and across national boundaries, it is imperative that the documentation is accurate to the smallest detail. Being just 'good' is not good enough - it has to be perfect. Any detail which is inconsistent with the equipment presented will cause delays which may be unacceptable.

Regional and/or international agreements notwithstanding, the average customs officer at the border crossing may well be the cause for delays. He or she may or may not have heard of such agreements made and will quite likely delay clearance processes due to uncertainties on his/her part simply because it falls outside the normal routine of their daily chores. It then becomes imperative that in drawing up contingency plans that you should have discussed these issues with the highest custom official possible and come to some arrangement to pre-empt the envisaged delays.

As there are various documents for various modes of transportation, which can be confusing, it is recommended that such matters are best Left in the capable hands of the professional freight forwarders who will also put up a Banker's Guarantee on your behalf if required, or apply for the services of ATA Carnets, whichever is convenient.

ATA Carnets are internationally accepted Customs documents, issued by an authorised Chamber of Commerce to allow the temporary admission of goods, without the need for raising bonds, duty and customs formalities in foreign countries. So long as the conditions for the use of a Carnet are observed, its use permits temporary importation without payment of duty and with the minimum of restrictions. As long as the conditions are observed - therein lies the problem.

The rules governing the use of a Carnet are so inflexible that much as it is attractive for us to use it we are unable to do so, at least for the moment. Let me explain.

At EARL, we have a stockpile of USD 9 million worth of oil spill equipment which comes in all sizes and shapes. They are kept in our warehouse in groups according to the type of equipment they belong to, and stacked in a manner for ease of retrieval or maintenance. When activated, we would be able to select the type and number of equipment as required by the client and freight them accordingly.

As every oil spill may be totally different from the other, no two clients in all probability will request for exactly the same type and number of equipment to deal with the situation. Let us take for example an off- shore package we wish to apply for a Carnet. The Carnet requires every item in that package to be identified at the time of application. When a spill occurs, and the package is offered to a spiller, we must ensure that every item match the Garnet document both in description and serial number. It does not matter that the spiller may not wish to accept all the equipment offered. We cannot change any item to offer an off-shore package to meet the needs of the spiller. The Carnet system does not permit it and therefore we cannot use it as it stands.

We have requested that all our equipment in the warehouse be accepted as a whole in the Carnet system and we be allowed to select and despatch them in accordance with our client's request, but this was not agreed to by the Singapore International Chamber of Commerce which issues the Carnet.

When ATA Carnets are applied on the spot, ie. as and when the client needs them, a delay of about 72 hours is not unusual.

Communications equipment.

Communications equipment can be somewhat difficult to import into a foreign country, even on a temporary basis. Try to bring it into a foreign country, even for an oil spill exercise, and unless the exercise is co-ordinated by the authority of the land, you may run into a brick wall. Even with the assistance of professional freight forwarders with agencies in the country the equipment is required to be brought into, you may nevertheless still end up without a permit. The reason for such difficulties is simply because the authorities wish to ensure that your radio frequencies do not clash with their own domestic frequencies. If it does, the application will be rejected. It is by far simpler and more expeditious to obtain such equipment locally from the spiller or their contacts

Visas.

Visas are necessary for many countries. Because visas cannot be obtained on demand, it would be prudent for contingency planners to consider and explore beforehand with their immigration authorities, a way to expedite entry of personnel into the country during an incident requiring rapid response. If rules cannot be waived, consideration must be given to have oil spill responders obtain visas beforehand and ensure their validity remains current all the time.

In general and on a normal basis , visas would require about two weeks to obtain, but in times of emergency and with the assistance of the spiller, visas have been known to be obtained at short notice. The important point here is that the spiller must make the representation on our behalf to the immigration authorities, stating the reasons for the unusual request. Please refer to our diagram of the deployment activity chain where it shows under the arrival formalities, the responsibility of the spiller for assistance in obtaining visas.

Conclusion.

Obviously, the time to address all or some of the problems mentioned above is during the contingency planning process. But how does one go about it?

The first action must surely be to recognise that the problems do exist. You would be surprised at the number of well-placed personnel in the industry, even those in government, who simply believe that problems do not exist. In their many years of dealing with oil spills, they have not come across such problems and therefore would not expect anything to be different at the next oil spill.

Others again create their own false confidence in the mistaken belief that because their system has been working for so many years that there is therefore nothing to feel inadequate about. These people may not be aware that their experience may be completely inadequate as their country may have been fortunate enough to be spared major oil spill incidents thus far.

They may very well suffer from the ostrich syndrome - where the head is buried in the sand, and if a problem cannot be seen, the problem therefore does not exist.

Next, the industry must test their system, assuming it is already in place, and review and amend it against shortcomings detected during the test. The problems encountered must be examined and government authorities should be involved in the reviews on relevant issues concerning them. Only then will they become aware of problems they have not encountered before.

Governments should conduct exercises between governments and on a more frequent and regular basis. And unless the plans are tested to extremes, the report will always show that problems do not exist.

ATA Carnets while appearing to be a perfect solution for temporary admission of goods without the payment of customs duties, are too rigid under the conditions in which they currently apply, and there are presently insufficient number of countries accepting the system to become internationally useful. Their conditions for use should be reviewed and the number of countries accepting it increased.

OPRC 90 has been a major step in getting countries to acknowledge the need for co-operation. The challenge is to effectively implement the convention and sustain its objectives.