

**CONFIDENTIAL**

# The U.S. Marine Safety Institute's RAPID RESPONSE NETWORK FOR MARINE RESCUE AND REHABILITATION

## **Feasibility Study**

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### **This study**

This report presents a feasibility study considering the development of a rapid response network for emergency relief to marine wildlife in acute danger of a disaster at sea.

**The United States Marine Safety Institute** (hereafter called USMSI) was founded June 2002, in Florida, USA. Its objective is to provide rescue teams to assist, in the broadest sense, to boaters on the water, marine mammals and other marine wildlife that are in distress, and address commercial over-fishing through the deployment of artificial reefs. . .

### **Envisioned Objectives**

The USMSI envisions an international response facility, called the Aquaculture Center for Training, Education & Rescue (ACTer). This response facility will be able to offer first aid to threatened marine wildlife. The facility should consist of a network of experts, a network of rescue materials that can be mobilized rapidly and a funding base from which the costs of any operation can be financed. The

USMSI's goals are to provide an infrastructure that would provide the highest quality of professional response personnel to threatened marine wildlife in an emergency.

## Terms of Reference for this study

This study shall provide:

An assessment of the present existing capacity for marine wildlife rescue and rehabilitation in acute distress world-wide

A description of the USMSI's niche within the envisioned field of work in terms of knowledge and expertise.

A description of the added values of the USMSI's envisioned services.

An overview of funding mechanisms that could be applied to finance the USMSI's activities, with reference to existing funding institutions and with special reference to their procedures and requirements and possibilities to refunding in the future

## The approach followed

Key persons and organizations relevant for emergency rescue plans of marine wildlife were approached about the USMSI's initiative and commented on the concept and on the extent to which the USMSI could contribute to the existing instruments and networks in the world of marine wildlife rescue and rehabilitation.

The suggestions have been used in this report to further develop concepts and ideas for the USMSI.

## Overview of integrated information

### Existing rescue and rehabilitation services

#### Rescue and Rehabilitation

Marine animal rescue and rehabilitation centers are specialized in whales, dolphins, seals, birds, or a combination of these groups. Their profiles range from individuals, working locally and on an ad hoc basis to professional organizations, working nationally as well as internationally with educated staff and well-advanced materials. Marine animal rescue and rehabilitation centers exist all over the world with a strong geographical distribution bias towards the industrialized western countries.

## **Existing networks**

Marine mammal rescue and rehabilitation centers provide services to the local marine environment. They sometimes have a broader, even international scope and act within an active national or regional network in order to geographically cover the whole or a part of a defined coast. Networks often co-operate closely with national and local agencies like coastguards, lifeguards, port authorities and national authorities. They communicate actively with the general public. They aim to be sufficiently well known and, in case of stranding's or an emergency, they are given notice by means of a registered hot line. An example of a currently functioning network at a regional scale is the Oiled Wildlife Care Network in California. Well-developed networks for live stranding's of whales and dolphins exist in New Zealand, Australia and the USA.

There is also a number of internationally operating organizations with an interest for the well being of marine animals. Examples are International Fund for Animal Welfare (IFAW), Whales and Dolphins Conservation Society (WDCS), the Humane Society and the British Royal Society for the Prevention of Cruelty against Animals (RSPCA). They are often recognized as appropriate networks for rescue activities. The RSPCA is formally recognized by the UK government as the organization with expertise for assistance to oiled animals in case of oil spills. These organizations set up and fund rescue operations for marine animals in case of an emergency and also in countries where they are not based, but so far this has occurred only on an ad hoc basis. Involved individuals generally acknowledge that rescue operations would profit from global co-operation and co-coordinated efforts which does not yet exist. The USMSI intends to provide for this gap. In addition, the USMSI was particularly founded to arrange on-water rescue and rapid first aid assistance, something which is often non-existent.

## **Geographical Coverage**

There are only a few countries and regions where rescue networks can cover a more or less full geographic range. Examples are some states in the USA, and nations around the North Sea and Scandinavian and UK waters. In the Southern Hemisphere, New Zealand, Australia and South Africa all have networks with a reasonable, though not complete geographical coverage. In other parts of the world, rescue operations are either highly opportunistic or non-existent.

## **Range of responses**

Responses are normally given at the national and sub-national levels. A number of organizations assist internationally, including IFAW and RSPCA. IFAW aims at international standardization and a level of preparedness, but this is an approach

that has just started to be developed.

## **Forms of preparedness**

A large number of daily ship movements involve oil tankers that pass a great many coastal locations where an oil spill would cause a considerable ecological disaster. Preparedness for unexpected events is normally inversely proportional to the assessed risk that unusual things happen. The frequency at which oil spills globally occur causing ecological disasters is so low that it is not possible in practice for each local coastal community to set up its own oil spill contingency plan.

Professional rescue and rehabilitation centers have substantial capacity for the care of sick and injured wildlife. Some larger centers are able to offer rescue and rehabilitation assistance outside their own territory or to a foreign operation. However, in the case of a major oil spill (Torrey Canyon, Sea Empress, Exxon Valdez, Erika, BP Deepwater Horizon) the scale at which the disaster develops in terms of stranded oiled wildlife (birds, mammals) can be quickly beyond the scale that can be handled by a single center or even all national centers together. In such a case, assistance has to come from outside, and an international operation must be organized.

It is possible to develop prepared logistics and a network for rescue and rehabilitation operations for marine wildlife in case of a disaster at an international coordinated level. The only existing preparedness programs for marine wildlife disasters are restricted to the national level and found in California (oil spills), New Zealand and Australia (for marine mammals).

## **What happens after a larger oil spill?**

At present, under the circumstances following an unexpected oil spill, both professional rescue and rehabilitation centers and non-professional individuals get spontaneously involved in the rescue of oiled marine wildlife. Different events are bound to happen at the same time in the early days of a spill: Oil may spread out over hundreds of miles of coastline preventing that the wildlife care response can be organized at one single location.

Thousands of oiled animals are collected by volunteers and brought in at collection points

Emergency centers are organized with the help of caring volunteers, which are not necessarily professional experienced people but improvising and in

many cases re-inventing the wheel. Considerable costs may be made in order to build up the necessary facilities without a guarantee of refunding by national or international assistance.

Television coverage attracting hundreds or thousand volunteers to the coast, who arrive in the middle of a mess where no one is yet in charge to put them to work and direct them in an organized manner. Ill-prepared local authorities making uncoordinated decisions or not making decisions at all. Rivalry can arise between local organizations or between international organizations arriving at the spot. These types of conditions are counter-productive to a high standard rescue operation, which all parties should undoubtedly adhere to through proper protocol. Chaos can be significantly reduced if things can quickly become organized at the appropriate scale (regional, national or international), and if all involved individuals and organizations accept this and do cooperate. Appreciation to cooperate effectively must be achieved in advance of an oil spill (as a form of preparedness), and not in the panic of disaster.

## **Oil Spills, Compensation and Wildlife**

Oil spills occur throughout the year, all over the world. Their severity ranges from a small local harbor spill to a spill that damages a coastline of several hundreds of miles. The concern is mostly directed at the individual level, animals suffer from oil coverage usually resulting in a slow death. Oil spills that threaten populations of marine wildlife (birds, marine mammals, other species like turtles) are relatively rare. The number of larger oil spills (over 700 tons) has decreased over the years, and stricter safety measures are generally credited for that. The occurrence of some large oil spill incidents, starting with the Torrey Canyon in 1967, has resulted in international regulations, conventions and compensation schemes. They include: The International Convention for the Prevention of Pollution from Ships (MARPOL 73/78), The 1990 International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC), the Civil Liability Convention (CLC), and the Fund Convention (FC).

Under the 1992 Civil Liability Convention, the ship owner (normally his P&I Club) pays for the damage caused by the pollution. The owner is normally entitled to limit his liability to an amount determined by the size of the ship. The 1992 Fund Convention exists to pay (under specified circumstances) compensation when those suffering oil pollution damage do not obtain full compensation under the 1992 CLC. All oil importing companies and bodies contribute to the Fund.

Not all states have ratified these conventions. If an oil spill happens in such a state, compensation is regulated by means of national law. Among the states that are not party to CLC fund are the United States. The US Oil Pollution Act (OPA) goes further than the existing international conventions in the extent to which the polluter can be charged for damage. The USA system places the obligation to remove spilled oil or other pollutants primarily on the owner of the ship. In the case of environmental damage (including affected wildlife), claims may go far beyond the financial limits of the CLC and FC.

### **Position of Wildlife**

Except in the United States, nowhere can damage to wildlife be claimed directly as a matter of liability. Under the CLC and Fund Convention, submitted claims must address evident economical loss, and the claim must be “reasonable”. If an organization or individual submits a claim for the costs of rescue and rehabilitation of wildlife, this would be at the extreme end of what would be considered economic loss. The criteria to justify its “reasonability” would include:

Is it technically justified what has been done

What was the survivability of the animals

Are there reasons of public relations

Who has done the work

Who is claiming

Why has it been done

Are the costs a reasonable judgment of whether the case satisfies these criteria and is negotiated between the P&I Club (the insurance company of a tanker owner) and the party that has submitted the claim.

### **Wildlife rescue and contingency planning**

The main objectives of the 1990 OPRC are to encourage states to develop and maintain an adequate capability to deal with oil pollution emergencies, and to facilitate international cooperation and mutual assistance in preparing for and responding to major oil pollution incidents. Standard elements of national oil spill response systems are set out in this convention. Few national contingency plans include the rescue and rehabilitation of wildlife. The United States is the best-known example

where oiled wildlife care is part of the national response. Californian law even stipulates an operational oiled wildlife response network, which has resulted in the Oiled Wildlife Care Network (OWCN).

In most countries, wildlife care response is not part of the national contingency planning. Although professional institutes may be recognized at a national level for their ability to coordinate wildlife rescue activities in case of a disaster (for example, the RSPCA is recognized by the UK Government as an expert organization), the lack of legislative enforcement cannot refrain other groups or individuals from starting their own initiatives or refusing cooperation.

Developments in environmental thinking, protection and subsequent legislation, do continuously challenge all parties involved, including politicians, governments, NGO's and industry. Especially larger spills that rouse public indignation because of spoiled coastlines and the loss of wildlife speed up the process towards tighter preventive measures and international regulations according to the principle "the polluter pays". In this respect, there is an obvious necessity to establish the (exchange of) knowledge on oil spill preparedness, wildlife protection, rescue and rehabilitation at a coordinated and impartial international level.

## Wildlife rescue and legislation

Not many countries have legislation, which requires an effective national structure for wildlife in general or under the special circumstances of a disaster. In California, the 1990 Lempert-Keene-Seastrand Oil Spill Prevention and Response Act requires rescue and rehabilitation stations for sea birds, sea otters, and other marine mammals. Three subsequent amendments to the original law reaffirmed this legislative mandate for addressing the problems of oiled wildlife care (Mazet et al. 1999). Similarly, in New Zealand both the 1978 Marine Mammals Protection Act and the 1953 Wildlife Act are the basis for the existing contingency plans for marine mammals, sea turtles and snakes. In both examples, it is the explicit legal responsibility of an identified organization to set up (cost effective) structures and preparedness programs to deal with wildlife rescue in case of an emergency. In the situation of an oil spill or another emergency, the effective hierarchy is settled and enforced by law. There is also a national budget to finance preparedness programs and to carry out the rescue work. In the case of California, there is a construction in which the oil industry contributes to the fund from which the OWCN is financed.

In a country in which legislation does not include wildlife rescue, such arrangements are not a priority clear by law, and one of the following cases may be at stake:

The national authorities have formally charged a national organization with the responsibility to take care of wildlife rescue in case of an emergency (for instance by means of a national oil contingency plan). But this does not exclude the possibility that other organizations also become active in the case of an emergency, invite foreign assistance from their own network and act non-cooperatively.

Wildlife rescue is also not included in the national contingency plan. Nothing is arranged for and anyone could spontaneously become active.

There is no international law forcing national authorities to include wildlife rescue into national law, nor to provide for wildlife rescue in contingency planning.

One can conclude that, without an appropriate national (or international) legislative instrument, the importance of wildlife rescue is not sufficiently recognized. It can be observed that in the countries that do have appropriate legislation, the situation leads to cost efficient approaches, and strive for the development and application of “best available techniques”. In other countries, the quality and financial burden of wildlife rescue is depending on voluntary, and often private arrangements. Cost-efficiency, especially when it comes to an emergency activity, depends on many local circumstances. It also often depends on the availability of (foreign) experts at an early stage.

## Get people and materials on the location of the spill

Under the 1990 OPCR, contracting parties agree to take the necessary legal or administrative measures to facilitate an easy international transport of personnel, cargo, materials and equipment required to deal with an oil pollution incident. This includes the use of ships, aircraft and other modes of transport engaged in transporting them or otherwise responding to the incident. In practice, difficulties may be encountered when wildlife rescue and rehabilitation materials and personnel have to pass the customs, depending on:

- the state being party to the convention or not.
- the state acknowledging the rescue and rehabilitation work within the framework of an oil pollution incident.
- whether or not foreign assistance has been officially invited, and custom officers have been notified on this.

# Conclusions and recommendations

## Assessment of feasibility

The idea of the USMSI to develop an international framework for cooperated and high-level response to oil spill victims was generally welcomed because of:

Need for Rescue Sub-Stations equipped to respond, train personnel & educate international teams so that everyone is using the same playbook

Need for identification and application of best available techniques

Need for professionalism and effectiveness

Need for evaluation/objective data

Need for preparedness

A common interest in cost efficiency

Need for stand-by expertise

Need for fair financial compensation of wildlife rescue

### **The following elements were commonly mentioned:**

Offer an international platform to exchange and provide valuable information on effective crisis management at the appropriate scale

Offer an international platform at which local experiences can be systematically evaluated and be used to reach a higher level of preparedness elsewhere.

Offer a reliable and respected source of information on oiled wildlife statistics

Use locally recognized expertise

Offer technical advise to local authorities that are responsible for the execution of a contingency plan

Offer expertise to local organizations at an adequate, professional level, including protocols based on the best available techniques

Stimulate co-operation between different groups and stakeholders

Offer a network that can quickly mobilize the necessary materials, medicines and additional expertise

Work towards a fund to cover the immediate costs of the rescue operations. There is a general feeling that the development of the initiative should be well planned over time, considering:

The use of networks of existing oiled wildlife care organizations with different cultural backgrounds and which operate at different levels of standardization

Varied levels of national contingency planning

Culturally different views of wildlife rescue in general and rescue approaches (often locally developed techniques) in particular

A fragmented oil exporting industry

Sovereignty aspects in case of an emergency situation

There is an interest in principle amongst all interviewed parties in an international framework of cooperation for wildlife victims of oil spills, and to give it a follow-up. Comments from different areas have been made clear that building an international network and rapid response facilities must seek for the broadest participation and communication from the start.

## **Strategic considerations**

### **Communication and Participation**

An international network cannot be built unilaterally by one party. From the beginning it is important to communicate openly and to seek for contributions from as many groups as possible, including grass root level. It is advised that experienced international organizations and industry are involved in a steering committee.

### **Geographical considerations:**

Although a global network is envisioned, due consideration must be given to cultural differences as it comes to wildlife rescue and rehabilitation. This field is especially developed from “western” approaches in nature conservation and protection. Therefore, it would be most appropriate to start building an international service in Europe and the USA to begin with, and to make this service available to other places in the world.

## **Project approach**

The development of the global network should be seen as a sequence of many different steps, which will ultimately grow into something that was initially envisioned. The most feasible would probably be to consider the whole as an iterative process driven by common interest but capitalized by opportunities that occur at any moment. The best approach for such a process would be to break the process down into projects at different scales in time and space, each with clear objectives and clear results.

## **Political considerations**

Wildlife rescue and rehabilitation is a costly undertaking, receives a lot of public support during emergency situations, but is only exceptionally covered by legislation. This is probably due to the fact that a legal coverage would mean that there must be a budget. A budget for a high level of preparedness would be a financial burden for a small country with a relatively short coastline far away from the shipping routes. A budget for preparedness only pays off beyond a certain spatial scale, most likely at an international level, or in areas of a higher-than-normal risk. An international organization increasing the level of preparedness at a national level is a cost-efficient solution. If practical problems can be overcome, such an international undertaking would be mutually advantageous to all parties involved, including nature conservation organizations, governmental organizations and industry. Also here, an iterative process would be the most feasible approach, as the development of a network at the international level should go hand in hand with an increased preparedness and adaptation to these new services at national and local levels (contingency plans and legislation).

## **Practical considerations**

At a practical level, it is important to reach a common understanding among all parties in consideration of approaches, protocols, training, and logistics. Probably one should avoid aiming at one approach, one protocol, one training program and a single logistic system. That may cost the support of grass root level organizations for the initiative. If all investments at an international level would ultimately not make any difference with the results of a chaotic, unprepared response activity, then there is not really any proven right of existence. The main aim is to enable a professional, coordinated and cost effective life saving activity in a local emergency situation. Everything should be subordinate to that goal.

## **From nothing to something**

The proposed initiative of a global network should be a neutral activity to unite the forces within nature conservation, industry and governmental organizations in

order to reach a mutual benefit. The concept of magnification (think globally, act locally) is at stake here. We propose to reach a common point of departure by establishing a Memorandum of Understanding to be signed by a wide range of interest groups. This MoU should be formulated in a way which attracts the different stakeholders, without compromising the original objective of a framework for a coordinated international response to wildlife victims of oil spills at sea. As such, an MoU can serve as the basis of the impartiality sought after. The signatories of this MoU should agree upon a business plan, which is carried out by an executive body, which could be the USMSI and which seeks contributions from all parties involved. The Internet would be an important instrument in network building. It is cheap, easy to access and effective. The initiative should lead to discussions between different parties at national and regional levels and structures that would facilitate cooperation in the event of a disaster.

### Financial Structures:

Finances should be found ad hoc in the beginning, but one could strive towards a worldwide trust fund from which rescue operations can be financed at the end of the day. A trust fund at the beginning seems not to be feasible as much depends on what is exactly envisioned and how much would be needed on a multi-annual term. A fund must be embedded in a transparent infrastructure, with clear objectives, criteria and mechanisms.

## Towards a Business Plan for the USMSI's IMSF

### Set up a network of partner organizations

The USMSI can only achieve this objective at an international level. This means that an international cooperative network must be built and maintained, consisting of all stakeholder parties from grass root level (R&R centers and individual specialists) to existing regional networks (OWCN, New Zealand, Australia) and international organizations and bodies (IFAW, RSPCA), which should also include industry (ITOPF, Multinational oil companies) and government parties (UNEP, EU, IMO). If proven successful, this international co-operative network could operate as a federation. The federation would aim at an allied force in which all globally existing knowledge and expertise is bundled for a coordinated professional preparedness, response and evaluation in case of a marine wildlife emergency at a scale that is beyond the capacity of national authorities and rescue organizations. An International Marine Safety Federation (IMSF) could grow into the position of an extensive, cost-effective executive body in service of the federation. Maybe ITOPF could be taken as a model for a IMSF and the executive body.

## Set up a communication network

Methods include a newsletter and the construction of a well documented internet site interlinked with the sites of partners.

## Set up a process to develop mutual trust and common expertise

Cooperation is a question of trust and mutual respect and understanding. Among the best way to achieve fruitful and productive forms of cooperation between envisioned partners is to start working together on a subject that is of mutual interest to all parties. This subject has been identified as being the creation of a body that has international credibility because of its high standards, professionalism, cost-effectiveness and independence.

## Develop a transparent system leading to high-level standard approaches

The USMSI can facilitate the exchange of information among its partners. This should not only include the exchange of experience and expertise but also the coordinated discussions that leads to international standards for best practice. There will be many common features in rescue plans, there are also likely to be differentiation by local components in order to obtain the maximum effect.

## Develop inventories of experts and materials

The USMSI can stimulate and govern the construction of up-to-date databases on available experts and materials. The expert database should include professionals (vets, crisis managers, scientists, experienced free-lancers, etc.) and their c.v.'s, including the details on geographical areas of expertise, species, populations and language.

The material database should include information on available material among the partner organization, with reference to the speed at which this material can be transported to the nearest international airport.

## Develop training and education

Generic training and education modules will exist with participating organizations and groups. The USMSI program could be taken as a generic model. Specific elements should be contributed at regional (vulnerable species, populations and their specific treatment) or national level (national drills and exercises).

## Aiming at preparedness, best available techniques and evaluation

The future existence of an active global network would be part of the international preparedness in advance of a disaster. At all stages of the response activity, protocols should be available. This is not only the best guarantee for applying the best available techniques and technology but also a good structure to improve by means of practical experience. Included in the protocols should be an accurate documentation of activities (a logbook). Such a standard method of documentation allows an evaluation of each different stage of the response operation and the whole operation itself. This would make improvements on cost efficiency possible by means of the documentation. Also good and reliable statistics on the size of the disaster can be obtained.

## Financial structure

The funding of the IMSF must grow with the different stages in which the global network and its services develop. The first steps will not be costly and it should be possible to carry them out as individual projects with relatively small budgets. As soon as the organization will have proven its credibility, larger budgets will become available.

# Annexes

Annex 1 : List of contacted persons

Annex 2 : Overview of key organizations

Annex 3 : Some useful Internet sites

Annex 4: Documentation

Other confidential information shall be provided on a 'Need to Know Basis' including a list of contacts, overview of key organizations, useful internet sites, documentation, etc.

For more information: Contact Scott Steele at 941-204-4970  
([www.USMSI.org](http://www.USMSI.org))

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