

ITOPF • Celebrating 50 years 1968-2018





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ITOPF • Celebrating 50 years



Chairman's reflections

ITOPF's Chairman Paddy Rodgers, Chief Executive Officer of Euronav, reflects on 50 years of ITOPF.

ITOPF was created on Christmas Eve 50 years ago and it has been a remarkable success story. Today, ITOPF is trusted as a provider of objective technical advice on ship-source spills by industry and governments worldwide. This is a great endorsement of the commitment and investment made by shipowners and their insurers over the past five decades.

ITOPF was conceived with the intent of creating an organisation dedicated to administering TOVALOP, the tanker-owners' voluntary system of compensation, and it has grown to become the world's most respected authority on preparedness and response to spills from ships. Like TOVALOP, ITOPF was to be a temporary arrangement, expected to last only as long as the interim voluntary compensation regimes. However, like these voluntary regimes, ITOPF quickly proved its worth far beyond the timescale originally envisaged. The fair and equitable way in which the cost of maintaining ITOPF is shared across the industry has ensured ITOPF's continued existence in a manner that is both sustainable and inexpensive. The not-for-profit basis upon which it operates has secured its success thus far and, undoubtedly, will continue to do so in the future.











It is interesting that, as the global shipping fleet has increased in size over the decades, the number of incidents that ITOPF has attended has not increased proportionately. Over this period, ITOPF's involvement with non-tanker incidents has grown, such that during the last ten years these constitute approximately two-thirds of all incidents attended. Contribution to ITOPF's funding has moved in response to this trend to ensure fairness between ITOPF's Members and Associates is maintained.

Statistics gathered in relation to oil spills from tankers since 1970 demonstrate a dramatic and sustained reduction in both the number of oil spills and the quantity of oil spilt, such that today, 99.99% of all oil cargoes reach their destinations safely.

The shipping industry is constantly striving towards a goal of "zero spills" from ships and we recognise our part in managing that risk to the best of our ability. Nevertheless, accidents always remain a possibility and occasionally the worst happens. In these situations, it is reassuring to know that the team of highly gualified and objective scientists at ITOPF are on-hand to work closely with all parties involved to bring about an efficient response to the incident and to minimise both economic and environmental losses.

How it all began The night before Christmas...

On Christmas Eve 1968 the International Tanker Owners Pollution Federation Ltd (ITOPF) was officially established. Its principal purpose was to administer TOVALOP, a unique voluntary oil pollution compensation scheme set up by shipowners and their insurers.

The concept of TOVALOP evolved from one major, and very serious, incident on 18th March 1967 when TORREY CANYON, one of the first supertankers, ran aground on rocks off the Cornish coast of the UK. During the next 12 days, the vessel broke up, spilling its entire cargo of Kuwait crude oil, which contaminated coastlines in southwest England, the Channel Islands and Brittany, France.

Liability for the costs of the response and pollution damage was ill-defined and compensation was made available only after a protracted legal process. The British government, faced with the potential recurrence of such an incident, urged the International Maritime Consultative Organization (now the International Maritime Organization, IMO) to consider possible changes in maritime law and international regulations. In the meantime, the oil and shipping industries were actively considering their own response to the new challenges facing them after TORREY CANYON.

TOVALOP

The seven major oil companies, who owned a high proportion of seaborne oil cargoes and also operated a significant part of the world's tanker fleet, agreed upon the idea of an industry initiative in which tanker owners voluntarily accepted strict liability to pay compensation for oil pollution damage up to an amount limited by the tonnage of the tanker from which the spill originated.

The seven oil companies behind TOVALOP

- British Petroleum
- ESSO
- Gulf Oil
- Mobil Oil
- Shell
- Standard Oil
- TEXACO

The initiative was formalised in an agreement known as TOVALOP (the Tanker Owners Voluntary Agreement Concerning Liability for Oil Pollution).

From the very beginning it was recognised that, in order to have sufficient impact, the support of the independent tanker owners and their traditional liability insurers, the Protection & Indemnity (P&I) Clubs, would be necessary.



The grounding of TORREY CANYON and the consequent loss of its entire cargo brought industry and government together in their desire to ensure cargoes could be delivered to their destination safely. (Photo crown copyright)

Legally and practically the new agreement presented several questions and difficulties but, after many hours of debate and discussion, tanker owners and their insurers were convinced of the longer term benefits of TOVALOP, without which the agreement would never have succeeded. It was agreed that P&I cover should be extended to include claims under TOVALOP and integral to this undertaking would be the eventual establishment of a core of technical expertise at ITOPF to advise on best practice when preparing for and responding to oil pollution incidents.

After many drafting sessions, an agreement was produced on 7th January 1969 which represented a substantial and constructive advance in the legal regime applicable to oil pollution damage. The fundamental concept of TOVALOP was that if a tanker entered in the agreement spilled oil, the company owning the tanker would either remove the oil itself or would reimburse reasonable cleanup costs incurred by governments. The companies entering TOVALOP undertook to insure themselves against these liabilities, in most cases through a P&I Club. For TOVALOP to apply it was not necessary to demonstrate that the tanker owner or bareboat charterer was at fault and, as a result, compensation could be available to claimants without recourse to legal proceedings.



John Kirby (right) of Shell, ITOPF's innovative and pioneering first Chairman, "not only inspired the creation of TOVALOP in the first place but, by his drive and determination, succeeded in persuading others of the merits of the concept"¹ pictured with Alex Hetherington, later ITOPF's Managing Director



The TOVALOP Agreement became fully effective in October 1969, when it had secured 50% of the world's tanker tonnage as Members. Just six months later, this had risen to 80%.

A supplementary agreement called CRISTAL² evolved from this initial voluntary agreement to provide a second layer of compensation payable by cargo owners. These two voluntary schemes provided the basis for the development of two formal international governmental regimes - the Civil Liability Convention and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (FUND) - and were intended as an interim measure pending the latter's widespread ratification.

Art Tripp, ITOPF's Managing Director from 1969 – 1971

Adolph B Kurz, ITOPF Director from 1970 and Chairman from 1973 - 1982

"The industry has recognised its responsibility to the citizens of the world and has given the highest priority to the protection of our marine environment."3

Adolph B Kurz

² Contract Regarding an Interim Supplement to Tanker Liability for Oil Pollution

ITOPF grows, expands its Membership and is increasingly influential in spill response.



ITOPF started the decade solely as the administrator of TOVALOP. Its role was to check the eligibility of tankers entering the scheme; to issue certificates required for entry to certain ports; to monitor the progress of claims settlements and to promote the TOVALOP Agreement globally among maritime nations.

Membership of the organisation rapidly expanded and in 1971 Alex Hetherington, who, through his involvement with drafting TOVALOP, was intimately familiar with its scope and intent, became Managing Director.

It soon became evident that while TOVALOP helped to ensure that clean-up costs incurred by governments and tanker owners in responding to spills were reimbursed, there was no ready source of advice to help them undertake the response in the most efficient and cost effective way.

1972

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Federation 'fire brigade'

To many, a particularly attractive aspect of the original TOVALOP proposal was that there should be a central technical department to give immediate 'fire brigade' assistance whenever and wherever an oil spill might occur. In 1971, responsibility for setting up this department was given to John Wardley-Smith, former head of the UK Department of Scientific and Industrial Research at the Warren Spring Laboratory. John was experienced in the development of methods to combat oil pollution and his first assignments involved providing help and technical advice to governments and other authorities. By 1972, he was attending on-site at spills, giving Members and insurers 'on-the-spot' practical advice and monitoring the progress of operations.

John was joined by Captain Mike Garnett in 1973 and, with the relatively high rate of spills in the 1970s, the team rapidly gained extensive practical experience



John Wardley-Smith OBE became ITOPF's first Technical Manager in 1971

In the early 70s "oil pollution response was handled with notably little enthusiasm and even less ability. I saw this first hand at the spills I attended in my first two years at the Federation. It was not difficult for the Federation to provide the enthusiasm and, with time, experience alone went a long way to make up for any lack of knowledge."1



Capt Mike Garnett OBE had previously spent 32 years in the Royal Navy and, as Operations Officer to the Commander-in-Chief, Plymouth 1967-68, was responsible for co-ordinating the TORREY CANYON response

CLC 69 comes into force



Tanker spill statistics programme launched In many parts of the world there was no local expertise available for pollution response and ITOPF provided a valuable service to its Members and to the national and local authorities charged with dealing with the incident. It was not unusual for the team to take an active involvement with the more practical aspects of the clean-up. This included, for example, advising on shoreline operations and the aerial application of dispersants.

In these early days, ITOPF's focus was most often on advising how to 'clean up the mess', but as the decade progressed there was a growing tendency for even fairly minor oil pollution incidents to lead to substantial claims for compensation. This resulted in ITOPF increasingly becoming involved in the technical evaluation of claims after the event, including the relevance and scale of the actions taken and the extent of losses to fisheries and the impact on the environment.

ITOPF made considerable progress and quickly gained international acceptance as a reputable body displaying professional competence and, critically, no bias. Speeches were made at national and international conferences; meetings held with governments and coastguard representatives and talks were given to groups of tanker owners, underwriters and oil companies to promote awareness of the organisation.

Recognition of the value of ITOPF's services by both government and industry led to a growing role for ITOPF in oil spill contingency planning. This included collaboration with oil companies in 1973 to produce a contingency plan for the Caribbean region, and in 1976 assisting the UNEP/IMCO² Oil Combatants Centre in Malta (now known as REMPEC) with contingency planning in the Mediterranean. Before the close of the decade ITOPF had delivered a major assignment for the European Economic Community (EEC) on measures to enhance oil spill response within 18 Member states.



Spreading the TOVALOP message at POSIDONIA. the international shipping exhibition, Piraeus, Greece



of Dr Ian White (1977), Joe Nichols (1978) and Dr Tosh Moller (1979).

In order to deal with the growing volume of work as its reputation

increased, the technical department was strengthened with the addition



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AMOCO CADIZ ran aground off Brittany, France in 1978 spilling 223,000 tonnes of crude oil which contaminated 360km of shoreline. ITOPF attended on-site to assist the French authorities.



In ITOPF's early days its Board was concerned with the lack of reliable statistics on the number of oil spills from tankers occurring throughout the world. It was known that oil was being spilt but it had not been established with any accuracy how, when, where, why, or how much oil was spilt.

With access to the owners of almost all of the world's tanker tonnage. ITOPF was in a unique position to gather this information. Following an initial pilot exercise, ITOPF's data collection programme was officially launched in 1974. The voluntary nature of the reporting resulted in a number of imbalances in the data but, where possible, gaps were filled by monitoring the shipping press and checking lists of spills from external sources, such as national governments, international organisations and research institutes. Despite some initial difficulties, the programme proved successful and produced statistics capable of clarifying the size and scale of oil spills from tanker incidents and enabling discussions to be better informed.

Information services

As the Technical Department grew in experience, it rapidly built up a central repository of background information on oil spills throughout the world. This included accounts of major incidents; a large collection of test reports and trade literature on all types of equipment and service providers. The collection was formalised in 1977 with the development of a specialised library and information service. Significant efforts and resources were devoted to this task with the aim of supporting the activities of the Technical Department and providing information and documentation to Members and to outside organisations with similar interests.

By the close of the 1970s, most of ITOPF's staff were engaged in providing technical and information services but the administration of TOVALOP remained an integral part of ITOPF's work. The Civil Liability Convention 1969 (CLC 69) had come into force in 1975 and the Fund Convention in 1978, but ratification of these international Conventions was slow. Many countries at risk from tanker spills continued to rely on the voluntary agreements and TOVALOP and CRISTAL were to remain highly relevant for a number of years yet. In June 1978, TOVALOP was radically redrafted to mirror the principal provisions of CLC 69, effectively 'plugging the gap' until more countries had signed up to the international regime.



Elspeth Everitt (Information Officer) and David Scarfe (Technical Information Coordinator) in the ITOPF library

The number of major tanker spills reduces; ITOPF consolidates its position as the leading and most trusted provider of technical advice and develops its training and education role.



Developments in technical work

By the 1980s, the combined efforts of governments and industry to improve safety and pollution prevention were paying dividends and large tanker spills were decreasing in number. Under the new leadership of John Archer, demand for ITOPF's expertise remained strong, especially in response to smaller quantities of oil being spilt.



John Archer, previously in charge of the Marine Division at the UK Department of Trade, becomes Managing Director in September 1979.



It was now quite common for spills, irrespective of their size, to give rise to diverse claims for damage. This reflected changes in government and public attitudes with regard to the types of damage that should be compensated. There was also a growing awareness of the environmental consequences of oil pollution and a considerable growth in coastal activities such as mariculture and tourism.

The technical assessment of claims for pollution damage now became established as a major and regular part of ITOPF's work. Whether for TOVALOP, CRISTAL or under the international Conventions, ITOPF provided a consistent, cost-effective and scientifically-based assessment of claims. As well as its own firsthand observations, ITOPF also started organising the sampling and chemical analysis of oil, water, sediments and biota to investigate the 'reasonableness' of some claims.

EXXON VALDEZ grounded in Prince William Sound, Alaska spilling about 37,000 tonnes of crude oil.

ITOPF's involvement was not confined only to tanker incidents. Spills of bunker fuel from other classes of ships were also giving rise to claims for similar damage. ITOPF assisted with these non-Member incidents on a fee-paying basis, subject to the availability of technical staff.

ITOPF's Board also agreed for the technical team to be available, if required, to advise on oil spills from offshore rigs, platforms and pipelines. It was felt that this would serve to foster good relations with the parties involved and be a useful way to increase its knowledge.

By far the most significant spill of the decade was the EXXON VALDEZ in Alaska in 1989. This became the focus of world media attention with the result that a number of subsequent spills received far more exposure than perhaps would otherwise have been the case. It also resulted in numerous legislative proposals - not least the US Oil Pollution Act 1990 - as well as studies and reviews of past oil spills, especially in relation to ship construction, the adequacy of contingency planning and oil spill response techniques. ITOPF was involved in many of these reviews by providing data or expert advice and evidence.

ITOPF Through the decades









Members issued



Mike Garnett arriving on-site at the CASTILLO DE BELLVER incident in South Africa, 1983

海洋油流出対応

国際タンカー和主作発表止導筆 (ITOPF)

The Japanese version of Response

to Marine Oil Spills produced by the Petroleum Association of Japan (PAJ)

First Technical Information Papers

(TIPs) published

ITOPF acquires its first mini-computer

First major training assignment

undertaken (IMO regional training

course, Chile)

Other key services

The 1980s saw the development of ITOPF's work to include the key services of training and education, complementing its spill response, claims, advisory and information activities.

In 1981 the first in a series of 12 Technical Information Papers (TIPs) was produced in order to disseminate the practical knowledge and experience gained from spills. Completed in 1986, the TIPs achieved sales of over 90,000 individual copies in more than 100 countries and enhanced ITOPF's technical standing within the industry and among state administrations and international bodies.

The success of the TIPs led to ITOPF's first foray into film making. In 1986 ITOPF financed and produced a series of five training videos entitled "Response to Marine Oil Spills" presented by the senior UK TV journalist, Sir Trevor MacDonald, with the IMO, EEC and the Videotel Group as partners. The videos were received with considerable enthusiasm and a significant proportion were provided to developing countries by IMO. The written material accompanying the videos was subsequently compiled as a book, published in English, French and Spanish under the same title in 1987, and later translated into Japanese and Korean.

For information on ITOPF's day-to-day activities and updates on developments in the field, ITOPF began producing a regular newsletter for its Members and contacts from 1980 onwards.

THE INTERNATIONAL TANKER OWNERS POLILITION REDERATION LTD. NEWSLETTER



The ITOPF team in the mid 1980s



MARPOL 73/78 enters into force covering prevention of pollution of the marine environment by ships from operational or accidental causes

CASTILLO DE BELLVER spills 252,000 tonnes of crude oil off Saldanha Bay, South Africa

First set of ITOPF films released



Supported by its educational resources, ITOPF participated in numerous seminars, training courses and workshops, particularly for IMO, with whom it was granted Observer status in 1980. It also began engaging with P&I Clubs during the winter of 1982/3 to raise awareness of its work.

Following the success of the EEC project, ITOPF continued to undertake a number of carefully selected advisory assignments in the 1980s. This complemented its response activities by familiarising the team with response resources and key personnel around the world and also helped ITOPF to become more widely accepted as an international centre of expertise on marine oil pollution by governments, intergovernmental organisations, and the shipping and oil industries. The most ambitious project undertaken was a worldwide survey of oil spill response arrangements for the US Navy. Completed in stages, this involved visits to 121 ports used by US naval vessels and reports on 128 countries.

Through these activities, ITOPF was able to apply its knowledge and experience in a constructive way to promote best practice in spill preparedness and response in the long term.

TOVALOP revised

TOVALOP had only been intended as an interim measure until the widespread ratification of the international Conventions but, in fact, it continued to play a fundamental role in the compensation process throughout the 1980s. In 1987 a revised TOVALOP Agreement and CRISTAL contract came into effect with enhanced limits and updated terms. This had the effect of breathing fresh life into the voluntary compensation schemes by anticipating the rising cost of oil spills from tankers and ensuring adequate compensation would be available to meet valid claims in future.

Following the retirements of John Archer and Mike Garnett, the two top posts were filled internally in 1987 with Ian White, formerly Assistant to the Managing Director, and Joe Nichols, formerly Deputy Technical Manager, leading ITOPF into the next decade as MD and Technical Manager respectively.

EXXON VALDEZ spills Response to Marine Oil Spills 37,000 tonnes of crude oil book published off Alaska, USA 1987

Revised TOVALOP Agreement and CRISTAL contract come into effect

ITOPF responds to several high profile incidents, there is an important new Convention and non-tanker shipowners are invited to join.





Gulf War oil spill - two members of the technical team visit Saudi Arabia at the request of the Commission of the European Communities to give on the spot advice on clean-up and the mitigation of damage.



ITOPF attends the BRAER, SEA EMPRESS and ERIKA incidents during the 1990s



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to and compensate for oil spills



THE INTERNATIONAL TANKER OWN POLLUTION FEDERATION LIMIT

ITOPF's first logo



A global reputation

The 1990s were marked by a number of highprofile incidents, but overall the downward trend in tanker spills continued. ITOPF was involved with all the major spills of the decade, including the intentional release of crude oil during the 1991 Gulf War, which is widely regarded as the largest oil spill in history. The 1990s were also notable for ITOPF's advice being sought in relation to other environmental issues arising from shipping incidents, such as physical damage to coral reefs.





During the BRAER incident (Shetland, UK, 1993), ITOPF received an unusual request for an interview from the German edition of 'Playboy' magazine which wanted to focus on the "daring types" who respond to spills rather than the event itself; the "experts and adventurers, scientists and daredevils - the Red Adairs of the Seven Seas". The article appeared in March 1993 and featured Brian Dicks (pictured) "With chaos and confusion reigning all over the island, Dicks starts by gaining the necessary overview with stoic self-control and a cup of tea..." and Jean-Yves Huet "the good looking Frenchman with the steel-blue eyes and the builder's hands ... "

ITOPF's unparalleled practical experience as a respected voice on spill related issues meant its advice was widely valued internationally. It was asked to participate in government committees and enquiries established in the wake of the EXXON VALDEZ, BRAER and SEA EMPRESS incidents and actively participated in many of the post-ERIKA debates, in particular with the International Oil Pollution Compensation Fund (IOPC Fund) and European Commission. SEA EMPRESS and ERIKA additionally required a significant internal effort on the assessment of claims and led to the establishment of the Technical Support team to assist with this task. ITOPF was also becoming more involved in oil spill research and development (R&D) activities, carrying out two studies for the UK Marine Pollution Control Unit (MPCU), and participating on R&D committees established by the MPCU, the US National Research Council and the US Marine Spill Response Corporation.





OPRC

The spills of the 1990s played out against a backdrop of significant developments at government and intergovernmental level. 1990 saw the adoption of the International Convention on Oil Pollution Preparedness. Response and Co-operation (OPRC) which provided a global framework to facilitate international co-operation and mutual assistance in preparing for and responding to major oil pollution incidents. ITOPF took an active role in the diplomatic conference that finalised the Convention and participated in meetings of the OPRC Working Group at IMO. When it entered into force in 1995, ITOPF assisted with implementation of the Convention requirements by providing support on contingency planning, drafting of technical guidelines and with training courses and exercises. It was one of a group of experts and organisations responsible for developing the series of IMO OPRC Model training courses and, in 1996, participated as a lecturer and evaluator in the first trial delivery of one of the courses at the World Maritime University (WMU).



A number of technical appointments were made in the 1990s to ensure that ITOPE continued to meet the heavy demand for its services. In 1994 it engaged its first female Technical Adviser. Previously an exclusively male preserve. Dr Karen Purnell's appointment paved the way for more women to join the technical team.

Sharing knowledge

ITOPF was alert to the high level of public awareness about oil pollution and shared its technical knowledge as widely as possible. The tanker statistics had always generated interest, especially at the time of major tanker accidents, and in 1993 ITOPF produced its first annual "statistics pack" providing a succinct report on the incidence of oil tanker spills. This coincided with the production of Country Profiles: 2-3 page documents summarising the oil spill response arrangements and clean-up resources in different maritime states. They were originally produced to help shipowners develop their Shipboard Oil Pollution Emergency Plans (SOPEPs), which are required under the MARPOL Convention¹, but also proved useful to other organisations involved in contingency planning and responding to oil spills.

In the context of the OPRC Convention, ITOPF undertook an assessment of the risk of oil spills and the state of preparedness in 13 UNEP regional sea areas in 1996, which generated considerable interest. This study found that there was substantial variation in the risk of major spills from tankers between, and within, the various seas and it highlighted the large number of countries in high risk areas that had yet to address the problems associated with oil spills.

ITOPF launched its first website in 1996 (Ian White pictured with Chairman Helge Schmidt)





and launches website

1992 CLC and Fund Protocols enter into force

¹ International Convention for the Prevention of Pollution from Ships (MARPOL)

End of TOVALOP

Improvements to the international system of compensation led to "time" being called on TOVALOP in 1997.

The CLC and Fund Conventions had been updated by Protocols in 1992 which came into force in 1996. These offered several advantages over TOVALOP and CRISTAL and the existing Conventions. For example, shipowners' limits of liability were increased and compensation was made available for tankers in ballast, as well as for actions taken when no spill of oil occurred, providing there was an appreciable threat of pollution damage. As more countries around the world embraced the international regime the voluntary arrangements became less relevant. ITOPF's Directors concluded that TOVALOP had served its intended purpose and allowed the scheme to expire at the end of its financial year in 1997.

The end of TOVALOP did not spell the end for ITOPF, however. Changes to its Articles of Association were agreed by the Membership ensuring that it would continue to play an active technical and advisory role in the coming decades.



Non-tank vessels were eligible to join ITOPF as Associates from 1999

Associate status

Post-TOVALOP, ITOPF reviewed its vision and primary objectives and set out a five-year strategy for the future. It concluded that its core activities should remain unchanged but it identified areas that needed further attention.

The most significant change was that, while it was agreed that ITOPF should remain a tanker owners' organisation, other classes of shipowner should be able to call on its technical services on a similar basis to tanker owners. This recognised ITOPF's increasingly important role in responding to bunker spills from non-tankers (which had accounted for about 25% of all spills attended by ITOPF in the previous 10 years). It was therefore agreed that, from 20th February 1999, the owners and bareboat charterers of non-tankers should be eligible to become Associates of ITOPF. At the same time, the broadening of ITOPF's definition of tanker meant that more owners and bareboat charterers of LPG and LNG carriers, as well as other types of tanker not previously eligible for entry, could now enrol as ITOPF Members.

By the end of the decade, ITOPF had evolved from its original administrative role into an organisation that was highly regarded for its technical expertise and supported by over 90% of the world's ocean-going tonnage.



Bunker and chemical spills become more prominent, new risk areas emerge and assessment of environmental damage is more sophisticated.

A wider variety of spills

Into the new millennium and spills of bunker fuel from non-tankers accounted for a high proportion of ITOPF's work. Claims analysis also grew to be a key component of ITOPF's activities both on-site and in the London office.

From their peak in the 1970s, large tanker spills had now reduced by over 90%. Nonetheless, the two incidents that generated ITOPF's greatest workloads for the decade both involved tankers, namely PRESTIGE (Spain, 2002) and HEBEI SPIRIT (Republic of Korea, 2007), and led to significant legislative changes.

The prominence of spills involving heavy fuel oils (HFO), such as the PRESTIGE incident, was a notable feature of the 2000s. Such oils are highly persistent when spilt on the surface of the sea and therefore do not readily dissipate. They can also be very difficult to clean up. HEBEI SPIRIT spilt a variety of crude oils in a very sensitive area and had a significant impact on coastal fishing communities along much of the west coast of the Republic of Korea.

The PRESTIGE and HEBEI SPIRIT incidents involved a major commitment from the ITOPF team, both on-site and in the office.









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The 2000s saw an increased focus on HNS spills

Spills of substances other than oil also demanded more attention during this decade. In 2003 ITOPF established an internal Hazardous and Noxious Substances (HNS) Working Group to ensure prompt advice could be given in the event of the threat or actual spillage of HNS. ITOPF was already providing advice on different types of oil and cargoes spilt from ships, including HNS, but the occurrence of some high-profile HNS incidents, combined with the adoption of the OPRC-HNS Protocol¹ in 2000 as well as an increased drive to ratify the HNS Convention², reignited focus on the potential dangers of chemical spills at sea.

New risk areas

A noticeable feature of the incidents attended during this decade was the large number of cases occurring in South East Asia. Indeed, one in every ten spills attended by ITOPF in the 2000s was in China, largely reflecting increasing maritime trade in the country and an associated increase in risk. The number of spills, and the complexity of the issues arising, provided the impetus for ITOPF's investment in outreach work in the region. ITOPF welcomed a number of different delegations from China to its office; hosted two interns and taught at a variety of seminars and workshops in China. It also provided comments and suggestions on regulatory developments in the region.

Shoreline clean-up in Guangdong province, China, following a spill of bunker fuel from a containership, 2009

The Thor Heyerdahl Award

In 2003 ITOPF was recognised for its "outstanding services for the benefit of the marine environment" by winning the Thor Heyerdahl International Maritime Environmental Award. The prize, established in 1999 by the explorer and scientist Thor Heyerdahl and the Norwegian Shipowners' Association, included a sculpture and a cheque for \$100,000, which ITOPF used to sponsor research and educational activities.

In 2003, Ian White, who had been Managing Director since 1987, handed over the helm to Tosh Moller who had been with ITOPF since 1979. During his tenure as MD. Ian oversaw the expansion of the organisation's technical departme the change of focus away from the administration of TOVALOP to purely technical services: and the introduction of Associate status for the owners of ships other than tankers. He was awarded an OBE³ in 1998 for "services to the environment" for his work on the Sea Empress Environmental Evaluation Committee



Environmental damage

The complexity of issues arising from shipsource pollution cases had steadily increased over the years and environmental damage assessments now featured more prominently. As a result, ITOPF staff were dedicating more time to explaining the benefit of, and facilitating, joint environmental monitoring surveys using both local and international experts.

In the USA, ITOPF played a central role under a Memorandum of Understanding (MoU) developed by the International Group of Protection & Indemnity Clubs (IG) and the National Oceanic and Atmospheric Administration (NOAA) to facilitate the process of damage assessment and restoration following incidents.

The TASMAN SPIRIT tanker incident in Pakistan in 2003 led to ITOPF collaborating with other partners to develop a joint IMO/ UNEP guidance document on conducting post spill environmental damage assessments and restoration measures with a specific focus on the needs of developing countries.





¹ Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances, 2000
² International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea
³ Officer of the Order of the British Empire

Developments to the international compensation regimes

The international regime providing compensation following oil spills from tankers had operated successfully throughout the 1990s, but a spate of serious oil spill incidents prompted a review of the level of compensation available. In response, new CLC/Fund limits were agreed in 2000 and, in 2003, the Supplementary Fund Protocol was adopted which introduced an optional third tier of compensation for eligible contracting states already signed up to the 1992 Conventions. In 2006, the oil industry and IG also voluntarily introduced two agreements, the Small Tanker Oil Pollution Indemnification Agreement (STOPIA) and the Tanker Oil Pollution Indemnification Agreement (TOPIA) to ensure that compensation was paid equitably by shipowners/insurers and the oil cargo contributors to the Fund Convention.

A gap in the international regime providing compensation for ship-source spills was closed in 2001 with the adoption of the International Convention on Civil Liability for Bunker Oil Pollution Damage (the Bunker Convention). This allowed prompt and adequate compensation for those who suffered damage caused by spills of oil used to fuel a ship and came into force in 2008.

Throughout this period, ITOPF continued to promote the benefits of the international compensation regimes worldwide and to encourage adherence to their principles.



After 30 years with ITOPF, Tosh Moller handed over the position of Managing Director to Karen Purnell in May 2009 and Richard Johnson took up the role of Technical Director from Hugh Parker. As in previous years, there was a chemist and marine biologist at the head of the organisation, both seasoned ITOPF employees who joined on the same day in 1994.

Tosh Moller (pictured at his retirement party in April 2009) played a major role in building, maintaining and promoting ITOPF's reputation for consistent and sound technical advice on ship-source pollution.

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Containers and wrecks, the Arctic region and a commitment to Research and Development.





ITOPF signs a Letter of Agreement with IMO and becomes a visiting professor at the World Maritime University o

New set of

TIPs published

2012



ITOPF R&D Award established

RENA spills bunkers and containers in the Bay of Plenty, New Zealand **Current challenges**

Into the current decade and the trend towards fewer and smaller spills from tankers is established with larger spills now being a rarity. However, accidents still happen, as demonstrated on 6th January 2018 by the tragic event involving the tanker SANCHI in which the cargo of condensate caught fire following a collision in the East China Sea. Learning lessons from incidents such as these will assist tanker owners and governments to continue to work together to reach the highest level of safety and environmental stewardship.

Against this backdrop, ITOPF continues to consolidate its expertise in preparedness and response. ITOPF is now routinely called upon to provide technical advice, both on site and remotely, on a variety of different cargoes, including coal, cereals, HNS, timber and even livestock. Incidents involving containerships have presented particular challenges. While the fate and behaviour of oil is generally well understood, the same cannot be said of lost containers or their cargoes. Dangerous goods are understandably the primary concern, but perhaps less obvious are the hazards associated with dangerous gases or low oxygen environments caused by decomposing organic cargoes, such as grain or thawing fish. Wrongly declared container contents or weights can also present major challenges. Incidents can become highly complex when both oil and a variety of cargoes are spilt. The increasing capacity of containerships will almost certainly test emergency response arrangements in the future.

ITOPF launches new series of training films



Containership incidents present a host of challenges for responders

Wreck removal

Following the technical achievement of the oil removal operation from the sunken wreck of the PRESTIGE, the drive to remove both oil and wrecks from coastal waters culminated in the entry into force of the Nairobi International Convention on the Removal of Wrecks in 2015. This provided the first set of international rules and procedures aimed at ensuring the prompt and effective removal of shipwrecks where they posed a navigational or environmental hazard. ITOPF has provided objective technical advice on a wide range of environmental impacts associated with shipwrecks, including, in 2013, during the successful "parbuckling" operation in Italy to right the cruise liner, COSTA CONCORDIA, one of the biggest salvage operations in maritime history. The importance of ITOPF's work in this area was recognised when it won the Salvage & Wreck Conference Environmental Protection Award 2017.



ITOPF provided advice on environmental considerations during the raising of the COSTA CONCORDIA



Geographic priorities

As part of its strategic objectives, ITOPF has highlighted key countries and regions where the level of risk and preparedness warrants special attention. One such area is the Arctic, where ITOPF's advice has been sought as awareness of the risks involved when operating in this sensitive and remote environment increased. In 2012, ITOPF formed an internal working group in order to expand its knowledge of Arctic and ice-related issues and to monitor technological and regulatory developments. ITOPF was also invited by the Arctic Council to provide expert comment to a specially convened task force to negotiate what is now a binding agreement governing co-operation on preparedness and response for marine oil spills in the Arctic.

Disseminating key messages

During this decade ITOPF has developed more effective ways of disseminating its key messages and established the Information, Communications and Education team. In 2012 ITOPF produced an expanded and updated set of 17 TIPs, which were brought to life in 2014 with the completion of seven films promoting good practice in oil spill response. The "Response to Marine Oil Spills" film series involved many hours over the course of several years to obtain footage and prepare scripts. An eighth film "Oil spills in Cold Climates" was completed in 2016. The films were made with the cooperation of key government and industry partners around the world. They have subtitles in ten languages and are widely used in training courses worldwide. They are streamed on average 38 times a day and have been watched in over 170 countries.











To ensure that all its technical advisers have the necessary skills to attend on site in cold climates, since 2013, members of the team have travelled to northern Sweden to learn how to survive and work in Arctic conditions

China has also been a priority area for much of the decade. The high risk of incidents in the region, together with the enactment of new legislation to improve preparedness and response, encouraged ITOPF to increase its training and education activities here. Building on its extensive knowledge of fair rates for services and equipment, staff supported the P&I Clubs as they worked with Ship Pollution Response Organisations (SPROs) and shipowners to pre-agree terms for response service contracts. To raise awareness of its technical services, ITOPF also engaged a China Liaison Officer for a five year period in Shanghai.



The ITOPF film series incorporates footage from actual response operations gathered at the site of several oil spills worldwide since 2005, plus stock footage from major incidents since the 1970s and specially shot interviews with key players and staff. The films made a 'clean sweep' at the "Savannah Oscars", the film festival of the International Oil Spill Conference in Savannah, USA, 2014.







For its older audience, ITOPF devised an interactive spill response and claims exercise to highlight some of the more challenging issues that need to be considered when a spill occurs.

Some £350,000 has now been distributed to research and development projects worldwide since the creation of the ITOPF R&D Award.

ITOPF R&D Award

ITOPF has supported R&D initiatives on an ad-hoc basis for many years but, in 2011, this commitment was given a formal boost with the creation of the annual ITOPF R&D Award. This Award provides up to £50,000 each year, allocated on behalf of ITOPF Members, Associates and their P&I insurers, to projects that have the potential to make a valuable contribution to improving the knowledge and understanding of issues related to accidental marine pollution. Eighty applications for funding have been received since the start of this initiative with funding awarded to projects in Europe, North America and Asia. These include studies on fish health, wildlife rehabilitation, the fate and behaviour of chemicals and the detection of oil in ice.

ITOPF Today

Today, ITOPF has a diverse team of 34 people. This includes 15 spill responders who would be expected to spend around 100 days abroad each year working with shipowners, insurers and government agencies on incidents, training and contingency planning activities. They are supported by office-based administrative and support staff in functions such as communications, IT, HR, finance and membership liaison.

Staff on their annual 'team building' away day 2016



(03)

(02)

ITOPF attends its first spill

on-site from the MT SAIJA off

Corsica in 1972 and produces

its first sitrep.

Cases

During its 50 year history, ITOPF has attended over 800 incidents in 100 countries and provided remote advice for many others. This includes most of the major spills and many smaller ones involving a wide range of oils and cargoes, giving the organisation unparalleled first-hand experience of the realities of spill response in the marine environment.



In 2010 the high profile incident involving the DEEPWATER HORIZON drilling rig in the Gulf of Mexico brings oil spills back into the spotlight. ITOPF's practical knowledge, particularly about dispersant use and response equipment worldwide, is called upon to support industry and government in their

The most remote incident ITOPF attended occurs with the grounding and sinking of bulk carrier, OLIVA, in the Tristan da Cunha island group in the South Atlantic, 1,750 miles from South Africa and 2,088 miles from South America in 2011.

In 1982 ITOPF undertakes an evaluation of the risk of oil pollution from the VLCC HERCULES which is found to have an unexploded bomb lodged in its tanks following an incident during the Falklands War.

(12)

A spill from MT THORSHOV at Fawley, UK, in 1969 is the first

incident involving a TOVALOP

entered vessel.

ITOPF attends a 66,700 tonne spill of heavy fuel oil from KATINA P off the coast of Mozambique in 1992 which poses challenging clean-up problems for the four staff alternating onsite due to an ongoing civil war.

11

In 2013 ITOPF provides technical adv to the Canadian authorities on the recovery of bunker fuel and pollutants from the wreck of a World War II US supply vessel BRIGADIER GENERAL M.G. ZALINSKI, which sank in 1946.

issues to the Chilean Navy. In 2014, ITOPF provides technical

In 1979 ITOPF provides

technical advice for the IOPC

Fund's first case, the ANTONIO

GRAMSCI spill in the Baltic.

recommendations for a spill of furnace oil in the world's largest mangrove in Bangladesh at the request of the UK Government Department for national Development.

In 1984 ITOPF attends an incident in Papua New Guinea involving the loss of 270 tonnes of sodium cyanide in drums from a towed barge. Initially, the containers sink but several hours later they refloat to the surface due to the reaction of seawater with hydrogen peroxide, which generates oxygen and increases their buoyancy. ITOPF provides advice on the possible environmental effects of the cyanide.





ITOPF provides technical advice on spill

in 1988 with significant loss of life.

response measures for the owners of the PIPER

ALPHA oil rig in the North Sea, which explodes



involving a 10 day journey via Hong Kong, Beijing and Yanji (China) before reaching the Rajin Sonbong

Special Economic Zone.

(06 In terms of effort expended, the HEBEI SPIRIT spill of 2007 is by far the most significant incident for ITOPF to date. A team of six technical advisers travel repeatedly to the Republic of Korea in conditions which at times are particularly demanding. Staff spend the equivalent of 1200 days working on this incident (on-site and from the office) in its first three years.

(07) In 2007 ITOPF attends an incident in Antarctica involving an ice-strengtheneo cruise vessel which encounters difficulties whilst passing through pack ice in the Bransfield Strait. ITOPF provides advice on pollution-related



1987 is ITOPF's busiest year in terms of spills attended at 31

In addition to oil spills, ITOPF has attended incidents including:

Cement	Sand
ron ore	Livestock
Steel coils	Wood
Coal	HNS
oyabeans	Frozen fish
lurdles	Cereals
lickel ore	Container contents
ead pellets	

Working together

ITOPF could not function without the goodwill of its many partners around the world and it appreciates the friendship and support they have given over the last 50 years.

ITOPF's unique role and position in pollution response means that close cooperation with a broad spread of organisations, companies and individuals is essential. From its outset, ITOPF has built an impressive list of contacts from international governmental and industry bodies; national government agencies; the oil, shipping and insurance industries and with numerous private organisations and other groups. Its work at pollution incidents and its involvement in training courses, conferences, seminars and workshops around the world have kept it close to its partners and ITOPF has worked hard to nurture and build those contacts into trusting, long term relationships.

P&I insurers

The Protection and Indemnity (P&I) Clubs have played a key role in the success story of ITOPF and continue to do so. They were instrumental in the establishment of TOVALOP and their ongoing support for ITOPF's work and facilitation of the payment of dues to ITOPF on behalf of their shipowner Members and Associates - often accomplished through brokers - ensures an equitable and sustainable mechanism of funding for its services.

ITOPF's 24 hour emergency service is one of the most valuable services provided by ITOPF to the P&I insurers and shipowners. ITOPF's presence on site at an incident provides reassurance that pollution issues are being dealt with by competent, experienced and technically qualified staff who can also act as a useful conduit of information from site. In addition, the insurers will normally rely upon ITOPF's technical assessment of claims when deciding payments to claimants.

Intergovernmental organisations

IMO, and its predecessor, the Inter-Governmental Maritime Consultative Organization (IMCO), was instrumental in developing maritime law and international regulations following a number of significant tanker incidents in the 1960s and '70s. ITOPF was granted Observer status at IMO in 1980 and its first major assignment was a review of oil pollution risk and contingency planning in the Indian sub-continent. Since then, ITOPF has enjoyed a highly productive partnership, working jointly on the development of manuals and guides, and on training assignments to assist Member States to build capacity, improve pollution preparedness and to implement the provisions of IMO conventions worldwide. A Letter of Agreement was signed between ITOPF and IMO in 2011 to formalise this cooperation. ITOPF attends and contributes regularly to the IMO Pollution Prevention and Response sub-committee.

Similarly, ITOPF has excellent relations with a number of regional centres affiliated to IMO and the United Nations Environment Programme (UNEP), with which it participates in training courses and collaborates during incidents.





Working with REMPEC and Cedre to present a training course on HNS spill management in Cairo, Egypt, 2017

The World Maritime University (WMU) was founded by IMO in 1983 in Sweden as an independent academic institution to provide advanced training for those involved in maritime administration, education and management, with a focus on developing countries. The complementary work of ITOPF to develop a wider understanding of pollution response led to an invitation to ITOPF in 2011 to become a Visiting Professor of the WMU. Many of WMU's alumni move on to key positions in maritime administrations in their home countries and this connection has served ITOPF well in many pollution incidents.

The entry into force of the 1971 Fund Convention in 1978 established the International Oil Pollution Compensation Fund in London to administer contributions and claims. ITOPF has been involved with the IOPC Funds since the outset, providing technical advice on-site for their first case, ANTONIO GRAMSCI in 1979 in the Baltic Sea. ITOPF has had Observer status with the Fund since 1980, providing an opportunity to contribute to debates within committees and working groups on technical issues, including the concepts of 'reasonableness'; preventive measures, economic loss and environmental damage. ITOPF has provided technical advice to, and on behalf of, the IOPC Funds for over 80 tanker incidents.

An early relationship with the EEC resulted in ITOPF's first major consultancy assignment in 1978 – namely, a survey of anti-pollution arrangements in 18 European countries. Later, following the ERIKA and PRESTIGE incidents, ITOPF provided a further study in 2004 on 'Response to Pollution from Ships' to assist the European Maritime Safety Agency (EMSA) in deciding its response strategy. More recently it has advised EMSA on rates for deployed resources.

The recent focus on shipping in the Arctic has meant ITOPF has enjoyed an excellent relationship with the intergovernmental Arctic Council by contributing to the discussion on oil pollution preparedness and response in this most sensitive region.

Government agencies

From the beginning, ITOPF recognised and appreciated the crucial role of governments in providing a framework of oil pollution preparedness, response and compensation. Over the years, ITOPF has invested considerable resources in supporting government agencies and, today, has established close working relationships with many agencies in different countries around the world.

As a result, ITOPF is often notified of new incidents directly by national authorities and regularly receives invitations to take part in exercises and to assist with contingency planning and other training initiatives.



ATLANTIC STRIKE TE



 Visiting the US Coastguard during a secondment with the National Oceanic and Atmospheric Administration (NOAA)



Signing a Memorandum of Understanding (MoU) with the Signing a memorandum or onderstanding (moo) with a Maritime and Port Authority of Singapore (MPA) on oil spill response and vessel rates with the aim of expediting

On-site with the Thai Navy



Running a training course for Brazil's Ministry of Environment



by the Korean Coast Guard



Industry associations

ITOPF interacts with a wide range of organisations established to represent the interests of shipping and the oil industry through working groups, committees, training assignments and other projects.



In 2017, ITOPF, in partnership with IMO and the IOPC Funds, collaborated with the International Chamber of Shipping (ICS), the International Group of P&I Clubs (IG), IPIECA, the International Salvage Union (ISU), the International Spill Control Organization (ISCO) and the Oil Companies International Marine Forum (OCIMF) on an exhibition charting 50 years of cooperation between government and industry for the safe transport of oil by sea. (Photo courtesy of IMO)

 \checkmark

Other organisations and the spill response community

ITOPF works alongside the many organisations engaged to deal with an incident, such as P&I correspondents, local surveyors and lawyers. A diverse range of other groups and individuals can also be involved in a pollution response; these include scientific institutions, private response and waste contractors, consultants specialising in fisheries, tourism and diving, animal welfare groups, satellite and aircraft operators and salvors. They are all well known to ITOPF and each organisation has complementary skills and experience.



ITOPF is an active supporter and contributor to the international spill conferences

Providing technical advice to clean-up workers in Greece





Resources held by response organisations, such as Oil Spill Response Ltd (OSRL) or the Petroleum Association of Japan (PAJ), are sometimes recommended by ITOPF to supplement local capability during an incident.



Site visit with Korean surveyors, KOMOS, city officials and fishermen to inspect shell farm damage in Yeosu, Korea 1993 (Photo courtesy of KOMOS)



Peter John Goulandris was ITOPF's longest serving Chairman and a Director for 37 years





Peter Michelmore OBE was legal adviser and Company Secretary at ITOPF from 1980 - 2017



ITOPF people

From its modest beginnings, ITOPF's growth and development is a remarkable success story. This is due in no small part to its people. They were - and remain - the key to its accomplishments.

ITOPF opened for business with a handful of staff in 1968, growing to 10 by 1975 when there were 3 in the technical/information team and 7 in administration. Today it has 34 employees, over half of whom are in technical roles. This remains a small workforce given the international scope and the broad range of technical and other services which ITOPF now provides.

Throughout its existence, ITOPF has been extremely fortunate to have attracted and retained staff of the highest calibre, whose skills and personal qualities are recognised and valued throughout the world.

It has also proved to be a very stable organisation. In its first half century, ITOPF was served by just seven Managing Directors (and only three in the last 30 years), there have been 12 Technical Managers (positions which now run concurrently) and it has welcomed some 150 employees.

Governed by a board of industry leaders, successive MDs, ably supported by Technical Managers and Directors, have ensured that the knowledge and capabilities of the team have responded to the changing demand for its technical services.

Over the years, ITOPF has been fortunate to benefit from the wisdom of its non-executive Chairmen and Directors who have given their time and experience freely. Thanks to its Board, ITOPF is an organisation of international repute, focused on current issues and independent of commercial bias or partisan interests.



The ITOPF Directors in 2017



Tim Wadsworth, Technical Support Manager, is in his 27th year at ITOPF

ITOPF Managing Directors

James Malcolmson	1969
Arthur Tripp	1969
Alexander Hetherington	1971
John Archer	1979
lan White	1987
Tosh Moller	2003
Karen Purnell	2009

ITOPF Chairmen

John H Kirby	1969
Adolph Kurz	1973
Peter John Goulandris	1982
Helge Schmidt	1997
Helmut Sohmen	2001
Bjorn Moller	2006
Paddy Rodgers	2014

ITOPF Technical Managers

John Wardley-Smith	1971
Mike Garnett	1975
Joe Nichols	1987
Tosh Moller	1998
Hugh Parker	1998
Brian Dicks	1998
Karen Purnell	2004
Richard Johnson	2006
Michael O'Brien	2009
Franck Laruelle	2010
Alex Hunt	2012
Mark Whittington	2014

ITOPF Technical Directors (position created in 2009)

Hugh Parker	2009
Richard Johnson	2009



Noelle Nichols (Haring) joined ITOPF in 1969 and served as Membership Secretary for 30 years

ITOPF's technical staff who respond to spills are exceptional for their ability to work under pressure for long periods, often in difficult and tense situations in remote locations. Their key attributes include firstrate communication skills and a commitment to high professional standards and cultural sensitivity when working with people worldwide. This is in addition to possessing strong academic credentials. Over half of the technical team have PhDs and all have postgraduate degrees in a variety of scientific disciplines (including marine biology, chemistry, environmental science, engineering, geography and geology). Their readiness to travel anywhere in the world at a few hours' notice is also noteworthy and thanks are owed to them and to their long-suffering families.

The technical staff are the ones in the spotlight, but they would not be able to do their jobs efficiently without the support of their colleagues in the office. The commitment and contribution of the technical support, finance, HR, administration, IT and information staff are vital to the smooth running of the organisation and successful delivery of its services.

Although based in London, since the 1980s ITOPF has attracted an international staff who bring with them valuable language skills and cultural awareness. Its current team comprises native speakers of English, French, German, Mandarin, Portuguese, Italian and Spanish which is a great asset for response and training assignments.

It is, naturally, sad when team members choose to move on but it is often not "goodbye". Previous ITOPF employees are spread far and wide across the globe in response and preparedness related positions; some in government roles, some working for intergovernmental agencies, NGOs, oil companies, response contractors and consultancies. There are often opportunities to work together again, safe in the knowledge that their ITOPF training and experiences never leave them and binds them together in the face of new challenges.

ITOPF people















































The next 50 years

ITOPF has evolved over the past 50 years from an administrative organisation, expected to have only a temporary role alongside the voluntary compensation regimes, to an established technical organisation whose practical advice is sought-after and respected worldwide. Looking ahead to the next 50 years, how might ITOPF develop?

Spill response

As we move towards an ever-more globalised society, ships will remain critical to the needs of the world economy. Able to cross the oceans in response to changing patterns of trade, shipping is as flexible as our imaginations will allow. We will eliminate some risks associated with transportation by sea but new risks will emerge. Our statistics already show a trend towards less oil being spilt from ships and, with more focus on clean shipping, it is likely that the more polluting fuels will be phased out. Prototypes of ships using alternative forms of propulsion are already moving from the drawing board to the construction yards, and sails are even coming back. But what of their cargoes?

It is likely that the ITOPF of the future will have technical expertise in a very wide range of substances carried by sea and perhaps skills associated with other aspects of shipping, like wreck removal and ballast water issues. It is also likely that we will see economic valuation of environmental damages becoming more prevalent. In which case, ensuring that real data, and not "pseudo-science", drives these valuations will be crucial if attempts to achieve fair recompense are to remain genuine and founded on evidence.

Automation and artificial intelligence are gaining acceptance and are likely to influence spill response techniques of the future. Drones are already taking the place of helicopter overflights in some scenarios. Perhaps the future will bring skimming and oil storage "bots" co-ordinated by drones and utilising "swarm" tactics to herd the oil! It is not a huge stretch of the imagination to foresee that these technologies could provide tangible advantages when dealing with spills in remote or hostile environments. That said, 'Mother Nature' reminds us frequently that she is in charge and, for this reason, our prediction is that response techniques of the future will still need to rely on strategies that work in harmony with natural environmental processes, guided by experienced people able to make common-sense decisions in the context of uncertainty.

Karen Purnell, ITOPF's Managing Director, looks to the future

Photo: Dianna Bonner

Research and Development

Being alert to the changing risks associated with maritime transportation will mean that ITOPF is ready to meet the needs of its stakeholders in the future. Our 2018 R&D Award brings the total R&D funds provided by ITOPF to date to some £350,000. Each year the R&D Award Committee reviews applications describing novel ideas and, as a result, ITOPF has funded a diverse range of different projects. The findings of some of these projects should lead to improvements in the way that we prepare for and respond to incidents, as well as new techniques for monitoring and restoring environmental resources. ITOPF's support of R&D and the links we make with students undertaking these projects worldwide will ensure that ITOPF remains relevant and nurtures a network of potential future employees and expert responders.

ITOPF will stay true to its fundamental purpose: to be well prepared, and to prepare others, to deal with incidents of pollution wherever and whenever they may occur.







Working practices

Technology, combined with different ways of working, are likely to mean that the way in which ITOPF provides its advice in the future will be different. I trust that we will maintain the allimportant personal contact but, it is likely that virtual ways of working with those affected by incidents may become more common. Technology will almost certainly enhance, and possibly transform, the way that we deliver our training courses, bringing them to life and making them far more interactive.

Anticipating fewer and fewer incidents will mean a heavy reliance on sharing expertise to ensure that preparedness remains high. It may also lead to centres of expertise being created as budgets in the private and public sectors become ever tighter. As long as global economies require goods to be moved by sea, focus on safely delivering these cargoes to their destinations will remain a priority.

Escalating transport and accommodation costs, congestion and growing security threats in major cities like London, are prompting employers and employees to consider alternative ways of working. As a people-oriented organisation, staff retention is important to ITOPF and we have a great track record of stability. Being in a position to both attract and keep good staff means that ITOPF needs to be adaptable and find ways to manage flexible working practices alongside delivering a reliable, high quality 24/7 emergency service.

It might mean that staff of the future won't have a dedicated desk at a permanent location; perhaps ITOPF will have a more 'fluid' workforce combining different patterns of working with working from different offices worldwide or using virtual offices. In which case, the HR and leadership challenges of the future are likely to be focused more on ensuring ITOPF's safety culture is embedded no matter where a member of staff is located; on retaining the team spirit that ITOPF values so highly; on maintaining consistency in the technical advice we give, and on avoiding "isolation" should staff not have a single 'base' from which to work. Key to our success in the future will be effective communication skills, and not just via technology, but through individuals who foster and demonstrate effective interaction.

ITOPF will stay true to its fundamental purpose: to be well prepared, and to prepare others, to deal with incidents of pollution wherever and whenever they may occur.

The future is exciting and the team is 'primed and ready' to take ITOPF forward into the next 50 years.





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