

Fifty Years of the International Oil Spill Conference

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Abstract

In 2019, the International Oil Spill Conference (IOSC) passed a significant milestone in turning 50 years old. Springing from the aftermath from both the Torrey Canyon and Santa Barbara oil spills, New York City hosted the first IOSC in 1969, attracting the attention and participation of a growing body of practitioners in a particular form of emergency response. Bringing together world leaders in oil spill prevention, preparedness, response, and restoration at conferences that fostered community and technological advancement between and within the industry, government, academia, and non-governmental organizations, IOSC was the conference to attend in order to share information, identify emerging issues, and develop key contacts. With the volume of oil shipments on the rise and an increasing reliance on petroleum cargoes and fuels in the latter half of the 20th century, as well as a keener focus on the protection of natural resources, the relevance and content of the IOSC continued to grow and solidify. In looking back at the history of the conference, this paper charts the development of the IOSC event and notes the growth of the positive impacts the conference has had on the spill response community and the conference features that have expanded its attractiveness and accessibility for over 50 years.

Origins

1969 saw the conflict in Vietnam in full fury, the United States space program headed towards putting a man on the moon, the Woodstock music festival crystalized a generation's free love movement, the Cuyahoga River in Ohio caught fire, and Union Oil's Platform A in the Santa Barbara Channel blew out and spilled nearly 100,000 barrels of crude oil into the Pacific Ocean. The Clean Water Act was still three years in the future but the focus on the environment and its health started in the 1960s and was gaining momentum. In December of 1969, about 1,100 participants attended a meeting in New York City sponsored by the American Petroleum Society and the Federal Water Pollution Control Administration. This meeting was the first convocation of oil spill scientists, pollution regulators, oil production companies, and non-governmental organizations which would form the basis for the International Oil Spill Conference. 2019, of course, was the 50th anniversary of that first conference and the 2020 event marks the 24th such gathering.

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The proceedings of the first conference indicate that even at the outset, the conference was well received, timely, and relevant. Kerry King, the Vice President of Texaco and chair of the committee to organize the event, welcomed the delegates and charged them with this statement: “We are here to discuss seriously, in a technical and scientific forum, what concrete things we can do, now and in the future, to reduce the hazard of oil spill damage to the environment.”

Even the first conference was international; delegates and presenters came from a variety of nations on five continents and made up approximately ten percent of the total delegates. The topical groupings for the 42 papers in that first event were:

1. General Papers
2. Prevention and Containment of Oil Spills
3. Chemical and Physical Additives
4. Mechanical Harvesting
5. Fate and Behavior of Oil on Water

One might ask where the research came from that fueled the first IOSC since the disparate parties had not hitherto found a common outlet for sharing their work i.e. there were no proceedings. A cursory analysis of the sources cited in the various papers presented indicates, that, in some cases, scientific journals and trade journals formed the basis from which conclusions were drawn. The summary from the first conference also identified, perhaps presciently, that the conference was the beginning of something that would endure and continue to contribute to the community that needed to grow,

“One of the most important lessons learned was that while the information exchanged was the most advanced thinking on the subject, there is still a long way to go. The body of knowledge is growing rapidly—but the unknowns still outweigh the knowns.”

Stated two of the organizers at the conclusion of the event,

“The most significant and surprising aspect of this Conference was the fact that eleven hundred people—about three times what had originally been anticipated—came to exchange information on the crucial topic of oil spill prevention and clean-up.”

Apparently the conclusion from the first meeting was that there was enough interest in pursuing these topics that a second meeting took place two years later. Over time, the IOSC generated a devoted following of emergency response practitioners, researchers, and policy makers. For example, the 15-member Federal technical and policy body known as the Interagency Coordinating Committee on Oil Pollution Research (ICCOPR) leverages the information shared at IOSC. Section 7001(c)(6) of the Oil Pollution Act of 1990 directed that Port Oil Pollution Minimization Demonstration Projects be conducted in New York, New Orleans and Los Angeles/Long Beach, and the Great Lakes. After the first two projects were completed, the Coast Guard determined they were not cost effective, and the ICCOPR agreed that the objectives for this legislative requirement could be met through other means such as the IOSC (ICCOPR, 2009).

Leadership

As previously mentioned, the leadership of the meeting (and later, Conference) was headed by the American Petroleum Institute (API) and the Federal Water Pollution Control Administration, one of the precursors to the Environmental Protection Agency (EPA). This arrangement was later changed in 1973 to include the permanent committee of API, EPA, and the United States Coast Guard (USCG). The triumvirate remained as such until 1995 when the International Maritime Organization (IMO) and the International Petroleum Industry Environmental Conservation Association (IPIECA) joined as permanent committee members. In another eight years (2003), the Minerals Management Service (MMS), in the U. S. Department of the Interior, and the National Oceanic and Atmospheric Administration (NOAA), from the U. S. Department of Commerce, would also join the committee. Following the Deepwater Horizon incident, MMS was restructured and the Bureau of Safety and Environmental Enforcement (BSEE) took over the MMS seat on the committee. Most recently, the Pipeline and Hazardous Material Safety Administration (PHMSA), situated in the U. S. Department of Transportation, joined the team and the eight member groups jointly plan the triennial event. The members represent a fairly broad spectrum of maritime and inland spill interests as well as government, industry, and non-governmental viewpoints.

Every event since the inaugural event in 1969 has been led by an executive from one of the major oil producing companies in the United States. This perspective and stewardship gave the committee a balance to the presence of government regulators and shared the burden among the producers in the U. S. It also produced a variety of themes that served as anchor points for the various conferences.

Producing and planning the event is just complicated enough that a specialized contractor has assisted the IOSC for close to two decades. Courtesy Associates was hired in ____ and eventually merged with SmithBucklin who took over the show helm around 2015. They facilitate all the planning meetings, work with the convention centers to secure a location and arrange myriad details, assist in acquiring the vendor to manage the complexities of the abstract and paper review process, and so forth. Without this show producer, the added duties on all of the committee members would be onerous and challenging to learn anew as the participants change from year to year. The vendor comes with deep experience in working trade shows and knows how to recover quickly when there is a power outage on the show floor, a menu item for the delegates has flopped, or the key note speaker needs their notes reprinted at the last minute, for example. All of the committee executives have relied heavily on the ability to anticipate snags before they occur and the ingenuity, steely nerves, and clever problem solving for when a pop up disruption does occur.

Venues

The IOSC has always been held in North America. Table 1. shows the locations for the event since inception.

Year	Location	Year	Location
1969	New York, NY	1993	Tampa, FL
1971	Washington, DC	1995	Long Beach, CA
1973	Washington, DC	1997	Fort Lauderdale, FL
1975	San Francisco, CA	1999	Seattle, WA
1977	New Orleans, LA	2001	Tampa, FL
1979	Los Angeles, CA	2003	Vancouver, BC
1981	Atlanta, GA	2005	Miami Beach, FL
1983	San Antonio, TX	2008	Savannah, GA
1985	Los Angeles, CA	2011	Portland, OR
1987	Baltimore, MD	2014	Savannah, GA
1989	San Antonio, TX	2017	Long Beach, CA
1991	San Diego, CA	2020	New Orleans, LA*

Table 1. Locations of the International Oil Spill Conference (*tentative)

In an effort to put a bit more spin on the “I” in IOSC, the conference did “travel abroad” in 2003 when Vancouver, British Columbia, Canada, hosted the venue. (Interestingly, the SARS virus was making news at the time and attendance at the Canadian location was believed to be lower than expected due to suspicions over the spread of the virus.) But, the IOSC has enjoyed an attendance that allowed for delegates from around the world throughout its history. Scholarships to a variety of foreign (and domestic) delegates have encouraged participation by attendees who might not otherwise have a chance to visit. Recent figures show that over \$100,000 is spent on scholarships to dozens of people affiliated with academic, governmental and other roles worldwide. The recipients also are treated to complimentary attendance in the short courses on the first day of the event. The modern conference in the 2000s has seen an average attendance of approximately 1450 delegates and usually over 30 different nations sending delegates.

Planning

The modern IOSC event takes a little over three years to plan. Before the actual conference, the Executive Committee (led by a loaned executive from a major U. S. oil producer) and consisting of approximately a dozen representatives and the Program Committee underneath it (typically led by a senior USCG officer and consisting of about 20+ members), are selecting the site of the future conference, deciding on the keynote address speakers, monitoring the budget, and tracking progress of over a hundred subtasks. Using a sophisticated chart project racking tool, all of the steps that are required to make the conference occur then follow a fairly rigorous “countdown” timeline. Understandably, some portions of the preparation take a good amount of time.

For example, the presentations given at the conference, in essence, require upwards of a year and half to prepare in order to be given live at the event. The committee decides on when the call for papers is issued in the year before the event, authors respond with abstracts, the responses are all examined and vetted, the authors who are accepted are notified (and likely begin or continue writing their papers), the papers are then reviewed and, finally, the paper is completed and the presenter then bases their delivery derived from that document. The lecture given, in a sense, is the culmination of months of work by the committee and the author.

Beyond the abstracts for posters and papers, the committees wrestle with a host of issues that pertain to all elements of the conference including the technical sessions, the exhibition floor, sponsors, and modernizing the conference to keep pace with the times. As an example of the latter, apps for tracking the daily events at the conference have replaced bulky printed programs and allow the attendee to dynamically choose sessions to visit, receive updates and even provide feedback the organizers in real time. The conference has continually made changes to keep pace with digital technologies and communicate with the delegates to provide trustworthy information.

Triennial series

The IOSC is part of a triennial series of conferences that, in the mid 2000's, agreed to work to mutual benefit and promote each other's conference as well as stage their own conference every three years. The SPILLCON conference, usually hosted in Australia, and InterSpill, typically hosted in Europe, worked out a plan so that each conference would convene every three years. In 2005, the agreed upon three year cycle went into effect for these conferences. This actually produced an uptick in attendance to IOSC since the past events usually had a "competitor" hosting one of the other major international conferences that year too. Apparently, travel budgets for international events would not always tolerate attendance at two events in the same year.

Presently, the three conferences enjoy a higher level of cooperation and even conduct a quaint ceremony where one concluding conference hands off a boomerang to the conference host for the coming year (the tradition began at the 2010 Spillcon event in Melbourne, Australia), indicating that the attention will be focused on them to produce their event.

IOSC Proceedings

The IOSC stands out from other similar conferences in large part due to the quality and archiving of the papers and posters presented in the conference. For over 50 years, the conference's planners studiously managed the collection and organization of these peer-reviewed products in a comprehensive publication called the *IOSC Proceedings*. The *IOSC Proceedings* is the official chronicle of the IOSC. It is valued internationally as a critical source of information for oil spill subjects that often have not been discussed or published elsewhere. Some data sets and other spill information from IOSC papers in the 1970s and 1980s were only published in the *IOSC*

Proceedings. Hence, the *IOSC Proceedings* has and continues to serve as a cornerstone of the Conference.

Up to 2008, the *Proceedings* was a hard-copy publication that required the services of a professional printer to format and construct. Because a single conference year hosted hundreds of papers - each four to ten pages long - the final *Proceedings* printing was frequently the size of a large phone book. In the 1980's and 1990's, the *Proceedings* was printed with a soft-bound cover of a solid color that changed from conference to conference. Owners trying to find a particular paper from the Conference's history often did so by hunting for a particular cover color (i.e., red 1987 in Baltimore; teal 1997 in Fort Lauderdale). Because of the type-setting and other printing requirements needed to produce a high-quality hardcopy *Proceedings*, planners during the first 40 years of the IOSC ensured that paper authors followed strict instructions for formatting and delivering their final papers, including page limits, columniation, etc. Printed *Proceedings* were delivered to those participants who ordered them usually several months after the IOSC had concluded.

For the conferences held from 1995 through 1999, the Executive Committee commissioned eight special stand-alone Technical Reports from experienced oil spill practitioners and researchers to address specific issues for the international oil spill preparedness and response community. With topics such as "The Use and Misuse of the Natural Resource Damage Assessment" and "Putting Dispersants to Work: Overcoming Obstacles", the Technical Reports contained papers that were written to spur discussion among attendees and to frame particular themes in the conferences. Published to accompany the *Proceedings* in the year they were presented, the Technical Reports summarized at the time, the evolution of the management, science, technology, politics and practice of oil spill preparedness and response, both in the US and worldwide.

While a printed hardcopy *Proceedings* was the staple of the IOSC for four decades, beginning in the late 1990s conference papers and posters were also released on CD and other portable electronic media. During the early 2000's, IOSC volunteer Mr. Bill Edgar developed an impressive website that housed the latest IOSC papers and made them available to the public. His hard work and dedication in developing and maintaining the website for several years was a primary inspiration for the future electronic format of the *IOSC Proceedings*. With the establishment of the first *Proceedings* website by Mr. Edgar and a desire by conference organizers to phase out the printed format, the stage was set to evolve the production and distribution of the *IOSC Proceedings*.

Primarily as a result of the major spill events that occurred in 2009 and 2010, the 2011 IOSC experienced one of its largest attendances in its history. With the associated surge in funding, the IOSC Executive Committee voted to use part of the excess to hire an online publishing company to develop and maintain a comprehensive online *IOSC Proceedings* that: (1) contained every paper published since 1969; (2) was easy to search; and (3) offered free access to the public. The Executive Committee solicited and reviewed several commercial bids and chose Allen Press, Inc.

to deliver the desired content. During the conference intercession period between the 2011 and 2014, the Executive Committee worked closely with Allen Press, Inc. to tweak the design and accessibility of the new electronic *IOSC Proceedings* website. One of the most critical tasks at the beginning of the project was to find a high-quality hard copy of every *IOSC Proceedings* published since 1969 and the eight Technical Reports published in the late 1990's. When they heard about the project, many IOSC devotees dug through their libraries and happily donated their personal copies, including the rarer *Proceedings* volumes from the 1970's. Armed with a copy of each publication, the contractor physically pulled apart and electronically scanned each page (more than 40,000) to build the pdf documents needed for each conference year. Each *Proceedings* and Technical Report was painstakingly reconstructed with electronic tables of contents, front matter, and separate file connections for their associated content. Today the *IOSC Proceedings* website at www.ioscproceedings.org provides free access to thousands of papers and posters. Because papers and posters can now be published electronically, authors now have greater flexibility in developing both their content and length – hardcopy printing requirements are no longer a constraint.

The *Proceedings* presents one of the truly remarkable features of the IOSC: a historical legacy that stretches back to the very first meeting and captures the growth in knowledge, progress of technology, and pervasiveness of the literature that deals with oil spills and the prevention, preparedness, response, and restoration involved in those spill events. Easily, over 2,000 authors have contributed posters and papers to the body of knowledge that make up the *Proceedings*. It also helps to chip away at the gap that Cortelyou and Bernard (1969) mentioned at the first conference.

Amenities

The IOSC isn't all speeches and posters though. The event has included short courses, an expansive exhibit show, key note addresses, on water demonstrations, technical panels, a film and photograph exhibition and contest, social receptions, golf tournaments, poster contests for school children, gala dinners, and even side excursions. All of these come with a host of stories and a considerable amount of planning. These ancillary activities served to educate as well as network the participants and promote the themes of the conferences

Key Notes

Astronaut, aquanaut, actor, author: IOSC hosted at least one of each as the key note speaker (Scott Carpenter (NASA), Robert Ballard (Titanic discovery), Ted Danson, and Daniel Yergin (The Prize)) over the years. Even "Dr. Beach" (Steven Leatherman) paid a visit to speak to the delegates. The key note choice has usually been entertaining to many and, depending on the year, the topic, and the speaker, they have also caused some heads to shake. But more often than not, the headliner has had the chance to offer some provocative thoughts to a very receptive audience and launch the week. The conference has also used some noteworthy speakers at the

closing event to also help draw together the themes and messages of that event. Admiral Thad Allen, USCG, was recognized as one of the more noteworthy speakers given his role in the 2010 Deepwater Horizon incident.

The key note address has, more recently, been followed by a panel of high ranking executives in government and industry engaging in a facilitated discussion to address topics of the day or the directions that their respective organizations are taking. ITOPF has also spent a portion of the first conference morning recounting the major trends in spill response worldwide and highlights selected, notable events since the last convening of the event.

Short courses

Dating back to the early 2000's, the Monday (and sometimes Sunday) proceeding the event meant "class was in session". Short courses offered at the IOOSC spanned a variety of topics, taught by an array of instructors from industry, government, academia, and the response community – essentially the same demographic as the delegates at the event. These classes are offered to delegates for an additional fee and typically last four hours, though some classes are all day. Consistent topics in the more recent convenings include modeling, oil spill basics, fast water response techniques, natural resource damage assessment, Shoreline Cleanup Assessment Technique (SCAT), cold weather response, and dispersants.

One of the main reasons for having a set of courses is to bring the audience from the role of listener into the role of active learner and to give the instructors some quality time to deliver on a valuable lesson plan. The courses are not demonstrations of products or commercial in nature. Indeed, the presenters effectively deliver the courses *pro bono*. But, by taking the time to dig deeper on a topic and achieve greater interaction with the students, a connection is made. The students can ask questions, put "hands on" in some courses (e.g. modeling), demonstrate the grasp of the material, etc. Since the IOOSC caters to a wide spectrum of delegates, from neophytes to seasoned professionals, the courses need to accommodate skill and knowledge levels that appeal to this clientele. IOOSC even had a specialty course taught in Spanish one year to appeal to accommodate a segment of the overall delegate pool!

Exhibit floor

The exhibition portion ("expo") of IOOSC contributes a sizeable fraction of the revenue stream to run the conference and has usually attracted over a hundred vendors (booths) that run the gamut from bird rescue to trash pumps to sorbents to response clothing. Non-governmental organizations have also staffed booths to form a space in which they can closely connect with people interested in their services or mission.

Besides the technical program, the expo provides one of the truly valuable portions of the IOOSC. Wisdom shared repeatedly by seasoned responders goes, "The best thing you can have at a spill is a familiar face." As delegates prowl the show floor, they get a chance to meet vendors in a

face to face encounter and handle, witness, or test actual equipment, software, or material. This is, admittedly, a chance for a sales pitch but it's also notably a chance for potential customers to sort out the different kits and players in the response goods and services industry. And, meeting the people in a relaxed environment also permits both parties to form an acquaintance that might be called upon in the future. Getting to size up the equipment and services (and the people who stand behind those wares) helps to provide scale for the delegate.

On water/technical demonstration

The IOSC has not usually lacked for water nearby. But how far would the average attendee be willing to go to see the live demonstration? That logistical hurdle has exerted itself in the different venues and locations; as a result, sometimes the water is within sight and a short walk and the demonstration takes place near the convention center. But, at times, a walk that is too far or a waterway that is inaccessible makes the on water demonstration turn into a static display. The amount of coordination in the on water display can be substantial. Working with the local Captain of the Port, the organizers have to choreograph a small flotilla of vessels, an occasional helicopter or aerostat, drones and other water borne equipment. Since the demonstration is, by design, out of doors, the event is also subject to the weather.

More recently, the demonstration of technology has taken a slight change in direction and is now built around particular stations with specific themes within the conference venue itself. Starting at the 2017 IOSC, the Technology Demonstration was born consisting of five stations that explained the past, present, and future technologies of oil spill response. The stations were: Incident Command; Remote Sensing; Dispersants; Containment and Collection; Mechanical Recovery; and In-Situ Burning. Through this format, conference participants could visit each station to talk with subject matter experts from industry, government, and academia; view graphics and videos; and touch static displays – all that tell the complex story of battling oil spills. The format was considered so successful that the Conference Executive Committee chose to repeat it for the 2020 IOSC and also adding a new Source Control Station.

Film and Photo Exhibition

If “A picture is worth a thousand words”, then photographs and films could easily offer perspectives on par with that of lecturers and posters. Long managed by Joseph Mullins (formerly of the Minerals and Management Service, then BSEE, and now retired from federal service), the film and photo portion of the IOSC allowed visual artists and photographers to “speak” with their talents. Using visual imagery gave hobbyists as well as professionals a forum in which to express some of the creative arts and to tell stories of spills, restoration efforts, wildlife impacts, and a wide variety of topics. The visual canvas also saw changes as the actual formats went from photographs and various film formats to digital still and video imagery where editing and production could be significantly boosted. This feature of IOSC remains a vibrant and welcome diversion from the many platform presentations offered during the IOSC.

Receptions and diversions

Golf, sponsored by the IOSC, saw the 19th hole and its last appearance in 2014 at Portland, OR. The tournament was held on Monday of the conference week with only the short courses as competition. The chance to network in a “natural environment” was appreciated and the rain held off in the Pacific Northwest for that day. At some of the events in the 2000s, a poster contest for school aged children engaged local schools in developing posters and interest in

The IOSC has also included a gala dinner on the final evening to promote networking and celebrate the conclusion of the event. At times, IOSC has also tried to reach the spouses and guests of the delegates by offering side excursions to this auxiliary group. However, the popularity of the excursions waned and this offering was discontinued in the mid 2000s.

Future events

The IOSC continues generating interest and relevancy. While petroleum is used as fuel and is carried as cargo, the conference has a vital role to play in the readiness posture for a variety of stakeholders. The IOSC endeavors to fill in gaps in the “knowledge base” for the response community and provide a grand scale network opportunity so that responders can meet and exchange ideas with one another.

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