

# THE OBSERVER



## Modern technologies changing oil spill response Lessons learned during the pandemic here to stay

The Council's newest annual report on drills and exercises highlights lessons learned during the pandemic and recent changes due to new technologies.

Large drills continue to take advantage of video-conferencing platforms. Meetings are held online. Documents and other data are shared through online collaboration tools.

"While the Council supports responders having as much local knowledge as possible, modern communication technologies mean some positions in the response can fully function from a remote location such as Anchorage," says Roy

Robertson, drill monitor for the Council, and author of the report.

### Online learning during fishing vessel training

Alyeska's Ship Escort Response Vessel System, or SERVS, conducts annual training for crews of local fishing vessels, who are contracted to respond in case of a spill. Before the pandemic, part of the training was held in a classroom, part was hands-on experience with equipment on dry land, and finally, crews would practice deploying equipment on the water.

Since the pandemic, the classroom sessions have been held online.

### Hands-on equipment training increased in 2023

Technology can't take care of everything. Responders still need to know how to set up and use oil spill boom, run skimmers, and communicate effectively during an

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Responders often work in close proximity during drills and exercises, however the pandemic, restricted many of these activities. Left: Responders guide oil spill boom off of the response vessel Valdez Star as a distant fishing vessel tows the boom into position.

## Summer 2024

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## Volunteer Spotlight: Gordon Terpening

# Volunteer brings oceans of experience to Council committee

A teenage Gordon Terpening grew up watching ships navigating in and out of San Francisco Bay, and knew early on exactly what he wanted to do after high school. "Once I heard about what a ship's pilot did, I decided that's what I wanted to do."

After graduating from the California Maritime Academy with a Bachelor's in Nautical Science, Terpening realized these ambitions and went to sea. His first job, towing lumber out of Coos Bay, Oregon, was just the beginning. He's been involved in the maritime industry in one way or another ever since. Turns out he was one of the lucky humans who get to love their life's work.

"I'm a sea going guy," he says. The combination of peaceful and exciting fit him perfectly.

"Going to sea is basically hours and hours of boredom broken up by moments of sheer terror."

Over the years, Terpening has piloted vessels around the U.S. and the world. It's not just the locations that varied, it's the type of work. He's worked on a seagoing dredge doing underwater excavation, provided ocean transportation for the Navy as a civilian in the Military Sealift Command, on board tankers in the Far East, hauled jet fuel around the world, and supplied and towed oil rigs near Trinidad and Tobago.

"Generally, it was always so rough off the east coast of Trinidad," Terpening says. "The trade winds are blowing from the east and the current from South America is flowing north, so you're always in the trough."

"This was before the Amoco Cadiz in France and before the Brayer in Shetland, and so the big spills were kind of yet to come."

These experiences fine-tuned his skills at handling boats and trained him well for his years as a vessel pilot in Alaska.

Terpening says piloting in some other parts of the world, in and out of the same port day after day, can seem dull in comparison.

"When you're a pilot in southwestern Alaska, all the ports are all different, and they all have their own problems," he says. "And you get to see the wildest parts of Alaska. I loved it."

Gordon Terpening is a member of the Council's Port Operations and Vessel Traffic Systems Committee. The committee monitors port and tanker operations in Prince William Sound.



After retiring from piloting, Terpening spent a few years commercial fishing out of Bristol Bay with his son.

Terpening describes how he analyzed the approach to each port, evaluating the forces such as wind, waves, and propulsion that are acting on the ship. "It's kind of like constantly drawing vector diagrams in your head," he says. "That's what I see when I'm docking a ship. It's all just math."

Terpening says he's happy to be able to use these varied experiences to contribute to the work of the Council's Port Operation and Vessel Traffic System Committee. He thinks that this Council's independent oversight, as mandated by the U.S. Congress, makes a big difference.

"I try to tell other people about how amazing I think this committee is," Terpening says. He pointed out a Council report on "messenger lines" as an example.

## Council officers elected to serve until May 2025

The Council held its annual Board meeting in Valdez, Alaska, on May 2-3, 2024. Among other business, the Board convened to elect officers who will serve from May 2024 to May 2025.

The elected executive committee is comprised of:

- President: Robert Archibald, representing the City of Homer
- Vice President: Amanda Bauer, representing the City of Valdez
- Treasurer: Mako Haggerty, representing the Kenai Peninsula Borough
- Secretary: Bob Shavelson, representing the Oil Spill Region Environmental Coalition
- Three Members-at-Large:
  - Ben Cutrell, representing Chugach Alaska Corporation
  - David Janka, representing City of Cordova
  - Angela Totemoff, representing the Community of Tatitlek

"Of all the advances made in the safe transportation of oil since the 1989 Exxon Valdez oil spill, perhaps the most innovative and significant was the establishment of permanent, industry-funded citizen oversight for both Cook Inlet and Prince William Sound," Robert Archibald said. "Everyone involved should be proud of what has been accomplished since the spill, but we also should never become so satisfied with the current services or processes that we become complacent. Constant vigilance is needed to prevent a return to the pre-1989 complacency that allowed this disaster to happen. I am honored to lead our Board for another year as we work toward our shared goal of protecting our communities, economies, and environment."

The Council is grateful to have the support of its many volunteers from all over the Exxon Valdez oil spill region. The new executive committee is an excellent representation of the Council.



**Robert Archibald**



**Amanda Bauer**



**Mako Haggerty**



**Bob Shavelson**



**Angela Totemoff**



**David Janka**



**Ben Cutrell**

From the Executive Director:

## Remaining vigilant: Review of government oversight is needed

Last year, the Council released a report titled, "Assessment of Risks and Safety Culture at Alyeska's Valdez Marine Terminal." This report was initiated in response to safety concerns brought to the Council by concerned current and former Alyeska employees. The main conclusion was that there currently is an unacceptable safety risk to the terminal.

The Council has been encouraged by Alyeska's response to this report. We stand ready to support Alyeska, and state and federal regulatory agencies, in our role as an advisor.

One of the recommendations in the report was for Congress to initiate a review by the Government Accountability Office, or GAO, to determine the adequacy of the present regulatory oversight of terminal operations by federal and state agencies. The GAO reviews federal programs on behalf of Congress and provides fact-based, nonpartisan information to lawmakers and federal agencies that can be used to improve government.

The Council is pleased to report that members of Alaska's Congressional Delegation have requested the review and a GAO review team has been formed. The GAO team has now started their review of the regulatory and safety oversight of the Trans Alaska Pipeline System, or TAPS, which includes the 800-mile pipeline and the Valdez Marine Terminal.



**Donna Schantz**

**Executive Director**

It is the Council's expectation that the GAO report resulting from this review will highlight any deficiencies in state and federal oversight of the terminal so measures can be taken to address any

regulatory gaps that exist. The Council has been raising concerns about the diminishment of agency oversight at the terminal since the Joint Pipeline Office, or JPO, an interagency group of state and federal regulators, was determined to no longer exist as an organizational entity in 2010. Since then, there have been budget and staffing cuts, reorganizations and redistribution of duties, high turnover, loss of institutional knowledge, and difficulty filling positions among all of the agencies involved. The Council believes the cumulative impacts of all these factors are affecting the ability of regulators to comprehensively monitor operations that are necessary to help prevent an oil spill or other incident.

In 1991, following the Exxon Valdez oil spill, the GAO reviewed the adequacy of regulatory oversight of TAPS and found that the federal and state regulatory agencies did not have a satisfactory approach for regulating TAPS. According to the GAO, "To successfully fulfill their oversight responsibilities, the five regulatory agencies [those with the main authority out of twelve agencies total] can no longer be content with relying on Alyeska to police itself. The complacency that has existed in the past must be replaced with a systematic, disciplined, coordinated approach that will ensure TAPS' operational safety, oil spill response, and environmental protection" (GAO, 1991, p. 63).

In 1995, the GAO conducted another review, and while overall they found that the JPO had made progress towards improving regulatory oversight, they also found that the JPO had been operating on the philosophy of reacting to problems rather than implementing proactive programs to minimize chances that problems would occur. That 1995 GAO review led to many improvements in oversight.

Unfortunately, the system that was built up after the 1995 GAO review does not exist today. A new review is important to understand the current philosophy, capabilities, and individual

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From Alyeska:

## New Allison Creek response barge joins Alyeska's fleet

The new oil spill response barge Allison Creek arrived in Valdez in May, the sixth new-build barge to join the Alyeska's Ship Escort Response Vessel System, or SERVS, fleet since 2018. The custom-built vessel replaces the old Allison Creek barge, which was built in 1956, and in service on the Trans Alaska Pipeline System, or TAPS, as long as anyone can remember.

The new Allison Creek is now typically moored off the west end of the Valdez Marine Terminal, or VMT. The 200-foot barge has 13,600 barrels of recovered crude storage and is usually paired with the Valdez Star, a 123-foot self-propelled belt skimmer. On deck, there is an office for personnel and four connexes that hold oil spill response supplies and decontamination equipment. The barge is powered by two cat diesel generators and has a deck crane. It was built by Dakota Creek Industries in Anacortes, Washington.

Emergency Preparedness and Response Manager Mike Day evoked his family's history

in Valdez on February 12, when he and other SERVS staff celebrated the launch of the new barge in Anacortes.

"The Allison Creek is where my family got their drinking water," he said of the Valdez landmark that is the namesake of the new barge. Mike's family homesteaded on the land that eventually became the Valdez Marine Terminal. Allison Creek now provides hydroelectric power for the community as well as drinking and process water to the VMT. "Our goal for this barge is that we never actually use it for the purpose that we built it for."

Right: The deck of the barge is home to several connexes with additional oil spill response equipment.

Below: The Allison Creek is shown at its mooring off the western coast of the Valdez Marine Terminal during a recent field deployment. Photos courtesy of Alyeska Corporate Communications.



# Onboard ballast water systems helping reduce spread of invasive species

## Systems that treat tanker ballast water before release are a critical step in preventing damage from invasive species

In recent years, companies that transport oil through Prince William Sound have been installing systems to treat the seawater their ships take on as ballast.

Ships pick up ballast water after unloading cargo to help stabilize the vessel during travel. The problem is that larvae and other plankton in the ocean water are also taken on board, where they can easily catch a ride in tanker ballast water to a new port.

Of particular concern to our region is the European green crab, one of the most widespread invaders on the planet. Where they become established, invasive green crab can decimate local species and habitats. Their larvae are known to travel in the ballast water of tankers, and studies have shown that they can survive in climates found in Prince William Sound.

Until recently, the most common method to reduce risk of transporting invasive species was to exchange ballast water in the open ocean. Mid-trip, the water would be pumped out of the hold and refilled with water from the open ocean. The theory is that fewer invasive species live in the open ocean and those

that do are less likely to survive in a shoreline environment. However, larvae of invasive species can remain in sediments in the tank bottom. In addition, tankers that traveled between Alaska and West Coast refineries weren't

required to exchange ballast water until new regulations by the Environmental Protection Agency went into effect in late 2008. Some would exchange ballast water anyway, but if weather or sea conditions were dangerous, the exchange might not happen.

In 2018, a federal law known as the Vessel Incidental Discharge Act, or VIDA, was passed into law to streamline regulations for discharges from commercial vessels such as oil tankers. Among other changes, VIDA set a national management standard for vessels to meet. The Environmental Protection Agency and U.S. Coast Guard are continuing to finalize the rules and regulations for compliance with VIDA.

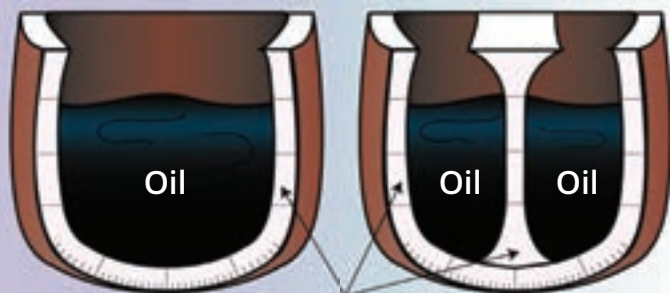
Meanwhile, tankers in Prince William Sound have already installed state of the art onboard systems to treat ballast water before its released.

These systems are designed to reduce the risk of introducing organisms from ballast water. Methods include filtration, chemicals, ultraviolet radiation, electrolysis, or a combination of these methods.

The Smithsonian Environmental Research Center's National Ballast Information Clearinghouse hosts an online database with information about ballast water treatment and release: [nbc.si.edu/database](http://nbc.si.edu/database)

European green crab were first spotted in Southeast Alaska in 2022. Find out how to identify a European green crab, and what to do if you spot one:

[www.pwsrccac.org/greencrab](http://www.pwsrccac.org/greencrab)



Void/Ballast Space

Ballast water is ocean water pumped into the belly of a ship. This extra weight helps maintain stability while underway. Ballast water is usually carried in the space between the outer hull of the tanker and the inner cargo holds, and does not come in contact with the oil.

# Council shoring up its crew: two promotions and a new hire

Two long-time Alaskans on the Council's staff are moving up the ranks and a former Valdez resident is returning to join the Council's staff.

In June, staff member Hans Odegard was promoted to the position of director of administration. Odegard was first hired as a project manager assistant in 2019. He was later promoted to information technology coordinator. Odegard replaced KJ Crawford, who resigned in January.

Odegard grew up in Eagle River and attended the University of Alaska Fairbanks, where he earned a Bachelor of Business Administration and a Master of Business Administration.

Jaina Willahan, the Council's newest project manager assistant, was originally hired as the administrative assistant in 2021. In the

intervening time she has also served as office coordinator in Anchorage.

A lifelong Alaskan, Willahan attended the University of Alaska Anchorage.

In early June, Dr. John Guthrie joined the Council to manage projects related to maritime operations. Dr. Guthrie grew up in Valdez and previously worked with Stan Stephens' Cruises for 10 years, six of those as a captain. He holds a doctorate in physical oceanography and most recently was a senior research scientist at the Polar Science Center at the University of Washington in Seattle.

Dr. Guthrie is replacing Alan Sorum, who has been the maritime operations project manager for the past 13 years.



Hans Odegard



Jaina Willahan



John Guthrie

## Volunteer Spotlight: Gordon Terpening

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Passing a messenger line is the first step in setting up a tow line between a tug and a tanker in distress. The lighter weight messenger line helps responders connect the heavy tow lines. In 2020, the Council studied the best methods and

tools for passing these lines between vessels. Little research had been done on the topic before.

"I mean that is amazing stuff that nobody would do unless you had the funding and the wherewithal of a committee like ours."

**Messenger line study:** In 2020, the Council released a study evaluating methods of establishing tow lines between an escort tug and a tanker in distress. This study demonstrates the importance of the Council's independent research. Learn more: [www.tinyurl.com/VIDEO-line-throwing](http://www.tinyurl.com/VIDEO-line-throwing)

## Community Corner:

# Prince William Sound College students tour Bligh Reef

On May 1, Council volunteers and staff joined local high school and college students, educators, and other partners on a cruise to Bligh Reef, where the Exxon Valdez oil tanker ran aground in 1989.

On board Stan Stephens' Valdez Spirit, the students were immersed in learning about the marine environment and the effects of oil spills. Passengers were treated to the typical delights of Prince William Sound including glimpses of whales, views of sea lions, and the beautiful scenery.

The tour was put on by the Copper River Watershed Project, or CRWP, in collaboration with the Prince William Sound College, or PWSC. CRWP Program Director Kate Morse and PWSC Professor Amanda Glazier coordinated the event. Morse is also a member of the Council's Information and Education Committee. Council members led activities and contributed their expertise on board.

Groups of students and adults rotated through learning stations over the course of the five-hour tour including conducting plankton "tows" to collect samples from the water, exploring plankton samples under microscopes, collecting water chemistry data, discussing marine navigation, and learning about marine oil spill response.

Participants also had the opportunity to engage in an activity titled "Voices from the Spill," which

involved reading personal stories of the Exxon Valdez oil spill and its aftermath, and then respond through creative writing or art.

Alyeska Pipeline Service Company generously provided a meal during the trip. Mixed groups of high school students, college students, and adults ate together and talked through a list of questions that prompted sharing about education and career pathways. In between learning activities, narration was provided about environmental, historical, and marine industry items of interest. Narrators included experts on board, such as trip leaders, the vessel captain, Council volunteers and staff, and staff from Alyeska's Ship Escort Response Vessel System.

In addition to viewing the Valdez Marine Terminal and oil spill response equipment from the water, there was exciting tanker activity. The group observed two tankers at the terminal, an empty inbound tanker with its tug escort, and a laden outbound tanker with its two escort tugs including one tethered to the stern.



**Maia  
Draper-Reich**  
Outreach  
Coordinator

The Council helped fund this tour as part of its Youth Involvement Program, which strives to help build the next generation of environmental stewards for our region.

The Bligh Reef Expedition was successful at getting local youth out into the environment of Prince William Sound to learn about ecology, oceanography, history, oil industry operations, and marine safety, all while connecting with local community members who work in associated fields.

Funds of up to \$5,000 are available for educational projects related to our mission. Please contact Maia Draper-Reich if you would like to be notified when the next proposal period opens: [maia.draper-reich@pwsrccac.org](mailto:maia.draper-reich@pwsrccac.org)



Photo by Cathy Hart.



## Council concerned about vessel-whale strikes

At the Council's May Board meeting, a draft resolution in support of voluntary speed reductions for oil tankers in Prince William Sound was presented by a concerned citizen. The Council has been studying the issue of vessel speed reductions to reduce whale strikes through the Scientific Advisory and Port Operations and Vessel Traffic System committees for over two years.

The Council recognizes that vessel-whale strikes occur worldwide by all classes of ships and research has demonstrated that reducing vessel speed is currently the most effective way to lower the number of whale strikes. We also recognize that while there is currently a lack of information and research regarding the prevalence and risk of tanker-whale strikes in Prince William Sound, lack of information does not necessarily mean an absence of harm.

During the meeting, Board members discussed concerns about protecting whale populations from impacts of the oil industry in our region; current speed limits for laden oil tankers; the effect of slower speeds on reduced air emissions and underwater noise pollution from tankers; and other considerations.

A motion was then passed to issue advisory letters conveying the Council's concerns related to vessel-whale strikes and acknowledging the effectiveness of reduced vessel speeds. The advisory letters will outline the Council's recommendations to fill existing information gaps on the threat to whales posed by oil tankers compared to other vessels in Prince William Sound and the need for additional outreach to mariners about existing regulations. These letters will be directed to relevant regulatory agencies and the Trans Alaska Pipeline System tanker operators.



Photo by Amanda Bauer.

### Upcoming Council meetings

The next meetings of the Council's Board of Directors will be held:

- September 21-22, 2024, in Kodiak
- January 23-24, 2025, in Anchorage

Board meetings are open to the public and an opportunity for public comments is provided at the beginning of each meeting.

Meetings of the Council's Board of Directors are streamed online and available to the public:

[www.pwsrcac.org](http://www.pwsrcac.org)

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## Modern technologies changing oil spill response

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emergency.

Unfortunately, crew members were not able to safely work with equipment over the last few years due to pandemic precautions. Restrictions hit two specific tactics particularly hard: nearshore response and sensitive area protection.

“Nearshore response” is a set of maneuvers used by fishing vessels to intercept the leading edge of an oil spill as it approaches a shoreline. These tactics are designed to redirect oil and collect it.

“Sensitive area protection” also happens near a shoreline. The difference is that these tactics are designed for a specific location such as a fish hatchery, cultural site, or wildlife congregation area. These tactics are planned out in advance and are designed to keep oil from contaminating the location.

Both of these tactics involve crew members being close together, so they were not regularly practiced from 2020-2022. In 2023, however, these exercises were held regularly.

### Other highlights from the report

**New oil spill response barges:** Over the past few years, Alyeska and the Prince William Sound shippers have been replacing oil spill response barges. These barges are stocked with response equipment and have large cargo tanks for storing collected oil. Some of the barges were up to 40 years old. The latest new barge is a replacement

for the Allison Creek, which arrived in Prince William Sound in April. See more about the Allison Creek on page 5.

The new barges are almost identical, so training on one vessel is applicable to all.

### Most likely scenario for spill from terminal:

Three of five exercises at the Valdez Marine Terminal involved an area called “Drainage 58.” This is considered the most likely route that a large oil spill from the East Tank Farm would flow downhill toward Port Valdez.

### Recommendations for improvement

While many of the drills and exercises went smoothly, observers did find room for improvement. Find more details in the full report on our website:

[www.tinyurl.com/2023-Drill-Report](http://www.tinyurl.com/2023-Drill-Report)

### Why does the Council promote drills and exercises?

Participating in drills and exercises means responders are better prepared in case of an oil spill. Crew members with previous experience become more proficient, and newer crew become familiar with the oil skimmers, oil collection boom, and other equipment.

The drills also allow for testing equipment and tactics in a controlled environment. Techniques are refined and improved, and possible weaknesses discovered.

## Remaining vigilant: Review of government oversight is needed

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responsibilities of the present regulatory oversight. This understanding is important to discern what, if any, improvements need to be made to avoid a major incident and/or oil spill.

To responsibly and safely conduct resource development, constant vigilance is required. The high standards put in place following the Exxon spill, based on lessons learned, have played a major part in preventing another major spill in our region. Any diminishment of the systems in place to promote safety and prevent spills will only lead us back to being unprepared for the destruction that occurred in 1989.

The Council is working to follow up on the

recommendations from our 2023 report, one of which was the GAO review. This and the other recommendations are some of the largest and most complex issues the Council has been involved in for many years. Our organization was formed to prevent the return of the complacency that led to the Exxon Valdez spill, and our work is a constant reminder that our mission and purpose are not only still relevant, but still needed just as much if not more today.

Links to “Assessment of Risks and Safety Culture at Alyeska’s Valdez Marine Terminal” and the 1991 and 1995 GAO audits are available on our website:  
[www.tinyurl.com/GAO-Review-Oversight](http://www.tinyurl.com/GAO-Review-Oversight)

# PRINCE WILLIAM SOUND REGIONAL CITIZENS' ADVISORY COUNCIL

## Citizens promoting the environmentally safe operation of the Alyeska terminal and associated tankers

### Who we are

The Council is an independent, nonprofit corporation formed after the 1989 Exxon Valdez oil spill to minimize the environmental impacts of the Trans Alaska Pipeline System's terminal and tanker fleet.

**A voice for citizens:** The Council is a voice for the people, communities, and interest groups in the region oiled by the Exxon Valdez spill.

Those with the most to lose from oil pollution must have a voice in the decisions that can put their livelihoods and communities at risk.

### What we do

**Combatting complacency:** Investigations into the Exxon Valdez oil spill found that complacency on the part of industry and the government contributed to the accident. The Oil Pollution Act of 1990 mandated independent, nonprofit, citizen oversight councils for Prince William Sound and Cook Inlet.

We combat the complacency that led to the 1989 spill by fostering partnerships among the oil industry, government, and local communities in addressing environmental concerns.

More about the Council and its history at:  
[www.pwsrcac.org/about](http://www.pwsrcac.org/about)

### Board of Directors

The Council's member entities are communities and interest groups affected by the Exxon Valdez oil spill:

Alaska State Chamber of Commerce  
Community of Chenega • Chugach Alaska Corporation  
City of Cordova • City of Homer • City of Kodiak  
City of Seldovia • City of Seward • City of Valdez  
City of Whittier • Community of Tatitlek  
Cordova District Fishermen United  
Kenai Peninsula Borough • Kodiak Island Borough  
Kodiak Village Mayors Association  
Oil Spill Region Environmental Coalition  
Oil Spill Region Recreational Coalition  
Port Graham Corp. • Prince William Sound Aquaculture Corp.

### Advisory Committees

Much of the Council's work is done through permanent volunteer committees made up of Board members, technical experts, and local citizens with an interest in making oil transportation safer in Alaska.

Our committees provide an avenue for public participation in the Council's work.

**Terminal Operations and Environmental Monitoring (TOEM):** TOEM identifies actual and potential sources of episodic and chronic pollution at the Valdez Marine Terminal.

**Port Operations and Vessel Traffic Systems (POVTS):** POVTS monitors port and tanker operations in Prince William Sound. The committee identifies and recommends improvements in the vessel traffic navigation systems and monitors the vessel escort system.

**Scientific Advisory Committee (SAC):** SAC sponsors independent scientific research and provides scientific assistance and advice to the other council committees on technical reports, scientific methodology, data interpretation, and position papers.

**Oil Spill Prevention and Response (OSPR):** OSPR works to minimize the risk and impacts associated with oil transportation through research, advice, and recommendations for strong and effective spill prevention and response measures, contingency planning, and regulations.

**Information and Education Committee (IEC):** IEC supports the Council's mission by fostering public awareness, responsibility, and participation in the Council's activities through information and education.

### Photo credits:

Cover: Rainbow over Prince William Sound.  
Page 1: A tanker at a loading berth at the Valdez Marine Terminal.  
Photos by Danielle Verna.