

cook inlet regional citizens advisory council 2017 Annual Report



#### FROM THE PRESIDENT & EXECUTIVE DIRECTOR

#### John Williams and Michael Munger



IRCAC has seen another dynamic year, and one not without incidents. But the good news is that in a number of significant ways we are strengthening the safety net surrounding oil transportation and operations in Cook Inlet.

The Cook Inlet Navigation Risk Assessment recommendations are being implemented with immediate effect; most notably, through the Cook Inlet Harbor Safety Committee, which is already evolving into a viable functioning organization and providing CIRCAC with another avenue to have a voice in navigational safety and maritime practices in Cook Inlet.

Plans and permitting for the Cross Inlet Pipeline are under way. This priority recommendation of the Risk Assessment has had CIRCAC's support since 2012 as the best alternative to tanker transport across Cook Inlet from a vulnerable location at the Drift River Oil Terminal. We are optimistic about this development, weighing in and closely monitoring its progress.

We conducted a tanker self-arrest study to test the reliability of self-arrest as a risk reduction option. This study has already stimulated advanced training at AVTEC for marine pilots and crew transiting the Inlet.

The NOAA ice forecaster can still rely on our ice monitoring network of cameras to provide real time information to relay to mariners transiting the Inlet.

We continue to apply our expertise to making plans and regulations stronger and more protective with our thorough contingency plan and technical reviews.

As a result of recent incidents in Cook Inlet, and because of our persistence, new life has been breathed into conducting a Cook Inlet Pipeline Infrastructure Risk Assessment, our highest priority going into 2018. We have long recognized the importance of a thorough assessment

of Cook Inlet's aging pipeline infrastructure—we conducted our first pipeline study in 2001. And that same year we successfully solicited industry to submit their pipeline reports to our Board on a voluntary basis. High profile incidents and the new Cross Inlet Pipeline reinforce the necessity for a comprehensive Pipeline Infrastructure Risk Assessment to provide greater assurance of their safe operation well into the future.

With expanded oil lease sales again on the horizon, our field work of Cook Inlet's sensitive nearshore habitat, and studies of oil fates and effects are more important than ever if we are to know and understand the potential risks of offshore drilling. We are making steady progress in sharing our extensive repository of scientific information with other researchers and the public through further development of on-line data portals, to positively influence future decision-making.

We are extremely proud of achieving U.S. Coast Guard recertification for 26 straight years without qualification—proving again our continued effectiveness in fulfilling our mandates under the Oil Pollution Act of 1990 (OPA 90). We remain committed to strict adherence to our responsibilities and Mission.

Looking ahead, we are building on our extensive body of work, forming new partnerships, and improving existing projects. In this report, we elaborate on our newest initiatives and studies and expand on the positive and lasting impacts we continue to make in protecting Cook Inlet for future generations.



JOHN WILLIAMS, PRESIDENT
CITY OF KENAI



ROBERT PETERKIN, II, V. PRESIDENT TOURISM



GARY FANDREI, TREASURER
AQUACULTURE ASSOCIATIONS



MICHAEL OPHEIM

ALASKA NATIVE GROUPS



CARLA STANLEY
CITY OF HOMER



ROB LINDSEY
CITY OF KODIAK



WALT SONEN
CITY OF SELDOVIA

# 2017 BOARD OF DIRECTORS





PAUL A. SHADURA, II COMMERCIAL FISHING



DERIC MARCORELLE
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GRACE MERKES
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KYLE CROW

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MOLLY McCAMMON

MUNICIPALITY OF ANCHORAGE



BOB FLINT RECREATION

## **Ex Officios**

OPA 90 also calls for the inclusion of non-voting Ex Officio members, representing various state and federal agencies.

Lieutenant Brent Mellen-United States Coast Guard (USCG)

Matt Carr-Environmental Protection Agency (EPA)

Dr. Heather Crowley–Bureau of Ocean Energy Management (BOEM)

Graham Wood–Alaska Department of Environmental Conservation (ADEC)

Jonathon Schick–Alaska Department of Natural Resources (ADNR)

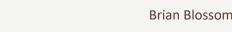
Catherine Berg-National Oceanic and Atmospheric Administration (NOAA)

Colin Blair—Division of Homeland Security & Emergency Management

Brian Blossom–Alaska Department of Fish & Game (ADF&G)

Jason Walsh-State Pipeline Coordinator's Office

Vacant-United States Forest Service (USFS)





## PARTICIPATING INTEREST GROUPS

Alaska Natives

Kenai Natives Association, Inc.

**Kenaitze Indian Tribe** 

Ninilchik Native Association, Inc.

**Port Graham Village Council** 

**Port Graham Corporation** 

**Seldovia Village Tribe** 

Sun'aq Tribe of Kodiak

Cook Inlet Region, Inc.

Natives of Kodiak, Inc.

Nanwalek IRA Council

**Seldovia Native Association** 

**Native Village of Eklutna** 

Aquaculture Associations

**Cook Inlet Aquaculture Association** 

**Kodiak Regional Aquaculture Association** 

Commercial Fishing

Alaska Groundfish Data Bank

**Alaska Whitefish Trawlers Association** 

Alaska Salmon Alliance

Kenai Peninsula Fishermen's Association

**North Pacific Fisheries Association** 

**Northern District Setnetters Association** 

**United Cook Inlet Drift Association** 

Environmental

**Alaska Marine Conservation Council** 

**Anchorage Waterways Council** 

**Center for Alaskan Coastal Studies** 

**Cook Inletkeeper** 

**Great Land Trust—Anchorage** 

**Kachemak Bay Conservation Society** 

**Kenai Watershed Forum** 

**Kodiak Audubon Society** 

**National Parks Conservation Association** 

ReGroup

**The Alaska Center** 

Recreation

**Alaska Charter Association** 

**Alaska Sport Fishing Association** 

**Kenai River Sports Fishing Association** 

**Kenai River Professional Guide Association** 

Tourism

Alaska State Chamber of Commerce

**Homer Chamber of Commerce** 

**Kenai Chamber of Commerce** 

Kenai Peninsula Tourism Marketing Council

**Kodiak Chamber of Commerce** 

**Soldotna Chamber of Commerce** 

Photo: The beach green, Honckenya peploides, grows at the top of beaches throughout Alaska's coast. Also known as sandwort, it is a valuable forage plant for many people and is often fermented. Photo by M. Lindeberg.





## COMMITTEES

We conduct our primary work through our committees, which are led by staff directors Susan Saupe and Steve "Vinnie" Catalano. These committees develop programs and projects in accordance with our OPA 90 mandates for environmental monitoring, oil spill prevention and response, and contingency plan and regulatory review.

#### **ENVIRONMENTAL MONITORING**

Molly McCammon, Chair; Michael Opheim; Carla Stanley;
Deric Marcorelle

#### Public Members

Dr. Eric Klein, V. Chair; Dr. Richard Prentki; Dan Urban; Robert Reges; Richard Frederic; John Tuttle

# PREVENTION, RESPONSE, OPERATIONS & SAFETY (PROPS)

Bob Flint, Chair; Rob Lindsey; Michael Opheim; Deric Marcorelle; Carla Stanley; Walt Sonen; Grace Merkes

#### **Public Members**

James McHale, V. Chair; Ted Moore; Scott Hamann; Jan Hansen; John Bauer; Steven Lufkin; Robert Reges; Captain Bob Pawlowski

#### PROTOCOL CONTROL

Robert Peterkin, II, Chair; Bob Flint; Rob Lindsey; Deric Marcorelle; Paul A. Shadura, II; Carla Stanley (Alternate)

#### **ADMINISTRATIVE**

#### EXECUTIVE

John Williams, President and Chair; Robert Peterkin, II, Vice President Gary Fandrei, Secretary/Treasurer; Bob Flint; Deric Marcorelle

#### AUDIT

Gary Fandrei, Chair; Molly McCammon; Grace Merkes; Robert Peterkin, I

#### CREDENTIALS

Robert Peterkin, II, Chair; Gary Fandrei; Grace Merkes; Michael Opheim (Alternate)

## STAFF

Michael Munger, Executive Director
Susan Saupe, Director of Science & Research
Steve "Vinnie" Catalano, Director of Operations
Lynda Giguere, Director of Public Outreach
Jerry Rombach, Director of Administration
Vaito'a Heaven, Administrative Assistant
Maritta Eledge, Accounts & Grants Manager
Cindy Sanguinetti, Transcriber



## OUR VOLUNTEERS

MAKING A DIFFERENCE, GIVING THEIR TIME, EXPERTISE AND COMMITMENT

**CARLA STANLEY** 

"Captain Glen Glenzer"

Volunteer of the Year

## SERVICE AWARDS thank you for your valuable time



Paul A. Shadura, II 20 years



Bob Flint 10 years



Walt Sonen 10 years

### SHARING DATA

#### Coastal Habitat Imagery and Data

The coastal habitat data and imagery collected during the Alaska ShoreZone Program have become key during oil spill planning and response, and are being applied to dozens of other coastal issues (including for randomized site selection for the lower Cook Inlet study described below). Following CIRCAC's 2002 demonstration project that served ShoreZone imagery and data on-line, the results of every subsequent survey are integrated and served via two main data portals: at NOAA's ShoreZone website (http://www.shorezone.org/use-shorezone) and through several AOOS data portals (www.aoos.org). Through the ShoreZone Steering Committee, we work with our partnering organizations to ensure continued public access with changes to on-line technology and improvements in mapping and imaging protocols.

Each year, at the Annual ShoreZone Partners Meeting in Anchorage, we invite the public to learn about the ShoreZone program and provide example applications. At the late November meeting, CIRCAC staff presented "ShoreZone 101 – A Complete Introduction to ShoreZone by S. Saupe." We also heard about several surprising applications, including the use of imagery from Elizabeth Island, on the outer Kenai Peninsula Coast, to simulate images taken by a drone flying on Mars. This section of coast, characterized by repetitive rock and trees while void of man-made objects, is useful to replicate the challenges to tracking position and altitude of a mobile robot in a GPS-denied and unstructured environment. ShoreZone imagery can help validate the accuracy of NASA's positioning architecture.



#### On-line Tools Improving Oil Spill Response

The Cook Inlet Response Tool (CIRT) was developed with the Alaska Ocean Observing System (AOOS) to integrate our ShoreZone habitat data and imagery with other information important for oil spill planning and response. This on-line tool is providing a mechanism for users to quickly access and visualize these data sets together. CIRCAC provides training to our stakeholders, industry and agency partners on how to search, download, and access different types of data from many sources, including real-time conditions, operational and research forecasts, satellite observations, and other biological, chemical and physical data.

AOOS data portals provided information during responses to the Platform A natural gas pipeline leak and Platform Anna crude oil pipeline leak. We also trained Andeavor and CISPRI to use CIRT for a worst-case scenario drill, and the tool was used extensively in the Planning Unit throughout the day-long exercise.







ShoreZone imagery from Trading Bay accessed from the Cook Inlet Response Tool (CIRT) (above). This area was just inshore of Platform Anna (top right) where a sheen was reported in spring 2017. Demonstrating CIRT during a drill at Cook Inlet Spill Prevention and Response, Inc. (CISPRI) (bottom right).



Mixed kelps (Saccharina spp.) along the Alaska Peninsula coast. Photo by M. Lindeberg.

#### ShoreZone Shore Stations

CIRCAC is spearheading efforts to revise the "Shore Station" on-line component of the Alaska ShoreZone Program. This will allow us to serve data and imagery across various data portals including our response portal developed with AOOS. Since 2002, we have conducted on-the-beach surveys of shoreline substrate, morphology, and biota in order to calibrate and inform habitat mapping based on the ShoreZone aerial survey imagery.

The new web-based visualization tool is being developed using our data and imagery CIRCAC collected in May 2016 at 28 sites along the Alaska Peninsula and Semidi Islands. With additional ShoreZone partners, the online database will be expanded to include the hundreds of sites in Alaska surveyed to date.

#### **CIRCAC Data Informing Decisions**

Agency partners used CIRCAC's environmental monitoring and research project results to inform decisions for a range of issues, including 1) providing recommendations on dispersant use and avoidance areas in the Cook Inlet and Kodiak Subarea Preauthorization Areas, reviewing the Oil Spill Risk Analysis and Draft Environmental Impact Statement for a lease sale in the Cook Inlet Planning Area, and during drills and actual incidents in upper Cook Inlet. During the natural gas pipeline leak, we provided background information from our integrated Cook Inlet Environmental Monitoring and Assessment Program (e.g. dissolved oxygen and salinity profiles) to aid in industry and agency modeling efforts.

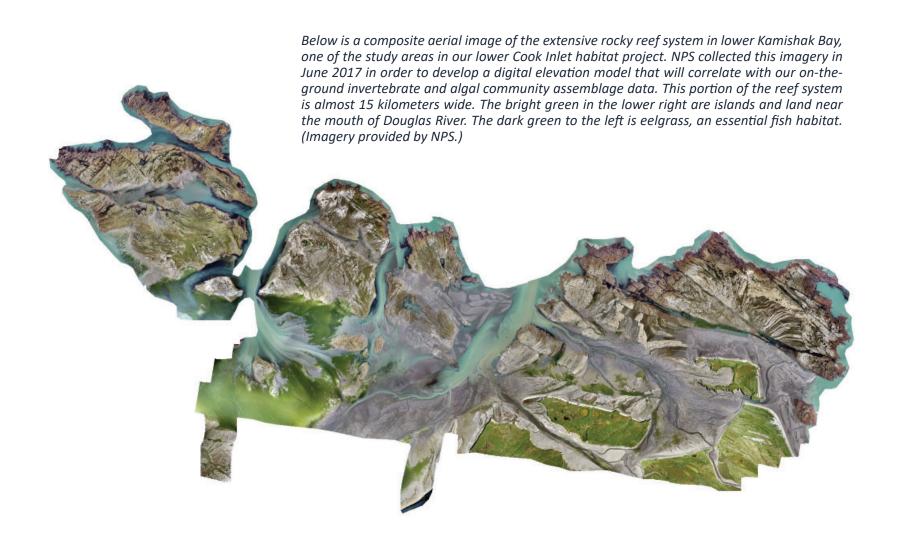
## IN THE FIELD

We completed our third year of the project Evaluation of Nearshore Communities and Habitats: Ecological Processes in Lower Cook Inlet. Funded by BOEM, this study is conducted through a partnership of CIRCAC, the National Park Service (NPS), University of Alaska, Fairbanks (UAF), and NOAA to collect nearshore seaweed and invertebrate assemblage and species-level data for the abundant rocky habitats of lower Cook Inlet.

Two exciting new components that were added this year include (1) graduate research of a food-web study applying carbon and nitrogen stable isotope methods and (2) NPS collections of "Structure-from-motion" aerial imagery to create high resolution digital elevation maps. These data will help us understand invertebrate trophic levels, the role of various primary producers as invertebrate food, and the tidal elevations occupied by each species or assemblage (and whether they vary across time or place).

Intertidal habitat assessment on Scott Island at mouth of Iniskin Bay—quadrat sampling along a cross-shore transect and real-time kinematic GPS. Photo by M. Lindeberg.







In May, we staged our field surveys from the R/V Island C, but due to a major storm, for the first time we were unable to sample all of our planned study areas. Our back-up plan, however, allowed us to include lower energy habitats in the study. In June, we accessed the complex rocky reef system between the Douglas River and Akumwarvik Bay using a helicopter, which allowed us to cover the long distances between transects within each low tide window.

The study will help evaluate risks of any future activities associated with the 2017 federal lease sale in lower Cook Inlet, where bids were received on fourteen tracts (totalling over 75,000 acres). For CIRCAC, the information also helps our continued efforts to obtain baseline information about Cook Inlet and evaluate potential impacts of current oil industry operations.

Photo: Small rocky reef in Kamishak Bay just before being swallowed by a rising tide. (Not to worry, we were waving for a staged photo, not signaling for help!)

An important part of research is sharing information and peer-review, and our project outreach efforts this year included:

Nearshore assessments of complex rocky reefs and platforms in lower Cook Inlet: A patchwork of marine assemblages. Poster presentation by S. Saupe, H. Coletti, K. Iken, T. Jones, B. Konar, M. Lindeberg, B. Pister, and S. Venator at the Alaska Marine Science Symposium, Anchorage, January 2017.

Nearshore food web structure in two contrasting regions of Cook Inlet. Poster presentation by D. Siegert, K. Iken, B. Konar, S. Saupe, M. Lindeberg at the Alaska Marine Science Symposium, Anchorage, January 2017.

Evaluation of nearshore communities and habitats: Review of study design and solicitation of input. Presentation by S. Saupe to the Kachemak Bay and Lower Cook Inlet Marine Ecosystem Workgroup, Homer, October 2017.

A low angle view: Making sense of Cook Inlet's complex rock platform and reef habitats. Presentation by S. Saupe at Prince William Sound RCAC Science Night, Anchorage, December 2017.

# PREVENTION & RESPONSE

During drill exercises and actual incidents, CIRCAC staff works through all levels of the Incident Command Center. We provide local knowledge, professional expertise, and advance the concerns of our stakeholders to the Incident Management Team. To ensure we all consistently improve and learn, we critically evaluate oil spill drills and exercises. This year we participated in four drills and several planning projects.

#### **Drills and Exercises**

- Hilcorp Beaver Creek table top drill focused on pipeline rupture and tank truck rollover.
- Harvest/Hilcorp, Drift River drill simulating catastrophic release of 270,000 barrels of crude oil at Drift River with impact to the Inlet.
- Glacier Oil/Cook Inlet Energy, designed to meet National Preparedness Response Exercise Program Guidelines and ensure compliance with the USCG and ADEC regulatory requirements. The drill scenario centered on a blowout at the Osprey Platform, resulting in a 1500 bbls per day release, with approximately 1200 bbls per day entering Cook Inlet.
- Andeavor, also designed to meet National Preparedness Response Exercise Program (NPREP) Guidelines and ensure compliance with USCG and ADEC regulatory requirements.

#### Planning Projects

- Participated in ADEC-led Exercise Guidance Document development workshop to aid State responders and industry to improve performance during spill events and spill drill exercises.
- Participated in workgroup discussions to review the Homeland Security Exercise and Evaluation Program (HSEEP). Provided comments promoting the HSEEP in various proposed regulation and ODPCP amendments.





#### Harbor Safety Committee

The Cook Inlet Harbor Safety Committee is quickly proving its effectiveness in promoting the interests of Cook Inlet's maritime community. As a member of the Committee, we participated in developing Cook Inlet's first Harbor Safety Plan and vessel traffic update.

## Assessing Risks

#### Cook Inlet Pipeline Infrastructure Risk Assessment

Doing business in Cook Inlet is not without risk. Vessels, platforms and sub-sea pipelines contend with strong currents, high tides, heavy silt and, in the winter, ice. Heightened public awareness of these vulnerabilities has influenced State and Federal support for a Cook Inlet Pipeline Infrastructure Risk Assessment. In addition to conducting the Risk Assessment, we also participated in the Cook Inlet Pipelines Task Force with multiple state and federal agencies.

Our goal is to develop a risk assessment that anticipates potential problems as Cook Inlet's pipeline infrastructure ages, recommends risk reduction measures for implementation before further loss of integrity, and ensures high quality recommendations from experts, operators, and the Cook Inlet public.

The Risk Assessment is being conducted in three phases and CIRCAC has taken the lead in funding Phase 1, which is nearing completion. This phase involves compiling a pipeline inventory and regulatory oversight of Cook Inlet area (on land & sub-sea) pipelines that transport oil, gas or three phase liquids (oil, water and gas) and are associated with oil production.

## INCIDENTS

Two incidents in CIRCAC's area of responsibility provided stark reminders of the challenges of doing business in Cook Inlet's demanding environment. These incidents also increased public and regulatory scrutiny of Cook Inlet's pipeline infrastructure.

#### Platform A Gas Pipeline Leak

We are always concerned and interested when infrastructure similar to crude oil infrastructure experiences a failure resulting in a hazardous substance release.

In April, a gas leak, that had gone undetected for months, was discovered on a natural gas supply pipeline leading to Platform A. Due to ice and weather conditions, leak investigation was limited and response actions delayed. CIRCAC provided expertise and data for water and air quality sampling plans, as well as assistance in interpreting results from testing near the discharge. We also participated in wildlife overflights of at-risk and background areas in the middle and upper inlet.

#### Platform Anna

Also in April, an oil sheen was reported near Platform Anna. The primary suspect was the subsea crude oil shipping pipeline that connects the Anna and Bruce Platforms to the Granite Point Tank Farm onshore. However, after extensive investigation and testing, it was determined that the sheen was caused by condensate which had been discharged by the natural gas flare line.

CIRCAC believes any leak to Cook Inlet's waters or shorelines necessitates close attention, particularly to identify any patterns that could be indicative of bigger problems. These two incidents were unrelated, but did reinforce our belief that Cook Inlet's aging infrastructure requires active regulatory oversight and that a comprehensive Risk Assessment is warranted.

## WORKING TOGETHER

#### **Site Tours**

Industry tours are invaluable in familiarizing CIRCAC with an operation's complexities, promoting better communications and sharing of information.

In June, staff, directors, and public members of the PROPS Committee gained valuable insight from touring the BlueCrest Energy Cosmopolitan oil production facility at Anchor Point. Approximately 100 people staff the Cosmopolitan site, about 90 percent of whom are local hires from the Kenai Peninsula. CIRCAC observed crews as they worked to finish drilling procedures to bring the recently completed 24,000-foot, horizontally drilled (6,000 foot vertical depth) well online. This will be the second well brought into production for BlueCrest Energy.

#### Marine Firefighting Symposium

CIRCAC partnered with the Prince William Sound Regional Citizens Advisory Council to bring the annual Alaska Marine Firefighting Symposium to Homer, Alaska. The curriculum included Command Track and Operations Track components.

The Symposium was open to firefighters from across Alaska for instruction on shipboard and marine firefighting techniques, and procedures for onshore firefighters.

Previous page: Platform A during methane leak.

This page: Touring the BlueCrest Energy Cosmopolitan oil production facility. Photo by V. Heaven.

#### Improving plans and regulations through

## REVIEW & COMMENTS

CIRCAC seeks to improve the State of Alaska and the nation's regulatory framework to ensure safer crude oil exploration, production and transportation. Our comprehensive review process for contingency plans, new regulations proposals, and proposed amendments to existing regulations adds another layer of scrutiny and insight to ensure stronger and more protective plans and regulatory oversight. Among our highlights this year, we:

- Identified areas to be avoided within the Dispersants Preauthorized Areas that coincide with Cook Inlet and Kodiak Sub-areas.
- Recommended the State of Alaska exert a greater physical regulatory presence when investigating all spill incidents as a deterrent to poor practices and to ensure regulatory compliance.
- Sought significant improvements in overall plan organization, level of detail, and clarity of presentation regarding Cook Inlet Production Facilities.
- Highlighted a serious concern regarding reduced manpower at some Cook Inlet facilities.

#### Specific comments submitted by CIRCAC:

- Hilcorp Alaska Oil Discharge Prevention and Contingency Plan (ODPCP) for Cook Inlet Exploration Program.
- Hilcorp Alaska ODPCP for Cook Inlet Production Program.
- Harvest Alaska LLC, facilities ODPCP.
- Cook Inlet Energy Production ODPCP.
- Update and revision for State of Alaska regulations regarding petroleum cleanup levels.
- Draft Alternative Planning Criteria (APC) National Guidelines.
- Dispersant Avoidance Areas within Preauthorization Areas.



Cook Inlet marine pilots and observers inside the AVTEC simulator. Photo by V. Catalano.

## SAFER NAVIGATION

#### Self-arrest study inspires advanced training

CIRCAC's 2016 self-arrest study utilized simulators to test the viability of using anchors to prevent groundings and accidents in Cook Inlet. A year later, the study's findings and simulator use influenced Andeavor, a study participant, to further invest in advanced training for their Cook Inlet-bound mariners and crew.

For two days in November 2017, sophisticated simulators ran numerous marine navigational situations including tanker self-arrest. Andeavor sponsored the training at the Alaska Vocational Technical Institute Maritime Training Center in Seward. AVTEC's simulators realistically replicated the day-to-day challenges of winter operations in Cook Inlet and verified CIRCAC's 2016 study findings that self-arrest is a viable risk reduction measure, when done by experienced and well-trained mariners. Andeavor gave the Maritime Training Program a \$95,000 grant in 2017, promising additional funding for 2018 to continue the advanced training program.

CIRCAC commends the training and sponsorship as examples of Andeavor's commitment to safety and environmental stewardship. CIRCAC's final study is available in our Library at www.circac.org.

## PUBLIC OUTREACH

CIRCAC's public outreach program utilizes every available avenue to reach the citizens we represent, including updates from our Board of Directors, scholarships, the website, e-newsletters, Annual Reports, social, earned and paid media; presentations, community visits, promotional items, and public appearances.

This year we returned as an exhibitor to the Pacific Marine Expo in Seattle, the largest commercial marine tradeshow on the West Coast. The event was heavily attended by Alaskans and with thousands of attendees, afforded us ample opportunity to network and share information about our organization and programs.

CIRCAC's Director of Public Outreach also participates in the Joint Information Center within the Unified Command during drills and incidents to advance stakeholder concerns during an oil spill response in Cook Inlet and impacted areas.

Our staff routinely presents training, e.g. effective utilization of the Cook Inlet Response Tool, as well as updates and progress reports about our program work in Cook Inlet. If your group, organization or community is interested and would like to hear more, please contact the Kenai Office at 907-283-7222.



CIRCAC Executive Director Mike Munger (left) with Alaska Statesman Clem Tillion at CIRCAC's Pacific Marine Expo Booth.



Fisherman of the Year Bruce Schactler (left) with CIRCAC Commercial Fishing representative Paul A. Shadura, II, at Pacific Marine Expo. Photos by L. Giguere.

## 2017 SCHOLARSHIPS

supporting the next generation





Filip Reutov (left), of Homer, 2017 Captain Barry Eldridge Memorial Scholarship award recipient, is attending the Marine Mechanic Institute in Orlando, Florida. Photo provided by Filip Reutov.

Michaela Zurflueh (right), of Kodiak, 2017 James Carter Memorial Scholarship award recipient, is a student at the University of Alaska Southeast in Juneau. Photo by L. Giguere.



From left, Public Member Steve Lufkin at CIRCAC's AFE Booth; CIRCAC Executive Director Mike Munger with Prince William Sound RCAC Executive Director Donna Schantz at PWSRCAC Science Night; Gretchen Saupe and Scott Smiley at ComFish Kodiak. Photos by L. Giquere.

## EXHIBITS AND PRESENTATIONS

#### **Exhibited**

Alaska Forum on the Environment • Alaska Marine Science Symposium (and Sponsor) • Alaska Process Industry Careers Consortium • ComFish Alaska • Industry Appreciation Day • Pacific Marine Expo

#### Participated/Presented

Alaska Regional Response Team • Andeavor Marine Training (AVTEC) • Cook Inlet Harbor Safety
Committee • Cook Inlet Subarea Sensitive Areas Work Group • Arctic IoNS (Incident of National
Significance) Workshop • Habitat Focus Area Steering Committee • Kamishak Bay National Estuarine
Research Reserve Marine Ecosystem Workshop • Marine Firefighting Symposium (and Sponsor) • Prince
William Sound Science Night • Land Based GRS Workgroup • San Juan County Department of Emergency
Management • ShoreZone Steering Committee • Oil Spill Recovery Institute • Interstate Oil and Gas
Compact Commission • Pipeline Task Force

#### Attended

ASTM International • Clean Gulf • Gulf of Mexico Research Initiative Oil Spill and Ecosystem Conference • International Oil Spill Conference • Alaska Oil Spill Technology Symposium • AMOP • Oceans '17 • Pacific States/BC Task Force

Back Inside Cover: Intertidal habitat assessment team on the west side of Cook Inlet near Chenik Head, Kamishak Bay.

Photo by M. Lindeberg.





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