6ALASKA STATE LEGISLATURE
HOUSE SPECIAL COMMITTEE ON FISHERIES
February 22, 2018
10:03 a.m.

MEMBERS PRESENT

Representative Louise Stutes, Chair
Representative Jonathan Kreiss-Tomkins
Representative David Eastman
Representative Mark Neuman

MEMBERS ABSENT

Representative Zach Fansler
Representative Geran Tarr
Representative Mike Chenault

COMMITTEE CALENDAR

PRESENTATION(S): UAF COLLEGE OF FISHERIES & OCEAN SCIENCES

- HEARD

HOUSE BILL NO. 231
"An Act relating to the Alaska Commercial Fisheries Entry Commission; and providing for an effective date."

- BILL HEARING POSTPONED

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

S. BRADLEY MORAN, PhD; Dean
College of Fisheries and Ocean Sciences (CFOS)
University of Alaska Fairbanks (UAF)
POSITION STATEMENT: Co-Presented a PowerPoint regarding the UAF College of Fisheries and Ocean Sciences.

GORDON KRUSE, PhD; Professor
College of Fisheries and Ocean Sciences (CSOF)
University of Alaska Fairbanks (UAF)
Juneau, Alaska

POSITION STATEMENT: Co-Presented a PowerPoint regarding the UAF College of Fisheries and Ocean Sciences.

ACTION NARRATIVE

10:03:05 AM

CHAIR LOUISE STUTES called the House Special Committee on Fisheries meeting to order at 10:03 a.m. Representatives Kreiss-Tomkins, Eastman, Neuman, and Stutes were present at the call to order.

Presentation by Dr. S. Bradley Moran, Dean, College of Fisheries & Ocean Sciences, UAF

10:04:13 AM

CHAIR STUTES announced that the only order of business would be

10:05:07 AM

S. BRADLEY MORAN, PhD; Dean, College of Fisheries and Ocean Sciences (CFOS), introduced himself.

GORDON KRUSE, PhD; Professor, College of Fisheries and Ocean Sciences (CSOF), University of Alaska Fairbanks (UAF), introduced himself and advised he is located at the Lena Point facilities in Juneau.

10:05:35 AM

DEAN MORAN offered to provide a brief overview of the College of Fisheries and Ocean Sciences (CFOS). Turning to slide 2, titled "Statewide Presence," he stated that the college was one of the largest combined research and academic unit in Alaska, consisting of over 300 faculty, staff and students as well as 12 locations across Alaska. He identified Fairbanks as the only non-coastal region for the CFOS. He directed attention to the graph that explains the CFOS budget for fiscal year (FY) 17. He asked to highlight the over $6 million infusion to the CFOS, noting the overall revenue to Alaska at $54 million, which was a good investment for Alaska returning $8 for every $1 invested. A large part of the budget was for the research vessel (R/V) Sikuliaq, the only ice-capable research vessel in the entire nation that the CFOS operates. He pointed out $24.6 million for research, which would be close to the FY 18 projected budget.

DEAN MORAN turned to slide 3, titled "Academic Programs," which read as follows [original punctuation provided]:

- Fisheries – Bachelor of Science (research focus)
- Fisheries – Bachelor of Arts (broader focus)
- Fisheries – Master of Science and Ph.D.
- Marine Biology – Master of Science and Ph.D.
- Oceanography – Master of Science and Ph.D.
- New Masters of Marine Studies
- New Fisheries and Ocean Sciences Undergraduate Degree

DEAN MORAN identified that the CFOS has expanded its degrees to include B.S. in Ocean Sciences, Masters, and Ph.D. programs offered at the University of Alaska Fairbanks (UAF) in Marine Biology, Fisheries, and Oceanography. These programs have been growing and the CFOS currently has over 100 graduate students and approximately 60 undergraduate students, he said.

10:07:49 AM

CHAIR STUTES asked whether the [degree programs] were available in all the satellite schools.

DEAN MORAN answered yes; that the college extensively uses video conferencing (Vicon).

10:08:11 AM

DEAN MORAN turned to slide 4, titled "Research & Economic Drivers," which read as follows [original punctuation provided]:

- Alaska Sea Grant Program
- Coastal Marine Institute
- Institute of Marine Science
- Kasitsna Bay Laboratory
- Kodiak Seafood & Marine Science Center
- Lena Point Fisheries Facility
- Ocean Acidification Research Center
- Pollock Conservation Cooperative Research Center
- Rasmuson Fisheries Research Center
- R/V Sikuliaq & Seward Marine Center

DEAN MORAN stated he listed the top components of the college. He added that the Alaska Sea Grant Program was a partnership with the National Oceanic and Atmospheric Administration (NOAA). The Institute of Marine Science was another grant program,

funded through the Bureau of Ocean Energy Management (BOEM). The program handles all the research. He mentioned that the Kodiak Seafood & Marine Science was the only seafood processing pilot plant in the state and that CFOS was aggressively pursuing partnerships between that facility and industry. The Lena Point Fisheries Facility was where the bulk of the fisheries programs are located. The college has an Ocean Acidification Research Center that has done fantastic work in coastal waters in support of fisheries and water quality, he said. The Rasmuson Fisheries Research Center supported by the Rasmuson Foundation assists the undergraduate fisheries program. Lastly, the R/V Sikuliaq, a $200 million NSF [National Science Foundation] owned CFOS operated research vessel, operates out of Seward.

10:10:06 AM

DEAN MORAN turned to slide 5 titled "Partnerships," which read, in part, as follows [original punctuation provided]:

> Pollock Conservation Cooperative is UAF's largest donor and since 2000 it has donated $20M
>
> CFOS donors support the following:
>
> Research Programs Fisheries
> Undergraduate Program
> Undergraduate Scholarships
> Graduate Fellowships
> R/V Sikuliaq Exhibit at the UA Museum of the North
> R/V Sikuliaq Alaska Homecoming Center for Salmon and Society National Ocean Sciences Bowl
> Marine Advisory Program
> Citizen Science Initiative
> AK Young Fishermen's Summit

DEAN MORAN stated that the Pollock Conservation Cooperative's donations were highly dependent on the education tax credit program, which was due to sunset in the current year. He expressed hope that the tax credit program would not be allowed to sunset.

10:10:59 AM

DEAN MORAN turned to Slide 6, titled "CFOS Mariculture Facilities, Faculty and Research," which read as follows [original punctuation provided]:

Facilities available for research:

Kodiak Seafood and Marine Science Center: Seafood R&D facility; research kitchens, biochemistry, food labs; test & develop new seafood products.
Kasitsna Bay Laboratory: Running sea-water, wet/dry labs, cold room; research on kelp and invertebrate ecology, e.g. conditions for successful settlement and growth, development.
Seward Marine Center: Adjacent to Alutiiq Pride Shellfish Hatchery, facility for research on mariculture studies.
Lena Point: CFOS research and teaching facility in SE Alaska.

CFOS faculty funded for mariculture research (seaweeds, invertebrates):

Keith Criddle (aquaculture), Ginny Eckert (crabs), Sarah Hardy (sea cucumbers), Quentin Fong (seafood science), Amanda Kelley (ocean acidification w/ kelp, clams), Brenda Konar (kelp harvesting, clams), Mike Stekoll (kelp)

DEAN MORAN stated that the takeaway from slide 6 is that CFOS has a lot of capacity to grow mariculture in Alaska.

10:11:44 AM

CHAIR STUTES took this opportunity to commend the Kodiak Seafood and Marine Science Center (KSMSC). She said it has had a huge role in the mariculture industry and would continue to do so. She hoped the University of Alaska Fairbanks (UAF) would find a way to keep this facility operational since it was the only processing and testing facility in the state. She pointed out that the KSMSC has been instrumental in developing the value-added products in the seafood industry.

10:12:31 AM

DEAN MORAN agreed, noting the key word is "potential" for the KSMSC. He stated that "Blue Evolution," [a seaweed farming entrepreneur], has leased space and is in the process of increasing its leased space.

10:12:46 AM

DEAN MORAN turned to slide 7, titled "Arctic Research Icebreaker Consortium," which read as follows [original punctuation provided]:

- Networking & coordination
- Transnational access
- Joint research activities

DEAN MORAN said the R/V Sikuliaq was part of the Arctic Research Icebreaker Consortium funded by the European Union. The UAF has been receiving funding in support of the R/V Sikuliaq along with research vessels from Norway, Sweden, the United Kingdom (UK), and Canada. He emphasized that this was "a really big deal" as Alaska was currently on the international stage leveraging state and federal investments. He stated that concluded his remarks.

10:13:43 AM

DR. KRUSE turned to slide 8, titled "Training Alaska's Professional Fisheries Workforce: Undergrads," which read as follows [original punctuation provided]:

- Since 2007, there have been 74 graduates from our undergraduate fisheries program
- 59 Bachelor of Science (BS)
- 15 Bachelor of Arts (BA)
- Employment of graduates with BS and BA:
- 45% - work for state and federal agencies in Alaska (e.g., ADF&G, NMFS)
- 27% - attending graduate school
- 14% - work for fishing industry
- 14% - work for UAF

DR. KRUSE said that the UAF's fisheries undergraduate program has grown to be one of the largest in the nation. The program has the highest retention rate of all programs at the UAF, retaining approximately 80 percent of its graduates as compared with 40 to 60 percent for other programs, h said. He briefly reviewed the statistics on slide 8.

10:15:03 AM

DR. KRUSE directed attention to slide 9, titled "Employment of CFOS Fisheries M.S. and Ph.D. Alumni," consisting of a pie graph identifying that 49 percent of MS and PhD graduates work in Alaska. He reported that the UAF has had 521 graduate students

with Masters, and PhD degrees. He directed attention to the pie chart that showed the distribution of employment, with 21 percent employed by the State of Alaska, primarily by the Alaska Department of Fish & Game (ADF&G), with 33 percent was unknown. He reported that 16 percent were employed by the federal government, primarily in the National Marine Fisheries Service (NMFS), but also with the US Geological Survey (USGS), US Forest Service (USFS) and other agencies. He pointed out that the National Oceanic and Atmospheric Administration (NOAA), Ted Stevens Marine Research Institute (TSMRI) at Auke Bay was dominated by UAF's graduates. If these graduates were removed, the facility would need to close since these employees perform substantial work, including doing all the stock assessments. He further reported that the NOAA Alaska Regional Office Deputy Regional Administrator, Doug Mecum, was one of UAF's fisheries graduates. He related that 4 percent work in business and consulting, mentioning Matt More, General Manager, Alaska Pacific Seafoods in Kodiak, Warner Lew, Bristol Bay Fleet Manager, Icicle Seafoods, and Sandro Lane, who developed the Taku Smokeries/Taku Fisheries in Juneau and later became co-owner of Trident Seafoods. Mr. Lane invented the cold-press, virgin salmon oil product, marketed as Omega 3, to obtain value from fish that would have otherwise been thrown away.

10:17:31 AM

REPRESENTATIVE KREISS-TOMKINS acknowledged the names mentioned were leaders in fisheries management. He shared that he once met someone in Juneau at GonZo waffle shop, who had been a student in his freshman oceanography class. This student, from Pennsylvania, was then pursuing her master's degree at CFOS because it is one of the best programs in the nation.

DR. KRUSE responded that the university was very proud of its programs.

10:18:42 AM

REPRESENTATIVE EASTMAN asked for a breakdown of the 51 percent of CFOS's M.S. and PhD alumni not working in Alaska. Specifically, he wondered if CFOS knew if graduates were from out of state, came to school here, and returned to their place of origin after graduation versus how many Alaskans graduated and consequently left the state for work.

DR. KRUSE reiterated that 49 percent of its alumni work in Alaska. Of the remaining 51 percent, 33 percent were unknown, a

fraction of which was undoubtedly working in Alaska, he said. He agreed that the CFOS program attracts students from other places who complete the program, and some return to their home states. He added that the program has not tracked the number of students from out-of-state and what fraction stay in state; however, he acknowledged that would be a good thing. He also acknowledged that these graduates are highly sought after and are recruited by universities, state, and federal governments.

10:20:25 AM

DR. KRUSE turned to page 10, titled "CFOS Fisheries Graduates in Alaskan Economy," which read as follows [original punctuation provided]:

- **Commercial fisheries**:
  - In 2015, Alaska commercial fisheries yielded 6B lb (60%) of the nation's fishery landings
  - $1.8 billion ex-vessel value.
  - Seafood industry is Alaska's largest private employer, averaging ~60,000 workers.
- **Sport fisheries/Subsistence**:
  - In 2007, 475,534 resident/nonresident licensed anglers spent $1.4 billion trip-related expenditures, supporting ~16,000 jobs in Alaska
  - Important customary and traditional uses of fishery resources

DR. KRUSE reviewed the statistics on slide 10. He added that three of CFOS's faculty are members of the Scientific and Statistical Committee for the North Pacific Fishery Management Council (NPFMC), together with two colleagues from the University of Alaska Anchorage (UAA), who make up a third of the total scientific body making scientific recommendations to the NPFMC on federal fisheries management. The committee sets the catch limits for all the federally managed fisheries in Alaska. He characterized this as an being incredible responsibility for the scientists who have tremendous pride in producing sustainable fisheries of this magnitude.

10:22:08 AM

DR. KRUSE turned to slide 11, titled "Department of Fisheries Research Topics," which read as follows [original punctuation provided]:

> **Topics** – Genetics, biology, ecology, migration, population dynamics, fishery oceanography, economics, human dimensions, and fishery management
>
> **Freshwater** – salmon, whitefishes, northern pike, rainbow trout, Arctic char, burbot, lampreys
>
> **Marine** – Pacific halibut, rockfishes, sablefish, pollock, cod, salmon, herring, crabs, shrimp, skates, dogfish, etc.
>
> **Mammals** – sea lions, seals, walrus and whales

DR. KRUSE explained that the department performs fishery research as other universities would do, noting that it has a vibrant freshwater program throughout the state in lakes and streams. He stated that the CFOS works on a plethora of marine species supporting valuable commercial fisheries as well as recreational marine fisheries, noting a few species were listed on this slide. The CFOS also has one marine mammal scientist who works on a variety of marine mammals.

10:22:56 AM

DR. KRUSE turned to slide 12, titled "Algal Toxins Trigger Increased Closures for a Lucrative Clam Fishery," which read, in part, as follows [original punctuation provided]:

> Uncovering the mechanisms behind wintertime paralytic shellfish toxicity in geoduck clam fisheries in Southeast Alaska
>
> Wild harvest of geoduck clams in SE Alaska has declined as a result of failed tests for paralytic shellfish toxins (PSTs); 76% of management areas failed weekly PST over 4 harvest seasons.
>
> Our team is coordinating with resource managers, fishers, and stakeholders to understand why this clam fishery is experiencing an increase in closures so that we can address management and mitigation needs.

DR. KRUSE offered to provide a few examples of the work done, directing attention to some of the projects. He mentioned that Southeast Alaska has a valuable geoduck clam fishery. He directed attention to the chart of slide 12, noting the exponential growth value that has plummeted in the past four years due to paralytic shellfish toxins (PSTs). He reported that 76 percent of the management areas have failed their weekly PST tests resulting in a great decline.

DR. KRUSE stated that a team of graduate students and faculty member has been working with fishery managers, fishermen and other stakeholders to try to understand the cause of the decline and what could be done in terms of management to mitigate the problem.

10:23:49 AM

DR. KRUSE turned to slide 13, titled "Improved Release of Hatchery Salmon," which read as follows [original punctuation provided]:

> How are nearshore predators responding to hatchery released salmon?
>
> **Key Preliminary Results**
>
> • Pacific staghorn sculpin and Dolly Varden consume salmon smolts (mostly) and juveniles during May and June, including areas near hatchery release sites.
>
> • As a result, hatchery salmon may be less vulnerable to predators because they are released at a large size.
>
> **Application**
>
> Optimal release strategies that improve smolt survival to avoid highest risk of predation
>
> Contribution of predation to early marine survival of juvenile salmon
>
> Research Team: Dr. Anne Beaudreau (UAF PI), Mr. Douglas Duncan (UAF student)
>
> Collaborating Organizations: University of Alaska Fairbanks, University of Alaska Southeast, Alaska

EPSCoR program, and the Age Tag Mark Lab of the Alaska Department of Fish and Game

Funders: University of Alaska Fairbanks, Alaska Sea Grant, Douglas Island Pink and Chum, Inc.

DR. KRUSE discussed this Southeast Alaska project, improving release of hatchery salmon, funded by the Douglas Island Pink and Chum Hatchery (DIPAC). He explained the hatcheries release salmon and hope to obtain a return on their investments. The hatcheries are very interested in reasons for any reductions to returns. They have invested in a study to determine the fate of hatchery-released salmon, including determining what species has been eating the smolts and juvenile salmon when the fish are first released, he said. He reviewed the key preliminary results, noting that the Pacific staghorn sculpin and Dolly Varden consume most of the smolts in May and June. These predators tend to focus on smaller fish so if hatcheries release larger smolts and juveniles, perhaps some predation can be avoided. He reviewed the application, noting one goal is to determine the optimal release strategies and when and where to release the fish to reduce predation mortality.

10:24:55 AM

DR. KRUSE turned to slide 14, titled "Killer Whale Depredation in Longline Fisheries," that identified problems, results, and outcomes, with photo of an orca whale and longline fishery depredation, which read, in part, as follows [original punctuation provided]:

Problems: Management:

- Inaccurate stocks assessments Fishermen:
- Reduced catches
- Increased costs Whales:
- Risk of entanglement
- behavior change

Results:

39-73% reduction in survey catches, and 35-70% reduction in commercial catches of halibut, sablefish and Greenland turbot.

Outcomes:
- Adjustments to NMFS stock assessments (in process)

- NPFMC now allows use of pot gear in Gulf of Alaska

DR. KRUSE suggested many members may be aware of killer whales [Orca whales] taking fish from fishing lines in longline fisheries in Alaska. This has been a real problem for halibut, sablefish, and Greenland turbot fisheries, he said. He explained that the NOAA and NMFS conduct longline surveys and have had difficulty determining what species has been removing bait from their lines, which can result in inaccurate stock assessments. Killer Whale depredation reduces fishermen's catches and increases their costs. He stated that whales risk entanglement. He reviewed the results and outcomes.

10:26:16 AM

DR. KRUSE turned to slide 15, titled "Interactions between State Fisheries and Steller Sea Lions," which read as follows [original punctuation provided]:

> Problem: Decline of western stock of Steller sea lions raised concerns about fishery interactions. Is there evidence that state fisheries are partly responsible?
>
> Approach: Statistical analysis of trends on sea lion rookeries and state fishery catches.
>
> Results: No evidence for effects of state fisheries on sea lions was found.
>
> Outcome: Additional costly restrictions were not imposed on state-managed fisheries to mitigate effects on sea lions.

10:27:08 AM

REPRESENTATIVE KREISS-TOMKINS asked about killer whale predation shown on slide 14. He related his understanding that sperm whales also were predators. He wondered if the statistics of 35-75 percent reduction was attributed only to killer whales or to the category of all whale species predation.

DR. KRUSE responded that the statistics referred to both species and added it was primarily orcas and sperm whales in Southeast. He offered that orca whales tend to be up north and dominate in taking Greenland turbot off hooks in the Bering Sea.

REPRESENTATIVE KREISS-TOMKINS said it was amazing that whales hear the boat hydraulics and beeline to the bottom.

10:28:23 AM

DR. KRUSE turned to slide 16, titled "Analysis of Tanner Crab Size Limit," which read as follows [original punctuation provided]:

> Problem: Many sublegal Tanner crab reach terminal molt and will never grow to legal size, resulting in excessive discards and waste. Approach: Computer model analysis of catch, bycatch, and fishery economics.
>
> Results: Lower size limit reduces discard mortality, increases CPUE, produces higher yields and revenues, and lowers marginal fishing costs.
>
> Outcome: Board of Fisheries approved proposal to reduce the size limit, improving the profitability of the Tanner crab fishery

DR. KRUSE commented fishermen were catching mature Tanner crab that were sublegal, dumping back crab that would never become legal, which resulted in discard mortality. The Bering Sea Fishery Research Foundation (BSFRF) funded this project. The Board of Fisheries approved a proposal to reduce the size limit and it improved the profitability of the Tanner crab fishery, he said.

10:29:25 AM

DR. KRUSE turned to slide 17, titled "Declines in Size of Pacific Halibut," which read as follows [original punctuation provided]:

> Problem: The average weight of an age-20 halibut declined from 120 lb in 1988 to 45 lb in 2015. The stock also declined.
>
> Methods: Cumulative effects of size-selective fishing and harvest rates were evaluated by simulation models.
>
> Results: High harvest rates and size-selective fishing explains 30-65% of the decline in the Gulf of Alaska.

Outcome: The International Pacific Halibut Commission has revised their stock assessment model to fix the bias.

DR. KRUSE stated that another CFOS project was studying the declines in the size of Pacific Halibut. He stated that the CFOS did computer-simulation modeling analyses of the cumulative effects of size-selective fishing, in other words, fishermen taking larger fish, and harvest rates. This study found that high harvest rates and size-selective fishing explained between 30 to 65 percent of the decline in the Gulf of Alaska and up to 100 percent of the decline in Southeast Alaska. The International Pacific Halibut Commission has modified their model and fixed the bias. He hoped that this would soon improve the halibut stocks.

10:30:42 AM

DR. KRUSE turned to slide 18, titled "Beaufort Sea Fish Monitoring," which showed a photograph and map, and read, in part, as follows [original punctuation provided]:

Goal: As part of their commitment to environmental and social responsibility, since 1985 Hilcorp has funded surveys of nearshore fishes in the Beaufort Sea for potential impacts of oil and gas development.

Methods: Fyke nets sampled daily from late June to early September.

Results: Ongoing research is focusing on climate effects on fish communities, bioenergetics, and growth.

DR. KRUSE stated that the Beaufort Sea fish monitoring was funded by the Hilcorp Energy Company, which was a survey of nearshore fish to explore the potential impacts of oil and gas development. The researchers sampled the sea with Fyke nets, a type of fish trap. Although the researchers did not find impacts from the oil and gas development, this study has found effects of climate change on fish communities, bioenergetics and growth. This research funds two graduate students, a fulltime technician, and a senior undergraduate thesis, he said.

10:31:45 AM

DR. KRUSE summarized his presentation, hoping he had conveyed the huge role the CFOS plays in Alaska's fisheries. The CFOS's graduates comprise a large percentage of the scientists and biologists, biometricians, and managers of state and federal fisheries. The CFOS performs research, high-quality work that supports the scientific basis for Alaska's lucrative, sustainable fisheries. The CFOS serves on the NPFMC's scientific committee, making decisions about catch limits. Sustainable Alaska fisheries are the envy of the nation and the world, he said. The CFOS's program has played a huge role in that success, he stated. He thanked the committee for its support.

10:33:08 AM

REPRESENTATIVE KREISS-TOMKINS related his understanding that funds for the R/V Sikuliaq were secured through federal sources. He asked whether the presenters could speak more specifically to the origin of the funding and the operating budget for the R/V Sikuliaq in terms of contracting out to third party researchers or continued federal support.

10:33:38 AM

DEAN MORAN agreed the R/V Sikuliaq was paid for with federal funds. He related that it was built in Wisconsin. He advised that the American Recovery and Reinvestment Act (ARRA) provided about $200 million of the federal funding. He related that the other institutions that operate a global-class vessel are the University of Washington, Woods Hole Oceanographic Institution, Woods Hole, Massachusetts; Scripps Institution of Oceanography, University of California San Diego; and Columbia University. In terms of the operating budget, the CFOS recently submitted the ship's proposal for $30 million for five years from the National Science Foundation to continue the R/V Sikuliaq's operations. Additional funding would come from the Office of Naval Research, the North Pacific Research Board, and the European Union. The annual infusion from NSF has been about $12 to $13 million.

10:34:58 AM

REPRESENTATIVE EASTMAN asked for the cost of the Tanner crab project.

DR. KRUSE did not specifically recall but offered his belief that the approximate cost was from $75,000 to $100,000 for an 18-month project.

CHAIR STUTES asked whether that information could be provided to the committee.

10:36:14 AM

REPRESENTATIVE KREISS-TOMKINS appreciated that the R/V Sikuliaq's homeport was in Alaska and not Lake Union or somewhere else in the Lower 48. He asked for further clarification on what services can be supplied to the R/V Sikuliaq and how it worked to have Alaska as homeport.

DEAN MORAN asked for further clarification on the question and if it was for shoreside support for the R/V Sikuliaq.

REPRESENTATIVE KREISS-TOMKINS agreed it was for shoreside report and to be certain the R/V Sikuliaq was able to obtain routine maintenance in Alaska.

DEAN MORAN said he was glad for the question and noted it would be competed by federal law by 2023. He clarified that at that time the University of Washington could compete to takeover homeport of the vessel. He stated that shoreside facilities and cost effectiveness was critical. Currently, the Seward infrastructure, the dock and shoreside support, need to be improved to be competitive. He acknowledged that the Hatfield Science Center at Oregon State University has a very nice facility. This vessel has been operated as other vessels have, through the University National Oceanographic Laboratory System (UNOLS) in terms of scheduling. He stated that he is on very good terms with many staff, that the CFOS has received very good post-cruise assessment reports on every cruise. Every single cruise that works on the North Slope or interacts with the Alaska Native communities must be presented to the Alaska Eskimo Whaling Commission one year in advance. Currently the R/V Sikuliaq operates very well but the state and university must be mindful that in 2023 others would like to operate the vessel and will actively compete for the $12 to $13 million budget.

10:39:29 AM

REPRESENTATIVE KREISS-TOMKINS further asked what would need to happen for the University of Washington or Oregon State University to wrest control of the R/V Sikuliaq from Alaska.

DEAN MORAN responded that the CFOS will have to write a proposal to continue operating the R/V Sikuliaq. He added that the R/V

Sikuliaq was the largest infrastructure that the NSF owns in addition to telescopes.

10:40:37 AM

REPRESENTATIVE KREISS-TOMKINS appreciated the role the college plays. He further asked for the strategic goals or initiatives for CFOS future endeavors.

DEAN MORAN answered that he moved to Alaska two years ago. The staff and faculty provided a decade-long plan, which he offered to provide it to the committee. He said that the CFOS's overarching goal is to become a top-notch college of fisheries and ocean science going forward in research, education, and public engagement.

10:41:30 AM

CHAIR STUTES thanked CFOS staff, Dr. Kruse and Dr. Moran for presenting today.

10:42:17 AM

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Fisheries meeting was adjourned at 10:42 a.m.