

**FITC Review Committee**  
**Final Report to the Chancellor**

**June 13, 2011**

**Mark Herrmann, Chair**

**Barbara Bolson**

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## **Chancellor's Charge**

On November 30, 2010, University of Alaska Fairbanks (UAF) Chancellor Brian Rogers formed a Fishery Industrial Technology Center (FITC) Review Committee. The charge to the committee was as follows:

- 1) Assess FITC's current and recent past value to the fish processing industry and the fishing industry more generally, based on services and research products provided.
- 2) Assess FITC's programs and services in light of industry need and its statutory basis.
- 3) Assess FITC's current contributions to fulfilling UAF's mission as a land grant and sea grant university.
- 4) Recommend changes in FITC activities and focus to better serve fish processors, fish harvesters and the citizens of Alaska.

The formal review process started on December 8, 2010 with the Review Committee Chair interviewing Mike Castellini, the Interim Dean of the School of Fisheries and Ocean Sciences (SFOS), and culminated with a two-day meeting in Anchorage on May 7-8, 2011 (a complete list of activities can be found in the Appendix A.1, page 13). This report summarizes the discussion and recommendations from that meeting.

*Note: Because this report will consider a comprehensive reorganization of FITC we will refer to this newly organized unit as Kodiak Center. Most likely a different name will ultimately be assigned (the committee's naming recommendation is noted below).*

## **Our Recommendations**

It is clear that the Seafood Science work being conducted at the Kodiak Center, which includes the Marine Advisory Program, is an important component to UAF and SFOS missions. The missions and objectives of UAF's Sea Grant program as well as the research, instruction, and public service/outreach missions of UAF are strengthened or enhanced by the Kodiak Center. Therefore, we embrace the SFOS proposal to reorganize the Fisheries Industrial Technology Center into a Center that can best serve the Seafood Science sector not only in Kodiak but in all of Alaska. Specifically, among the major portions of the reorganization, we endorse the following:

- SFOS formalizing a Business Plan for the comprehensive reorganization and transformation of FITC within SFOS
- Eliminating the interdisciplinary graduate degree in Seafood Science to be replaced either with a Fisheries or a Marine Biology degree with a Seafood Science emphasis (or concentration)
- A tenure-track Seafood Science faculty member to be hired with the savings from eliminating the full-time FITC Director position

- A Public Information Office (with some marketing experience) to be hired with the remaining savings from eliminating the full-time FITC Director position
- The name of the reorganized Kodiak Center to be the *Kodiak Seafood and Marine Sciences Center*
- The continuation of the (FITC) Policy Council with membership expanded from seven to nine
- Significant attention directed to the FITC building and grounds to make them more user friendly and inviting
- Continuing efforts to increase legislative support
- Increased effort by the Kodiak Center faculty to raise new and/or increase existing external/restricted funding
- The reassessment of staff and faculty time to maximize their productivity
- Significant effort placed in increasing development initiatives and funding by utilizing the SFOS Development Officer and UAF development initiatives
- Attention and prioritization of facility cost savings, such as replacing existing boilers
- The development of an industry workshop

### **FITC Background**

Enabling Legislation created the Fishery Industrial Technology Center in 1981 (see Appendix A.2, page14). The Center was developed with the understanding that FITC would be a world-class facility and national asset to address the training, education, and workforce development needs of the United States in the area of seafood science, technology, and engineering. The establishment of FITC preceded the establishment of the School of Fisheries and Ocean Sciences, formed by the Board of Regents in 1987 from several units that existed separately. FITC currently operates on Near Island in Kodiak, Alaska in the Alfred Owen Building, which was built in 1991 and consists of fourteen offices, conference rooms, a kitchen and sensory testing room, and several world-class laboratories.

The FITC facility houses seven full-time faculty and two affiliate faculty. Of the seven full-time faculty three are full-time FITC faculty, two are one-half time FITC and Marine Advisory Program (MAP) faculty, and two are full-time MAP faculty. FITC also houses four staff positions consisting of a Fiscal Technician, an Administrative Assistant, a Network Technician and a Building Coordinator. FITC also has graduate students and lab technicians. Early on FITC established itself as an applied research center with groundbreaking work on surimi production and was instrumental in the establishment of a thriving shoreside surimi industry in Alaska. Since this time the FITC faculty and lab space at the FITC facilities have been used for a variety of applied research (see <http://www.sfos.uaf.edu/fitc/research/projects/>). As part of this review, the team received 27 letters of support from industry participants documenting FITC's work in a variety of industry-related fields ranging from training sessions to specific laboratory testing of

products and waste water, product shelf life, shellfish farming, marketing of new products, and so on.

FITC remains the only seafood science-centered research unit in SFOS and in Alaska. As such, they are the only arm of the University that focuses on “dead fish,” an industry that supports much of the value that humans place on our oceans and seas. It is the seafood harvesting and processing industry that provides invaluable support to coastal communities that include a high percentage of Native Alaskans. FITC continues to be a focal point of seafood science research. Interim FITC Director Paula Cullenberg provided a list of 178 partnerships with which FITC has been involved over the last few years.

Despite their many successes, many in the industry, in the Kodiak community and at UAF, still have little or no idea what FITC does. Part of this seems to be due to lack of FITC engaging the industry, lack of communication from FITC about what they have accomplished, and a strained relationship between FITC and SFOS. Certainly, diminishing resources for FITC operations has also played a part. There has also been evidence of some lack of follow-through from FITC on important collaborative projects exacerbated by lack of effective FITC oversight.

The comment below from one of the industry players in the processing sector sums up many of the comments we heard and articulates a critical problem that needs to be solved:

The key to fully utilizing FITC is linking the list of industry needs to the capabilities of the FITC, and more importantly, communicating those capabilities and services to the industry. What I hear most frequently is that “FITC is not providing valued services to the industry”, but I believe that is largely due to:

1. FITC not providing the outreach necessary to effectively market its services and communicate specific areas of expertise to potential industry partners.
2. Lack of industry participation in communicating their needs to FITC - probably because industry is not fully aware of what FITC offers.
3. Need for FITC to describe their available research modes, i.e. public and/or proprietary research.

The bottom line is that I believe FITC has the facility and staff to provide some value to the industry, but communication between FITC and industry needs significant improvement.

### **Options Considered**

The Review Committee was originally asked to consider five different reorganization plans developed after discussions between the Review Committee Chair and the UAF Chancellor, Provost, and SFOS Interim Dean. The Committee was told that the status quo was not an option. The five plans that the Committee was to consider were as follows:

- 1) Dissolve FITC, move faculty to other units, and give buildings away

- 2) Dissolve FITC and reorganize seafood science efforts within SFOS
- 3) Dissolve FITC and reorganize seafood science efforts within the School of Natural Resources and Agricultural Sciences (SNRAS)
- 4) Dissolve FITC and reorganize seafood science efforts within the Cooperative Extension Service (CES)
- 5) Dissolve FITC and hand over portions of the program to the University of Alaska Anchorage (UAA), possibly to merge efforts with Kodiak College

SFOS gave the Review Committee a comprehensive proposal on February 25, 2011 for the reorganization of FITC. Following the proposal submission, various discussions took place between the Review Committee Chair, the SFOS Dean, the Dean of SNRAS, and the Director of Cooperative Extension. As a result, neither SNRAS nor CES submitted competing proposals, both supporting the SFOS proposal. Discussions have ensued as to mutual collaborations between a reorganized FITC under SFOS, SNRAS, and CES. Following that, from a discussion between the Review Committee Chair and the UAF Chancellor, the UAA option was not advanced, leaving the Review Committee with just one realistic option to work with – the SFOS option.

### **SFOS Proposal**

On February 25, 2011, the School of Fisheries and Ocean Sciences submitted a proposal for the restructuring of the Seafood Science efforts in Kodiak (See Appendix A.3, page15). This proposal is unanimously supported by the FITC faculty (a May 2011 letter expressing this was sent to the committee – it is not attached). The SFOS proposal is to dissolve FITC: “FITC identity as an academic unit will be dissolved.” It also recognizes that the reorganized Kodiak Center does not resolve budgetary issues; rather, it addresses factors that can make the faculty and facility more effective. Under the SFOS proposal, faculty members in FITC will be moved into either Fisheries (FISH), the Graduate Program in Marine Sciences and Limnology (GPMSL), Marine Advisory Program (MAP), or some combination thereof and be subject to the appropriate unit criteria. The faculty would remain supervised by the Dean of the School of Fisheries and Ocean Sciences but workloads and direct supervision would be parsed out. The workloads would be jointly negotiated by the faculty member and the Director of MAP and either the Director of the Fisheries Division or the Director of GPMSL, depending on the current Kodiak Center faculty FTE designations (i.e. 100% FITC or 50% FITC/50% MAP, or 100% MAP). Importantly, the Seafood Science faculty will remain in Kodiak, the highly preferred location with its rich activity of fish harvesting and processing activities serving many different commercial fisheries. The FITC Review Committee endorses all of these changes.

Overall, the Review Committee believes that the SFOS proposal provides a structure and mechanism to improve the operation, accountability, and anticipated beneficial outcomes of FITC. The SFOS proposal recognizes that “FITC is the only seafood-focused University research

facility in the state,” and that keeping FITC within SFOS will “foster close linkages among the University’s teaching, research, and service missions for the fishing and seafood industries.” Specific elements of the SFOS Proposal are addressed below:

**Academics:** The largest change under the SFOS proposal would be that the graduate students at the Kodiak Center would no longer be seeking interdisciplinary degrees in Seafood Science; at the masters level they would now be seeking either a Master of Science (MS) in Fisheries or Marine Biology. The FITC Review Committee agreed that it would be preferable that the MS in Fisheries have a Seafood Science concentration designated in the catalogue and on their transcripts and diplomas. The FITC Review Committee applauds this effort and believes that it will strengthen their degree program by giving the students a sense of belonging, a home where they can easily collaborate with other students and faculty, and easier access to courses taught in either Fairbanks or Juneau. It should also assist the Kodiak Center in attracting students into the program. The advancements in distance education and the state-of-the-art SFOS distance-delivery facilities funded by the Rasmuson Foundation should make this degree option much more likely to be successful than just a few years ago.

**Research:** Research will be based in wherever the Kodiak Center faculty align. Moving into either Fisheries or Marine Science should make faculty collaboration easier. There is no question that a large part of Kodiak Center research will involve obtaining external funding from grants, agreements or contracts. Dr. Keith Criddle, administrative director of Fisheries, has suggested that SFOS have a Fall 2011 meeting located in Kodiak to help foster these relationships; the FITC Review team strongly endorses that idea.

**Outreach:** A recurring theme and a difficult problem for the Kodiak Center faculty is that in their need for funding they must chase funding that may or may not be focused on problems of interest to the fishing industry. Likewise, problems of interest to the fishing industry may not have essential financial support. It is evident that there have been successes in outreach functions. Yet, despite the many industry letters of support for FITC, many industry representatives and Kodiak residents did not know what services had been performed, or are available, at FITC.

We recommend that the current efforts in outreach established under the Interim Director Paula Cullenberg continue and expand to include the following:

- Continue improving and updating FITC (or Kodiak Center) website
- Continue FITC (or Kodiak Center) newsletters and brown bag lunches
- Continue such events as the Kodiak Area Marine Science Symposium
- Hold regularly scheduled outreach and educational events at other important fishing communities, such as Dutch Harbor and Dillingham
- Have at least one Kodiak Center member join and actively participate in Kodiak, Alaska Rotary

- Have at least one Kodiak Center member regularly attending Kodiak, Alaska Chamber of Commerce
- Contribute regularly scheduled periodic articles/columns in the *Kodiak Mirror* and other fishing community newspapers or periodicals

To achieve these goals, the FITC Review Committee notes the urgent need to hire a Public Information Officer (PIO) located at the Kodiak Center to perform much of the outreach and marketing functions necessary to keep the momentum going. We believe this hire will be possible under the current budget if the Kodiak Center hires a faculty member instead of a Director and uses the savings to hire a PIO.

The FITC Review Committee also endorses the assigning of a stronger percentage of faculty workload to public service and notes that the workload of Kodiak Center faculty should reflect the need for Seafood Science faculty to work with the industry on specific problems (such as laboratory testing) and offer short courses.

**Name of Center:** The SFOS proposal, if adopted, completely reorganizes FITC. The naming choice for the newly organized Kodiak Center is important; it should reflect and rebrand the Center. The Review Committee, after considering several different proposals, unanimously agreed to recommend the name be changed to the *Kodiak Seafood and Marine Sciences Center*. We believe that this new name describes the unique characteristics and objectives of the Center.

**New Director vs. New Faculty Member:** The Committee endorses the SFOS recommendation that the Director for the Center not be re-hired/replaced; rather, the savings from that position should be used to hire a tenure-track faculty member in Seafood Science, with the remaining savings for a new staff position. Without a Director on site there could be some slippage in accountability; thus, the Director of MAP and Fisheries (currently Paula Cullenberg and Keith Criddle) will need to make sure that there is effective and meaningful communication between the new Center and SFOS. If in the future the Center grows to a larger size, then having a full-time Director might again be appropriate. The Committee agrees with FITC faculty that assigning some of faculty member Quentin Fong's time/effort as an onsite administrative coordinator is a good temporary solution but that the position of an administrative building coordinator might likely become part of the duties of a new PIO staff hire.

**Customer Service:** There was unanimous consent among the committee that the FITC customer service methods and related staffing need a complete overhaul. The Review Committee agreed that the FITC facility is neither user-friendly nor inviting for the public or for industry. It is strongly suggested that a full-time staff person sit behind the counter at the building entrance to greet the public, provide information, and to guide visitors to the appropriate places. This person could be a student worker or a position created through staff reorganization. The building is

viewed as cold and impersonal, dark and uninviting, and the grounds and building signs are in need of repair and not particularly attractive. The overall appearance is one of aloofness from and disinterest in the Kodiak community.

**Policy Council:** The FITC Review Committee recommends that the FITC Policy Council be preserved and supported but reorganized. Attention in reorganizing should be given to implementing appropriate modifications to the existing membership of the Policy Council to increase participation, engagement, and activity and association with the seafood industry. It is clear to the Review Committee that the FITC Policy Council has not been fully utilized by UAF or SFOS. The reorganized Policy Council should include some of the current members and be supplemented with new members who have specific, current, and relevant understanding and knowledge of the Alaska Seafood Industry, primarily with respect to prevalent and emerging processing and harvesting challenges, opportunities, and the competitive landscape.

The current FITC Policy Council is stipulated to include seven individuals, five of whom must be Alaska residents (i.e., two members from the processing sector, two members who are commercial harvesters and three members from the public). The FITC Review Committee recommends that the Chancellor of UAF expand the membership of the Kodiak Center Policy Council to include a total of nine individuals.

This newly formed Policy Council will make recommendations on seafood policy not necessarily limited to the Kodiak Center. The Review Committee also recommends that the Policy Council assist the transition of the FITC to the new organizational structure. Besides a Policy Council, the Committee suggests the development of a workshop made up of industry representatives to advise all SFOS programs on industry needs. The Kodiak Center Policy Council could take the lead in the forming of such a workshop and setting the meeting agenda.

The remaining portions of this report comment on various aspects of the new Center, not all directly pertaining to the SFOS proposal.

### **Legislative Assistance**

In a letter dated February 4, 2011 (not attached) Senator Gary Stevens and Representative Alan Austerman indicated,

We would like to request that, as part of the task force's final report, they provide recommendations to the Alaska legislature that include any statutory changes, funding requests, or other legislative actions that could support the long-term success of FITC. As the body that created the Fishery Industrial Technology Center, the legislature certainly bears some responsibility for its continued success, particularly where the enabling statutes might constrict their effectiveness.

The Committee recommends that the UAF Chancellor and the Dean of SFOS work with not only these distinguished Alaska State Legislators but also the mayors and members of the Kodiak City Council and the Kodiak Island Borough. Legislators and City officials could address the overall funding of the Center, the need for more student and faculty housing, and the need for Government assistance for workforce and development training. The Legislature can also be used to assist in bringing industry together to fund the efforts of the Kodiak Center.

### **Statutory Mandate**

The FITC Review Committee acknowledges the important and hard work of many individuals that created and passed the original statutes which have served FITC well over the thirty years of its existence. It is now realized, that with many changes being implemented to the UA fisheries related programs, that these primary duties, as outlined in the statutes, are the responsibility of the entire University of Alaska system with the focus on the entire School of Fisheries and Ocean Sciences. The statutes retain their general importance, but specific measures may be better carried out in a different manner, such as expanding the FITC Policy Council and having it report directly to the Dean of the SFOS and its recommendations or reports communicated directly to the UAF Chancellor, consistent with the SFOS Advisory Council.

Specifically, the FITC Review Committee recommends that the duties under the Alaska Statute be performed within the UA system, by some combination of the Kodiak Center, other units in SFOS, the UA Allied Fisheries program, and so forth. We recommend that specific portions of the Alaska statute related to this reorganization not be considered for revision or editing, unless deemed absolutely necessary and thus reorganization should be carried out as put forth by the SFOS proposal and with consideration to the FITC Review Committee recommendations without alteration of the statutes.

### **Budget (Current Issues)**

The SFOS proposal does not resolve budgetary issues and the Review Committee acknowledges this fact. However, the Review Committee felt it important to increase the effectiveness of the Kodiak Center given the current budget, a direction approved through discussions with the Chancellor. For example, in recommending that a new Director not be hired, the Committee believes that the resulting savings be used to hire an additional faculty and staff member.

Some modest cost savings may be gained from centralizing certain Kodiak Center functions with SFOS. The Kodiak Center may consider staffing changes. As well, there has been much discussion about energy savings from replacing two existing boilers at the Kodiak facilities and other facility improvements; these discussions should continue. However, the focus of the SFOS proposal centers on the increased effectiveness of the faculty and staff; the primary budget discussions centered on ways to replace funds lost from reduced external funding and/or to

increase funds from a combination of increased current external funding, creation of development-related funds, charging for services such as chemical analysis, increased tuition and increased legislative support.

Interim FITC Director Paula Cullenberg provided an overview of the operating funds for FITC for FY11 (See Appendix A.4, page 18). The total FY11 FITC operating budget (including salaries) was \$2.7 million. As the Committee looks ahead, at risk in this budget is approximately \$1.8 million in external funding from the United States Department of Agriculture (USDA) Cooperative State Research, Education, and Extension Service (CREES) and Agricultural Research Service (ARS) agencies, as well as the NOAA funding, via the Gulf Apex Predator, as that project is either discontinued or draws to a close. The Fund One operating budget distributed by SFOS to FITC is \$762,000 which in part allows the Center to pay the faculty and staff salaries not funded by external funding sources and provides minimal support for operations, including student aid. Certainly at risk here, without additional funds, will be graduate student funding. Unless there is a significant increase in external funded activity, increasing the number of graduate students on par with other SFOS faculty and units will be difficult.

The fixed building costs are funded by the Vice Chancellor for Administrative Services. These may vary but are approximately \$500,000 per fiscal year, which, when added to the Fund One operating cost means that UAF is funding FITC somewhere between \$1.2 and \$1.3 million a year. As there is very little indirect overhead recovery or tuition revenue generated from FITC, a substantial portion of these costs, as in many other units, is not recovered (See Appendix A.5, page 19).

Despite increasing facility costs across the UA system, the Review Committee recommends that the Chancellor may consider moving the Kodiak FITC Renewal request of \$2.5 million higher on the UAF deferred maintenance renewal and repurposing request.

### **Budget Future Plans**

Specific revenue generating activities are bulleted below (many of these ideas were generated from FITC):

- Increased external funding activity, which should be enhanced with more collaborative research projects with SFOS faculty and other faculty in the UA system, such as Kodiak College
  - Competitive proposals submitted to USDA or other funders such as Alaska Sea Grant, Alaska Space Grant, Environmental Protection Agency (EPA), Alaska Energy Authority, and National Oceanic and Atmospheric Administration (NOAA)

- Partnerships on competitive projects with Cooperative Extension Service and SNRAS related to food security
  - Partnerships with other state agencies – Alaska Department of Fish and Game (ADFG), Department of Environmental Conservation (DEC), Division of Agriculture under Commerce, Alaska Salmon Marketing Institute (ASMI)
  - Continuation of a USDA-funded Agricultural Research Station or some other USDA-funded center
  - Development of a coastal marine experiment station as a means for applied research, such as has been established in Oregon  
<http://www.coas.oregonstate.edu/marineportal/comes.html>
- Industry donations to a UA Foundation fund for Kodiak Center and/or development of a PCCRC-like structure for shore-based seafood processors
  - Industry partnerships, such as the cod liver project being developed by Dr. Alex Oliviera or development of a cost center for some laboratory or analytical services
  - Direct pay for classes, such as Smoked Salmon School (modeled after Surimi school) or other short courses for industry
  - Additional Legislative Support

## Metrics

The SFOS proposal is a five-year plan, considered a sufficiently long period of time to gauge whether the reorganized Kodiak Center is working. The Committee notes that the first step is that SFOS needs a Business Model and that this Business Model may take some time to be fully codified and implemented but that it should be in place within the next year. The Business Model should include metrics that will indicate whether the plan is working or not.

The FITC Review Committee strongly believes that the success or failure of the reorganized Kodiak Center is shared equally between the Kodiak Center *and* the entire School of Fisheries and Ocean Sciences. This reorganization cannot be successful without a great deal of effort from the Kodiak-based faculty and staff and a great deal of support from other areas located within SFOS. It is a *shared* responsibility.

The Committee did not feel empowered to develop specific metrics, as this is the responsibility of SFOS, but in the following bullets we list some of the objectives that could be quantified and tracked:

- Within a few months a Business Model should be developed
- Within 12-24 months the interdisciplinary graduate degree in Seafood Science for graduate students at FITC should have been replaced with the Fisheries or a Marine Biology degree with a Seafood Science emphasis or concentration.

- Workloads should reflect both the actual work that the faculty is doing and negotiated changes in faculty directions. Faculty should be rewarded if their workloads are being adequately addressed, even if this means more service than other SFOS faculty members
- The number of graduate students supported at the Kodiak Center should increase
- The number of external funds received by faculty at the Kodiak Center should increase
- The total amount of revenue generated from external funds, development activities and tuition should increase
- The collaborative interaction between Kodiak faculty and students and other SFOS faculty and students should increase so that Kodiak faculty and students are less isolated
- The number of online courses available to students should increase
- A better connection to Dutch Harbor and Bristol Bay should be formed
- Retiring faculty should be replaced by Applied Seafood Scientists
- The Kodiak Center Policy Council should meet twice a year

### **Industry Needs**

The Review Committee focused discussions on industry needs as it is the industry that drives much of Seafood Science research. We agree that a Needs Assessment is a high priority. FITC has in the recent past performed surveys of industry needs and has published white papers on the subject. At this point a Needs Assessment focusing on industry research, service, education, and workforce development should be undertaken to ascertain the role of the UA system including, SFOS and the SFOS Kodiak and other centers/units, UAA, and UAS. The developing Allied Fisheries Program should be part of this discussion; our proposed Kodiak Center industry workshop might play a role in this analysis.

During the FITC review, our Committee has collected information on industry needs. We include some of that information here in hopes that it can assist the SFOS with the direction to a reorganized Kodiak Center. Kris Norosz summarizes the need: “It is obvious we are all needing to ‘do more with less’ so product recovery and improved utilization are very important. Food safety is also paramount. And, having skilled workers available to hire is also a high priority.”

Appendix A.6 (page 20) provides a list of industry needs. It was suggested that we re-categorize this list into the following sections, but we will leave that to some future group.

- Food Safety
- Nutrition
- Research and Development
- Harvest/Farming

Again, various Committee members noted that industry-needed research does not necessarily coincide with research funding. Furthermore, important research funding will sometimes emerge

(e.g. past projects on arrowtooth utilization), but when funding runs dry, often the work is stopped. There needs to be a funding conduit for this type of research.

### **Allied Fish Program**

The Review Committee strongly endorses the Allied Fish Program as expressed in the April 27, 2011 draft vision plan (not attached here). FITC should have an important role in workforce training in an Allied Fisheries Program, a role that has been previously alluded to by the FITC Policy Council in a letter to then UA President Mark Hamilton (See Appendix A.7, page 21) and in a supported FITC Position, Vision and Strategic Plan (not enclosed). We believe that there is a role for the Kodiak Center and Kodiak College in this program. For example, the Review Committee applauds the recent hire of Chris Sannito, CEO of Sun'aq Tribal Enterprises, by the Marine Advisory Program, to prepare a series of short courses and workshops aimed at processors (See Appendix A.8, page 24). One note of caution -- the Committee was told that unless these courses were DEC-certified they were unlikely to be well attended.

## Appendix

### A.1. Meetings and Activities (does not include many phone interviews with industry etc.)

1. **Nov 30, 2010.** FITC formed and letter of invitation sent out
  2. **Dec 8.** Mark Herrmann meets with SFOS Interim Dean Mike Castellini
  3. **Dec 16.** Mark Herrmann meets with Provost Susan Henrichs
  4. **Jan 13, 2011.** Mark Herrmann has initial meeting with Chancellor Brian Rogers
  5. **Jan 19.** FITC Review Committee meeting #1
  6. **Feb 2.** Mark Herrmann met with Paula Cullenberg and Chuck Crapo in Anchorage
  7. **Feb 18.** FITC Review Committee meeting #2
  8. **Feb 22-23.** Kodiak visit. Mark Herrmann, Jeff Stephan, Julie Bonnie, Barbara Bolson
  9. **March 9.** Mark Herrmann met with Paula Cullenberg in Fairbanks
  10. **March 15.** Mark Herrmann met with SNRAS Dean Carol Lewis \*
  11. **March 19.** SFOS Advisory Council meeting in Anchorage. Mark Herrmann, Jeff Stephan, Arliss Sturgulewski.
  12. **March 21.** FITC Review Committee meeting #3
  13. **April 6.** FITC Policy Council meeting in Anchorage. Mark Herrmann, Jeff Stephan.
  14. **April 21.** Mark Herrmann meets with SFOS Dean Mike Castellini and Chancellor Brian Rogers
  15. **May 4.** Mark Herrmann and Kris Norosz attend the Fisheries Excellence Committee meeting in Anchorage
  16. **May 7-8.** FITC meeting # 4 Anchorage. All but one committee member in attendance
- \* Also had talked to UAF Vice Provost for Extension and Outreach, Fred Schlutt informally.

## A.2. Statutory Basis for FITC

November 30, 2010

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**Section 16.52.010. Fishery Industrial Technology Center.** There is established a Fishery Industrial Technology Center as part of the University of Alaska.

**Section 16.52.020. Duties.** The center shall create employment opportunities in the state's fishing industry and other benefits to the state by

(1) providing training opportunities to citizens of the state on the most efficient and appropriate technologies for the harvesting, processing, and conservation of the fishery resources of the state;

(2) providing information and technical assistance on the adaptation of existing and new technologies to the users of the fishery resources of the state;

(3) providing research and development activities to adapt existing technologies to enhance the economic viability of the industry;

(4) providing research and development activities to create new technologies that will enhance the effectiveness of the industry, and provide economic benefits to state citizens; and

(5) encouraging joint projects between industry and government in order to use industrial experience and government programs to enhance the productivity of the industry.

**Section 16.52.030.: Fishery Industrial Technology Policy Council.** (a) A Fishery Industrial Technology Policy Council is established to provide program and planning guidance to the center. The policy council shall be composed of members of the state's fishing and processing industry.

(b) The policy council consists of seven members appointed by the president of the University of Alaska, including

(1) two members appointed from the seafood processing industry; the members appointed under this paragraph shall be owners or employees of firms that are in operation in the state and, insofar as possible, shall represent diverse processing operations;

(2) two members who are commercial fishermen; the members appointed under this paragraph shall be actively engaged in commercial fishing in the state and, insofar as possible, shall represent fishing for diverse fisheries resources;

(3) three public members.

(c) A member of the policy council serves a term of two years.

(d) At least five members of the policy council shall be residents of the state.

**Section 16.52.040. Location.** The principal activities of the center shall be located in Kodiak, Alaska.

**Section 16.52.050. Annual report.** The Board of Regents of the University of Alaska shall prepare an annual report of the center's activities and notify the legislature by the 20th day of each regular session that the report is available. The report must include a description of the work conducted by the center, the training sessions held and number of students trained, and any other information that the Board of Regents determines should be included to describe the work of the center.

**Section 16.52.060. Cooperation with other agencies.** In the development of its programs the center shall consult with

(1) the Department of Fish and Game;

(2) the division of economic development of the Department of Commerce, Community, and Economic Development;

(3) the Department of Natural Resources;

(4) the Alaska Fisheries Development Foundation;

(5) the Alaska Seafood Marketing Institute;

(6) the North Pacific Fishery Management Council;

(7) the National Marine Fisheries Service;

(8) the Department of Education and Early Development; and

(9) the Department of Labor and Workforce Development

### **A.3. School of Fisheries and Ocean Sciences Proposal for the Reorganization of FITC**

February 25, 2011

In spring 2010, the SFOS Advisory Council requested that the UAF Chancellor initiate a Task Force study of the FITC. This request stemmed from long-standing questions concerning the role of FITC relative to the University, to SFOS, and to the seafood industry. That request and the charge of the Task Force are detailed in separate documents.

On February 14, 2011, the SFOS Directors met with the Interim Dean and developed a proposal to the Task Force about how SFOS would operate FITC to resolve many of the concerns. We committed to release the proposal verbally to the Task Force during a phone conference on Friday, February 18, in a summary statement to the Provost and Task Force chair on Monday, February 21, and a more formal statement, which is this document, on Wednesday, February 23, 2011. This document was edited into this final version, dated February 25, 2011.

1. The SFOS directors recognize that the Task Force is charged with studying future FITC options ranging from moving it to UAA, CES, or SNRAS, or keeping it within SFOS. This document focuses solely on the SFOS option. That is, it describes how SFOS proposes to resolve the issues concerning FITC if it remains a part of SFOS.

2. The SFOS directors are unanimous in recognition of the value of the seafood science research that is done at FITC. FITC is the only seafood-focused University research facility in the state. We believe that the public, the industry, and the University are best served by keeping FITC within SFOS to foster close linkages among the University's teaching, research, and service missions for the fishing and seafood industries. The SFOS directors do not support removing FITC to another UAF or UAA unit, nor to privatize it, sell it, etc.

3. However, if FITC remains within SFOS, there are a series of significant changes that will need to be implemented. These changes will entail fundamental shifts in FITC's operations while preserving the essential character of FITC's mission. Needed changes in academic programs, research, service and outreach, and operations are outlined below.

Faculty currently in the FITC academic unit have diverse research interests but share a common interest in engaging with the seafood sector and of supporting graduate training in seafood science. The SFOS is committed to supporting graduate training in seafood science, and in continuing to maintain faculty positions in Kodiak. However, the administrative structure and organization of these academic initiatives can be improved by: (1) integrating FITC faculty into the FISH, the Graduate Program in Marine Sciences and Limnology (GPMSL), and MAP faculty units; (2) integrating the seafood science courses into the Fisheries, Marine Biology, and Oceanography graduate and undergraduate curricula; and (3) moving the seafood science program to FISH or GPMSL.

#### **A. Academics: Seafood Science as a graduate degree program currently within the UAF Graduate School Interdisciplinary Studies Program (INDS) will be closed and made available as an emphasis within SFOS graduate programs in Fisheries or Marine Science.**

Over the last decade, SFOS has not been successful in establishing Seafood Science as an independent degree program. We believe that seafood science graduate students will be best served as members of large successful degree programs where they complete a common core of classes and then pursue a suite of courses that constitute an emphasis in seafood science, processing, marketing, etc. Based on

recommendations of the FITC faculty, with concurrence of FISH and GPMSL faculty and the SFOS Curriculum Review Committee, current FSN classes would be placed within FISH or GPMSL academic programs. Seafood science students would earn FISH or GPMSL degrees with coursework and a thesis on seafood science, processing, marketing or whichever strength best fits. Faculty workloads, academic review, outcomes assessment, etc., will be administered within FISH or GPMSL. FITC faculty will be offered the opportunity to select a primary academic home in FISH or GPMSL.

The FITC faculty, other FISH, GPMSL, and MAP faculty, together with faculty from other UAF departments will organize as a seafood science emphasis group committed to advising students who desire to complete a degree which focuses on seafood science. The FITC faculty will also have the opportunity to contribute courses to the undergraduate curriculum in areas of seafood science, aquaculture, etc. These students would earn undergraduate academic degrees in Fisheries or graduate academic degrees in Fisheries, Marine Biology, or Oceanography

**B. Service/Extension will be coordinated through MAP.**

FITC faculty have a significant seafood and industry service/extension component in the work that they do for the state. Under this proposal, they will carry this out this component of their workload under the MAP umbrella and program review, criteria, etc. What is now considered FITC service would be redefined as MAP service and tie in with MAP's very strong statewide mission. The advantage of this approach is that the seafood extension program in the state would be strengthened and supported more fully by joining the work that FITC and MAP now do in a coordinated manner.

**C. Research will be run under current research groups within SFOS.**

SFOS research is focused on excellent science which contributes to the needs of the state and nation. FITC based faculty will continue to develop proposals in seafood science just as they do now. They will be encouraged to continue a strong focus on seafood science in partnership with the seafood industry. The purpose of their research will continue to be to provide important research in their fields that contribute to the value of the seafood industry in Alaskan and more broadly. Grants will be through their primary administrative home and would be signed by the director who supervises them – either FISH, IMS or MAP. For example, lipid research by Dr. Oliveira could fall under FISH or IMS. Scott Smiley's work on sea cucumbers would probably fall under Marine Biology but could fit under FISH. We anticipate that FITC faculty will continue to form strong collaborations among themselves, and with this new tighter integration with GPMSL and FISH, we anticipate that they will form additional collaborations that will strengthen seafood science research. Again, faculty research would roll into SFOS research programs with strong ongoing business, accounting and review processes. Research workload would be under MAP, FISH or IMS.

**D. Operations.**

In keeping with the "whole SFOS" model that is emerging as a vision for SFOS, we propose to rename and operate FITC as "SFOS Kodiak Center" similar to how we have renamed our operations in Seward and Juneau. This recognizes that several MAP faculty are part of the Kodiak Center and other faculty from around SFOS could work or maintain a presence at the SFOS Kodiak Center. This would expand the mission of SFOS in Kodiak beyond seafood science, while at the same time capitalizing on the capacity of the facility and capabilities of the faculty to produce strong science in the seafood arena. Administration of FITC faculty and Fund 1 budgets would be through FISH or GPMSL/IMS and, where appropriate, jointly with MAP. On site administrative support would include staff and a designated site administrator who would represent the division director or academic program leader for administrative or support

functions that are not easily handled through electronic means. The division director/s will regularly visit the SFOS Kodiak Center to maintain open lines of communication and to help SFOS Kodiak Center-based faculty pursue program initiatives.

**Advantages:**

This proposal will resolve several issues of the seafood science academic program; it will bring FITC faculty into full strength academic units while maintaining their opportunity to continue to pursue research, teaching, and service in their areas of specialization and provide a strong basis for linking their programs to broader SFOS initiatives. It will also answer the continuing criticism that UAF /SFOS does not put enough time/effort/interest into FITC and Kodiak. It will encourage more collaboration amongst faculty whether they are fisheries, MAP, seafood, marine biology trained faculty. This has been a long-time goal of SFOS. SFOS/UAF will still have a strong identity in Kodiak and will serve the region more fully with a wider range of faculty.

One advantage of this approach is that SFOS will not hire a new FITC director. Instead, we propose that a portion of the funds previously allocated for a director instead be used to hire a new seafood-focused faculty member to enhance the capacity based at the SFOS Kodiak Center.

**Risks and Costs:**

1. FITC identity as an academic unit will be dissolved; although the UAF/SFOS presence in Kodiak will not only be preserved, it and will be strengthened.

2. The proposed changes will require significant administrative re-tooling in budgets, workloads and supervision of faculty and staff.

3. This process does not resolve budgetary issues about the cost of the facility, vs faculty, vs outcomes. However, we suggest a 5-year period to plan and implement the changes in structure, operations, management, assessing and reporting under this new model.

4. The FITC faculty have operated under unit-specific performance criteria in academics and research. This proposal will entail rolling the FITC faculty into GPMSL or FISH where their workload assignments and performance will be subject to different unit criteria. Because several FITC faculty hold joint appointments in MAP and because much of the service performed by FITC faculty is directed towards the seafood industry, joint appointments with MAP may be desirable for some FITC faculty in addition to those who already hold joint appointments. Determining the appropriate primary affiliations and joint appointment percentages will require significant work by the faculty and administrators and may include reconsideration and modification of unit criteria.

5. The role of the FITC Policy Council will be significantly altered in that the SFOS-Kodiak Center will have a much broader mission relative to teaching, research and service and will not be confined to the roles outlined in the Authorizing Legislation from the early 1980's.

This entire process is a game-changing move for SFOS and FITC, but we have reached the point where "Business as Usual" is no longer an option. We believe that seafood science and the FITC faculty belong in the School of Fisheries and Ocean Sciences. Linking the fisheries, marine science, oceanography, seafood science, and service to coastal communities components of our School together is the best way serve the people of Alaska.

#### **A.4 FITC Operating Budget FY11 (as provided by Paula Cullenberg)**

##### **Unrestricted funds (provided to FITC from UAF through SFOS)**

Salaries and benefits	\$ 591,695
	(support for 9 months salary for 1 director and 3 faculty; 4.5 months of salary for 2 faculty; salary for 2 full time administrative staff; 1 IT staff and part of 1 building coordinator staff)
Travel	25,000
Services	73,200 (\$32,000 is apartment related)
Commodities	4,800
Student aid	16,500 (support for 1 graduate student)
Other expense)	50,000 (debt service for apartments – this is short term not an annual expense)
<b>Total</b>	<b>\$761,695</b>

##### **Restricted funds (grants, donations, contracts, other)**

USDA CSREES funds (ends 8/31/11 – no overhead but funds salaries of faculty and staff etc.)	\$254,338
USDA ARS funds (good through at least October 2012 – no overhead but funds salaries of faculty and staff etc.)	\$548,731
Gulf Apex Predator (GAP) Funds (Wynne)	\$960,000
(not sure about the continuation post 2011 – carries full overhead – 49%)	
Prescott grant (Wynne)	\$98,635
(not sure about continuation – full overhead 38%)	
Alaska Energy Authority (Crapo – 2 years through July 2012 – state negotiated overhead – 12%)	\$260,000
UA Foundation funds	
Oscar Dyson Scholarship funds	\$ 4,500 (spendable)
	\$11,000 (endowment)
Ocean Phoenix funds	\$64,870 (spendable)
<b>Unrestricted funds</b>	<b>\$761,695</b>
<b>Restricted funds</b>	<b>\$1,931,074</b>
<b>Total FITC budget</b>	<b>\$2,692,769</b>

**\* This does not include the cost to UAF to operate and maintain the building – approximately \$500,000 per year.**

**A.5 SFOS Indirect Cost Recovery for FY08 – FY10 (dollars)**

<b>Unit/Division</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Central Operations</b>	105,779	130,938	140,898
<b>Fisheries Division</b>	184,606	177,631	188,405
<b>FITC</b>	3,372	4,239	10,276
<b>Global Undersea Research</b>	157,256	137,705	160,908
<b>IMS</b>	930,662	889,680	1,172,625
<b>MAP</b>	192,312	145,438	170,739
<b>Sea Grant</b>	152,790	192,544	214,311
<b>Grant Total</b>	<b>1,727,139</b>	<b>1,678,175</b>	<b>2,059,166</b>

Amount of “overhead” received by SFOS when costs such as salary are charged to extramural grant and contract awards. Or monies received by the University, and thus SFOS, in reimbursement for services rendered in support of grants and contracts.

Note; FITC receives the bulk of its extramural funding from USDA, which allows no or very little F&A.

## A.6. Industry Needs.

### In General

- More applied less theoretical research
- Pre-audit services
- Regulation changes due to Env. Concerns
- Short Courses (Food safety, Risk assessment, HACCP)
- Regulator training (Food Safety, ADEC)
- FITC needs a directed outreach program to let industry know capabilities and services.
- Risk Assessment training
- Proprietary research capabilities

### Plant Operations

- Bacteria testing
- Byproduct recovery and utilization
- Complete material utilization – including primary products, new products and byproducts
- Energy utilization
- English as a second language
- Fish Spoilage (All commercial species)
- Fish Waste
- Food safety (including how to behave in slime lines)
- Food Security
- Hazard Analysis and Critical Control Point (HACPP) training
- High cost of energy, labor, transportation
- Human health and seafood chemical composition
- Human Resources
- Latest equipment that improves efficiency
- Manage product/process flows
- Marketability of products
- New products from processing discards
- Food pathogen Interventions/ Application to seafood products
- Nutritional Analysis
- Oil extraction
- Oil product safety
- Organizational Behavior
- People Management
- Plant layout

- Process Control
- Process line design
- Process Technology
- Quality Control
- Sanitation Training
- Sensory workshop – example smoke fish
- Shelf Life
- Succession planning
- Training on testing for Food Radiation
- Updates on new technology and applications
- Water-phase-salt ratio testing
- Yield efficiency improvement

### Plant Operations – Specific Products

- Arrowtooth utilization
- New Products – salmon jerky
- New Product Safety
- Salmon oil extraction
- Cured and smoked products – roe
- RTE high risk foods

### Food to Markets

- Get fresh fish to east coast
- Global Demand Needs
- Ready to eat products
- Shrink wrap products
- Understanding International Export Markets

### Fishing/farming

- Gear Technology
- Halibut Bycatch avoidance
- How to store fish (slush, ices, whatever)
- Salmon Bycatch Avoidance
- Shellfish mariculture
- Vessel safety
- Vessel stability
- Vessel Training

\* Highlights depict possible area of emphasis

## **A.7. Letter from FITC Policy Council to UA President Mark Hamilton**

**Fishery Industrial Technology Center Policy Council**  
Fishery Industrial Technology Center  
118 Trident Way  
Kodiak, AK 99615-7401

March 26, 2010

Mark Hamilton, President  
University of Alaska  
Office of the President  
P.O. Box 755000  
Fairbanks, AK 99775

**Re: Policy Council recommendation for the Fishery Industrial Technology Center to address specialized opportunities and needs through the implementation of a dedicated Seafood Science and Technology Curriculum.**

Dear President Hamilton,

The Fishery Industrial Technology Center (FITC) Policy Council respectfully submits our recommendation on an agenda item of significant importance entitled “Seafood Science and Technology Curriculum” that we considered and acted upon during our October 16, 2009, meeting.

As you know, the FITC was created in 1981 by the Alaska Legislature to achieve several goals and objectives on behalf of the citizens, fishing industry and fishery resources of the State of Alaska. These goals and objectives are meant to encourage and promote the conservation, wise use and efficient utilization of Alaska’s fishery resources; and the utilization of new, efficient and appropriate technologies that enhance opportunities, productivity and economic viability and benefits for the citizens and fishing industry of Alaska. Moreover, the FITC is expected to deliver on these goals and objectives through the provision of relevant certificate and academic educational programs and training; research and development activities, and joint projects between government and industry, that seek to develop efficient technology and knowledge; and extension activities and technical assistance that converge with and disseminate the information and knowledge that result from investments in FITC research, development, and educational and training programs.

The Legislature created and charged a FITC Policy Council to provide the FITC with program and planning guidance, and with the responsibility to report to the President of the University of Alaska on issues that are relevant to the administration and operation of the FITC, and the progress that has been achieved in meeting the mission, vision, goals and objectives of the FITC.

The Policy Council recognizes that the Alaska seafood industry is in significant need of undergraduate, graduate, certificate and other educational, technical and training programs in Seafood Science and Technology (SST). Further, we are concerned that such SST curriculum does not now exist in the United States, including Alaska. We emphasize that such SST education and training programs are essential to ensuring that the Alaska seafood industry and its workforce are prepared to address a broad array of contemporary challenges and circumstances that impact competitiveness, productivity, efficiency, compliance with regulations, guidelines and other requirements (e.g., domestic and export food safety, process control, quality, packaging, etc.), and other challenges and demands of a continually emerging and internationally competitive marketplace.

Ongoing expressions from leaders in the Alaska seafood industry that continue to emphasize the need for SST degree, certificate and other educational, technical and training programs are supported and confirmed by two recent surveys that have been conducted during January 2009 (Seafood Science and Technology Educational Needs Survey administered during the Southwest Alaska Municipal Conference Annual Meeting, Anchorage, AK), and March 2009 (Seafood Products Association Annual Meeting, Seattle, WA). Moreover, the need for the University of Alaska, notably FITC, to provide SST undergraduate, graduate, certificate and other educational, technical and training programs was confirmed by fishing industry leaders during an August 20, 2009 meeting in Kodiak with Chancellor Brian Rogers and SFOS Dean Denis Wiesenburg.

It was encouraging to hear the emphasis of your recent presentation during the February 10 meeting of the Alaska Legislature University of Alaska Boosters Caucus in which you expressed the important and essential role and responsibility of the University of Alaska, and its three major component institutions, to invest in and provide quality and relevant workforce development education and training initiatives in support of Alaskan workers, jobs, industries, employment, economic growth and entrepreneurship. It was further reassuring to hear Chancellors Rogers, Pugh and Ulmer express their support for this objective, and commit their respective institutions to provide programs and training that meet these workforce educational and training needs. It was right and appropriate that you clearly referenced the importance and necessity to make investments in personnel and programs that effect quality workforce development, even though such initiatives are known to be expensive, demand additional instructors with specialized experience, frequently include limited student numbers and small class size, and require the best in equipment and apparatus.

The FITC is a proud component of the University of Alaska Fairbanks (UAF) School of Fisheries and Ocean Sciences (SFOS); nevertheless, it has a distinct mission that lends more toward an applied rather than a basic function, and it possesses a structure and mission that is reasonably different with respect to other elements of SFOS, and that uniquely equip it to meet the needs of workforce development in the Alaska seafood industry. Moreover, while the FITC is also in a perfect geographic and strategic location, with the basic faculty, physical and plant attributes to form the foundation for meeting the high quality workforce development needs of the Alaska seafood industry, it must receive direction, support, funding, faculty and equipment so that it may redesign and expand its mission and focus to meet this objective.

The FITC currently has no undergraduate curriculum, no graduate curriculum under its name, and no certificate or training programs to provide it with the opportunity to properly or adequately meet the needs of workforce development for the Alaska seafood industry. Moreover, two faculty positions have remained vacant for over 4 years and should be filled at an early opportunity with specialized faculty who are ideally equipped and motivated to provide the type of instruction that is relevant to workforce training and development. Filling these vacant positions would permit FITC to contribute more productivity to the mission of UAF and SFOS. The FITC is not provided with the opportunity to offer even basic courses, or to participate in student scholarships, fellowships or grants. And, FITC would best serve workforce development needs of the Alaska seafood industry if it were to receive authorization to offer an undergraduate minor and undergraduate program in Seafood Science and Technology, in addition to related certificate programs and short courses. Finally, a propitious opportunity exists for the FITC to design a workforce development program for the Alaska seafood industry that integrates with and incorporates K-12 institutions.

The Alaska seafood industry faces the continuing trend of a maturing workforce that holds leadership and other important administrative, operational and technical positions that require specialized technical and academic skills, practical experience, and other familiarity and knowledge that are essential to ensuring the competitiveness, efficiency, productivity and relevance of this industry in the domestic and international marketplace and regulatory environment. It is unclear where or how the academic

knowledge and technical skills that are more and more essential to a qualified workforce, and to the success and future of the Alaska seafood industry, will be acquired. It is not evident that educational and certificate programs will be available to the Alaska seafood industry workforce to meet the academic and technical needs and requirements of this industry. While a broad variety of scientific and technical courses are offered in countries such as China, Taiwan, Turkey, Iceland and elsewhere in support of specialized training and education of the type that is required for the Alaska seafood industry, similar programs and course work are not available in the United States.

The FITC is geographically, programmatically and strategically situated and equipped to meet the educational and training needs of the Alaska Seafood industry; FITC is clearly the most logical and apparent location to deliver an effective and relevant Seafood Science and Technology curriculum. Additionally, Kodiak is home to many important assets that enhance the deliverability and impact of a relevant SST Curriculum, including Kodiak High School, Kodiak College, a progressive seafood harvesting and processing sector (Kodiak is the 3rd largest fishing port in the US), the Kodiak Fisheries Research Center, a community that embraces and provides research, education and training opportunities, and supportive City and Borough municipal governments.

However, while the current programmatic focus of the FITC provides a formidable foundation upon which to build a program of undergraduate, graduate and certificate education and training that meets the workforce development needs of the Alaska Seafood industry, a significant investment is needed to acquire the equipment, apparatus and additional faculty and instructors who possess relevant and specific skills and credentials.

The FITC Policy Council is grateful for your many years of dedicated and visionary service to the University of Alaska System. We are clearly aware of the significant advances that have occurred in the University of Alaska System during your time as UA President. We thank you for your distinguished service, and we wish you good fortune as you engage your next challenge.

The FITC Policy Council respectfully requests your most serious consideration and executive direction in support of an enhanced investment of university funds and personnel to enrich and elevate the capability and capacity of FITC to fulfill their mission to provide SST undergraduate, graduate, certificate and other educational, technical and training programs for the Alaska seafood industry. Moreover, we respectfully request that you please include our letter, and the issues that it addresses, in those special priorities that you are likely to highlight with incoming UA President Patrick Gamble as you engage in your transitional activities with him.

Thank you.

Sincerely Yours,



Jeffrey R. Stephan  
Vice Chair  
On behalf of the  
FITC Policy Council

Copy:

Brian Rogers, Chancellor, University of Alaska Fairbanks  
Dr. Denis Wiesenburg, Dean, UAF School of Fisheries and Ocean Sciences

## **A.8. Potential FITC Short Courses/workshops for Industry**

JANUARY- COD, CRAB

( *COOKED CRAB PROCESSING* )

FEBRUARY- COD, FLATFISH, POLLOCK

( *WHITEFISH QUALITY CONTROL* )

MARCH-POLLOCK, FLATFISH

( *POLLOCK ROE GRADING- SURIMI PROCESSING* )

APRIL- FLATFISH, HERRING, HALIBUT AND BLACK COD

( *ON-BOARD FISH QUALITY* )

MAY- HERRING, ROCKFISH

( *PLANT CLEANING AND SANITATION* )

JUNE- SALMON

( *SALMON GRADING, SALMON ROE PROCESSING* )

JULY – SALMON

( *LABORATORY ASPECTS OF SEAFOOD PROCESSING* )

AUGUST- SALMON

( *SEAFOOD INDUSTRY MATHEMATICS & CALCULATIONS* )

SEPTEMBER- POLLOCK, COD

( *SEAFOOD MICROBIOLOGY* )

OCTOBER- POLLOCK , COD, FLATFISH

( *SEAFOOD REGULATORY COMPLIANCE* )

NOVEMBER- FLATFISH, CRAB

( *REFRIGERATION SYSTEMS AND ASPECTS OF FREEZING* )

DECEMBER- CRAB

( *EMPLOYEE HYGEINE PRACTICES* )

( *SEAFOOD MARKETING* )

( *NEW PRODUCT DEVELOPMENT* )