

NPFMC Committees & Workgroups
(Revised March 23, 2011)

Council/Board of Fisheries Joint Protocol Committee

Updated: 8/10/07	<u>Council:</u> Dave Benson Ed Dersham Eric Olson	<u>Board:</u> Vince Webster John Jensen Mel Morris
Staff: Jane DiCosimo		

Council Coordination Committee

[Designated and renamed by Magnuson Act reauthorization April 2007]

Appointed: 4/05 Updated: 7/23/09	<u>CFMC:</u> C: Eugenio Piñeiro-Soler ED: Miguel Rolón <u>GMFMC:</u> C: Robert Shipp ED: Steve Bortone <u>MAFMC:</u> C: Richard Robins ED: Chris Moore <u>NEFMC:</u> C: John Pappalardo ED: Paul Howard	<u>NPFMC:</u> C: Eric Olson ED: Chris Oliver <u>PFMC:</u> C: Dave Ortmann ED: Don McIsaac <u>SAFMC:</u> C: David Cupka ED: Bob Mahood <u>WPFMC:</u> C: Manual Deunas ED: Kitty Simonds
Staff: Chris Oliver		

Council Executive/Finance Committee

Updated: 8/10/07	Eric Olson (Chair) Jim Balsiger (NMFS) Alt. Galen Tromble Dave Hanson (PSMFC) Cora Campbell (ADFG) Roy Hyder (ODFW) Bill Tweit (WDFW)
<u>Status:</u> Meet as necessary	
Staff: Chris Oliver/Dave Witherell/Gail Bendixen	

Bering Sea Crab Advisory Committee

Appointed 4/25/07	Sam Cotten (Chair)	Lenny Herzog
	Jerry Bongen	Kevin Kaldestad
Revised 11/15/07	Steve Branson	Frank Kelty
	Florence Colburn	John Moller
	Linda Freed	Rob Rogers
	Dave Hambleton	Simeon Swetozof
	Phil Hanson	Ernest Weiss
Staff: Mark Fina	Tim Henkel	

NPFMC Committees & Workgroups
(Revised March 23, 2011)

Bering Sea Salmon Bycatch Workgroup

Appointed: 3/07 Staff: Diana Stram	Stephanie Madsen (Co-chair) Eric Olson (Co-chair) Becca Robbins Gisclair John Gruver Karl Haflinger	Jennifer Hooper Paul Peyton Mike Smith Vincent Webster (BOF)
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Comprehensive Economic Data Collection Committee

Appointed: 12/07 Updated: 2/9/09 Staff: Jeannie Heltzel	John Henderschedt (Chair) Bruce Berg Michael Catsi Dave Colpo Paula Cullenberg	Brett Reasor Glenn Reed Ed Richardson Mike Szymanski Gale Vick
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Crab Interim Action Committee
[Required under BSAI Crab FMP]

Jim Balsiger, NMFS Cora Campbell, ADF&G Phil Anderson, WDF
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Ecosystem Committee

Updated: 10/22/07 <u>Status</u> : Active Staff: Diana Evans	Stephanie Madsen (Chair) Jim Ayers Dave Benton Doug DeMaster/Bill Karp Dave Fluharty John Iani Jon Kurland Caleb Pungowiyi
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Enforcement Committee

Updated: 7/03 <u>Status</u> : Active Staff: Jon McCracken	Roy Hyder (Chair) CAPT Mike Cerne, USCG Jon Streigel, AK F&W Protection Martin Loefflad, NMFS Stefanie Moreland, ADF&G Lisa Lindeman/Garland Walker, NOAA-GC Sherrie Meyers/Ken Hansen, NMFS-Enforcement Galen Tromble, NMFS
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NPFMC Committees & Workgroups

(Revised March 23, 2011)

Halibut Charter Stakeholder Committee

Appointed: 1/06 Revised: 3/29/10 <u>Status</u> : Idle, pending direction Staff: Jane DiCosimo	Dave Hanson (Chair) Seth Bone Robert Candopoulos Ricky Gease John Goodhand Kathy Hansen Dan Hull Chuck McCallum	Larry McQuarrie Scott Meyer Stephanie Moreland Rex Murphy Peggy Parker Charles "Chaco" Pearman Greg Sutter
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IFQ Committee

Reconstituted: 7/31/03 Updated: 11/09 Staff: Jane DiCosimo	Dan Hull (Chair) Bob Alverson Rick Berns Julianne Curry Tim Henkel Don Iverson	Jeff Kauffman Don Lane Kris Norosz Paul Peyton Jeff Stephan Phil Wyman
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Non-Target Species Committee

Appointed: 7/03 Updated: 8/10/07 Staff: Jane DiCosimo, NPFMC/ Olav Ormseth, AFSC	Dave Benson (Chair) Julie Bonney John Gauvin Ken Goldman Karl Haflinger Michelle Ridgway	Janet Smoker Paul Spencer Lori Swanson Anne Vanderhoeven Jon Warrenchuk
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Observer Advisory Committee

Reconstituted: 1/20/11 Updated: 1/25 <u>Status</u> : Active Staff: Chris Oliver/ Nicole Kimball	Dan Hull (Chair) Bob Alverson Jerry Bongen Julie Bonney Kenny Down Dan Falvey Kathy Hansen	Michael Lake Todd Loomis Paul MacGregor Brent Paine David Polushkin Darren Stewart Ann Vanderhoeven
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NPFMC Committees & Workgroups

(Revised March 23, 2011)

Pacific Northwest Crab Industry Advisory Committee

Appointed: 12/10 Staff: Diana Stram	Steve Minor (Chair) Keith Colburn Kevin Kaldestad Garry Loncon Gary Painter Kirk Peterson Rob Rogers (Vice Chair) Vic Sheibert	Dale Swartzmiller Gary Stewart Tom Suryan Elizabeth Wiley Arni Thomson, Secretary (non-voting)
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Rural Outreach Committee

Appointed: 6/09 Staff: Nicole Kimball	Eric Olson (Chair) Paula Cullenberg Duncan Fields Jennifer Hooper Tom Okleasik Ole Olsen Pete Probasco
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Steller Sea Lion Mitigation Committee

Appointed: 2/01 Updated: 11/09 [formerly SSL RPA Committee; renamed February 2002] Staff: Jeannie Heltzel Advisor: Dan Hennen	Larry Cotter (Chair) Jerry Bongen Julie Bonney Kenny Down John Gauvin Pat Hardina Sue Hills Frank Kelty	Steve MacLean Stephanie Madsen Max Malavansky, Jr Gerry Merrigan Mel Morris Art Nelson Glenn Reed Beth Stewart
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Groundfish Workplan

Priority actions revised in February 2007, status updated to current

General Priority (in no particular order)	Specific priority actions	Related to management objective:	Status (updated 3-23-11)	2011				2012			
				Apr	Jun	Oct	Dec	Feb	Apr	Jun	Oct
Prevent Overfishing	a. continue to develop management strategies that ensure sustainable yields of target species and minimize impacts on populations of incidentally-caught species	5	Aggregate ABC/CFL for GOA other species in Apr 07 BSAI skates TAC breakout in Oct 2009 remaining other species TACs addressed in 2010 final action in Apr 10								
	b. evaluate effectiveness of setting ABC levels using Tier 5 and 6 approaches, for rockfish and other species	4	MSA report due in 11/11 reviews current MSA tier 5 and 6 approaches preliminary process								
	c. continue to develop a systematic approach to lumping and splitting that takes into account both biological and management considerations	5	BSAI Pcod split initial review in Oct 11 report from non-target species committee in Dec 09								
Preserve Food Web	a. encourage and participate in development of key ecosystem indicators	10	ecosystem SAFE presented annually; AI FEP identified/refined indicators for the Aleutians (report 2011); EBS indicator synthesis for 2010								
	b. Reconcile procedures to account for uncertainty and ecosystem considerations in establishing harvest limits, for rockfish and other species	11	report from non-target species committee in Dec 09								
	c. develop pilot Fishery Ecosystem Plan for the AI	13	FEP structure published Dec 07 FEP updates, AI report for 2011								
Manage Incidental Catch and Reduce Bycatch and Waste	a. explore incentive-based bycatch reduction programs in GOA and BSAI fisheries	15	partially addressed in BSAI salmon bycatch EIS (2008) crab Kotikie closures (C action Oct 2010) GOA pollock / Chinook initial review Apr 2011, GOA comprehensive Chinook analysis afterwards								
	b. explore mortality rate-based approaches to setting PSC limits in GOA and BSAI fisheries	20	partially addressed in BSAI salmon bycatch EIS analysis of BSAI crab bycatch limits in 2011								
	c. consider new management strategies to reduce incidental rockfish bycatch and discards	17									
	d. develop statistically rigorous approaches to estimating bycatch in line with national initiatives	14, 19	National Bycatch Report update in Dec 07								
	e. encourage research programs to evaluate population estimates for non-target species	16	Part of research priorities, adopted in June 2007								
	f. develop incentive-based and appropriate biomass-based trigger limits and area closures for BSAI salmon bycatch reduction, as information becomes available	14, 15, 20	bycatch limit for Chinook adopted Apr 08 initial review chum bycatch analysis in Jun 2011								
	g. assess impact of management measures on regulatory discards and consider measures to reduce where practicable	17	partially addressed in 2007 NOAA MRA on discards action 100% Oct 07 BSAI Oct 07								

Groundfish Workplan

Priority actions revised in February 2007, status updated to current

General Priority (in no particular order)	Specific priority actions	Related to management objective:	Status (updated 3-23-11)	2011				2012			
				Apr	Jun	Oct	Dec	Feb	Apr	Jun	Oct
Reduce and Avoid Impacts to Seabirds and Marine Mammals	a. continue to participate in development of mitigation measures to protect SSL through the MSA process including participation in the FMP-level consultation under the ESA	23	<i>RPA from final NMFS Biological Opinion to be implemented by Secretarial action for Jan 2011</i>								
	b. recommend to NOAA Fisheries and participate in reconsideration of SSL critical habitat	23									
	c. monitor fur seal status and management issues, and convene committee as appropriate	24, 25									
	d. adaptively manage seabird avoidance measures program	22	<i>Council action, seabird avoidance measures in EFH plan 08</i>								
Reduce and Avoid Impacts to Habitat	a. evaluate effectiveness of existing closures	26	NMFS researching GOA closed areas (Sanak & Albatross), Council review in 2011								
	b. consider Bering Sea EFH mitigation measures	27	<i>Council action on measures in June 07</i> <i>BS flatfish trawl sweep rods required by Oct 09</i> EFH 5-year review completed Apr 2010, final action amds and discussion on crab Apr 11 develop Northern BS Research Plan for 2011								
	c. consider call for HAPC proposals on 3-year cycle	27	HAPC proposals for skate nurseries under review Council amendment to change cycle to 5 years								
	d. request NMFS to develop and implement a research design on the effects of trawling in previously untrawled areas	27	<i>Part of research priorities adopted in June 2007</i>								
Promote Equitable and Efficient Use of Fishery Resources	a. explore eliminating latent licenses in BSAI and GOA	32	<i>Council action on trawl LLP license in Apr 08</i> <i>GOA fixed gear latent licenses in Apr 08</i>								
	b. consider sector allocations in GOA fisheries	32, 34	<i>Final action GOA Pcod sector allocations in Oct 11</i> <i>Reauthorization of GOA rockfish program in Oct 11</i>								
Increase Alaska Native and Community Consultation	a. Develop a protocol or strategy for improving the Alaska Native and community consultation process	37	<i>protocol presented in Jan 08</i> annual review of protocol								
	b. Develop a method for systematic documentation of Alaska Native and community participation in the development of management actions	37	outreach plan for chum salmon, meetings planned for Feb-Mar 2011 Workshop for NBSRA research plan, Sep 2011								
Improve Data Quality, Monitoring and Enforcement	a. expand or modify observer coverage and sampling methods based on scientific data and compliance needs	38, 39	<i>Council action in Apr 08 to improve program, start to restructure program</i> next phase of electronic monitoring EFP 2010; report in 2011								
	b. explore development programs for economic data collection that aggregate data	40	<i>final action - salmon bycatch data collection - partially addressed in the Al And rep</i>								
	c. modify VMS to incorporate new technology and system providers	41	<i>Council action, VMS exemption for angler gear in Oct 08</i>								

DRAFT NPFMC THREE-MEETING OUTLOOK - updated 3/24/11

March 28 -, 2011 Anchorage, AK	June 6 -, 2011 Nome, AK	September 26 -, 2011 Unalaska, AK
<p>AFA Coop Report and Am 80 Coop Report State 3 mile line: <i>Discussion paper</i></p> <p>Salmon FMP: <i>Preliminary Review</i> GOA Chinook Salmon Bycatch: <i>Initial Review</i></p> <p>Charter trip definition: <i>Status report</i> Halibut/Sablefish Hired Skipper: <i>Final Action</i> GOA Halibut PSC: <i>Review Discussion Paper</i></p> <p>GOA P.Cod Jig Fishery Management: <i>Initial/Final Action</i></p> <p>Observer Advisory Committee: <i>Report and action as nec.</i> AFA Impacts on BS cod trawlers: <i>Discussion paper</i></p> <p>BSAI Crab IFQ/IPQ Deadline: <i>Final Action</i> Economic Data Collection (Crab EDR): <i>Review Alts</i></p> <p>BSAI Crab modelling workshop report (SSC Only) Pribilof BKC Rebuilding Plan: <i>Final Action</i> BS Tanner Crab Rebuilding: <i>Finalize Alternatives</i> BBRKC spawning area/fishing effects: <i>Discussion paper</i></p> <p>Scallop SAFE: <i>Review and approve catch specifications</i></p> <p>Halibut ramp EFP Report: <i>Receive report</i> Salmon excluder EFP: <i>Review/Approve</i></p> <p>EFH Amendment: <i>Final Action</i></p>	<p>P. cod assessment model review (SSC only) Groundfish uncertainty/Total catch accounting: Disc paper (SSC only)</p> <p>BSAI Chum Salmon Bycatch: <i>Initial Review</i> GOA Chinook Salmon Bycatch: <i>Final Action</i></p> <p>BSAI Crab draft SAFE: <i>Review and approve catch specifications for Norton Sound RKC and AI GKC</i></p> <p>Habitat Conservation Area Boundary: <i>Review</i> Northern Bering Sea Research Plan Report: <i>Review</i></p> <p>CQE vessel use caps: <i>Initial Review (T)</i> CQE in Area 4B: <i>Initial Review (T)</i></p> <p>Halibut mortality on trawlers EFP: <i>Review/Approve (T)</i></p>	<p>GOA Pacific cod A-season opening dates: <i>Discussion paper (T)</i></p> <p>BSAI Chum Salmon Bycatch: <i>Final Action (T)</i></p> <p>Halibut/sablefish IFQ changes: <i>Discussion paper</i> Halibut/Sablefish IFQ Leasing prohibition: <i>Discussion paper</i> GOA Halibut PSC: <i>Initial Review</i></p> <p>BS & AI P.cod split: <i>Initial Review (T)</i></p> <p>GOA Flatfish Trawl Sweep Modifications: <i>Initial Review</i> Freezer longliner vessel replacement: <i>Discussion paper (T)</i></p> <p>Groundfish PSEIS: <i>Discuss schedule</i> Crab EDR Revisions: <i>Initial Review</i> BSAI Crab: <i>Report from stakeholders on ROFR</i> BSAI Crab SAFE: <i>Approve catch specifications</i> HAPC - Skate sites: <i>Initial Review</i> MPA Nomination Discussion Paper: <i>Review (T)</i></p> <p>Groundfish Preliminary SAFE: <i>Adopt proposed specifications</i></p> <hr/> <p align="center">ITEMS BELOW FOR FUTURE MEETINGS</p> <p>BSAI Tanner Crab rebuilding plan: <i>Initial Review</i> Crab bycatch limits in BSAI groundfish fisheries BSAI Flatfish specification flexibility Grenadiers and EC Category: <i>Discussion paper</i> AI P.cod Processing Sideboards: <i>Initial Review</i></p>

ACL - Annual Catch Limit
AI - Aleutian Islands
GOA - Gulf of Alaska
SSL - Steller Sea Lion
BKC - Blue King Crab
BOF - Board of Fisheries
FEP - Fishery Ecosystem Plan
CDQ - Community Development Quota
VMS - Vessel Monitoring System
EFP - Exempted Fishing Permit
BiOp - Biological Opinion
GKC - Golden King Crab
MRA - Maximum Retainable Allowance
CQE - Community Quota Entity

PSC - Prohibited Species Catch
TAC - Total Allowable Catch
BSAI - Bering Sea and Aleutian Islands
IFQ - Individual Fishing Quota
ROFR - Right of First Refusal
GHL - Guideline Harvest Level
EIS - Environmental Impact Statement
LLP - License Limitation Program
SAFE - Stock Assessment and Fishery Evaluation
MPA - Marine Protected Area
EFH - Essential Fish Habitat
RKC - Red King Crab
HAPC - Habitat Areas of Particular Concern
SSC - Scientific and Statistical Committee

Future Meeting Dates and Locations

March 28-April 5, 2011-Anchorage
June 6 -, 2011 - Nome
September 26 -, 2011 in Unalaska
December 5 -, 2011 in Anchorage
January 30- Feb 7 2012 - Reannnaissance Hotel, Seattle
March 26-April 3, 2012 Hilton Hotel - Alaska
June 4 - June 12, 2012 Kodiak Best Western
October 1-Oct 9, 2012 - Hilton Hotel, Anchorage
December 3 - Dec 11, 2012 - Anchorage

(T) Tentatively scheduled

NPFMC/NMFS Action - updated 3/23/11

AGENDA D-3 April 2011

Action	Status	Staffing	2011												2012	
			March	April	May	June	July	August	Sept	Oct	Nov	Dec	Jan	Feb	March	
Blue = Post Council Action, Rulemaking																
Halibut Catch sharing plan	Proposed and Final Rule	NMFS 90% Council 10%	Refer to NMFS Management report													
BSAI crab arbitration, C-shares, cod sideboards	Preparation of rulemaking packages	NMFS 80% Council 20%	Refer to NMFS Management report													
Litigation workload	Ongoing	NMFS 90% Council 10%	Refer to NMFS Management report													
Am 80 lost vessel replacement	Proposed and Final Rule	NMFS 90% Council 10%	Refer to NMFS Management report													
BSAI Chinook Salmon EDR	Proposed and Final Rule	NMFS 90% Council 10%	Refer to NMFS Management report													
GOA Rockfish Program	Preparation of rulemaking package	NMFS 90% Council 10%	Refer to NMFS Management report													
GOA Pcod Sector Split	Preparation of rulemaking package	NMFS 90% Council 10%	Refer to NMFS Management report													
BSAI Fixed Gear Parallel waters	Preparation of rulemaking package	NMFS 90% Council 10%	Refer to NMFS Management report													
12 month 20% halibut sablefish QS	Proposed and Final Rule	NMFS 100% Council 0%	Refer to NMFS Management report													
Tanner crab bycatch in the GOA	Preparation of rulemaking package	NMFS 90% Council 10%	Refer to NMFS Management report													
BSAI Crab ACLs; Snow crab rebuilding plan	Preparation of amendment package	NMFS 50% Council 50%	Refer to NMFS Management report													
Scallop ACL plan amendments	Preparation of amendment package	NMFS 50% Council 50%	Refer to NMFS Management report													
BSAI Arrowtooth Flounder MRAs	Preparation of rulemaking package	NMFS 90% Council 10%	Refer to NMFS Management report													
Observer Program restructuring	Preparation of SOC draft and rulemaking package	NMFS 80% Council 20%	Refer to NMFS Management report													
BSAI Crab Emerg relief	Preparation of rulemaking package	NMFS 90% Council 10%	Refer to NMFS Management report													
4 New CQE communities	Preparation of rulemaking package	NMFS 90% Council 10%	Refer to NMFS Management report													
BSAI Crab ROFR	Preparation of rulemaking package	NMFS 90% Council 10%	Refer to NMFS Management report													
3A CQE D class purchase	Preparation of rulemaking package	NMFS 90% Council 10%	Refer to NMFS Management report													
Am 80 GRS changes	Preparation of rulemaking package	NMFS 90% Council 10%	Refer to NMFS Management report													
Remove inactive Halibut/Sablefish QS	Final Rule	NMFS 100% Council 0%	Refer to NMFS Management report													

North Pacific Fishery Management Council

Eric A. Olson, Chairman
Chris Oliver, Executive Director



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Visit our website: <http://www.fakr.noaa.gov/npfmc>

Observer Advisory Committee – Meeting Agenda

March 22, 2011: 8:30 am – 4:30 pm

Conference room, Anchorage (Old) Federal Building – Council office
605 W. 4th Avenue, Suite 205 (2nd floor)
Anchorage, AK

Listen-only teleconference line: (907)271-2896

- I. Review and approve agenda
- II. Observer restructuring amendment package
 - a. Review October 2010 Council action on observer restructuring; objectives (Nicole)
 - b. Update/review workplan for observer restructuring regulatory package (NMFS)
 - c. Update on NMFS observer funding (NMFS)
- III. Electronic monitoring
 - a. Review Electronic Monitoring (EM) discussion paper (NMFS)
 - b. Update on EM halibut fleet pilot project proposal (Dan Falvey)
 - c. Review primary monitoring objectives for small boat fleet (NMFS)
 - d. Discuss development of focused EM program/design for small boat fleet
 - e. Other EM issues
- IV. Public comment
- V. Scheduling & other issues

NOTE: Please bring a copy of the EM discussion paper (agenda item III), available at:
http://www.fakr.noaa.gov/npfmc/current_issues/observer/EM211.pdf

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Observer Advisory Committee – Meeting Report

March 22, 2011: 8:30 am – 5 pm

Conference room, Anchorage (Old) Federal Building – Council office
605 W. 4th Avenue, Suite 205 (2nd floor)
Anchorage, AK

Listen-only teleconference line: (907)271-2896

Committee present: Dan Hull (Chair), Bob Alverson, Jerry Bongen, Julie Bonney, Dan Falvey, Kathy Hansen, Michael Lake, Todd Loomis, Paul MacGregor, Darren Stewart, Anne Vanderhoeven. Not present: Kenny Down, Paul MacGregor, David Polushkin, Brent Paine.

Council and NMFS Staff: Nicole Kimball (NPFMC), Martin Loefflad (NMFS AFSC), Patti Nelson (NMFS AFSC), Brandee Gerke (NMFS AKR), Jennifer Mondragon (NMFS AKR).

Other attendees: Jane DiCosimo (NPFMC staff), Ed Hansen (fisherman), Nathan Lagerwey (NOAA OLE), Gregg Williams (IPHC), Tim Carroll (Saltwater, Inc.), Howard McElderry (Archipelago), Joe Chaszar (Observer Training Center), Mary Schwenzfeier (ADF&G).

Participants by phone: Elizabeth Mitchell (Association of Professional Observers), Paul MacGregor (APA), Tom Meyer (NOAA GC), Ruth Christiansen (ADF&G), Stefanie Moreland (ADF&G).

Agenda

- I. Review and approve agenda
- II. Observer restructuring amendment package
 - a. Review October 2010 Council action on observer restructuring; objectives
 - b. Update/review workplan for observer restructuring regulatory package
 - c. Update on NMFS observer funding
- III. Electronic monitoring
 - a. Review Electronic Monitoring (EM) discussion paper
 - b. Update on EM halibut fleet pilot project proposal
 - c. Review primary monitoring objectives for small boat fleet
 - d. Discuss development of focused EM program/design for small boat fleet
 - e. Other EM issues
- IV. Public comment
- V. Scheduling & other issues

I. Review and approve agenda

Introductions were made, and the agenda was approved. The Chair confirmed that the purpose of the meeting is to receive updates on the regulatory package for the observer restructuring action approved last October, with the primary task to discuss development of an electronic monitoring (EM) design as a potential alternative for small vessels to meet the requirements of the restructured observer program. The Council noted that discussion would likely focus an EM design for some component of the small vessel fleet, although it is anticipated that other overarching EM issues would be discussed for all sectors.

II. Observer restructuring amendment package

- a. Review October 2010 Council action on observer restructuring; objectives

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Nicole Kimball (NPFMC) reviewed the October 2010 Council action, in which the Council approved a restructured observer program. The Council's preferred alternative modifies observer requirements for entities operating in the groundfish industry that will have <100% coverage requirements under the revised program and all entities in the commercial halibut sector. All vessels and processors in this coverage category are subject to a 1.25% ex-vessel value based fee, and would be required to carry an observer as determined by NMFS. Vessels and processors operating in the $\geq 100\%$ coverage category are not included under the ex-vessel fee-based program and would obtain observer coverage by contracting directly with observer providers ('status quo'). The Council also noted that the OAC may be tasked to review implementation issues associated with the development of the proposed rule.

Prior to action on the restructured observer program, in June 2010, the Council tasked the OAC, Council staff, and NMFS to develop electronic monitoring as a potential alternative tool for fulfilling observer coverage requirements for specified sectors with the intent that it be in place at the same time as the restructured observer program (scheduled for no earlier than 2013). The development of the white paper on EM, which was reviewed at the February 2011 Council meeting, and this OAC meeting, are the first steps toward addressing the Council's motion on this issue.

b. Update/review work plan for observer restructuring regulatory package

Brandee Gerke (NMFS AKR) presented the process for developing the rulemaking to implement the restructured program. The agency is currently identifying tasks and drafting portions of the rule, and Council staff is completing the Secretarial review draft analysis and FMP amendments. The primary components of the rulemaking (teams with leads) include: derivation and collection of fees, sampling and deployment, contract development and award, outreach component, and EM (small vessel pilot studies). NMFS is in the process of finalizing the work breakout structure (tasks and milestones under each component). It was noted that implementation in 2013 denotes an ambitious schedule.

The next step in the formal planning process is an internal agency meeting on April 12, which intends to pull staff from various divisions together to ensure everyone understands the schedule, major milestones, and individual tasks. The goal is to provide a draft proposed rule to the OAC in September 2011, for review by the Council at its October 2011 meeting. The proposed rule would be published at some time after the October Council meeting. In addition, Section 313 of the MSA requires that NMFS conduct public hearings on the proposed regulations in WA, AK, and OR, during the public comment period on the proposed rule. NMFS would need a proposed rule published by January 2012 in order to expect a final rule by September 2012, for implementation in 2013. The committee questioned whether the agency would consider implementing the rule mid-year if it is not possible to meet the January 2013 schedule. Contingencies, such as a mid-year implementation, have not yet been considered.

The work plan for the proposed rule assumes that Federal start-up funding will be obtained. The schedule includes letting contracts in 2012 and deploying observers under the new program in 2013, as opposed to collecting start-up fees in 2013 for deployment under the new program in 2014. In effect, fees would first be collected in 2013, which would fund deployment in the subsequent fishing year. Federal funding was discussed further under the next agenda item.

Committee members stated that they should have the ability to address implementation issues that arise prior to the formal drafting of the proposed rule. Issues noted include the fee collection mechanism for the IFQ sectors; how to get a vessel into the selection pool for an observer if they are not required to have a Federal Fisheries Permit; implementation details affecting vessels fishing in combination fisheries; and vessel and processor responsibilities related to vessel notification or fee payment. Members conveyed that if the OAC is allowed time to address issues early in the drafting process, it will save time at the Council level. The Council reconstituted the committee recently with the intent that its collective expertise be used

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for this process, and the OAC is interested in finding ways to provide input early in the process, prior to September. If a draft rule cannot be available earlier than September, members questioned whether they could review components of the rule in a piecemeal manner over the summer. As an alternative, the OAC could receive the draft proposed rule well in advance of its next (potentially September 2011) meeting, so that it is well prepared with comments in September. The committee decided to defer further discussion until agenda item (V).

c. Update on NMFS observer funding

Martin Loefflad (NMFS AFSC) provided an update on the potential for NMFS observer funding. The three avenues to obtain Federal funding include: 1) routine Federal process through the Presidential and Congressional budget; 2) Congressional earmarks (noting that Federal agencies cannot lobby Congress); and 3) discretionary funds within an agency budget, to be redistributed toward a specific effort/program. The AFSC is working on #3, and Dr. Balsiger is the contact for talking to NOAA HQ about this issue. The rationale detailed in the correspondence between both the Council and industry and NOAA HQ appears to be compelling. One OAC member noted that he is still working through our Congressional delegation to obtain funding. Members understood that the North Pacific is requesting funds for the direct costs of deployment, and that the agency would continue to use its current budget for program operations, debriefing, training, equipment, etc. The AFSC is also undergoing a several year budget planning process in order to be prepared to implement the restructured program.

One member, noting that a Congressional budget may not be passed for 2011, noted that 2012 is the target fiscal year. They questioned when the agency would need to know whether Federal funds were available, in time for a 2013 implementation date. The agency responded that they are proceeding with developing the regulations and contractual infrastructure necessary, and certainty by a May/June 2012 timeframe would be necessary to move forward with a contract for 2013.

III. Electronic monitoring

a. Review electronic monitoring discussion paper

Martin Loefflad and Jennifer Mondragon presented a white paper developed by NMFS summarizing previous pilot work evaluating the potential use of EM in Alaska's commercial fisheries, specifically the use of video cameras. This paper was also presented to the Council at its February 2011 meeting. The paper also provided an update on the required use of EM in the Amendment 80 (flatfish and Pacific cod) and Amendment 91 (Bering Sea pollock) fisheries, in which EM is used as a compliance tool to monitor for the pre-sorting of bycatch. While there are no operational EM systems in place in Alaska that routinely extract information from video for science or management, the paper identified potential candidate applications for EM, as well as summarized progress on automated data analysis (in order to provide near real-time data for inseason management). One possible application of EM identified is on the small boat longline fleet, in which video could be used as an alternative to an observer. The report emphasized the need to identify the data collection and monitoring objectives of a particular fishery or fisheries, then consider whether EM is a feasible tool.

The OAC asked questions related to the sampling fraction of the video necessary to obtain sufficient confidence in the data in specific studies. The committee discussed the GOA rockfish pilot studies. In a 2007 study, every species was required to be retained except halibut. EM was used to both detect a halibut discard event and to estimate the measurements of the halibut being discarded. In 2008, this study was expanded to evaluate the efficacy of EM in a real-world operational scenario on additional (four) vessels that designed their own discard chutes, and included an assessment of costs. In this study, hard drives

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were collected and sent to Archipelago for review, or reviewed in Kodiak if staff were available. Again, all species were delivered to shore, with the exception of halibut.

The most important factors appeared to be the cost and lag time involved with reviewing the video. Near real-time data availability is crucial in this fishery, as it operates under a cooperative management structure and is limited by halibut PSC. The lag time experienced was 9.7 days if reviewed in Kodiak, 15 – 37 days if reviewed in Canada. Members wanted to know if there was a way to have data transmitted to shore while the vessel is at-sea. The focus of improvements to-date has been to reduce the time necessary to retrieve the hard drives and review the data once the vessel has landed, through either sampling a fraction of the data manually or potentially by an automated review. Transmitting very large files from sea has proven difficult for most vessels.

Start-up costs, equipment costs, data review, and infrastructure costs were compared to 100% observer coverage for this particular fleet, and the study concluded that EM was only less expensive than an observer if the vessel fished more than 30% of the rental days of the EM equipment (rental fees are fixed per month). Thus, for larger holders of rockfish quota, EM would be more cost effective than an observer; if a vessel only has one or two trips, an observer is less expensive than EM. If a fishery requires some level of observer coverage in conjunction with EM, in order to obtain biological samples for example, the EM cost savings would be reduced. Costs were estimated at \$1,500 per month to rent the EM equipment, and \$10k - \$15k to purchase equipment. If the ownership of the equipment was shared among a pool of vessels, it would reduce costs. One member noted that although program costs continue to need to be minimized, individual costs are not at issue for vessels under a restructured observer program, as EM would be paid for through the pool of funds generated by the ex-vessel fee. This spurred discussion about how to create incentives for cost efficiencies at an individual level in a program where the expenses are paid through a general pool.

The committee was also interested in discussing a self-reporting component for various sectors, including the hook-and-line fleet, which could then be audited through a video review. In the rockfish project, the skippers counted and measured each halibut that went down the discard chute, in addition to someone monitoring the video to measure halibut. The study indicated that the self-reported halibut counts were accurate, but the measurements were consistently under-estimated.

Julie Bonney stated that the take-home message from these studies on the use of EM for trawl gear is that because the vessel is catching a large amount of fish, EM is only applicable in a full retention environment. EM may be applicable for rockfish, if only PSC species are being discarded; it may also work in the pollock fishery.

Questions continued on the halibut longline pilot projects, and the use of EM in both the BSAI Amendment 91 and Amendment 80 fisheries, where it is used as a compliance tool. This spurred discussion and concurrence that the OAC is not focusing EM efforts on these fleets, as they are not part of the restructured observer program and the Council intent was to focus on providing an EM alternative for small boats or vessels that have not had observer coverage requirements to-date.

NMFS staff noted they are keeping abreast of national EM issues and projects, in part by participating in a national NOAA EM committee. One member noted there is a monitoring workshop planned for the west coast fisheries on May 3 – 4, 2011, in Portland (Workshop on West Coast Electronic Fishery Information Systems), which NMFS is co-sponsoring. Significant questions for the agency to address involve how to store, review, and extract data from video in a timely manner for use in fisheries management.

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b. Update on EM halibut fleet pilot project proposal

Dan Falvey (Alaska Longline Fishermen's Association) presented a proposal he submitted in partnership with the AFSC and other fishing organizations in southeast Alaska, to the National Fish and Wildlife Foundation (NFWF), as part of its competitive grant program. The NFWF describes the Fisheries Innovation Fund as a grant program to support sustainable fisheries in the U.S. by fostering innovation and supporting effective participation of fishermen and fishing communities in the design and implementation of catch-share fisheries. ALFA submitted this proposal in the 2010 application cycle and anticipates a response in April 2011. If the proposal is not approved, the group is committed to implementing it on a piecemeal basis as funding allows. ALFA will provide an update on the funding situation in the spring.

The pilot project addresses a priority identified by the Council, under its observer program restructuring action, to provide small boats with a safe and effective means of meeting the expanded observer coverage requirements scheduled for implementation in 2013. ALFA's pilot project proposes to build on previous work, focusing on how to operationalize cameras for use on small boats in Alaska. They have developed an approach in terms of logistics and hardware, in order to help inform the final contract that occurs under the restructured program. The four objectives of the project are:

1. Engage stakeholders in the small boat fleet to develop an EM tool that is workable for the fleet and meets the monitoring needs of NMFS
2. Develop and test EM hardware for reliability on a wide range of boats and in diverse operating conditions
3. Develop a logistical approach to take cameras and hard drives on and off boats, especially in small remote communities
4. Establish a baseline understanding of data quality and costs, such that the restructured program could benefit from information on what an operational EM program might look like and cost.

The intent is to place cameras on two vessels in the summer of 2011, and do further work (12 boats from each of 3 communities) in 2012. The vessels range from 40' to 55' in length, and the goal is to have at least 6 days of seatime from each vessel, but they will leave them on for several trips if possible. The intent is to develop a 'plug and play' capability, such that all vessels would be pre-wired in the preseason by a technician, then they would be ready to take a camera if they are chosen to do so. The expense of wiring the vessel occurs once, with some maintenance expected during the year, and a local person would be trained to move the cameras on and off boats. This model of selecting a set of vessels and pre-wiring in the case of vessel selection is consistent with the approach described in the restructuring analysis for the halibut fleet. Dan Hull, who participated in the IPHC pilot study on EM, noted in his experience, pre-wiring vessels in the potential selection pool prior to the season start is preferred.

AFSC asked ALFA to consider a primary monitoring objective of assessing catch and catch composition, particularly discards, for this project. Because the IFQ fisheries are not constrained by PSC limits, real-time data is not required for catch accounting. Thus, the primary monitoring need is total catch composition and species discards, to complement the existing IPHC dockside monitoring program. The AFSC, as a project partner, is responsible for addressing issues relative to video review and use of the resulting data.

c. Review primary monitoring objectives for small boat fleet

Martin Loefflad provided an outline of the primary monitoring objectives for the small boat fleet for the OAC to consider when evaluating whether EM is a potential tool for this sector (see **Attachment 1** to this report). Fishing mortality is the primary objective in the overall stock assessment process and necessary

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for establishing catch limits. Two primary ways to meet this objective are: 1) expanding coverage of currently observed fisheries to address spatial and temporal coverage gaps to improve existing catch estimation processes; and 2) expanding coverage into fisheries which have not had past observation to enable first time estimates of discard. An example of the latter is the halibut sector, in which we do not currently have at-sea discard information. The agency currently uses survey data as a proxy for the estimates of the total fishing mortality from the halibut fleet. However, even though the information is needed, it is not necessary to obtain on a real-time basis. Thus, EM may be a suitable tool for this type of fishery.

A third objective outlined by NMFS is to monitor compliance with fishing regulations (examples include streamer line requirements, avoiding closed areas, careful release of halibut, etc.), but the assessment of fishing mortality is the primary driver. In order to simplify development of an EM system, the idea is to design it to meet the most important components of monitoring and management needs.

The committee questioned how to move from a broad discussion of EM to a more focused effort, per the Council's request. Members recognized the different monitoring needs for the various fleets, as provided in the NMFS handout on monitoring objectives. The difficulty is in refining the scope of an initial EM effort – whether to focus on all small boat sectors by length (40' – 60' vessels), by specific fishery (IFQ fleet, GOA pollock and/or Pacific cod fleet), or to try to create a program that would work for every vessel that is incorporated into the restructured program that has not previously had observer coverage requirements (all <60' groundfish vessels and halibut vessels of all sizes).

The committee recognized that the two primary objectives outlined in the NMFS handout lead down two different paths for EM application, and while several fisheries do not require near real-time data for PSC monitoring (e.g., halibut, pot cod, jig), the committee agreed they need to select one fishery or sector on which to focus these initial efforts, with the intent that NMFS can broaden the EM design in the future.

d. Discuss development of focused EM program/design for small boat fleet

The committee summarized the focus of the EM program/design, based on the Council's direction in June 2010 and February 2011. After a lengthy discussion and a review of Council intent, the committee decided to focus on developing an EM alternative for those sectors 1) that are newly included in the observer program; 2) in which it would be relatively difficult or impractical to carry an observer, and 3) that are not dependent on real-time data in order to manage the fishery. In effect, small boat sectors that are not limited by PSC caps that the agency must monitor on a real-time basis in order to ensure the caps are not exceeded. **The committee agreed that the initial phase of an EM program should focus on the 40' – 60' halibut and sablefish longline sector, as it best meets the above criteria.** However, it is expected that information resulting from the initial design will be key to expanding an EM alternative to other sectors, whether small vessels or large.

The practicality issue – whether it was safe and feasible for a vessel to carry an observer – was one of the primary factors guiding the committee's decision. Another significant consideration was the fact that NMFS and the IPHC do not have any discard information associated with this fleet, while other fisheries such as GOA pollock and cod have larger vessels that have been carrying observers and thus have some level of associated data, albeit not specific to the <60' fleet.

The committee also discussed whether regulations implementing an EM alternative would be part of the proposed rule NMFS is developing this year. Staff noted that the regulatory mechanism for EM does not need to be the draft proposed rule, which is intended to focus on the fee and deployment regulations necessary to implement the Council's preferred alternative. The EM regulations could be a supplemental rule, or follow-up regulations, if necessary. The goal is to have sufficient regulations or a pilot program

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in place to allow for an EM alternative at the time of a restructured program, regardless of the regulatory vehicle used. The committee noted that the regulations should be broad, such that every detail of an EM system is not regulated, in order to increase flexibility and prevent multiple regulatory amendments as NMFS learns from the initial years of implementation.

The agency also noted that the scale of an EM system will be limited by the pool of funding generated by the ex-vessel fee. NMFS intends to contract with a private company to provide and install EM systems, and the company would determine how to provide the necessary staff in ports to implement the program.

In sum, given the discussion and rationale above, the OAC recommended three possible priorities for EM development:

- Discard estimates in the 40' – 60' halibut and sablefish IFQ fleets. The committee also recommended that NMFS should consider, in the start-up phase, to prioritize an EM alternative for the smaller vessels within this sector, notably those <57.5', as larger vessels would be expected to be able to accommodate an observer. It is also expected that, if cost effective, this alternative could be offered to the ≥60' IFQ fleets.
- Compliance monitoring of the no discard requirement for Chinook salmon in the GOA pollock fishery (estimation occurs at the plant).
- Near-real time estimates of PSC for catch accounting purposes, e.g., small boat GOA Pacific cod longline fishery, trawl fishery.

The OAC discussed that the small boat Pacific cod longline fishery does not have identical monitoring needs as the IFQ sectors, even though many of those vessels also fish IFQ species. In the GOA Pacific cod A season, there is a PSC issue (the cod fishery closes before the IFQ fishery), such that EM would not provide data quickly enough to monitor the PSC in this fishery. However, in the B season, the cod fishery is not driven by PSC, and vessels may be able to use EM to monitor for compliance with the halibut retention rule (if IFQ onboard) or for catch accounting. Currently, however, NMFS does not have the ability to translate EM data from those vessels real-time. Thus, while this sector is not the first priority for EM design efforts associated with restructuring due to some of these complicating factors, it is included in the priority list. In addition, it is expected that some of the issues the small cod longline fleet has faced with regard to the extrapolation of observer data from other segments of the fleet (e.g., applying data from the CP sector to the CV sector) will be mitigated through restructuring the observer program and getting more representative data from the CV sectors.

It was emphasized that the OAC needs to know a target (coverage level) for the 40' – 60' IFQ sectors, in order to understand the number of EM systems that might be necessary and the associated costs. NMFS stated that the intended approach is 'low and slow', and that receiving annual discard estimates, even if via a limited data set, would be much improved over the status quo. The intent is not to create a 'race for EM' within the small boat sectors that are eligible to use EM as an alternative to an observer.

Finally, it was recognized that implicit in the development of EM is the requirement that NMFS develop the capability to review the data internally. While contractors could provide equipment, hard drives, and installation, NMFS would need staff to complete the data review, extraction, and storage.

e. Other EM issues

Other EM issues that were discussed and recognized include the following:

- **The OAC recommends that it be included in the review process for the annual sampling and deployment plan under a restructured program, prior to the Council review. The**

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Council's final motion stated that: "*The Council may request its Observer Advisory Committee, Groundfish Plan Teams and/or the SSC to review and comment on this draft plan.*" The OAC recommendation confirms that it would like to be part of this review process.

- Vessel responsibilities for either observer or EM requirements should be the same, if possible.
- Chain of custody, ownership, and confidentiality issues relative to video. The committee discussed whether these issues still exist if NMFS uses a contractor to employ EM (i.e., the contractor removes the hard drives and submits them to NMFS), and whether video can be obtained through a FOIA request. Staff noted that under a voluntary EM program (pilot project), data are not protected under MSA if they are provided to NMFS. However, when moving to a required EM program, the confidentiality of video data and observer data are both equally protected under MSA. NMFS noted that the issue of data quality (e.g., ensuring that the video received from the contractor has not been tampered with prior to submittal to NMFS) would be addressed through the contract provisions.
- The use of EM as an audit tool, recognizing that data review constitutes a significant percentage of the overall costs. NMFS could provide a standard to meet for the specified fishery (e.g., would a 10% sample frame be sufficient for developing discard estimates in the IFQ sector?).

IV. Public comment

Public comment was provided by Howard McElderry (Archipelago, Inc), Gregg Williams (IPHC), and Tim Carroll (Saltwater, Inc.). Tim provided suggestions regarding programs and applications to use for document control when a large group is collaborating on a product (desktop sharing).

Howard stated that Archipelago is very interested in trying to be part of the EM construct in Alaska, possibly working with other service providers that already have some infrastructure in place. He noted that the biggest challenge in Alaska is providing the necessary infrastructure, and recommended considering selecting the 'lowest hanging fruit' in terms of fisheries that could adopt EM, even if other fisheries have a greater need for this alternative. At a minimum, one needs the equipment available and people who understand how to put it on boats and make it successful. He emphasized that the broader the universe of people that are familiar with the technology, the better and broader the application, and that industry needs to be involved to facilitate a bottom-up approach to operationalizing EM. He also emphasized that in whichever fishery one needs information, the most immediate data is self-reported, the next is observer-generated, and the slowest is EM-generated. But EM has a very valuable role in making the self-reporting mechanisms work.

Howard related that even with a fully implemented EM program, it will take 2 to 3 years to establish a very productive data generation system; starting on a limited scale will extend that timeline. Thus, he recommends a planning process in which we consider where the fisheries will be in 5 and 10 years' time: the number of vessels targeted for EM use, areas they fish, days at sea, ports, and harvest species and amounts.

Howard concluded with the statement that EM works best where there is very strong industry ownership of the program (as opposed to agency driven), and that the OAC and NMFS need to find a way to tap into the international community working on EM issues. He will provide Council staff with a paper accepted for publishing from a recent international monitoring conference, when it is available for circulation.

Gregg Williams (IPHC) provided comments related to the need to continue to collect biological samples, which cannot be done via EM. The need exists because a small vessel fleet monitored primarily by EM

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may fish different areas than a large vessel fleet fishing further offshore, which would be more likely to carry observers capable of collecting biological data. One member noted that vessel crews could be trained to collect certain types of biological samples.

Gregg also noted that with limited funding and a potentially small number of EM systems, there should be a focused approach for starting EM coverage. For example, one option would be to broadly disperse the few available systems on vessels across several management areas. This would likely result in a few precise estimates per area, but would not likely be representative of the fishery in each area. Conversely, the systems could be deployed in a more focused fashion, providing a more representative data set for a smaller geographic area. The emphasis for this first effort should be on the ecological footprint, i.e., total catch, of the halibut sector, on a spatial scale that would produce usable data.

V. Scheduling and other issues

The committee discussed the need for a summer meeting to discuss draft implementation issues prior to the development of the proposed rule for the restructured observer program. The primary concern with a summer OAC meeting is the risk to the current schedule of trying to provide a draft PR by September. The PR will require significant clearance through NMFS. The intent currently is to provide the same draft PR to the OAC and the Council, in September and October, respectively, recognizing that the OAC can recommend revisions to the rule through the Council at its October meeting. If the expectation is that NMFS provides a draft PR earlier in the summer, receives feedback from the OAC, then revises the rule prior to it receiving clearance through NMFS and sending to the Council, there is not likely time available to complete that process.

The committee debated the advantages and disadvantages of a summer OAC meeting versus other methods of providing input, recognizing that the primary goals are to provide feedback early in the process and to avoid significant surprises when the draft rule is available. The committee did not necessarily want to incorporate more time into its review process at the expense of reducing the time between the final rule and implementation, which is intended to allow vessels and processors time to gear up for the new program (e.g., NMFS would like to publish a final rule by September 2012, with implementation in January 2013). The committee also did not want to delay the implementation schedule beyond 2013.

In sum, the committee recommended that staff compile a list of implementation issues, both previously identified by the Council and identified by NMFS as they plan the rulemaking package, for distribution to committee members. The OAC would be able to focus their input on significant issues and provide this input in a structured manner to NMFS staff via email, early in the summer. This approach allows NMFS to use the expertise and experience of OAC members and solicit input without jeopardizing the schedule, recognizing that any input provided is from an individual and not an OAC recommendation. Staff committed to providing this list in mid-April, if the Council agrees. NMFS also expects to contact individual OAC members for input as the rule develops.

The committee's formal review of the draft proposed rule would continue to be scheduled for September 2011, with the intent to provide recommendations to the Council at its October meeting. The OAC recommends that the Council approve an OAC meeting for this purpose, potentially to be scheduled in conjunction with one of the plan team meetings in Seattle.

Draft Goals and Objectives
for monitoring vessels less than 60' operating in the Bering Sea and Gulf of Alaska

NMFS' primary objectives for monitoring are to assess fishing mortality. To that end, NMFS has a need to:

1. Expand coverage of currently observed fisheries to address spatial and temporal coverage gaps to improve existing catch estimation processes.

Examples include:

Western gulf pollock fishing by 58'-60' trawl vessels,
Cod fishing across the GOA by less than 60' hook and line vessels.

Requirements: timely transmission of data into the Catch Accounting System (CAS) for catch estimates to support in-season closure decision making.

Potential to consider: dockside monitoring could be utilized in cases where there is a no-discard requirement that is verifiable.

2. Expand coverage into fisheries which have not had past observation to enable first time estimates of discard.

Examples include:

The Pacific halibut fleet (developing bycatch estimates for this fleet has been a plan team priority noting they currently have no independent observation of the fishery)

Requirements: there is not a current in-season monitoring requirement, so NMFS would need annual estimate of discards that would be included in stock assessments. If the magnitude of catch is significant, or if the Council created bycatch limits for this fishery with an inseason monitoring requirement, then consider developing systems to integrate the information into the CAS.

Potential to consider: use video to supplement human observation in a sampling and estimation process. Industry self-reporting is an option but consider the monitoring necessary (Canada model has 100 percent video on all vessels with a low level of compliance sampling) to implement.

Note: For each of these two primary objectives, NMFS has relied heavily on observer information to provide an independent estimate of discard. Industry self reporting would only be viable if there was a reasonable way to monitor their activity to ensure the reports were accurate.

3. Monitor compliance with fishery regulations:

Examples include: streamer line requirements, avoiding closed areas, careful release of halibut on H+L vessels, etc.

Potential to consider: there are many tools to achieve compliance some of which can involve observers and/or video systems. In general, observers are used when the information is obvious, or is collected as an additional part of their routine work.

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of the
SCIENTIFIC AND STATISTICAL COMMITTEE
to the
NORTH PACIFIC FISHERY MANAGEMENT COUNCIL
March 28th – March 30th, 2011

The SSC met from March 28th through March 30th, 2011 at the Hilton Hotel, Anchorage Alaska.

Members present were:

Pat Livingston, Chair

NOAA Fisheries—AFSC

Susan Hilber

Oregon Dept. of Fish and Wildlife

Gordon Kruse

University of Alaska Fairbanks

Jim Murphy

University of Alaska Anchorage

Kate Reedy-Maschner

University of Idaho Pocatello

Farron Wallace, Vice Chair

Wash. Dept. of Fish and Wildlife

Anne Hollowed

NOAA Fisheries—AFSC

Kathy Kuletz

US Fish and Wildlife Service

Lew Queirola

NOAA Fisheries—Alaska Region

Ray Webster

International Halibut Commission

Robert Clark

Alaska Department of Fish and Game

George Hunt

University of Washington

Franz Mueter

University of Alaska Fairbanks

Terry Quinn

University of Alaska Fairbanks

Doug Woodby

Alaska Department of Fish and Game

Members absent were:

Jennifer Burns

University of Alaska Anchorage

Seth Macinko

University of Rhode Island

B-1 Plan Team Nomination

The SSC reviewed the nomination and resume for Heather Fitch to serve on the Council's Crab Plan Team, filling the vacancy left by Forrest Bowers. The SSC finds that Ms. Fitch has management experience with BSAI crab fisheries that will be a valuable asset to the CPT and recommends that the Council approve her appointment. The SSC also discussed the scarcity of CPT members with quantitative stock assessment experience and recommends that the Council consider adding an additional member to the Plan Team to fill this void.

C-3 (b) Initial review of GOA Chinook salmon PSC

The SSC received presentations from Diana Evans (NPFMC), Darrell Brannan (Consultant), and Mark Fina (NPFMC). Public testimony was received from Don Rivard (USFWS Office of Subsistence Management), Bob Krueger (Alaska Whitefish Trawlers Association), Jon Warrenchuk (Oceana), and Julie Bonney (Alaska Groundfish Data Bank).

The RIR/IRFA presents a comprehensive treatment of the historical context of the proposed action. It methodically steps through each of the elements contained in the suite of alternatives and options, identifying data needs, and contrasting those needs with available sources. It is apparent from the outset that analysis of this action will confront the accustomed voids and shortcomings in our understanding of impacts and outcomes, directly attributable to inadequate economic, socioeconomic, and operational data (e.g., operational costs – variable and fixed; relative dependency; affiliation and ownership patterns; net performance indicators). These deficiencies result in a diminished ability to narrow the confidence bounds on analytical projections made for many of the key outcomes of the action alternatives. This is of particular significance for the GOA pollock fisheries, because many of the potentially impacted

operations are of substantially smaller scale and are operating nearer economic margins than their counterparts in the Bering Sea AFA fisheries. These deficiencies also impair the ability of analysts to assess impacts on protected resources and endangered species.

The document does an effective job of identifying the expected sources, characteristics, and recipients of impacts attributable to the alternatives. Much of the subject impact analysis is qualitative, due to a lack of usable empirical data, but the report does a reasonable job of quantifying those aspects for which such estimates can be usefully derived. **A large obstacle to fully describing and measuring the ramifications of these Chinook PSC avoidance measures is the incomplete scientific knowledge as to “source-of-origin” of the Chinook salmon PSC removals in the GOA pollock fisheries. Because the source-of-origin data are critical for any comprehensive economic analysis, the SSC recommends that a high priority be placed on efforts to identify and apportion Chinook PSC in the GOA to their natal source.**

Substantially more work remains as the draft evolves through the next iteration. Both the initial RIR and IRFA contain some unnecessary elements. The SSC recommends adherence to technical requirements and use of consistent terminology. Care should be exercised when expressing the relationships between PSC allowance numbers and NMFS management and enforcement protocols, as related to allowance limits. Because PSC is required by law to be avoided, it should be assumed for analytical purposes that an overage will be an extraordinary event. Otherwise the PSC removal, in excess of the maximum limit, becomes a *de facto* allocation of an additional amount of Chinook removal, explicitly made available to GOA pollock operations every third year, instead of a safety-valve for *extraordinary* events. Many of the same uncertainties about the relationship between pollock catch and Chinook PSC frequencies that were encountered in the BSAI Amendment 91 analyses are of equal concern for the GOA action. The BSAI Amendment 91 experience should inform the analysts in this action.

The SSC identified a substantial number of questions and concerns about Chinook salmon PSC cooperative provisions contain in this action and was advised by the analyst that NOAA General Counsel has expressed significant legal concerns about approvability of an amendment containing such cooperative provisions.

The SSC believes the report should be explicit that the retrospective analysis of the impacts of proposed PSC limits assumes no behavioral changes in operators' response to the limits. If the proposed limits are effective in encouraging pollock harvesters to increase avoidance efforts, then the revenue impacts in the report are likely overstated and the dates on which the fishery would shut down are earlier than what may have occurred. Further, the years over which the retrospective analysis was conducted coincides with a low period of pollock biomass in the GOA. It is possible that when the pollock biomass increases greater total pollock catch amounts may be placed at-risk.

The report provides no rationale for the set of proposed PSC limits. Similarly, with respect to the 125% buffer provision, there is no rationale for its inclusion or for the choice of buffer level (25%) or the choice of every-third-year. The document should include additional information to indicate the basis for these choices.

Because the smaller vessels (<60') are typically owned by Western GOA residents, an analysis of the economic and social costs of requiring observers would be useful. If the modified observer program is approved, it may lessen incentives to fish with <60' vessels. However, there are other factors that also play a role in determining vessel size. The analyses could be improved by considering the likely magnitude of the impact that the 60' threshold provides. For those who own a single vessel, other factors, such as vessel length limits in other fisheries imposed by the State of Alaska salmon regulations, may be a more important determinant of vessel length.

The SSC would like to see an inclusion of information on the processor landing taxes levied by boroughs and communities in Section 3.6.6. These data could also contribute to an understanding of potential economic impacts on coastal communities, a requirement of National Standard 8. NS8 further requires a description of community dependency (p. 195). RIR Section 3.6.5 only addresses fishery engagement; this needs to be revised to address dependency in the communities. There is not enough information in the RIR to make statements such as “economic impacts to participating communities would not likely be noticeable at the community level” (p. 195) since community economic data are absent from this analysis. If time and resources are available, development of a formal Social Impact Assessment (SIA) should be considered.

The SSC’s review has identified a number of lesser concerns that will require treatment by the analysts (e.g., revenues should consistently be identified as ‘gross’ measures, correction of erroneous catch values must be made, several circular assertions need disentangling). These will be communicated directly to the analysts.

The RIR/IRFA suggests that, whether or not the GOA pollock operators perceive value from Chinook PSC avoidance, beyond the direct effect it may have on attainment of the pollock TAC, society has a substantial interest in ‘optimizing’ the implicit trade-off between total pollock catches and total Chinook PSC removals. It is, therefore, important that the externalities imposed by GOA pollock harvesters through Chinook PSC mortality, be appropriately accounted for, and those incurring these externalized costs identified.

The SSC finds that the EA adequately covered protected species, their prey, and their habitat requirements with respect to the proposed amendment.

In addition to those issues identified above, the SSC has identified several issues that we would like to see clarified or expanded on in the EA/RIR/IRFA report to be released for public review:

- Additional discussion is needed regarding the precision of the estimates of Chinook salmon PSC for both observed and unobserved catches. This discussion should include the potential impacts on the ability to manage the fishery to stay within the proposed cap limits, taking into account the lag between occurrence of the Chinook interception and the time that the PSC is reported.
- In several places, the report states that one of the advantages of mandatory cooperatives would be to identify hotspots of Chinook salmon encounters and limit fishing in those areas. However, the report also states (p.12) that the Council has determined that area closures based on monitoring of hotspots was not an effective tool to reduce salmon PSC. The analysis should clarify whether monitoring Chinook salmon PSC hotspots might be useful in the GOA.
- The caveats on use of the coded wire tag (CWT) data on page 110 should also be reflected in the last sentence of the first paragraph on page 111 to clarify that the percentages attributable to Southeast Alaska and Cook Inlet. Also, Figures 11-17 should be clarified that the points do not reflect abundance.
- It would be helpful to have a graphic that permits a better understanding of how well the observed PSC catch locations represents the locations of unobserved Chinook removals.
- The correct annual average sport fish catch of Chinook salmon (1989-2006) is the figure on page 33 (176,000 fish), and not as given on page 30.
- Figure 4 (p. 47) would be more informative if the seasons (A, B, C, and D) are shown on the x axis.
- The surveys from which Chinook salmon PSC data are derived (Table 65 p. 128) should be listed. Provide a brief discussion to explain why the survey interceptions of ESA-listed CWT salmon is

fairly large (especially from the upper Willamette River) relative to the commercial trawl PSC, which would be expected to be several orders of magnitude larger.

- The definition of Sustainable Escapement Goal (SEG) on page 119 should be updated by the definition available at the regulation citation given on that page.

For the longer term amendment analysis (not the present document) the SSC has the following comments:

- The SSC recommends that NMFS develop sampling goals for genetic data collection for the purpose of providing stock composition of the prohibited species removals on a geographic basis that would be meaningful from a PSC avoidance management standpoint.
- The SSC recommends that observer sampling include age and length data, which in combination with the genetic stock composition data, can be used to develop adult equivalency estimates for stock specific removals, similar to the method being developed for the BSAI Chinook PSC avoidance amendment.
- Once estimates of stock composition are available, the SSC suggests that it would then be possible to reconsider the hard cap alternatives in terms of impacts on Alaska salmon stocks, whereas the current caps are substantially motivated by the incidental take statement for threshold catches of ESA listed Chinook stocks.

The SSC recommends release of the draft analysis for public review, after the identified substantive edits have been incorporated, to the extent practicable.

C-4(b) BSAI Crab – Review alternatives for Crab Economic Data Collection

The SSC received an overview of the discussion paper from Mark Fina (NPFMC). Public testimony was given by Edward Poulsen (Alaska Bering Sea Crabber Association) and Shawn Dochtermann (Crab Crewmen's Association).

The SSC has spoken to this issue on numerous occasions over the past five years. In October of 2007, the SSC identified the critical need for a systematic collection of coherent, comprehensive social and economic data from Crab Rationalization Program fisheries. The SSC continues to emphasize this data need. Since that time, as development of the BSAI crab comprehensive economic data collection program (EDR) progressed, the SSC has also commented on data quality concerns. The completion of a formal audit of the EDR submissions, reported to the SSC in February 2008, was not encouraging in this regard, and the SSC made recommendations for improvement. In October 2010, the SSC reiterated the importance of high quality economic and socioeconomic data.

The Council has expressed a purpose and need statement that considers balancing of data collection costs with the contribution those data provide to the fisheries management process. The discussion paper provides a good range of alternatives to consider for revising the Crab EDR in the context of this purpose and need statement. The paper is responsive to the Council's expressed purpose and need, which indicates a desire to identify alternatives that are more streamlined in the selection of data elements in a revised EDR. The SSC is optimistic that a more focused approach with incremental additions is a viable one.

The paper examines problems associated with appropriately apportioning economic data (e.g., variable costs, payments to labor, deductions and charges), which have been identified as a primary source of the reporting burden on industry and weakness in the resulting datasets. The SSC also notes that the categorization of data quality and cost of collection may depend upon the desired level of analysis. For

example, fuel costs at the “all fisheries” level may be reasonably accurate with a low reporting burden, but allocating these costs to individual fisheries may be more challenging and less reliable.

The SSC emphasizes that although some data elements may be difficult to collect or that these elements have reliability concerns, they are still essential to completing the legally mandated benefit/cost, net benefit to the Nation, and distributional impact analyses, in support of proposed Council actions. The SSC recommends that a framework be developed to apportion data elements in a reasonable and credible manner in order to be useful in informing Council decisions.

No data elements address the economics of coastal communities, which is a problem expressly identified in the Council’s rationale. Although it was indicated that these data are being gathered elsewhere, it was also mentioned that these data are difficult and time consuming to collect. The SSC reiterates that level of difficulty should not be a barrier to collecting the data. Ongoing efforts to collect and integrate coastal community data into other economic analyses are essential to addressing the Council’s identified problems and evaluating the success of the Crab Rationalization Program.

The paper contributes several useful observations that pertain to opportunities to reduce the reporting burden, without significant loss of data, through cross-referencing other sources (e.g., COAR) or by more precisely identifying information with and without actual relevance to management of the crab fisheries (e.g., self-identified product ‘grades’) – see p.10. Identification of other equivalent opportunities and insights may only emerge with the cooperation and advice of industry. Industry assistance continues to be critical to accomplishing this task.

The SSC also encourages exploration of alternative methods for acquiring economic and operational characteristics and parameters of sector elements. While not a perfect substitute for primary data collection and analysis, these alternative approaches have the potential to contribute useful insights into, for example, effects of an action alternative on the key components of the industry, based upon agreed characteristic attributes/elements/operational strategies.

C-4(d) Alternatives for the Tanner Crab Rebuilding Plan

Diana Stram (NPFMC) gave a presentation on the status of the Tanner crab rebuilding plan analysis. Public testimony was provided by Edward Poulsen (Alaska Bering Sea Crabbers). The report included some tables and figures on historical status determinations, catch, and bycatch of Tanner crabs from crab, groundfish and scallop fisheries in the EBS.

At the present time, the stock assessment model is still under development and not currently acceptable for use in rebuilding analyses. Also, alternatives have not been articulated. Text describing the alternatives for snow crab rebuilding were included into the document for reference.

The SSC notes that the current discussion paper is preliminary and it was difficult to provide detailed comments on the alternatives for Tanner crab rebuilding. One major concern is that the Tanner crab model is not ready for use in a rebuilding analysis. Given that the Council may need to take final action in February 2012 in order to have new regulations in place by the October 2012 deadline, it is possible that an approved model may not be available to conduct the rebuilding analysis. The model continues to undergo further development. A revised version will be reviewed by the Crab Plan Team in May and the SSC in June. So, the availability of an approved model for rebuilding analysis should become clearer at the June Council meeting.

The SSC offers the following additional comments:

1. If an approved Tanner crab model becomes available in time, then the framework used for snow crab rebuilding could serve as a point of departure for the Tanner crab analysis. The SSC had some discussion that the snow crab approach may be more complicated than is needed for Tanner crab.
2. Unlike snow crabs, data presented in the discussion paper indicate that rebuilding alternatives must consider groundfish and crab fisheries, based on the magnitude of crab bycatch relative to target catch. Tanner crab bycatch in the scallop fishery is an order of magnitude lower than crab catches in the crab and groundfish fisheries.
3. A major issue for consideration is the time period used for estimation of B_{msy} . Currently, B_{msy} is based on the average mature male biomass (MMB) for 1969-1980. The document justifies this choice with the following statement: "*The time period is thought to represent the reproductive potential of the stock because it encompasses periods of both high and low stock status equivalently.*" On the surface, this justification does not appear correct – the value of MMB for 1980 is a moderately high value; MMB continued to decline through 1985/1986. More importantly, these years represent pre-regime shift conditions. The buildup of groundfish from strong recruitments in the late 1970s resulted in a large biomass of predators (e.g., cod, flathead sole) and competitors (yellowfish sole, rock sole) that in 1980 undoubtedly influenced the ability of the system to support Tanner crabs. Finally, indications are that the Tanner crab model performs much better when early survey data (1969-1973) are dropped, but estimates of mature male biomass before 1974 become highly uncertain. That leaves just the average of 1974-1980 mature male biomass estimates to determine B_{msy} , which is probably too short of a time period. The SSC has commented on this issue previously in the SSC reports from the June and October 2010 meetings. The assessment authors and Crab Plan Team should undertake a thoughtful discussion on the use of time periods to estimate B_{msy} in general, with a priority for Tanner crab.
4. The time period to be used for determination of rebuilt status will need to be revisited in the future. Currently, stock status must be above B_{msy} for two years before the stock can be declared as rebuilt. One criterion that may factor into the decision is the availability of a stock assessment model to reduce uncertainty about stock status.
5. There is a need for greater clarity about the data (units) being presented in tables in the document. Headings for tables of bycatch statistics should be clarified to indicate whether bycatch represents the weight of Tanner crab bycatch with or without application of discard mortality. Tables should report bycatch in the same units as catch to allow for comparisons. When bycatch mortality is estimated, it would be helpful to compare the various sources of mortality with respect to OFL levels. Also, tables that present data on Tanner crab bycatch should clearly indicate whether they represent males only or both sexes combined.
6. The document should describe observer sampling procedures for Tanner crabs with respect to size and sex. Methods used to estimate male-only bycatch estimates should be described in the text.
7. During NMFS surveys, hybrid crabs (resulting from snow-Tanner crab mating) are estimated separately, whereas ADF&G counts hybrids with Tanner-like characteristics as Tanner crab. To the extent practicable, catches of hybrid crabs should be deducted from Tanner crab catch statistics. If this is not possible, the document should describe the relative contribution of hybrids to the total reported catches.

C-4(e) Crab modeling workshop

Diana Stram (NPFMC) introduced the Bering Sea crab modeling workshop held on February 16-18, 2011 at the Alaska Fisheries Science Center in Seattle. The purpose of the workshop was to bring together researchers on crab assessment, modeling, and biology to make recommendations for improvements to stock assessment models of snow crab, Tanner crab, and Pribilof red and blue king crab. A response to the CIE review of Bristol Bay red king crab was also given. Steve Martell (Univ. British Columbia) chaired the workshop and presented to the SSC a summary report of the workshop discussions and recommendations. For each species group, separate sections of the report gave background and objectives, technical issues, short-term recommendations, and long-term recommendations. Public testimony was provided by Edward Poulsen (Alaska Bering Sea Crabbers) and Ed Richardson (Pollock Conservation Cooperative).

Eastern Bering Sea Tanner Crab

A considerable portion of the crab modeling workshop was devoted to a review of the stock assessment model for the Tanner crab stock in the eastern Bering Sea. The objective of the modeling is to improve the stock assessment for Tanner crab such that this stock can be moved from Tier 4 to Tier 3 for purposes of setting OFLs and ACLs. Progress in the development of a stock assessment model for Tanner crab since the modeling workshop was presented by Lou Rugulo and Jack Turnock (NMFS-AFSC). According to the current schedule, the SSC would review the full model in June following review by the Crab Plan Team in May 2011.

The SSC commends the stock assessment scientists on their recent progress on Tanner crab. Considerable work has been completed since the February workshop. Pursuant to workshop recommendations, recent changes include: (1) removal of 1969-1973 survey data from the analysis owing to concerns about spatial coverage and other technical issues, (2) changes in the coding of the growth transition matrix, including the number of size bins, (3) changes in how the likelihood is estimated, (4) changes in how recruitment is handled in the model, (5) creation of two selectivity periods based on gear change (1974-1981, estimated with a 3-parameter logistic, and 1982 onwards, informed by catchability based on the underbag study of Somerton and Otto), and including estimates of growth obtained by fitting models to Tanner crab growth data from Kodiak. **Collectively, these changes have resulted in noted improvements in model fits, however much work remains to be done and the current model is not yet ready for use in stock assessment or stock rebuilding analysis.**

The SSC supports the short- and long-term recommendations from the modeling workshop with just a few changes. First, the recommendation to develop a spatial model should be a long-term recommendation. Likewise, changes in management (e.g., rationalization) or fleet behavior that may help explain residuals should be considered, but any resulting structural model changes may need to be deferred to later. Finally, if time is available, the SSC supports a modified non-consensus recommendation to conduct a prospective analysis by successively dropping starting years up to 1981 so that the final model comparison would consider survey data from 1982 onwards; 1982 was chosen as the current survey gear has been used since that time. The goal of this analysis would be to assess the sensitivity of model fits to inclusion of the early data. Regardless of whether this analysis can be conducted by May, this prospective analysis will become important for subsequent considerations of biological reference points and their sensitivity to the early data.

In addition to recommendations resulting from the workshop, the SSC offers the following additional recommendations:

- To better judge the integrity of data from the early years of the fishery, the SSC encourages a more thorough examination of information about these early years. Many old reports talk about

“Tanner crab” but actually address *Chionoecetes* spp. It is important to carefully scrutinize these early reports to assure that the data associated with Tanner crab (*Chionoecetes bairdi*) are correctly assigned. In addition to species identification, there are some concerns about the accuracy of catch records attributed to Tanner crab landings, especially from the foreign crab fisheries in the EBS during the early years of the fishery.

- As raised by the SSC in the October 2010 report, the assessment should consider the degree to which hybrid crabs (resulting from Tanner-snow crab mating) may affect the assessment. The SSC understands that hybrids are counted as “hybrids” during NMFS trawl surveys, but that ADF&G counts hybrids with certain morphological features (Tanner crab-like features) towards the annual catch quota for Tanner crabs. To the extent possible, only true Tanner crabs should count toward the Tanner crab quota.
- Analyses of size at maturity were presented that indicate some cycles, but no trends, in size at maturity of Tanner crabs in the eastern Bering Sea. Several previous analyses (i.e., Somerton 1981, Otto and Pengilly 2001, Zheng 2008) found spatial and temporal patterns in size at maturity. As a long-term priority, the SSC recommends further analysis of maturity to determine whether difference in current versus previous findings are attributable to spatial aggregation in the current analysis or differences in methodology among studies.
- As noted by the assessment authors, current model fits have some very undesirable residual patterns indicating lack of correct model specification. The SSC recommends detailed examination of residuals for insights about their causes. For instance, the SSC recommends comparing cycles in size at maturity for males and females with each other and with cyclical residuals in model fits to survey area-swept estimates. Model and survey estimates of abundance for both males and females cycle among over- and under-estimation. Also, examination of residuals in size frequencies may provide better insights about how the model is handling data conflicts among size, abundance, and other data.
- The SSC appreciates current efforts to address questions raised about natural mortality in the model. Primary concerns addressed whether immature crabs experience higher natural mortality (e.g., see Somerton 1981) and whether females have higher mortality rates than males. Assumptions about Tanner crab mortality are largely derived from snow crab. Recent analyses by Ernst, Armstrong, Orensanz and Burgos indicate a maximum life span of 11.5-14.5 years for female Tanner crab in the EBS. Males likely live a few years longer; the maximum age of any male sampled from Bonne Bay, Newfoundland, by Comeau et al. (1998) was 19 years. A workshop recommendation was to estimate M internally in the model. Also, assessment authors indicated a desire to explore incorporation of crab predation estimates into natural mortality estimates to recognize large changes in the crab predator field since the late 1970s. The SSC also looks forward to this longer term analysis.
- The SSC understands that the Alaska Board of Fisheries approved changes in size limits for Tanner crabs east and west of 166 °W. The size limit was dropped to 4.8” (122 mm CW) east of 166 W and 4.4” west of 166 W. However, the industry will retain crabs above 5.5” east of 166 and 5” west of 166. In the absence of data on the implications of these changes in the selectivity curve, Assessment authors proposed to shift the current fishery selectivity curve to smaller sizes to approximate the implications of this management change on catches after consultation with ADF&G on their intended implementation of the Board’s decision. The SSC supports this practical approach until new data are collected after implementation of the new size limits, allowing new selectivity curves to be estimated.

- Finally, the SSC recommends examining the cooperative survey data collected in 2010 to determine whether it provides useful information on selectivity for comparison with the previous underbag experiment.

Pribilof Islands Red and Blue King Crab (and Implications for St. Matthew Island Blue King Crab):

A preliminary 4-stage assessment models for Pribilof Island red and blue king crab were reviewed during the workshop. The workshop report highlighted issues with these models that relate to model initialization using survey data, code documentation and discontinuous objective function.

Workshop participants recommended that the existing model should not be used until it is fully documented and the code itself is peer reviewed by an independent expert who is familiar with ADMB and non-linear parameter estimation. The SSC concurs with this conclusion.

Workshop participants made four short-term recommendations relating to treatment of post-recruits and recruits, simplification of models growth increment matrix, model documentation and consistency between stocks. The SSC agrees with these recommendations and encourages the stock assessment authors to move forward to address these issues. However, the SSC expresses some concern about the workshop recommendation to collapse post-recruits and recruits into one category so that the CSA model would become 3-stage instead of 4-stage. Estimates of recruits and post-recruits result from direct measurements of size and shell condition and include the highest quality data available from the survey and the only data available from commercial fishery. On the other hand, the two pre-recruit stages must be estimated based on size measurements, as well as estimates of molting probabilities and growth increments, both of which are estimated with error. The SSC would like to see results from both 3- and 4-stage CSA models prior to any change in assessment methodology.

The highest priority should be placed on the workshop recommendations that encourage authors to carefully examine the assessment model equations, ensure constants are correct and documented and that the objective function is appropriate. **Since directed fisheries for Pribilof red and blue king crab are closed, the most urgent issue is to document the model parameterization for St. Matthew blue king crab. This will ensure that the model provides an appropriate basis for OFL and ACL/ABC specifications. As a precaution against the possibility that the CPT does not approve use of the CSA model for St. Matthews blue king crab, the SSC requests that the authors also estimate biological reference points based on survey biomass or some other index of abundance.**

Bristol Bay Red King Crab

This was a brief report at the workshop on the stock assessment authors' response to a CIE review of the stock assessment model for Bristol Bay red king crabs. The authors have been making progress to address the CIE comments.

Snow Crab

The main issue for the current snow crab assessment concerns incorporation of information into the model from a cooperative field study of gear selectivity between BSFRF and AFSC in 2009 and 2010 (see SSC report, February 2011). Workshop participants examined the study results in depth and provided suggestions on alternative analyses, including averaging 2009 and 2010 results and fitting a mixed effects linear model. Snow crab assessment scientist Jack Turnock (AFSC) presented preliminary results of an analysis which incorporated the experimental results directly into the stock assessment model. Workshop participants were not satisfied with the preliminary results, because, counterintuitively, the 2010 selectivity curve increased dramatically at larger crab sizes, which were poorly represented in the data (also noted by the SSC in their report). Suggestions were made for alternate selectivity curves and inclusion of an availability parameter.

Since the workshop, the stock assessment analyst has continued to develop the model and presented new results at this SSC meeting. He examined 3- and 6-parameter logistic curves and a 23-parameter smooth-penalty function, and included an additional parameter for availability. The resulting selectivity curves were promising, except there was still a hump in male selectivity at small crab sizes using the smoothing approach. Because natural mortality and selectivity are often confounded, assessment author explored the use of higher natural mortality on immature crabs. The likelihood was maximized for values of immature male natural mortality between 0.35 and 0.40, compared to the standard male mortality of 0.23. This also smoothed out the hump and made the curve look more like a logistic curve. The SSC is pleased with the progress that has been made but suggests that immature mortality should be estimated internally in the model. The SSC also notes that the assessment author has followed the spirit of SSC recommendations from February. **For the May-June crab meetings, the SSC is supportive of the approach of incorporating the experimental data directly into the assessment model, instead of outside the model as the SSC suggested in February.**

The SSC notes that there are other suggestions contained in our June 2010 and October 2010 reports that still might be useful. These suggestions include estimation of natural mortality for females and mature males, bivariate distributions of catchability and natural mortality, and sensitivity studies of population parameters and reference points to various model components.

In the long term, the SSC recommends that crab researchers pursue further analysis of the experimental data. This leads to two recommendations that are concisely stated in the workshop report as short-term recommendation 2 (developing a logical scheme to combine the 2009 and 2010 data) and long-term recommendation 1 (developing a negative binomial mixed effects model). This work could help validate the selectivity estimates from the stock assessment model and provide further understanding of the factors affecting selectivity.

C-5(b) Fishing effects on crab essential fish habitat

The SSC received a presentation by Diana Evans (NPFMC) and Bob Foy (NMFS-AFSC) on a discussion paper entitled "The evaluation of adverse impacts from fishing on crab essential fish habitat." Public testimony was provided by Jon Warrenchuk (Oceana). The SSC appreciates the concise summary of available information for assessing habitat effects on red king crab (RKC) in Bristol Bay. The detailed information provided in the oral presentation should be incorporated into any future updates of the discussion paper.

The main concerns identified in the presentation relate to the potential importance of larval release points as inferred from the distribution of spawning and breeding females, the distribution of these females in heavily trawled nearshore areas on the north side of the Alaska Peninsula, and the distribution of early juvenile stages (post-settlement). Larval release points are important because they affect drift trajectories and settlement into suitable nursery areas. The distribution of spawning and breeding females occurs in nearshore areas that are poorly sampled by the annual bottom trawl survey, in particular to the SW and W of Amak Island. Some of these areas have experienced increased trawling intensity in recent years, in spite of an overall decrease in trawling intensity in the SE Bering Sea. Finally, the distribution of juvenile red king crab is of concern because it extends well beyond the current no-trawl areas that were put in place to protect this life stage (Bristol Bay Trawl Closure Area and RKC Savings Area).

Population-level effects related to these concerns are poorly understood, but it has been hypothesized that trawling in SW Bristol Bay may affect recruitment success, and hence the productivity of RKC in Bristol Bay (including reference points). Because of these concerns, and the associated uncertainties, the SSC

agrees with the author's recommendation to modify the conclusions about effects of fishing on EFH in the 2005 EFH EIS.

To address concerns over population-level effects of fishing on recruitment, the SSC recommends that the Crab Plan Team review the basis for the current baseline used to determine productivity of RKC (1995-2010). In particular, if fishing has contributed to the decline in RKC recruitment after the 1970s, the recent baseline period may not be representative of the productivity of the stock.

To resolve some of the uncertainties about effects of fishing on RKC, the SSC recommends that research on the effects of habitat modifications on spawning and breeding females, particularly in nearshore areas, and on the implications for larval drift patterns and settlement receive a high priority. Such research could include:

- Pop-up tagging studies to identify larval release locations as described in the discussion paper.
- Retrospective analyses of existing data, in particular any information on nearshore abundance and distribution of females (e.g., OCSEAP, AKMAP), and larval stages (PROBES, Inner Front Program, see Ken Coyle for data).
- A summary of available information on the importance of structural habitat to juvenile growth and predation (e.g., Ph.D. dissertation by Jodi Pirtle, UAF) to improve understanding of the links between productivity and habitat type and availability.
- Development of a larval drift model (e.g., IBM) for red king crab.
- Exploring temperature as a covariate may help to sort out differences in the overlap between trawl activity and RKC spatial distribution between warm and cold years.

In addition to the effects of fishing, an updated discussion paper may include a description of cumulative effects on RKC habitat from potential oil & gas development in Bristol Bay, potential mining in the Bristol Bay watershed, and climate change and ocean acidification.

C-6 GOA Pacific cod jig fishery management - Initial review/Final Action to revise GOA Pacific cod jig fishery management

Jeannie Heltzel (NPFMC) presented details from the Regulatory Impact Review (RIR) and Environmental Assessment (EA) for alternatives dealing with Pacific cod jig fisheries relative to Guideline Harvest Limit (GHL) state management in the GOA. There was no public testimony.

The document was clear and concise about the impacts of the proposed alternative. There are several substantive considerations and edits that should be addressed. In particular, many of the figures in Tables 2-3 through 2-5 appear to be inconsistent. Also, several table numbers do not agree with those reported in the text. More significantly, the document lacks a discussion of the extent to which this action would affect pot operators who stand to lose rollover GHL if the jig sector takes more of their allotment of Pacific cod in the GOA. The document acknowledges that impacts may exist, but there is no information to determine the likely economic and operational implications of these impacts.

The EA finds reduced risks and no significant adverse impacts on fish and other species based on speculation that the action will reduce fishing in inshore waters, but there is little justification for this conclusion. Given that the stated goal of the proposed action is to increase Pacific cod harvest opportunities for the jig sector is not a certainty that all of the increase will be in offshore waters.

This is one of those occasional actions where the Status Quo differs from the No Action Alternative. Under MSA and other applicable law, the No Action Alternative, and not the 'status quo', is the

appropriate baseline (i.e., Alternative 1), against which action alternatives should be compared. The draft should be revised to make this comparison.

Because the Council proposes to take initial and final action on this measure at this meeting, there is the technical problem that the IRFA cannot be completed until after the Council formally adopts a preferred alternative. The result is a somewhat confused and inadequate RFAA. However, with relatively modest revisions and supplemental impact descriptions associated with roll-overs, this draft could be made fully compliant with E.O.12866 and the Regulatory Flexibility Act. Specific edits were provided by the SSC to the analyst.

The SSC concludes that the document is acceptable for public review/final action at this meeting.

D-1 Scallop Fishery Management – Review Scallop SAFE

Diana Stram (NPFMC) and Scott Miller (NMFS-AKR) presented the Scallop Plan Team (SPT) report on the Scallop SAFE. No public testimony was provided.

The SSC previously reviewed the SAFE document in April 2010 and alternatives for implementing ACLs in October 2010. Several of the SSCs comments were addressed in the 2011 SAFE document. It was indicated that the following SSC comments will be addressed in 2012:

- Review of stock boundaries using the format contained in the stock structure report.
- Development of standardized surveys for other areas.
- Presentation of camera sled biomass estimates for seven regions where this technology has been deployed.
- Given the reliance on CPUE as an index of abundance, the SSC requested an evaluation of the difference in dredge selectivity between fishing regions including an analysis of the influence of bottom type on catch efficiency.

The SSC feels that these issues are important and looks forward to receiving this information next year.

Regarding the structure of the SAFE, the SSC has the following comments. Section 1.4 should include a general discussion of the issue of weak meats as it affects the stock and economics of the fishery. The Economic section should be moved to the end of the document. The ACL Section 2.10 should be moved to the section on Management (2.1) and focus on the recommendation for the upcoming 2011/12 fishing season. Annual total catch and ACL should be added to Table 2-4. A summary catch table based on appropriate management sub-units should be assembled to evaluate management by sub-area.

In addition to these structural changes, the SSC identified the following general issues:

- Discards for the 2008/09 and 2009/10 seasons are shown in tables; however the tables should clarify whether the 20% discard mortality has been applied to the estimates. In addition, showing the discard weight and catch in the same weight type (round or shucked weight) or providing an additional column with the converted weights for the discards would be useful for comparison.
- The SSC notes that local and traditional knowledge may be a useful source of information to assess the historical incidence of weak meats.
- Catch recorded in round weights should include the conversion information used to estimate weight.
- The ecosystem section should be expanded to include impacts of ocean acidification and dredging effects.

- The SSC was informed that only preliminary catch estimates will be available to assess management performance relative to the ACL. This issue should be discussed with the ADF&G to identify whether catch estimates can be finalized on a shorter time frame.
- While the definitions of OFL and ACL have been established by the NPFMC, the SSC encourages the SPT to continue to explore other methods for estimating biological reference points including Productivity Susceptibility Analysis (PSA), or Depletion-Corrected Average Catch (DCAC), as an example.

The SSC offers the following stock specific comments:

- Table 3-3 shows the scallop density in the west bed was lowest on record in 2010 and has been declining for the past four years. In addition, this region was impacted by weak meats (2.5% in the west bed and 5.8% in the east bed). In response, the PWS West bed region was closed in 2009 and 2010/11.
- The SSC requests that a table similar to Table 3-4 be developed for the west bed.
- Confirm biomass estimates found in Table 3-3. There appears to be a problem with transposing values associated with different values of q .
- Overall trends in PWS, shown in Figure 3-5 may indicate the beds are being fished down. The SSC requests that the SPT discuss what level of depletion is sustainable.

The SSC recognizes that the Council passed a motion in October 2010 to amend the Scallop FMP to establish annual catch limits for scallops; however, the Secretary of Commerce has not yet approved the FMP amendment. Assuming that the FMP will be amended to reflect the Council's motion, the amended FMP would redefine the overfishing limit (OFL) and establish an acceptable biological catch (ABC) control rule and statewide annual catch limit (ACL). The OFL would be redefined to include all estimated sources of fishing mortality and to establish an OFL of 1.29 million pounds of shucked meats. The ABC and ACL would equal 90% of the re-estimated OFL.

The SSC anticipates that an FMP amendment to implement the Council's October 2010 motion will be approved before the close of the 2011-12 scallop fishing season, at which time the FMP will include an ABC control rule and statewide annual catch limit. Accordingly, **the SSC recommends that the Council establish an ABC of 1.161 million pounds of shucked meats for the statewide weathervane scallop stock for the 2011-12 scallop fishing season, consistent with the control rule set forth in the Council's motion.** Assuming the FMP is amended to reflect the Council's motion, this would result in an ACL of 1.161 million pounds of shucked meats for the 2011-12 fishing season.

The economic assessment contained within the draft was succinct. The inclusion of the inflation adjusted real price series makes a very nice and informative contribution to the analysis. It would be advisable and appropriate to explicitly note that references to revenues are gross estimates and that all initial sales of scallops, whether fresh or frozen are post-primary processing transactions. That is, the landed product is (presumably) only shucked meats. To the extent practical, the SSC recommends that additional economic data be provided, possibly in an appendix. Examples of potentially useful data include port landings, crew size and wages.

The SSC has the following minor editorial comments:

Endnote b, attached to Table 1-1, requires further explanation. There also appears a set of sentences, bottom of page 22, that seem to contradict one another and this should be fixed. In Table 1-1, the column headings "Average Price/lb" and "Adjusted Price" should be changed to "Nominal Average Price/lb" and "Real Average Price/lb", respectively. The table should contain a footnote documenting the source of the inflation factor. The SSC has also identified a number of edits, minor errors, and typos that will be communicated directly to the authors.

D-2 (a) Halibut PSC discard EFP

Todd Loomis of the North Pacific Fisheries Foundation (NPFF) presented findings from an EFP to study the description and estimation of discard mortality of Pacific halibut in Bering Sea non-pelagic trawl fisheries. Gregg Williams (IPHC) also provided a description of the standard IPHC discard mortality assessment protocol and basis for the discard mortality rates applied to the assessment.

The basic design of the 2009 and 2010 experiments was to compare discard mortality as determined from the standard IPHC and recently developed RAMP (reflex action mortality predictor) assessment protocols. The study was also designed to develop a mortality curve for the RAMP assessment and investigate environmental and fishing-related factors affecting mortality of halibut discards.

The SSC appreciates the work of NPFF and IPHC in conducting these experiments and understands the complexities and difficulties in development of mortality predictors in a working fisheries environment. While no additional studies are planned, the SSC offers the following observations from the current study and recommendations for future work on this topic. The study showed that the RAMP protocol can be successfully utilized in a working fishery environment. However it did not achieve all of the stated objectives. Difficulties with small sample size ($n = 11$) during the 2009 study and lack of halibut samples from all categories of RAMP protocols during 2010 prevented full development of a RAMP curve and an analysis of factors that can affect discard mortality rate in halibut. Assessments of total mortality from RAMP and IPHC protocols were comparable during the 2010 study although the majority of fish were initially assessed as having a high probability of mortality. We suggest that the EFP report include a table of observed mortality rate by individual RAMP and IPHC assessment category, and investigate and identify individual RAMP categories that were most indicative of mortality. Future studies should consider using a longer holding period (the current study used a 3-day period) to more closely resemble the results of the long-term tagging data used to develop the IPHC discard mortality rates. Controlling for length of fish and potentially important environmental variables (e.g., temperature) should also be considered. The initial assessment protocol (IPHC vs. RAMP) used on each fish should be randomized or alternated to control for reduction in reflex reactions that can occur rapidly during the assessment process. These types of experiments would best be conducted on a research vessel dedicated to development of discard mortality rates where sample sizes can be increased and the aforementioned controls implemented.

D-2(c) Review draft salmon excluder EA/EFP

Mary Grady (NMFS-AKR) presented the draft Environmental Assessment (EA) for issuing an exempted fishing permit for testing a salmon excluder device in the eastern Bering Sea. John Gauvin (Gauvin and Associates LLC) gave an overview of the planned testing and current development stage of a salmon excluder device. There was no public testimony.

This EFP would allow for further improvement of the Chinook salmon excluder design developed in earlier studies and evaluate and/or modify to improve Chum salmon escapement. The experiment would be conducted from fall 2011 through fall 2012. The proposed action is not expected to have any significant impacts. The SSC commends the investigators for their efforts in testing and developing gear modifications significantly reducing PSC rates in the pollock fishery. The EA appears to be complete and the application is well-written. The SSC suggests that the investigators consider more formalization of recording conditions surrounding net deployment to better understand factors influencing net performance relative to salmon bycatch. **The SSC recommends the Council approve the EFP application.**

M-1 handed these out

D R A F T
ADVISORY PANEL MINUTES
March 28-31, 2011
Anchorage, Alaska

The following (20) members were present for all or part of the meetings:

Kurt Cochran
Craig Cross
John Crowley
Julianne Curry
Jerry Downing
Tom Enlow
Tim Evers

Jeff Favour
Becca Robbins Gisclair
Jan Jacobs
Bob Jacobson
Alexus Kwachka
Chuck McCallum
Matt Moir

Theresa Peterson
Ed Poulsen
Neil Rodriguez
Beth Stewart
Lori Swanson
Anne Vanderhoeven

Minutes of the February 2011 meeting were approved.

C-2 Final action on Halibut/Sablefish Hired Skipper restrictions

A motion was made to recommend the Council adopt Alternative 2 with Options 1 and 2. Immediately following this motion, a substitute motion was made to recommend Alternative 1. *The substitute motion failed 9/11.*

A motion to change the control date to the date of final Council action *passed 20/0.*

A motion to add a new option, Option 3: Initial recipients providing proof of ownership higher than Coast Guard documentation or abstract of title would be exempt from Alternative 2, *failed 4-16.*

Finally, the original motion to recommend Alternative 2 with Option 1 and Option 2 as amended, *failed 10/10.*

C-3(a) Review Salmon FMP changes

The AP recommends the Council select Alternative 3 as a Preliminary Preferred Alternative, and move this forward for initial review with the options and updates identified in Table 2 of the discussion paper.

The AP further recommends an expanded discussion of the risks associated with removing the West historical net areas from the FMP in the preliminary review draft.

Motion passed 19/0.

C-3(b) Initial review of GOA Chinook Salmon Bycatch control measures

The AP recommends the Council make the following changes to Component 2 of Alternative 2 (deletions are in ~~strikeout~~, additions are **bold/underlined**):

Alternative 2: Chinook salmon PSC limit and increased monitoring

Component 2: ~~Expanded observer coverage:~~ **Improved Chinook salmon PSC estimates:**

Extend existing 30% observer coverage requirements for vessels 60' to 125' to trawl vessels less than 60' directed fishing for pollock in the Central and Western GOA.

Require full retention of all salmon in pollock trawl fisheries.

Modify the specific actions recommended by NMFS (to avoid delay for this action and implementation of observer restructuring package) to a statement: NMFS shall work with the processors to evaluate and address the quality of sorting at the plants to assist improvements in observer salmon estimates. The AP encourages NMFS to apply lessons learned from the BSAI to the Gulf where applicable.

Processing plants along with assistance from the Agency, in turn, should endeavor to ensure their fish tickets accurately reflect the species and number of salmon which will be delivered and sorted as salmon bycatch at their facilities.

NMFS is also encouraged to collaborate with industry to facilitate information sharing which will help to speed delivery of in-season data (total catch and salmon counts, by species) for the NORPAC data system and Catch Accounting System.

Motion passed 20/0

The AP recommends that the Council delete Alternative 3. *Motion passed 20/0*

The AP recommends that the Council delay final action on this issue until December 2011. *Motion passed 20/0*

The AP recommends that the Council direct staff that the next iteration of the analysis must include fish ticket counts for 2003 to 2010. *Motion passed 20/0*

The AP recommends that the Council request that the analysis include a discussion of municipal tax structures under the section on taxes. *Motion passed 20/0*

The AP recommends that the Council request that the analysis include a table indicating Chinook salmon bycatch estimates for non-pollock trawl fisheries for the same suite of years as the pollock trawl fisheries. *Motion passed 20/0*

The AP recommends that the Council request that the analysis include sport fish, commercial, subsistence and personal use fishery data for the same suite of years to the extent it is available. Data should be split by large management area (Area M, Area L, etc). *Motion passed 20/0*

A motion to recommend a preliminary preferred alternative of a 15,000 fish PSC limit with the 25% overage provision and the modified Component 2 failed 7/13.

Minority Report: A minority of the AP supported a motion to recommend the Council adopt a PPA including a PSC limit of 15,000 with the 25% overage provision as specified in the Council's February 2011 and Component 2 as modified by the AP. The minority felt that this level of PSC limit was appropriate to meet the Council's objectives for this action, as well as the requirements of National Standard 9, to reduce bycatch. Higher cap limits represent numbers that exceed the average GOA Chinook salmon bycatch for the pollock fishery and therefore represent little change from the status quo. Chinook salmon returns throughout the Gulf—including the Karluk River and Upper Cook Inlet—have been low and commercial, subsistence, personal use and sport fisheries have been restricted in these areas. Despite these restrictions escapement goals have still not been met. Regardless of knowing specific impacts of bycatch on these stocks, every fishery must share in the burden of conservation to ensure the long term health of this resource. The lack of information about stock of origin of the salmon caught as bycatch and specific impacts mandates that we take a precautionary approach and set a PSC limit for Chinook salmon in the GOA pollock fishery at a level that represents actual bycatch reductions on an expedited basis.

Signed by: Becca Robbins Gisclair, Chuck McCallum, Julianne Curry, Alexis Kwachka, Jeff Farvour, Tim Evers, Theresa Peterson

A motion to add a fourth option under Component One for a 40,000 fish PSC limit failed 10/10.

C-4(a) BSAI Crab IFQ/IPQ Deadline – Final Action

The AP recommends the Council adopt Alternative 2 in its entirety for final action. *Motion passed 20/0*

C-4(b) Crab Economic Data Reports (EDR)

The AP recommends the Council move forward with the staff analysis of the harvester EDR alternatives and elements shown in the attached table. *Motion passed 20/0*

The AP recommends the Council move forward with the staff analysis of the processor EDR alternatives and elements shown in the attached table. *Motion passed 20/0*

C-4(c) Pribilof Island Blue King Crab Rebuilding Plan – Final Action

The AP believes that the analysis to revise the rebuilding plan for Pribilof Islands blue king crab is not ready for final action at this time for the following reasons:

- The model cannot accurately predict rebuilding. This is reflected in the SSC minutes from their December meeting. As a result, although the model is the best information we have, it does not accurately predict the impacts of the actions before us. The document needs a better discussion of the limitations of the model.
- Text in the analysis referring to figures are not always correct and text is not always clear (page 19 for example) making it difficult to understand the analysis of the impacts on stock rebuilding.
- The AP is concerned that the bycatch figures resultant from the pot cod fleet may not be accurate due to extrapolation issues from a fleet with less than 100% observer coverage. Further information in the analysis would be helpful on this topic.

- The analysis does not analyze the impacts of the action (closing areas to groundfish vessels) on the environment (habitat, marine mammals, cumulative effects, impacts of shifting effort).
- The analysis does not analyze the impacts of the action (closing areas to groundfish vessels) on the groundfish fisheries.
- Options to close areas for pelagic fishing are not included even though pelagic gear may at times be fishing on the bottom.
- The analysis looks at the Pribilof blue king crab stock as a discrete stock when in fact it is likely part of the St. Matthews and St. Lawrence population (and likely included the Aleutian Islands in the past). Genetic information is not yet available to confirm this but is critical information for making a decision and may be available in the near future.
- The AP understands that PIBKC bycatch accounting methods will change within the next year, but the analysis does not consider the impact of this change.

Motion passed 20/0

The AP recommends the Council request that the analysis include a table showing the average percent of the ABC taken by each sector over the years 2003 to 2010. *Motion passed 20/0*

C-4(d) Finalize Tanner Crab Rebuilding Plan

The AP recommends the Council defer choosing a final alternative for the Tanner crab rebuilding plan until after the May 2011 Crab Plan Team meeting. Further, the AP recommends the Council request the Crab Plan Team to review reference levels for the Tanner crab fishery including B_{msy} and make suggestions for alternatives, knowing that the earlier data (1969-1973) in the time series may be inappropriate.

Motion passed 17/0

C-5(a) Essential Fish Habitat – Final Action

The AP recommends the Council take final action to select Alternative 2 for each Action 1-7 as shown on page 5 of the analysis. *Motion passed 17/0/1*

C-5(b) Bristol Bay Red King Crab (BBRKC) Spawning Area/Fishing Effects – Discussion Paper

The AP recommends the Council request an expansion of the BBRKC EFH discussion paper with the following priorities:

- A discussion of the effects of the existing red king crab closure areas.
- A discussion of the importance of environmental variables on red king crab distribution, in particular in the Amak area, as well as the importance of removals from this area.
- An expanded discussion of fishing intensity with regard to recent sweep modifications and reduced bottom contact, and a more robust comparison of years in regards to fishing intensity.

Motion passed 18/0

C-6 GOA Pacific cod Jig Fishery Management

The AP recommends selecting Alternative 2 as the preliminary preferred alternative (PPA) and delaying final action until December 2011. This will provide opportunity for the Alaska Board of Fisheries to comment and take action in October. The AP further recommends the final action include a list comparing State and Federal management regulations. The AP requests options to include prohibiting the use of any other gear type onboard while fishing in the federal jig fishery.

Motion passed 19/0

D-1 Scallop SAFE

The AP recommends that the Council approve the Scallop SAFE report. *Motion passed 17/0*

D-2(a) Halibut Ramp EFP Report

The AP received a report on the halibut RAMP experiment.

D-2(b) GOA Halibut PSC Limit

The AP recommends that the Council develop a comprehensive FMP amendment and regulatory amendment and analysis of ways to reduce halibut bycatch by all sectors and gear types engaged in GOA groundfish fisheries. *Motion passed 12/6*

Minority Report: *The following motion was made before a substitute motion replaced it by a vote of 12-6:*

The AP recommends that the Council adopt a purpose and scope for GOA halibut PSC that incorporates the following principals and functions:

There are a number of long-standing issues regarding the PSC limits of halibut in the Gulf of Alaska. Halibut-dependent fisheries have significantly changed since PSC limits were set.

The AP recommends that the GOA halibut PSC discussion paper be forwarded for initial review with the following options addressed in the analysis through the 2011 specifications process:

Reduce GOA PSC limits by:

- o 10%*
- o 20%*
- o 30%*

The analysis is intended to be a short-term action to be used as a springboard for more comprehensive review of halibut bycatch management.

A minority of the AP supported the original motion. The minority felt that urgent action must be taken to reduce halibut PSC limits in the Gulf of Alaska through the 2011 specs process as a short-term solution for bycatch reduction while also pursuing a comprehensive long-term solution through an FMP/Regulatory Amendment process.

After careful review of the IPHC's presentation and bycatch reduction discussion paper, the minority of the AP felt that it is clear that slow halibut growth rates threaten the rebuilding potential of halibut stocks. Uncertainty surrounding slow growth rates warrants a precautionary approach to halibut removals. The directed commercial and charter halibut fisheries have taken significant reductions in allowable harvest over the past decade. The dynamics of the directed and non-directed halibut fisheries have changed significantly since halibut PSC limits were set in 1986. Vast improvements in technology have resulted in more efficient fishing by PSC limited fisheries. Other factors have contributed to PSC limits not being reached in recent years.

The IPHC has expressed significant concern over bycatch impacts to the halibut resource. Each pound of under 32-inch bycatch mortality reduces future yield to the directed commercial fishery by one pound and 1.6 pounds of future yield to the female spawning biomass. The directed halibut fisheries are impacted by lost yield due to downstream effects from area of capture. Therefore, the Council should take immediate action to reduce the halibut PSC limit in the GOA to protect the halibut resource and achieve meaningful bycatch reductions to benefit all users.

Signed by: Julianne Curry, Becca Robbins Gisclair, Chuck McCallum, Theresa Peterson, Tim Evers, Jeff Farvour

D-2(c) Salmon Excluder EFP

The AP recommends that the Council approve this EFP. *Motion passed 19/0*

D-2(d) AFA Impacts on BS cod trawlers – discussion paper

The AP reviewed the discussion paper and recommends that the Council take no further action on this issue. *Motion passed 19/0*

D-3(b) Observer Advisory Committee Report

The AP received a report on the Observer Advisory Committee meeting.

Data type	Data element	Alt 1. (status quo)	Alt 2.	Alt 3.
Fishing data	Fish ticket number	all crab fisheries	-	-
	Days fishing	by crab fishery	-	-
	Days traveling (from port to grounds) and offloading	by crab fishery	-	-
Deliveries and revenues	Landings by share type - pounds	by crab fishery	by crab fishery	by crab fishery
	Deadloss by share type - pounds	by crab fishery	by crab fishery	-
	Landings by share type - revenues	by crab fishery	by crab fishery	by crab fishery
	Vessel owner's IFQ used on the vessel by share type	by crab fishery	-	-
	Vessel owner's IFQ used on other vessels by share type			
	Leased quota by share type - pounds	by crab fishery	by crab fishery	by crab fishery- arms length only
	Leased quota by share type - cost			
	Leased quota by share type - crew contributing shares	by crab fishery	aggregated all crab fisheries- count of crew leasing	-
Crew	Number of crew by fishery	by crab fishery	-	-
	Payments to crew	by crab fishery	by crab fishery	by crab fishery
	Payments to captain	by crab fishery	by crab fishery	by crab fishery
	Labor payment details - charges and deductions	in all crab fisheries	-	-
	Revenue shares - owner/crew/captain	by crab fishery	-	-
	Crew license number/CFEC permit number	aggregated across all crab fisheries	aggregated across all crab fisheries	-
	Insurance premium - crab only	aggregated across all crab fisheries and aggregated across all fisheries	-	-
	Paid deductibles - crab only	aggregated across all crab fisheries	-	-
	Pot purchases - number	aggregated for all crab fisheries	aggregated all fisheries new pots only	-
	Pot purchases - cost			
	Pot purchases - location	aggregated for all crab fisheries	-	-
	Line and other gear purchases - costs	aggregated for all crab fisheries	-	-
	Line and other gear purchases - location	aggregated for all crab fisheries	-	-
	Bait used - species/pounds by fishery	by crab fishery	-	-
	Bait used - species/cost by fishery			

Data type	Data element	Alt 1. (status quo)	Alt 2.	Alt 3.
Crab costs	Bait used - purchase location by fishery	by crab fishery	-	-
	Fuel used - gallons by fishery	by crab fishery	aggregated all fisheries	-
	Fuel used - cost by fishery			
	Fuel used - purchase location by fishery	by crab fishery	-	-
	Food and provisions - costs	aggregated across all crab fisheries	-	-
	Other crew expenses	aggregated for all crab fisheries	-	-
	Freight costs for landed crab	aggregated for all crab fisheries	-	-
	Storage, wharfage, delivery costs for gear	aggregated for all crab fisheries	-	-
	Observer costs - by fishery	by crab fishery	-	-
	Landing taxes and fees	aggregated across all crab fisheries	-	-
	Cooperative fees	aggregated across all crab fisheries	-	-
	Other expenses	aggregated across all crab fisheries	-	-
Vessel costs	Vessel and equipment investment - cost	aggregated across all fisheries (excluding exclusively non-crab costs)	aggregated all fisheries, including R&M	-
	Vessel and equipment investment - location	aggregated across all fisheries	-	-
	Repair and maintenance - costs	aggregated across all fisheries	-	-
	Repair and maintenance - location	aggregated across all fisheries	-	-
	Insurance premium	aggregated across all fisheries	Aggregated All Fisheries	-
	Fuel, lubrication, fluids - annual - cost	aggregated across all fisheries	Aggregated All Fisheries	-
	Fuel, lubrication, fluids - annual - location	aggregated across all fisheries	-	-
Other vessel specific costs	aggregated across all fisheries	-	-	
All activities	Days at sea - all activities	aggregated across all activities	-	-
	Gross revenues - all activities	aggregated across all activities	Aggregated All Fisheries	-
	Pounds - all fisheries	aggregated across all fisheries	-	-
	Labor cost - all activities	aggregated across all activities	Aggregated All Fisheries	-

Data type	Data element	Alt 1. (status quo)	Alt. 2	Alt. 3
Production	Production - dates covered by fishery	by crab fishery		
	Production - processing days by fishery	by crab fishery	Providing first and last day and number of active days	Providing first and last day and number of active days
	Raw crab processed by fishery	by crab fishery		
	Product and processed pounds by fishery	by crab fishery		
	Production - crab size and grade	by crab fishery		
	Production - box size	by crab fishery		
	Production - finished pounds	by crab fishery		
	Production - custom processing identifier	by crab fishery		
Revenues	Sales to affiliates/non-affiliates by species - product/process	by crab fishery	by crab fishery	by crab fishery
	Sales to affiliates/non-affiliates by species - crab size and grade	by crab fishery	by crab fishery	by crab fishery
	Sales to affiliates/non-affiliates by species - box size and finished pounds	by crab fishery	by crab fishery	by crab fishery
	Sales to affiliates/non-affiliates by species - revenues (fob)	by crab fishery	by crab fishery	by crab fishery
	Custom processing by species/product/process	by crab fishery	by crab fishery	by crab fishery
	Custom processing revenues	by crab fishery	by crab fishery	by crab fishery
Labor	Average processing positions	by crab fishery		
	Man-hours	by crab fishery	by crab fishery	aggregated across all fisheries
	Total processing labor payments	by crab fishery	by crab fishery	aggregated across all fisheries
	Crab processing employees by residence	by crab fishery	by crab fishery	aggregated across all fisheries
Custom processing services purchased	Custom processing services purchased - raw pounds	by crab fishery	by crab fishery	by crab fishery
	Custom processing services purchased - product and process	by crab fishery	by crab fishery	by crab fishery
	Custom processing services purchased - size and grade	by crab fishery		
	Custom processing services purchased - box size	by crab fishery		
	Custom processing services purchased - finished pounds	by crab fishery	by crab fishery	by crab fishery
	Custom processing services purchased - processing fee	by crab fishery	by crab fishery	by crab fishery
Crab purchases	Raw crab purchases by fishery - ifq type	by crab fishery	by crab fishery	by crab fishery
	Raw crab purchases by fishery - size and grade	by crab fishery		
	Raw crab purchases by fishery - pounds	by crab fishery	by crab fishery	by crab fishery

Data type	Data element	Alt 1. (status quo)	Alt. 2	Alt. 3
	Raw crab purchases by fishery - gross payments	by crab fishery	by crab fishery	by crab fishery
Crab processing costs	Fisheries taxes and fees - crab only	by crab fisheries		
	Processing and packing materials, equipment, and supplies - crab only	aggregated across crab fisheries		
	Food and provisions - crab only	aggregated across crab fisheries		
	Other direct crab labor costs	aggregated across crab fisheries		
	Insurance deductibles - crab only	aggregated across crab fisheries		
	Repackaging costs	aggregated across crab fisheries		
	Broker fees and promotions by fishery	by crab fishery		
	Lease (IPQ) costs	by crab fishery	by crab fishery	by crab fishery
	Observer costs	by crab fishery		
	Freight cost for plant supplies	aggregated across crab fisheries		
	Freight costs for products	aggregated across crab fisheries		
	Product storage	aggregated across crab fisheries		
	Water, sewer, and waste disposal	aggregated across crab fisheries		
	Other crab-specific costs	aggregated across crab fisheries		
General plant costs	Annual fuel, electricity, lubrication, hydraulic fluids	aggregated across all fisheries		
	Plant and equipment investments	aggregated across all fisheries		
	Repair and maintenance	aggregated across all fisheries		
	Foremen, managers, other employees and salaries	aggregated across all fisheries	aggregated across all fisheries	aggregated across all fisheries
	Other plant specific costs	aggregated across all fisheries		
General processing information	Processing days - annual total - all fisheries	aggregated across all fisheries	aggregated across all fisheries	aggregated across all fisheries
	Gross FOB revenues - annual total - all fisheries	aggregated across all fisheries	aggregated across all fisheries	aggregated across all fisheries
	Finished processed pounds - annual total - all fisheries	aggregated across all fisheries	aggregated across all fisheries	aggregated across all fisheries
	Processing labor costs - annual total - all fisheries	aggregated across all fisheries	aggregated across all fisheries	aggregated across all fisheries

Ecosystem Committee Minutes

Tuesday, March 29, 2011 1-4pm
NPFMC conference room, Old Federal Building, Anchorage, AK

Committee: Stephanie Madsen (chair), Bill Karp, Dave Fluharty (teleconference), Jim Ayers (teleconference), Jon Kurland (teleconference), Diana Evans (staff)

Others attending included: Matt Eagleton, John Olson, Sarah Ellgen, Bob Foy

EFH Omnibus Amendments

The Committee heard an update from staff on the changes that have been made to the public review draft of the EFH Omnibus Amendment package. Mr Kurland provided a brief summary of the NMFS letter recommending action on the Council's EFH actions. The Committee acknowledges the sustained good work by Council, Alaska Region, and Alaska Fishery Science Center staff in shepherding this conclusion to the EFH 5-year review. **The Committee notes that the analysis is ready for decision-making and recommends that the Council move forward with final action on each of the actions identified in the omnibus amendment.** Consistent with the Committee's recommendation in February, the Committee encourages the Council not to hold up the omnibus amendment pending further action on the Bristol Bay red king crab discussion paper (see below).

EFH / Bristol Bay Red King Crab Discussion Paper

The Committee received a presentation from Dr Bob Foy, of the Kodiak Laboratory of the AFSC, on the discussion paper evaluating the effects of fishing on EFH for Bristol Bay red king crab (BBRKC). The discussion paper follows up on concerns identified by the Crab Plan Team during the EFH 5-year review in 2010. The paper, and the additional information included by Dr Foy in his oral presentation, suggest that there is an area southwest of Amak Island that may be particularly important for rebuilding red king crab populations, due to the fact that eggs released in this area may have a greater chance of survival through larval and juvenile life history stages, compared to eggs released in other parts of Bristol Bay. Trawl fishery interactions with ovigerous female crab in this area may have a disproportionately adverse effect on the red king crab population.

The Committee recommends that a technical review of a revised discussion paper be undertaken by the Crab Plan Team and the SSC before the Council initiates an action on this issue. The paper should be expanded to include the new information discussed in Dr Foy's oral presentation, which could be presented at the Crab Plan Team's May meeting. For the Plan Team's September meeting, the discussion paper could be augmented in several ways. Dr Foy noted that survey work is planned for this summer which may provide more information on the location of juveniles in the nearshore. Further work could be undertaken to look specifically at bycatch within and around the Red King Crab Savings Area, and especially to the southwest along the peninsula. Dr Foy is also intending to investigate whether a larval drift model can be run for red king crab larval release in different locations, which may provide key information about the importance of the area southwest of Amak Island for red king crab juvenile survival. The Committee also discussed whether the potential impact of the trawl fishery on crab in this area is a habitat or a bycatch issue, and recommends that this be further developed in the discussion paper. Additionally, the Committee recommended that the authors consult with the preparers of the Ecosystem SAFE report to incorporate information on ecosystem relationships in this area.

The Committee also encourages the SSC and the Council to consider the research needs identified in the discussion paper in the Council's annual setting of research priorities in October. The Committee appreciates the work that has been put into the discussion paper, which highlights a potentially important issue for Council consideration.

Future direction on ecosystem issues

The Committee discussed how it might consider some big picture ecosystem issues, and continue to evaluate the Council's ecosystem-based management efforts compared to efforts in other arenas. Dr Karp offered to provide a presentation of interesting and innovative work that is ongoing in Europe, based on his experience with the ICES Science Committee.

The Committee noted that they would like to revisit discussion about the AI FEP, how it is working, and what is its current status. In January 2010, the Committee met with the AI FEP Ecosystem Team, and developed a plan to prepare a presentation on the state of the AI ecosystem and updates to the FEP for the Council. The Committee proposes getting this work back on track, and on the Council's schedule.

The Committee is considering scheduling a meeting in the late summer or early fall to address these issues, as well as to provide continued feedback to the Council on the BBRKC discussion paper.

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Enforcement Committee Minutes

March 29, 2011

Hilton Hotel, Anchorage, AK

Committee present: Roy Hyder (Chair), LT Anthony Kenne, Martin Loefflad, Ken Hansen, Dr. James Balsiger, Sherrie Myers, Stefanie Moreland, Jonathan Streifel, and Jon McCracken (staff)

Others present: Jane Dicosmo, Jeannie Heltzel, Diana Evans, Diana Stram, Galen Tromble, Melanie Brown, Will Ellis, and Chris Oliver

C-2 Halibut/sablefish hired skipper

Jane DiCosimo, Council staff, provided a brief overview of the public review analysis on the halibut/sablefish hired skipper currently under consideration by the Council. The purpose of this action would be to narrow the restrictions for initial recipients of quota share to use a hired master to harvest their IFQs in all areas where hired skippers are allowed.

Since the Enforcement Committee does not see any new enforcement issues associated with the hired skipper proposed action that was not noted at the February 2011 meeting, the Committee has no new recommendations.

C-3(b) GOA Chinook Salmon Bycatch Control Measures

Galen Tromble, NMFS staff, provided an overview of the monitoring and enforcement section of the initial review analysis on GOA Chinook salmon bycatch control measures currently under consideration by the Council. The Council has determined that Chinook salmon bycatch levels in 2010 were unacceptably high, and has developed an amendment package to reduce the risk of high bycatch levels in the future.

Although current observer sampling at the plant level is adequate for monitoring the proposed action, it was noted during the presentation, that the agency, through outreach, is planning to work with processing plants to improve sorting at the shoreside processors. Weekly calls currently being conducted to discuss the implementation of Amendment 91 will be useful in implementing the proposed program in the GOA. The use of outreach rather than the regulatory process to improve sorting at the plants will allow the proposed action to continue on its projected time line for implementation. If in the future, issues arise with the sorting of salmon bycatch in the plants, these issues could be addressed at a later time through future action. Given these reasons, the Enforcement Committee concurs with NMFS recommendation to pursue outreach with shore plants rather than through regulations to improve sorting at the shoreside processors.

The Committee also spent time discussing issues surrounding full retention of salmon under the proposed action. Current regulations require vessel operators to discard PSC salmon. In practice this is rarely feasible. For the pollock fishery it is common for vessel operators to retain most salmon because of the operational characteristics where large volumes of pollock are brought aboard and rapidly stowed in below-deck tanks, thus effective at-sea sorting of salmon is not practical. When an observer is aboard, vessels are required to allow for sampling by an observer before discarding prohibited species though the sample sizes tend to be very small, again for practical reasons. The standard practice is for the entire

observed delivery to be sorted at the offload to get a total salmon count. It was noted that NMFS will have no way of verifying that full retention of salmon has occurred on unobserved vessels, therefore NMFS will not be modifying their protocols for unobserved deliveries, but will focus on data quality and timeliness for the observed catches. Recognizing the differences between current regulatory requirements and existing practices in this fishery and the benefit of a uniform policy towards retention of salmon, the Enforcement Committee recommends full retention of all salmon is included in the proposed action.

The Committee noted that lessons learned in addressing deck loads in the Bering Sea pollock fishery will be applicable in the implementation of the proposed GOA Chinook salmon bycatch action.

The Committee also spent time discussing the potential timeline associated implementing increased observer coverage under this proposed action with implementation of the restructured observer program. NMFS anticipates the proposed observer coverage for the less than 60' LOA GOA pollock trawl fleet through the restructured observer program is between 6 to 18 months after an assumed mid-2012 implementation of this proposed action. In its discussion, the Committee recognized that various aspects of the restructured observer program could be impacted should observer coverage to vessels less than 60 feet be implemented with this proposed action, thus potentially competing for the same staff resources dedicated to the restructured observer program. The Committee also noted that implementing observer coverage requirements under this proposed action followed closely by implementation of the restructured observer program could result in a great deal of confusion for the industry. Given these impacts, the Committee agreed that if implementation date of the restructured observer program was within 6 months of implementation of this proposed action, there is an advantage to delaying increased observer coverage for the less than 60' catcher vessel fleet until implementation of the restructured observer program. However, if the timeline between the implementation of the proposed action and the restructured observer program is closer to 18 months, the Committee agreed that the benefit of Chinook observer data for the Western GOA less than 60' catcher vessel pollock fleet during those 18 months would likely outweigh the disadvantages of implementing increased observer coverage under this proposed action prior to implementing the restructured observer program.

Finally, the Committee doesn't find any safety concerns with this proposed action with the exception of the need to do safety inspections for the expanded observer coverage for the less than 60' catcher vessels under this proposed action. The Committee noted that with the expansion of the observer program to the new fleet and as the GOA fleets approach Chinook bycatch limits, there is the potential for data bias and harassment of observers. While we expect the majority of the fleet will comply with the regulations and cooperate with observer requirements, due diligence will be necessary to ensure staff are dedicated to address safety of observers and any data bias/ harassment issues that arise. In addition, the Committee recommends that outreach occur to the less 60' catcher vessel fleet to provide guidance with observer requirements.