

# North Pacific Fishery Management Council

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February 3, 2005

**DRAFT AGENDA**  
**170th Plenary Session**  
**North Pacific Fishery Management Council**  
**February 9-15, 2005**  
**Renaissance Madison**  
**Seattle, WA**

The North Pacific Fishery Management Council will meet February 9-15 at the Renaissance Madison Hotel, 515 Madison Street, Seattle, Washington 98104. Other meetings to be held during the week are:

**Committee/Panel**

Advisory Panel  
Scientific and Statistical Committee  
Ecosystem Committee  
Enforcement Committee

**Beginning**

Feb 7, Mon. - Northwest Room  
Feb 7, Mon. - East Room  
Feb 7, Mon. - 2:00-5:00 pm (Room TBA)  
Feb 8, Tue. - 2:00-5:00 pm James Room (4<sup>th</sup> Floor)

All meetings will be held at the Renaissance Madison Hotel unless otherwise noted. All meetings are open to the public, except executive sessions of the Council. Other committee and workgroup meetings may be scheduled on short notice during the week, and will be posted at the hotel.

## **INFORMATION FOR PERSONS WISHING TO PROVIDE PUBLIC COMMENTS**

Sign-up sheets are available at the registration table for those wishing to provide public comments on a specific agenda item. Sign-up must be completed **before** public comment begins on that agenda item. Additional names are generally not accepted **after** public comment has begun.

**Submission of Written Comments.** Written comments and materials to be included in Council meeting notebooks must be received at the Council office by **5:00 pm (Alaska Time) on Tuesday, February 1.** Written and oral comments should include a statement of the source and date of information provided as well as a brief description of the background and interests of the person(s) submitting the statement. Comments can be sent by mail or fax—please **do not** submit comments by e-mail. **It is the submitter's responsibility to provide an adequate number of copies of comments after the deadline.** Materials provided **during** the meeting for distribution to Council members should be provided to the Council secretary. A minimum of **25** copies is needed to ensure that Council members, the executive director, NOAA General Counsel, appropriate staff, and the official meeting record each receive a copy. If copies are to be made available for the Advisory Panel (**28**), Scientific and Statistical Committee (**18**), or the public after the pre-meeting deadline, they must also be provided by the submitter.

**FOR THOSE WISHING TO TESTIFY BEFORE THE  
ADVISORY PANEL**

The Advisory Panel has revised its operating guidelines to incorporate a strict time management approach to its meetings. Rules for testimony before the Advisory Panel have been developed which are similar to those used by the Council. Members of the public wishing to testify before the AP **must** sign up on the list for each topic listed on the agenda. Sign-up sheets are provided in a special notebook located at the back of the room. The deadline for registering to testify is when the agenda topic comes before the AP. The time available for individual and group testimony will be based on the number registered and determined by the AP Chairman. **The AP may not take public testimony on items for which they will not be making recommendations to the Council.**

**FOR THOSE WISHING TO TESTIFY BEFORE THE  
SCIENTIFIC AND STATISTICAL COMMITTEE**

The usual practice is for the SSC to call for public comment immediately following the staff presentation on each agenda item. In addition, the SSC will designate a time, normally at the beginning of the afternoon session on the first day of the SSC meeting, when members of the public will have the opportunity to present testimony on any agenda item. The Committee will discourage testimony that does not directly address the technical issues of concern to the SSC, and **presentations lasting more than ten minutes will require prior approval from the Chair.**

**COMMONLY USED ACRONYMS**

<b>ABC</b>	Acceptable Biological Catch	<b>MRB</b>	Maximum Retainable Bycatch
<b>AP</b>	Advisory Panel	<b>MSY</b>	Maximum Sustainable Yield
<b>ADFG</b>	Alaska Dept. of Fish and Game	<b>mt</b>	Metric tons
<b>BSAI</b>	Bering Sea and Aleutian Islands	<b>NMFS</b>	National Marine Fisheries Service
<b>CDQ</b>	Community Development Quota	<b>NOAA</b>	National Oceanic & Atmospheric Adm.
<b>CRP</b>	Comprehensive Rationalization Program	<b>NPFMC</b>	North Pacific Fishery Management Council
<b>CVOA</b>	Catcher Vessel Operational Area	<b>OY</b>	Optimum Yield
<b>EA/RIR</b>	Environmental Assessment/Regulatory Impact Review	<b>POP</b>	Pacific ocean perch
<b>EEZ</b>	Exclusive Economic Zone	<b>PSC</b>	Prohibited Species Catch
<b>EFH</b>	Essential Fish Habitat	<b>SAFE</b>	Stock Assessment and Fishery Evaluation Document
<b>ESA</b>	Endangered Species Act	<b>SSC</b>	Scientific and Statistical Committee
<b>FMP</b>	Fishery Management Plan	<b>SSL</b>	Steller Sea Lion
<b>GHL</b>	Guideline Harvest Level	<b>TAC</b>	Total Allowable Catch
<b>GOA</b>	Gulf of Alaska	<b>USFWS</b>	United State Fish & Wildlife Service
<b>HAPC</b>	Habitat Areas of Particular Concern	<b>VBA</b>	Vessel Bycatch Accounting
<b>IBQ</b>	Individual Bycatch Quota	<b>VIP</b>	Vessel Incentive Program
<b>IFQ</b>	Individual Fishing Quota		
<b>IPHC</b>	International Pacific Halibut Commission		
<b>IRFA</b>	Initial Regulatory Flexibility Analysis		
<b>IRIU</b>	Improved Retention/Improved Utilization		
<b>ITAC</b>	Initial Total Allowable Catch		
<b>LAMP</b>	Local Area Management Plan		
<b>LLP</b>	License Limitation Program		
<b>MSFCMA</b>	Magnuson-Stevens Fishery Conservation and Management Act		
<b>MMPA</b>	Marine Mammal Protection Act		
<b>MRA</b>	Maximum Retainable Amount		

February 3, 2005

**DRAFT AGENDA**  
**170th Plenary Session**  
**North Pacific Fishery Management Council**  
**February 9-15, 2005**  
**Renaissance Madison**  
**Seattle, WA**

Estimated Hours

A. CALL MEETING TO ORDER

- (a) Approval of Agenda
- (b) Approval of minutes (T)

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B. REPORTS

(4 hrs)

- B-1 Executive Director's Report
- B-2 NMFS Management Report
- B-3 Enforcement Report
- B-4 Coast Guard Report
- B-5 ADF&G Report
- ~~B-6 USFWS Report (April)~~
- B-7 Protected Species Report (review and comment on MMPA listing proposed rule and review and comment (T) on BOF ACR for AI Pollock)
- B-8 IPHC Report

C. NEW OR CONTINUING BUSINESS

- C-1 Essential Fish Habitat (EFH) and Habitat Areas of Particular Concern (HAPC) (12)
  - (a) Review changes to EFH EIS.
  - (b) Final action on EFH Preferred Alternative.
  - (c) Final action on HAPC Alternatives and EA/RIR/IRFA.
- C-2 GOA Groundfish Rationalization (4)
  - (a) Receive report from Community Committee and action as necessary.
  - (b) Review crab/salmon bycatch data and refine alternatives.
- C-3 GOA Rockfish Demonstration Project (2)  
Review available information and refine alternatives as appropriate.
- C-4 IR/IU (2)  
Review progress on Amendment 80 analysis and legal issues, and provide direction as necessary.
- C-5 American Fisheries Act (2)  
Review 2004 co-op reports and 2005 co-op agreements.
- C-6 Pacific Cod Allocations (4)  
Review discussion paper/refine alternatives.
- C-7 BSAI Salmon Bycatch (4)
  - (a) Receive update on salmon excluder EFP.
  - (b) Review Action plan and refine alternatives.

D. FISHERY MANAGEMENT PLANS

D-1 Groundfish Management (8)

- (a) Non-Target Species Committee report.
- (b) Review rockfish management preliminary discussion paper.
- (c) GOA and BSAI Other Species breakout: Review action plan.
- (d) AI Special Management Area: Review discussion paper.
- (e) GOA pollock trip limits: Review discussion paper.

D-2 Staff Tasking (4)

- (a) Review Seldovia Village request for Amendment 66 eligibility.
- (b) Review tasking and committees and initiate action as appropriate.

D-3 Other Business

Total Agenda Hours: 46 Hours

	SSC East Room	AP Northwest Room	Council South Room
Monday, Feb 7	8:00am Election of Officers EFH/CIE	8:00am Election of Officer C-2 GOA Groundfish Rationalization	
Ecosystem Committee - 2-5pm Room TBA	1:00pm D-1 Groundfish Report from Crab Overfishing Workgroup	1:00pm C-1 EFH/HAPC	
Tuesday, Feb 8	8:00am B-7 PSR	8:00am C-1 continued	
Enforcement Committee 2-5 pm - James Room, 4 <sup>th</sup> Floor	1:00pm SSC Break	1:00pm C-1 continued C-3 GOA Rockfish Demonstration	
Wednesday, Feb 9	8:00am Special Session Modeling workshop	8:00am C-4 IR/IU C-5 AFA	8:00am B Reports
	1:00pm Special Session Modeling workshop	1:00pm C-5 continued C-6 Pacific Cod Allocation	1:00pm C-1 EFH/HAPC
Thursday, Feb 10		8:00am C-6 continued C-7 BSAI Salmon Bycatch	8:00am C-1 continued
Observer Overview Mtg 6 pm - AP Room		1:00pm C-7 continued D-1 Groundfish Management	1:00pm C-1 continued
Friday, Feb 11		8:00am D-1 continued	8:00am C-2 GOA Groundfish Rationalization
		1:00pm D-3 Staff Tasking	1:00pm C-3 GOA Rockfish Demonstration Project C-4 IR/IU
Saturday, Feb 12			8:00am C-5 AFA C-6 Pacific Cod Allocation
			1:00pm C-6 continued C-7 BSAI Salmon Bycatch
Sunday, Feb 13			8:00am C-7 continued D-1 Groundfish Management
			1:00pm D-1 continued
Monday, Feb 14			8:00am D-1 continued
			1:00pm D-2 Staff Tasking
Tuesday, Feb 15			8:00am continue if necessary
			1:00pm

NOTE: The above agenda items may not be taken in the order in which they appear and are subject to change as necessary. All meetings are open to the public with the exception of Council Executive Sessions.

North Pacific Fishery Management Council  
605 W. 4<sup>th</sup> Avenue, Suite 306  
Anchorage, AK 99501

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Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<h1>February 2005</h1>						
		1	2	3	4	5
6	7 <sup>AP/SSC Seattle</sup>	8 <sup>AP/SSC</sup>	9 <sup>AP/SSC Council</sup>	10 <sup>AP/Council</sup>	11 <sup>AP/Council</sup>	12 <sup>AP/Council</sup>
13 <sup>Council</sup>	14 <sup>Council</sup>	15 <sup>Council</sup>	16	17	18	19
20	21 <sup>Holiday</sup>	22	23 <sup>Fair Labor Standards Act Workshop - Sea thru 24th</sup>	24	25	26
27	28					

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<h1>March 2005</h1>						
		1	2 <sup>NPRB Science Panel - Anch thru 4th</sup>	3 <sup>Scallop Plan Team - Anch</sup>	4	5
6	7 <sup>AK BOF - Anch thru 13th</sup>	8	9	10	11	12
13	14 <sup>MMS Info transfer Mtgs - Anch thru 16th</sup>	15	16	17 <sup>CompFish AK 2005 - Kodiak thru 19th</sup>	18	19
20	21	22	23	24 <sup>Managing Fisheries Conf - DC thru 26th</sup>	25	26
27 <sup>Easter</sup>	28	29	30	31		

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<h1>April 2005</h1>						
					1	2
3	4 <sup>AP/SSC</sup> Anchorage	5 <sup>AP/SSC</sup>	6 <sup>AP/SSC</sup> Council	7 <sup>AP/Council</sup>	8 <sup>AP/Council</sup>	9 <sup>AP?/Council</sup>
10 <sup>Council</sup>	11 <sup>Council</sup>	12 <sup>Council</sup>	13	14	15	16
17	18	19	20	21 <sup>Sea Grant Community Impact Conference - Anch thru 23</sup>	22	23
24	25	26 <sup>Council Chairmen's mtg - Dana Point, CA thru 28th</sup>	27	28	29	30

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<h1>May 2005</h1>						
1	2	3	4	5	6	7
8 <sup>Mother's Day</sup>	9	10	11	12 <sup>Observer Committee Mtg - Sea thru 13<sup>th</sup> (tentative)</sup>	13	14
15	16	17 <sup>Crab PT mtg - Sea thru 19th</sup>	18	19	20	21
22	23	24	25	26	27	28
29	30 <sup>Holiday</sup>	31				



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<h1>June 2005</h1>						
			1 <sup>AP/SSC</sup> Girdwood	2 <sup>AP/SSC</sup>	3 <sup>AP/SSC</sup> Council	4 <sup>AP/Council</sup>
5 <sup>Council/AP</sup>	6 <sup>Council/AP</sup>	7 <sup>Council/AP</sup>	8 <sup>Council</sup>	9 <sup>Council</sup>	10	11
12	13	14	15	16	17	18
19 <sup>Father's Day</sup>	20	21	22	23	24	25
26	27	28	29	30		

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4 <sup>Holiday</sup>	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

**North Pacific Fishery Management Council  
Advisory Panel Minutes  
Hilton Hotel, Anchorage Alaska  
December 6-10, 2004**

The following members were present for all or part of the meeting:

John Bruce	Bob Jacobson
Al Burch	Teressa Kandianis
Cora Crome	Mitch Kilborn
Craig Cross	Kent Leslie
Tom Enlow	John Moller
Dan Falvey	Kris Norosz
Lance Farr	Eric Olson
Dave Fraser	Jim Preston
Duncan Fields	Michelle Ridgway
Jan Jacobs	Jeff Stephan

*The AP unanimously approved the minutes from the previous meeting.*

### **C-2 GOA Groundfish Rationalization**

The AP recommends the Council approve the following changes additions to Alternative 2 and Alternative 3 of the current GOA Groundfish Rationalization motion:

- 2.2.2 Qualifying periods and landing criteria (same for all gears in all areas) (page 1)  
(The analysis will assess AFA vessels as a group)
- Option 1. 95-01 drop 1
  - Option 2. 95-02 drop 1
  - Option 3. 95-02 drop 2
  - Option 4. 98-02 drop 1
  - Option 5. 98-03 drop 1 *Motion passed 16/3*

**The AP recommends the Council take no action on staff recommendations on 2.2.3.2.5 issue until the A/B split is resolved. *Motion passed 18/0.***

2.2.3.3.5. Leasing of QS outside a coop (page 5) **Accept staff's recommendation to delete option 3: ~~Option 3. Allow leasing of CP QS, but only to individuals and entities eligible to receive QS/IFQ by transfer.~~ *Motion passed 18/0***

**ADD Option 4. For individuals and entities with CV QS, no leasing restrictions for the first three years. After this grace period, leasing will be allowed in the following calendar year if the QS holder is on board or owns 20% or greater of a vessel on which 30% of the primary species shares held by the QS holder in at least 2 of the most recent 4 years were harvested. This provision would apply to independent lessees and within cooperatives.**

**Suboption 1: Applies within cooperatives**

*Motion passed 18/0*

2.2.3.3.6 (Page 6)

Accept staff recommendation to delete Option 1 under "Conversion of CP Shares" i. *Motion passed 18/0*

The following motion failed 5/13/1:

2.2.3.3.7 Owner On Board Provisions (Page 7)

A range of ~~0-50%~~ **0-80%** for fixed gear CVs and ~~0-40%-0%~~ **0-70%** for trawl gear CVs, of the quota shares initially issued to fishers/harvesters would be designated as "owner on board."

Minority Report:

The minority of the AP believe much of the gulf lonline and pot fishing fleet is similar to the fleet that fishes halibut and sablefish. The policy decision for halibut and sablefish was 100% owner on board and the Council, in Gulf Rationalization, should have the option of retaining the same standard as a matter of public policy. In addition, the Gulf fleet, overall, is much different from the fleet rationalized in AFA and the Bering Sea crab fishery. Consequently, many of the reasons used to justify lesser owner on board requirements in these fisheries are less applicable in the Gulf. The analysis may amplify reasons for an owner on board requirement of less than 100% but, without these higher options, the Council will not have decisional options at the higher end of the range. Signed: Duncan Fields, Eric Olson, Dan Falvey, Cora Crome and Michelle Ridgway.

2.2.3.3.8 Overage Provisions (~~only apply outside of a co-op~~) Motion passed 19/0

2.2.3.3.10 Limited processing for CVs (Page 8)

**Option 2.**—Limited processing of groundfish species by owners of CV harvest shares of rockfish species not subject to processor landing requirements are allowed up to 1 mt of round weight equivalent of groundfish per day on a vessel less than or equal to 60ft LOA. (consistent with LLPs - 679.4(k)(3)(ii)(D)). Motion passed 19/0

2.2.3.3.11 Processing Restrictions (Page 8)

**Option 1.**—CPs may buy CV share fish not subject to processor landing requirements.

~~Suboption. 3 year sunset~~

**Option 2.**— ~~CPs would be prohibited from buying CV fish.~~

**Option 3.** CPs may buy incentive fish and incidental catches of CV fish not subject to processor landing requirements.

**Option** May buy delivery restricted CV fish if they hold a processing license.

Motion passed 17/1/1

2.2.6.3 Allocation of incentive species (new section)

**Allocates incentive species groundfish primary species harvest shares (QS) to the historical participants. Available incentive fishery quota is the available TAC for that fishing year minus the incentive species groundfish primary species harvest share allocated to the historical participants.**

**Threshold approach – Allocate harvest share as a fixed allocation in metric tons. If available TAC is less than the total fixed allocation in metric tons, then reduce participants' allocation pro-rata amongst shareholders.**

**Option 1.** Total retained catch of the participants divided by the number of years in the qualifying period.

**Option 2.** Total retained catch of the participants plus 25% divided by the number of years in the qualifying period.

**Option 3.** Total catch of the participants divided by the number of years in the qualifying period.

Motion passed 15/2/2

2.2.9.1 Regionalization (Page 12)

If adopted, all processing licenses (for shore-based and floating processors) will be categorized by region.

Processing licenses that are regionally designated cannot be reassigned to another region.

Catcher vessel harvest shares are regionalized based on where the catch was processed, not where it was caught.

**Harvest shares would be regionalized based on the landings history during the regionalization qualifying period.**

Catcher processor shares and incentive fisheries are not subject to regionalization.

In the event harvest shares are regionalized and the processor linkage option is chosen, a harvester's shares in a region will be linked to the processor entity in the region to which the harvester delivered the most pounds during the qualifying years used for determining linkages under 2.3.1.1.2.

The following describes the regions established and fisheries that would be subject to regionalization:

Central Gulf: Two regions are proposed to classify harvesting shares: North - South line at 58 51.10' North Latitude (Cape Douglas corner for Cook Inlet bottom trawl ban area) extending west to east to the intersection with 140° W long, and then southerly along 140° W long.).

The following fisheries will be regionalized for shorebased (including floating) catch and subject to the North-South distribution: CGOA pollock (area 620 and are 630) CGOA aggregate flatfish, CGOA agregate rockfish, and CGOA Pacific cod. CGOA trawl sablefish will be regionalized based on all landing of primary species in the CGOA associated with the license during regionalization qualifying period.

~~The following fisheries will be regionalized for shorebased (including floating) catch and subject to the North-South distribution: Pollock in Area 630; CGOA flatfish (excludes arrowtooth flounder); CGOA Pacific ocean perch; CGOA northern rockfish and pelagic shelf rockfish (combined); CGOA Pacific cod (inshore); GOA sablefish (trawl); WY pollock. Motion passed 18/0~~

2.2.9.1.2 Qualifying years to determine the distribution of shares between regions will be: (Page 14)

~~Option 1. consistent with the preferred option under "Section 2.2.2 Qualifying Periods"~~

~~Option 2. 1999 – 2002 Motion passed 12/6~~

2.2.12 Sideboards (Page 15)

GOA Groundfish sideboards under the crab rationalization plan and under the AFA and rockfish pilot project would be superceded by the GOA rationalization program allocations upon implementation. *Motion passed 18/0.*

**On completion of a rationalization program in the Bering Sea, any sideboards from Gulf Rationalization under this section will be superceded for the fleet subject to rationalization. Motion passed 16/0**

2.3.1.1.2 Linkage (Linkages apply by area) (Applies to 2B): (page 17)

A harvester's processor linked shares are associated with the licensed fixed or trawl processor to which the harvester delivered the most pounds of groundfish during the last \_\_\_ years ~~of the harvester qualifying years~~ Prior to 2005. *Motion passed 19/0*

- i. 1
- ii. 2
- iii. 3

Processors with history at multiple facilities in a community may aggregate those histories for determining associations.

Option 1: If the processing facility with whom the harvester is associated is no longer operating in the community, and another processing facility within the community has not purchased the history, the harvester is eligible to deliver to

- i. any licensed processor
- ii. any licensed processor in the community

**Option 2: If the processing facility with whom the harvester is associated is no longer operating in the community the harvester is eligible to deliver to**

**i. Any licensed processor**

**ii. Any licensed processor in the community**

*Motion passed 19/0*

**2.3.1.1.3 Movement between linked processors (Applies to 2B) (page 18)**

Suboptions:

- i. Penalty applies to A shares only.
- ~~ii. Penalty applies to both A and B shares.~~

*Motion passed 18/0*

~~A. Full penalty applies to each move~~

B. Full penalty applies to the first move, subsequent moves are penalized at half of that rate.

C. Full penalty applies only to the first transfer

*Motion passed 20/0*

**2.3.1.2.1 To qualify for a processor license, a processor must have purchased and processed a minimum amount of groundfish by region as described below in at least 4 of the following years: (page 19)**

**Suboption: At least 3 of the following years**

- Option 1. 1995-99. 04
- Option 2. 1995-01
- Option 3. 1995-02

*Motion passed 17/0/1*

**2.3.1.2.3 (page 20)**

**Moved from 2.4.5.2**

**License Transfers Among Processors (applies to processor limited entry)**

~~Option 1. any share association with that license will transfer to the processor receiving the license. All harvest share/history holders will be subject to any share reduction on severing the linkage, as would have been made in the absence of the transfer.~~

**Option 2. any share associated with the license will be free to associate with any licensed processor. Harvest share/history holders will be free to move among processors without share/history reduction.**

*Motion passed 19/0*

**2.3.2 Provisions affecting Allocation of Harvest Shares to Processors (Alternative 2C) (page 21)**

**1. Processors are eligible to receive an allocation of QS if they meet eligibility criteria identified in 2.3.1.2.1**

**Processors who do not meet eligibility criteria to document a vessel must transfer the QS to an entity meeting this criteria within 24 months. *Motion passed 19/0***

**2.4.2.1.1 Co-op/processor affiliations (page 23)**

No association required between processors and co-ops. **A processor can receive fish from more than one coop *Motion passed 18/2***

**Option: A person may join more than one coop *Motion passed 20/0***

~~Option 2. CV cooperatives must be associated with~~

- ~~a) a processing facility (applies to 2B)~~
- ~~b) a processing company (applies to 2A)~~

~~(Option 1 or Option 2 a) or b) could apply to 2 low producing fixed gear)~~

~~The associated processor must be:~~

- ~~a) any processor (could apply to 2 low producing fixed gear)~~
- ~~b) a limited entry processing license holder (applies to 2A)~~
- ~~e) a limited entry processing license holder to which the share holder's shares are linked (applies to 2B)~~

~~Suboption 1. Processors can associate with more than one co-op~~

~~Suboption 2. Processors are limited to 1 co-op per plant for each sector. *Motion passed 17/2*~~

2.4.2.2 Cooperatives are required to have at least: (Page 24)

~~Option 1.~~ 4 distinct and separate harvesters (using the 10% threshold rule) (could apply to any alternative)

~~Suboption: trawl CP sector, all less 1 of distinct and separate harvesters, using the 10% threshold rule).~~

*Motion passed 17/0*

~~Option 2.~~ 40-100 percent of the harvest shares (or catch history) of its sector (may choose different percentages for different sectors) (applies only to catcher processors)

~~Option 3.~~ 40-75 percent of the harvest shares (or catch history) eligible for the cooperative. (Applies to Alternatives 2A and 2B) *cannot be applied to catcher vessels under Alternative 2A*

*Motion passed 18/0*

**ENTRY LEVEL FISHERY/SECOND GENERATION PROVISIONS**

The AP believes it is important to review a discussion of program elements intended for entry level and second generation access in the GOA Groundfish fisheries

<b>Jig</b>	<b>Pollock</b> <b>Rockfish</b>	<b>0-2% set aside</b> <b>Pilot program set aside</b>	<b>September 1 rollover</b>
<b>Longline</b>	<b>Cod</b> <b>Rockfish</b>	<b>low producer/owner on board</b> <b>Rockfish pilot program</b>	
<b>Pot</b>	<b>Cod</b> <b>Rockfish</b>	<b>low producer/owner on board</b> <b>Rockfish pilot program</b>	
<b>Trawl</b>	<b>Cod</b> <b>Flatfish</b> <b>Pollock</b> <b>Rockfish</b>	<b>Owner on board/leasing provisions</b> <b>Owner on board/leasing provisions</b> <b>Bycatch incentive program to fish flatfish</b> <b>Rockfish pilot program</b>	

Additionally, the AP requests staff provide a qualitative discussion of the Magnuson Act expectations for entry level opportunities, i.e. new open access fisheries vs. affordable license opportunities.

*Motion passed 14/6*

**Alternative 3**

3.3.1 Eligibility (Page 4)

LLP participation

Option 1. Any person that holds a valid, permanent, fully transferable LLP license is eligible to receive an initial allocation of Gulf catch history (as generic GH) through co-op membership.

~~Suboption 1. Any person who held a valid interim LLP license as of January 1, 2003.~~

*Motion passed 16/0*

~~Suboption 2.~~ Allow the award of retained incidental groundfish catch history arising from the halibut and sablefish IFQ fishery.

3.3.2.2 Qualifying periods and landing criteria (same for all gears in all areas) for determining GH (Page 5)

(The analysis will assess AFA vessels as a group).

Option 1. 95-01 drop 1 on species by species basis

Option 2. 95-02 drop 1 on species by species basis

Option 3. 95-02 drop 2 on species by species basis

Option 4. 98-02 drop 1 on species by species basis

**Option 5: 98-03 drop 1 on species by species basis**

*Motion passed 17/0*

## 3.3.7 Cooperatives are required to have at least: (Page 6)

- Option 1. 4 distinct and separate harvesters (using the 10% threshold rule)  
**Applies to low producers, high producer fixed gear, CV trawl, and CPs**
- Option 2. 50-100 percent of the GH of its sector. Council may choose different percentages for different sectors.  
**Applies only to catcher processors**
- Option 3. 50-75 percent of the eligible GH for each co-op associated with its processor  
**Applies to low producers, high producer fixed gear, and CV trawl for processor associated co-ops if less than 4 distinct & separate harvesters are available to associate with the processor**
- ~~Option 4. Any number of eligible harvesters within the sector (allows single person co-op)~~

*Motion passed 18/0*

## 3.3.8 Duration of initial cooperative agreements: (Page 7)

- Option 1. 1 year
- Option 2. 2 years for CV processors affiliated co-ops *Motion passed 18/0*
- Option 3. 3 years
- Option 4. Any length agreed between the co-op participants.

## 3.3.9 Catcher Vessel co-op/processor affiliations (Page 7)

- ~~Option 1.~~ CV cooperatives must be associated with an eligible processing facility
- ~~Option 2.~~ Processors can associate with more than one co-op.
- ~~Option 3.~~ Processors are limited to 1 co-op per plant for each sector.

*Motion passed 20/0*

## 3.3.11 Initial Cooperative Requirements

The following provision is required for the initial co-op:

Catcher vessel co-ops may be formed by eligible harvesters (the co-op) subject to the terms and conditions of a co-op membership agreement. In order to receive an allocation of GH under this program, co-ops must enter into a duly executed contractual agreement (Contract) with the processor identified in Section 3.3.5.

Contracts established under this section shall specify the terms and conditions for transferring GQ or GH from the cooperative, including mechanisms whereby a member exiting the co-op (or transferring GH from the co-op) compensates the remaining co-op members and/or the associated processor for exiting the co-op (or transferring GH from the co-op). ~~Compensation can take on any form agreed to by the members and the associated processor, including permanent transfer of some or all GH generated by the existing participant to the remaining co-op members and/or the associated processor.~~ The AP recommends limiting processor compensation to the ranges identified in Alternative 2. *Motion passed 19/1.*

## 3.4.1 General cooperative requirements

**Processors who do not meet eligibility criteria to document a vessel must transfer the QS to an entity meeting this criteria within 24 months.** *Motion passed 19/0*

*A motion to delete Alternative 3 failed 6/14.*

## 3.4.2.1 Qualified Persons. (Page 10)

Persons qualified to receive GH by transfer include processors who are entities that meet US requirements to document a vessel that associate with initial cooperatives pursuant to 3.3.11 and (not mutually exclusive): *Motion passed 19/0*

- Option 1. US citizens who have had at least 150 days of sea time.
- Option 2. Entities that meet U.S. requirements to document a vessel.

- Option 3. Initial recipients of CV or C/P GH.  
~~Option 3. Communities would be eligible to receive GH by transfer (this provision would be applicable if certain provisions of 2.9 are adopted). Motion passed 18/0~~  
 Option 4. Individuals who are U.S. citizens. Motion passed 18/0

~~3.4.7.2 Re designate CP GH as CV GH upon transfer to a person who is not an initial issuer of CP shares: (page 12)~~

- ~~Option 1. all CP shares  
 Option 2. trawl CP shares  
 Option 3. longline CP shares Motion passed 17/1~~

3.6 LLP/Open Access fishery provisions: (Page 13)

Issue 1. Halibut PSC will be reduced by:

- Option 1: Add 0%  
 a. 10 percent  
 b. 20 percent  
 c. 30 percent

Note: this reduction may differ by sector

- Option 2: Add 0%  
 . 5 percent beginning on the date of program implementation;  
 . an additional 5 percent beginning on the second year of program implementation;  
 . an additional 10 percent beginning on year 5 of program implementation; and

Motion passed 18/1

Issue 2: The LLP of any vessel that has entered a co-op and generated GH pursuant to this program may not be subsequently used, or transferred to another vessel, to fish in the LLP/Open Access fishery for any primary or secondary species identified under this program ~~as long as they are a co-op member.~~ **unless all GH initially associated with the LLP is held by the LLP holder and is allocated to the LLP/Open Access fishery.** Motion passed 19/0

3.7.1 Regionalization (Page 14)

If adopted, GH will be categorized by region (for the fisheries identified below).

GH that is regionally designated cannot be reassigned to another region.

Catcher vessel GH is regionalized based on where the catch was processed, not where it was caught.

Catcher processor GH is not subject to regionalization.

**The GH associated with a license would be regionalized based on the landings history associated with that license during the regionalization qualifying period.**

The following describes the regions established and fisheries that would be subject to regionalization:

Central Gulf: Two regions are proposed to classify harvesting shares: North - South line at 58 51.10' North Latitude (Cape Douglas corner for Cook Inlet bottom trawl ban area) extending west to east to the intersection with 140° W long, and then southerly along 140° W long.).

The following fisheries will be regionalized for shorebased (including floating) catch and subject to the North-South distribution: CGOA pollock (area 620 and are 630) CGOA aggregate flatfish, CGOA aggregate rockfish, and CGOA Pacific cod. CGOA trawl sablefish will be regionalized based on all landing of primary species in the CGOA associated with the license during regionalization qualifying period. Motion passed 18/0



~~The following fisheries will be regionalized for shorebased (including floating) catch and subject to the North-South distribution: Pollock in Area 630; CGOA flatfish (excludes arrowtooth flounder); CGOA Pacific ocean perch; CGOA northern rockfish and pelagic shelf rockfish (combined); CGOA Pacific cod (inshore); GOA sablefish (trawl); WY pollock.~~

3.7.1.2 Qualifying years to determine the distribution of GH between regions will be the years most recent from 2005 *Motion passed 19/0*

~~Option 1. — consistent with the qualifying period under cooperative formation in Section 3.3.5~~

### 3.9 Sideboards

- GOA Groundfish sideboards under the crab rationalization plan and under the AFA and rockfish pilot project would be superseded by the GOA rationalization program allocations upon implementation.
- ~~• Participants in the GOA rationalized fisheries are limited to their historical participation based on GOA rationalized qualifying years in BSAI and SEO groundfish fisheries.~~
- Vessels (actual boats) and LLPs used to generate harvest shares used in a Co-op unless specifically authorized may not participate in other state and federally managed open access fisheries in excess of sideboard allotments.
- Participants in the GOA rationalized fisheries are limited to their aggregate historical participation based on GOA rationalized qualifying years in BSAI and SEO groundfish fisheries.
- **On completion of a rationalization program in the Bering Sea, any sideboards from Gulf Rationalization under this section will be superseded for the fleet subject to rationalization.** *Motion passed 16/0*
- Provisions related to IFQ and SEO fisheries are moved to a separate portion of the motion.
- Provisions related to salmon and crab bycatch are moved to a separate portion of the motion.

*Motion passed 18/0*

### Community Provisions

The AP endorses the GOA Rationalization Community Committee's recommendations of:

- Adding the following language to the overall purpose statement for community provisions: "and provide for the sustained participation of such communities"
- Eliminating options 2b, 2c and 4 under Eligibility criteria
- Add option 3B to the Community Purchase Program Eligibility criteria

*Motion passed 19/0*

The AP strongly recommends that the Committee meet again to discuss future funding of CFQ, entity structure and how shares are allocated. *Motion passed 17/0*

### C-3 Central Gulf of Alaska Rockfish Demonstration Program

The AP recommends the following changes and additions to the following sections (numbers correspond to Rockfish Decision notes):

1. Accept staff recommendations to delete the word "option" in Alternative 3.1 *Motion passed 17/0.*
2. Select Option 2 as the preferred alternative in section 3.3.1, including the suboption. *Motion passed 15/1/4.*
3. Delete Option 2 in 3.3.1.2, (*Motion passed 13/6*) and add the following new option 2: **For the offshore sector, P.cod history will be managed by MRA using a range of 1.4 -5%** *Motion passed 13/7*
4. Delay selection of a preferred alternative on secondary species allocations until the following data is available:

The AP requests staff add a column to table 4 which would show retained harvest of the target rockfish. The calculation methods for Option 1 and Option use retained catch/total catch. The AP requests staff also make similar calculations showing total catch/total catch, and retained catch/retained catch.

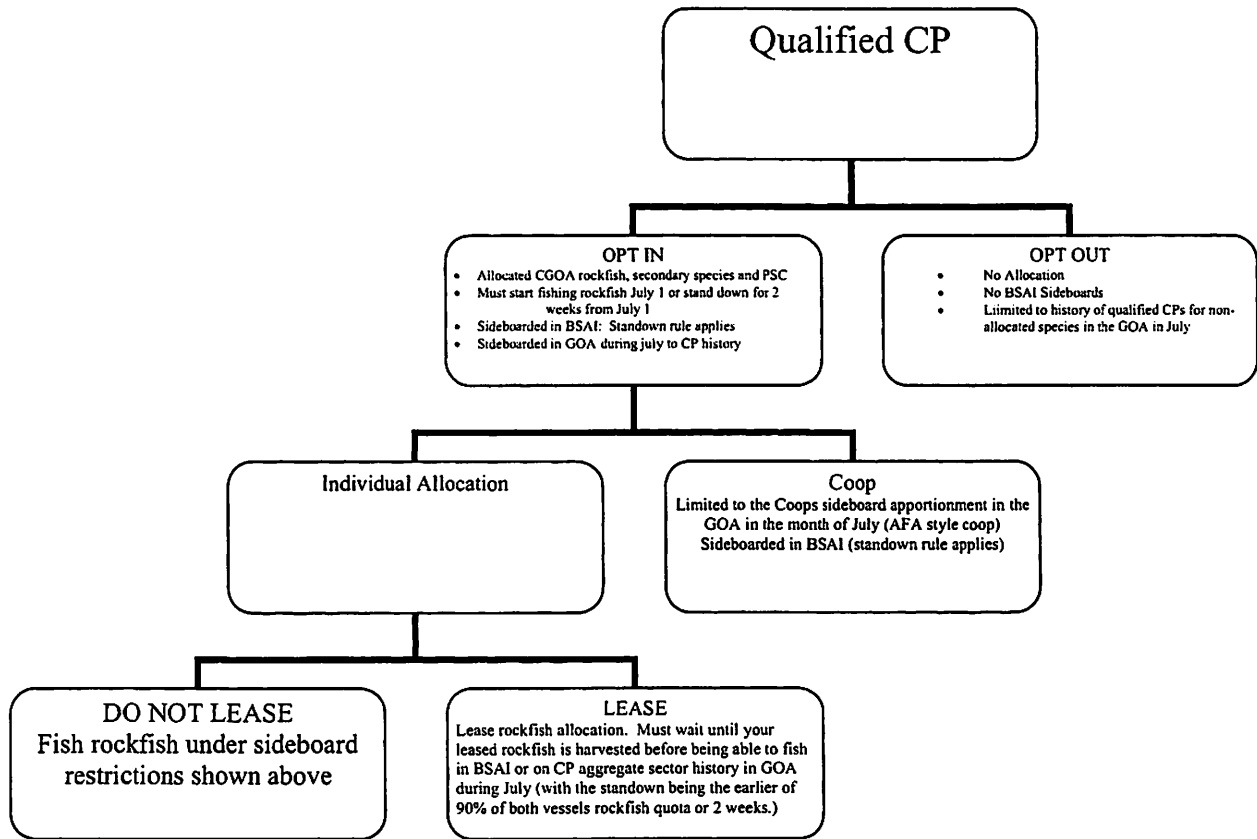
Additionally, the AP requests staff prepare

- histograms depicting incidental catch rates of RE/SR and thornyhead bycatch on a set by set basis in the sablefish, halibut and P.cod longline fisheries, and
- histograms depicting incidental catch of RE/SR and thornyhead on a tow by tow basis in directed rockfish trawl fisheries.

*Motion passed 19/0*

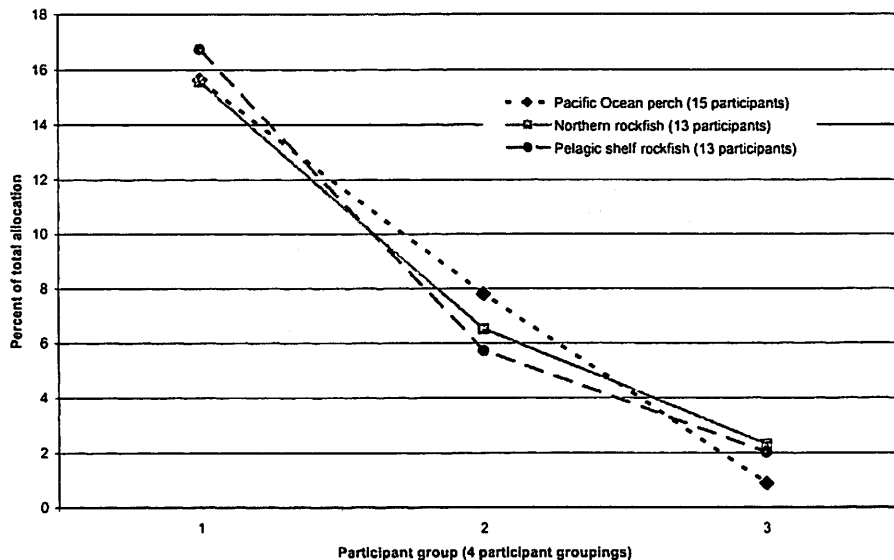
5. No change
6. Accept staff recommendations to delete language in the option bullet "~~but the operator will receive the right to vessel coop linkages.~~" *Motion passed 19/0*
  - **Add an exemption that eligible processor is a processing facility with substantial investments of 1M or more, that has purchased 250 MT any year 2001-2004 of aggregate Pacific Ocean Perch, Northern Rockfish, and Pelagic Shelf rockfish harvest for any one year per year, for 4 years, from 1996 to 2000. Eligible processors will be issued a license under this program. Licenses are not transferable.** *Motion passed 12/4*
  - Catcher vessel cooperatives are required to have at least 4 ~~5-10~~ eligible LLPs *Motion passed 19/0*
7. Add the following language to bullet 4 under Alternative 3:
  - A harvester is eligible to join a cooperative in association with the processing facility to which the harvester delivered the most pounds of the three rockfish species combined during the year's 1996 – 2000 drop 1 year (processor chooses the year to drop, same year for all LLPs). **If a LLP holder has no deliveries to a qualified processor, the LLP holder may join a coop with any one of the qualified processors.** *Motion passed 20/0*
8. The AP recommends the Council delete CP Transfer provisions, Alternative 5.5. *Motion passed 19/0*

Additionally,  
 In section 9.2 of the Council motion, delete Option 2, and Option 1 becomes a statement. *Motion passed 20/0*



Further, the AP recommends the Council direct staff to incorporate the above flowchart regarding CP sideboards into a new option in 9.2 with suboptions under the opt-out provisions that if a “serious rockfish boat” opts out they remain subject to a 2 week standown in the GOA. “Not serious” defined based on figure 1 from the rockfish decision notes: The “serious” rockfish boats are represented by the top seven vessels in Figure 1, comprising the top “tri-tile” harvest of POP. The “non-serious” rockfish vessels are included in all vessels represented by the distribution points in the center and right hand side of the graph. *Motion passed 18/0/2*

Catcher processor allocations (includes holders of permanent and interim LLP licenses)



## C-5 IRIU

**Problem Statement:**

*The Council's primary concern is to maintain a healthy marine ecosystem to ensure the long-term conservation and abundance of the groundfish and crab resources. To this end, the Council is committed to reducing bycatch, minimizing waste, and improving utilization of fish resources to the extent practicable in order to provide the maximum benefit to present generations of fishermen, associated fishing industry sectors, communities, and the nation as a whole, while at the same time continuing to look for ways to further rationalize the fisheries. ~~The Council also recognizes that the fishing industry is made up of participants who have a vested interest in the continued improvement in the long-term conservation of the groundfish resources, but at times could be burdened with additional costs associated with management programs that improve conservation or reduce bycatch.~~ The problem facing the Council is two fold. First, is to develop programs to slow the race for fish, and reduce bycatch and its associated mortalities, while maintaining a healthy harvesting and processing industry, recognizing long term investments in the fisheries, and promoting safety, efficiency, and further rationalization in all sectors. Second, is to fashion a management program that would mitigate the cost, to some degree, for those participants burdened with additional costs associated with management programs that improve conservation and reduce bycatch, while also continuing to reduce discards of groundfish and crab to practicable and acceptable levels. Motion passed 18/0*

**I. Amendment 80 Revised Components and Options****Component 1** Identifies which species will be included in the sector allocation

Allocate only the following primary target species to the Non-AFA trawl catcher processor sector: (A Motion passed 9/7/1 to include AFA trawl CP sector, which was later rescinded 14/4/1) yellowfin sole, rock sole, flathead sole, Atka mackerel, Aleutian Islands Pacific Ocean Perch, arrowtooth flounder, and Alaska plaice. Species could be added or deleted through an amendment process. All of these species will be allocated to the non-AFA trawl catcher processor cooperative.

**Component 2** Management of secondary species.

- Option 2.1 Use the current management system.
- Option 2.2 Use ICAs for all non-target species—ICAs would be managed with soft caps.
- Option 2.3 Use ICAs for all non-target species—ICAs would be managed with hard caps.

**Component 3** CDQ allocations for each species in the program (except pollock, p.cod and fixed gear sablefish) shall be removed from the TACs prior to allocation to sectors at percentage amounts equal to one of the following. Motion passed 20/0

- Option 3.1 7.5%
- Option 3.2 10%
- Option 3.3 15%

**Component 4** Identifies the sector allocation calculation (after deductions for CDQs).

For purpose of allocation to the non-AFA trawl catcher processor sector, each primary species allocation will be based upon the years and percentage of average catch history selected in Component 5 using one of the following:

- Option 4.1 Total legal catch of the sector over total legal catch by all sectors
- Option 4.2 Retained legal catch of the sector over retained legal catch by all sectors
- ~~Option 4.3 Total legal retained catch over ABC~~
- ~~Option 4.4 Total legal catch over ABC~~
- ~~Option 4.5 Total legal retained catch over TAC~~
- ~~Option 4.6 Total legal catch over TAC~~ Motion passed 17/0

The remaining portion for primary species included in this program will be allocated to the BSAI open access fishery. Open access will include amounts to accommodate AFA sideboards and other fishery practices. Rules for the non-AFA trawl CP fishery include:

- ~~1. After each non-AFA trawl co-op has completed its allocated harvest, co-op members may fish in open access. Motion passes 14/2~~
2. Vessels other than non-AFA Trawl CP with appropriate LLP endorsements may fish in open access.

**Component 5** Catch history years used to determine the allocation to the non-AFA trawl catcher processor sector in Component 4.

- Option 5.1 1995-1997
- Option 5.2 1995-2002
- Option 5.3 1998-2002
- Option 5.4 1998-2004
- Option 5.5 1999-2003
- Option 5.6 2000-2004

**Option 5.7** The Council can select percentages for each of the species allocated to the non-AFA trawl CP sector. *Motion passed 19/0*

**Component 6** PSC is allocated to the CDQ program as PSQ reserves (except herring) equal to one of the following:

- ~~Option 6.1 7.5% of each PSC limit~~
- ~~Option 6.2 8.5% of each PSC limit~~
- ~~Option 6.3 10% of each PSC limit Motion passed 19/0~~
- Option 6.4 Proportional to the CDQ allocation under Component 3 for each PSC limit

**Component 7** Sector allocations of PSC limits. **PSC associated with the Pacific cod fishery will be included in the sector allocation of PSC limits.** *Motion passed 18/0* (Council must choose one suboption from both Option 7.1 and 7.2 in order to apportion PSC between non-AFA trawl catcher processors and the open access).

- Option 7.1 Apportion PSC to each fishery group that it has historically been accounted against (e.g., yellowfin sole, rockfish, rocksole/flathead sole/other, etc.).
  - Suboption 7.1.1 Through annual TAC setting process (the current method) with a new breakout for the non-AFA trawl catcher processor sector.
  - Suboption 7.1.2 In proportion to the historic fishery group's apportionment using the most recent five years.
  - Suboption 7.1.3 In proportion to the actual amounts of PSC mortality attributed to the fishery group over a defined set of years.
- Option 7.2 Apportion PSC allotments made to fishery groups in Option 9.1 to non-AFA trawl catcher processor sector and open access.
  - Suboption 7.2.1 In proportion to TAC allocated to the non-AFA trawl catcher processor sector.
  - Suboption 7.2.2 In proportion to the PSC usage by the non-AFA trawl catcher processor sector for the years used to determine the groundfish sector apportionments.
  - Suboption 7.2.3 In proportion to the total groundfish harvested by the non-AFA trawl catcher processor sector for each PSC fishery group for the years used to determine the groundfish sector apportionments.
  - Suboption 7.2.4 In proportion to the target species harvested by the non-AFA trawl catcher processor sector in that PSC fishery group for the years used to determine the groundfish sector apportionments.
- Option 7.3 Select a PSC reduction option from the following that would apply to any PSC apportionment suboption selected in 7.2. PSC reduction options can vary species by species, and sector by sector.

Suboption 7.3.1	Reduce apportionments to 60% of calculated level.
Suboption 7.3.2	Reduce apportionments to 75% of calculated level.
Suboption 7.3.3	Reduce apportionments to 90% of calculated level.
Suboption 7.3.4	Reduce apportionments to 95% of calculated level.
Suboption 7.3.5	Do not reduce apportionments from calculated level.

~~Non-AFA trawl catcher processor cooperative members may carry unused PSC from cooperative into the open access fishery. Motion passed 18/0~~

**Option 7.4** The Council can select percentages and/or amounts for PSC allocated to the non-AFA trawl CP sector. *Motion passed 18/0*

**Component 8** Establishes procedures for reducing prohibited species catch limits for the non-AFA Trawl CPs Sector. Options selected from this component would be in addition to those PSC options selected in Component 7.

Option 8.1 No change in overall amount of the current PSC limits.

~~Option 8.2 Reductions in the PSC limit for halibut is accomplished by taxing in-season non-permanent transfers of PSC within the cooperative. The halibut PSC limit is restored to its original level the following year~~

~~Suboption 8.2.1 Transfers of PSC after August 1 are not taxed.~~

~~Suboption 8.2.2 Only un-bundled transfers of PSC are taxed. Motion passed 16/0~~

Option 8.3 Reduce halibut PSC limits by 5% when PSC limits are linked to estimated biomass levels.

**Component 9** Identifies the license holders that are in the non-AFA trawl CP sector which would receive Sector Eligibility Endorsements. Non-AFA qualified license holders with a trawl and catcher processor endorsement would be issued a Sector Eligibility Endorsement that will be attached to that holder's LLP identifying it as a member of the non-AFA Trawl CP Sector. Only vessels that qualify for a sector eligibility endorsement may participate in cooperative under this program.

Option 9.1 Qualified license holders must have caught 500 mt. of groundfish with trawl gear and processed that fish between 1998-2002

Option 9.2 Qualified license holders must have caught 1,000 mt. of groundfish with trawl gear and processed that fish between 1998-2002

Option 9.3 Qualified license holders must have caught 500 mt. of groundfish with trawl gear and processed that fish between 1997-2002

Option 9.4 Qualified license holders must have caught 1,000 mt. of groundfish with trawl gear and processed that fish between 1997-2002

**Option 9.5** Qualified license holders must have caught 150 mt. of groundfish with trawl gear and processed that fish between 1997-2002 *Motion passed 17/0*

**Component 10** Establishes the percentage of eligible licenses that must join a cooperative before the cooperative is allowed to operate. There may be more than one cooperative formed. No later than December 1 of each year, an application must be filed with NOAA fisheries by the cooperative with a membership list for the year. In order to operate as a cooperative, members, as a percent of eligible LLP licenses with non-AFA Trawl CP endorsement, must be:

Option 10.1 At least 30 percent

Option 10.2 At least 67 percent

Option 10.3 At least 100 percent

Option 10.4 All less one distinct and separate harvesters using the 10 percent threshold rule.

**Component 11** Determines the method of allocation of PSC limits and groundfish between the cooperative and eligible non-AFA trawl catcher processor participants who elect not to be in a cooperative.

- Option 11.1 Catch history is based on total catch  
 Option 11.2 Catch history is based on total retained catch

**Component 12** Determines which years of catch history are used for establishing cooperative allocations. The allocation of groundfish between the cooperative and those eligible participants who elect not to join a cooperative is proportional to the catch history of groundfish of the eligible license holders included in each pool. Applicable PSC limits are allocated between the cooperative and non-cooperative pool in same proportions as those species that have associated PSC limits. The catch history as determined by the option selected under this component will be indicated on the Sector Eligibility Endorsement, which indicates the license holder's membership in the Non-AFA Trawl CP Sector. The aggregate histories will then applied to either the cooperative or the non-cooperative pool.

- Option 12.1 1995-2002, but each license holder drops its lowest annual catch **by species** during this period  
 Option 12.2 1995-2003, but each license holder drops its **3** lowest annual catches **by species** during this period *Motion passed 17/0*  
 Option 12.3 1997-2002, but each license holder drops its lowest annual catch **by species** during this period  
 Option 12.4 1998-2002, but each license holder drops its lowest annual catch **by species** during this period  
 Suboption 12.4.1 Each license holder does not drop its lowest annual catch **by species** during this period  
 Option 12.5 1998-2003, but each license holder drops its lowest annual catch **by species** during this period  
 Suboption 12.5.1 Each license holder drops two years during this period  
 Option 12.6 1999-2002, but each license holder drops its lowest annual catch **by species** during this period  
 Option 12.7 1999-2003, but each license holder drops its lowest annual catch **by species** during this period  
*Motion passed 15/0*

**Component 13** Determines if excessive share limits are established in the non-AFA trawl catcher processor sector.

- Option 13.1 There is no limit on the consolidation in the non-AFA trawl catcher processor sector.  
 Option 13.2 Consolidation in the non-AFA trawl CP sector is limited such that no single company can **hold use** (*Motion passed 15/0*) more than a fixed percentage of the overall sector apportionment history. The cap will be applied across the total allocation to the sector of all species combined. The cap will be applied using the individual and collective rule. Persons (individuals or entities) that exceed the cap in the initial allocation would be grandfathered.

**Component 14** Establishes measures to maintain relative amounts of non-allocated species until such time as other fisheries are rationalized.

Sideboards for the non-AFA trawl catcher processor sector would be established by regulation using the same years used to calculate the apportionment of PSC and groundfish between the non-AFA trawl catcher processor and open access pool until such time as these other fisheries are rationalized, when the allocations are determined in these newly rationalized fisheries.

Suboption 14.1.1 Sideboards will be allocated between cooperative and non-cooperative LLP holders.

- Option 14.2 Sideboards for the non-AFA trawl CP sector can be established by establishing percentages an/or amounts for the species/fisheries not included in this program. *Motion passed 15/0*

**Component 15** A threshold level may be established for yellowfin sole. TAC below the threshold level will be allocated to the non-AFA trawl CP sector based on the formula determined in Components 4 and

5. TAC in excess of the threshold level will be available to other sectors as well as to the non-AFA trawl CP sector. Threshold levels for other species may be developed at a later date.

For yellowfin sole, the threshold will be:

Option 1	125,000 MT
Option 2	150,000 MT
Option 3	175,000 MT

Option 10.4 Allocate the threshold reserve to the trawl sectors and between AFA and non-AFA sectors using one of following suboptions :

- Suboption 10.4.1 Catcher vessels at 25% and catcher processors at 75%
- Allocations within the catcher vessel sectors
    - i. AFA at 24% and non-AFA at 1%
    - ii. AFA at 22% and non-AFA at 3%
    - iii. AFA at 20% and non-AFA at 5%
  - Allocations within the catcher processor sectors
    - i. AFA at 25% and non-AFA at 50%
    - ii. AFA at 37.50% and non-AFA at 37.5%
    - iii. AFA at 50% and non-AFA at 25%
- Suboption 10.4.2 Catcher vessels at 50% and catcher processors at 50%
- Allocations within the catcher vessel sectors
    - i. AFA at 47% and non-AFA at 3%
    - ii. AFA at 45% and non-AFA at 5%
    - iii. AFA at 42.5% and non-AFA at 7.5%
  - Allocations within the catcher processor sectors
    - i. AFA at 12.5% and non-AFA at 37.5%
    - ii. AFA at 25% and non-AFA at 25%
    - iii. AFA at 37.5% and non-AFA at 12.5%
- Suboption 10.4.3 Catcher vessels at 75% and catcher processors at 25%
- Allocations within the catcher vessel sectors
    - i. AFA at 72% and non-AFA at 3%
    - ii. AFA at 70% and non-AFA at 5%
    - iii. AFA at 67.5% and non-AFA at 7.5%
  - Allocations within the catcher processor sectors
    - i. AFA at 6.25% and non-AFA at 18.5%
    - ii. AFA at 12.5% and non-AFA at 12.5%
    - iii. AFA at 18.75% and non-AFA at 6.5%

#### *Other Elements of Amendment 80*

This section provides additional specifics and elements for the non-AFA trawl catcher processor cooperative program. These specifics and elements are common for any cooperative program that might be developed.

- The cooperative program developed in Amendment 80b will not supersede pollock and Pacific cod IRIU programs.
- The Groundfish Retention Standards (GRS) (Amendment 79) will be applied to the cooperative as an aggregate on a year by year basis and on those vessels who do not join a cooperative as individuals. ~~If the cooperative, in the aggregate, cannot meet the standard over a period of two years then the GRS for the current year would be imposed on individual vessels within the cooperative.~~ *Motion passed 17/0* The AP believes that monitoring requirements should not be so onerous that they force vessels that can not comply out of the fishery. *Motion passed 18/1*
- Non-AFA trawl catcher processor sector participants that elect not to join a cooperative will be subject to all current regulations including all restrictions of the LLP and the GRS if approved.
- All qualified license holders participating in the fisheries of the non-AFA trawl catcher processor sector will need to have trawl and catcher processor endorsements with general licenses for BSAI and the additional sector eligibility endorsement. Length limits within the license will also be enforced such that



any new vessel entering the fishery may not exceed the Maximum Length Overall (MLOA) specified on the license.

- Permanent transfers of Sector Eligibility Endorsements will be allowed if transferred with the associated Groundfish LLP. Sector Eligibility Endorsement, the associated groundfish LLP license, and associated catch histories would not be separable or divisible. All transfers must be reported to NOAA Fisheries in order to track who owns the Sector Eligibility Endorsements. The purchaser must be eligible to own a fishing vessel under MarAd regulations or must be a person who is currently eligible to own a vessel.
- Annual allocations to the cooperative will be transferable among cooperative members. Such transfers would not need to be approved by NOAA Fisheries. Any member of the cooperative will be eligible to use the catch history of any other member regardless of vessel length limitations of the LLP that carries the catch history.
- Any non-trawl or non-BSAI catches by qualified license holders that are considered part of the non-AFA Trawl CP Sector will not be included in the defined cooperative program. In addition, these non-trawl or non-BSAI catches allocated to the non-AFA trawl catcher processor sector would not necessarily be excluded from other rationalization programs.
- All catch history used for allocation and eligibility purposes will be legal and documented catch.
- Disposition of groundfish species not allocated to the non-AFA trawl catcher processor sector will not change as a result of the cooperative program developed in Amendment 80b. *Motion passed 19/0*
- The developed cooperative program will limit its scope to selected groundfish and prohibited species catches with trawl gear by qualified license holders in the non-AFA trawl catcher processor sector in the BSAI. Groundfish species not included in the program as well as other non-specified fish species or marine resources will not be explicitly managed within the defined cooperative program. The defined cooperative program would not supersede existing regulations regarding these other marine resources.
- PSC limits for the following species will be created and allocated between the non-AFA trawl catcher processor cooperative(s) and those sector participants that elect not to join a cooperative.
  - BSAI non-AFA trawl catcher processor multi-species halibut cap consisting of an apportionment of species identified in Component 1.
  - BSAI non-AFA trawl catcher processor multi-species red king crab cap consisting of an apportionment of the current Pacific cod trawl cap and caps for the flatfish fisheries.
  - BSAI non-AFA trawl catcher processor multi-species snow crab (*C. opilio*) cap consisting of an apportionment of the current Pacific cod trawl cap and caps for the flatfish fisheries (includes apportionments of the trawl sablefish/turbot/arrowtooth limits).
  - BSAI non-AFA trawl catcher processor multi-species Tanner crab (*C. bairdi*) Zone 1 cap consisting of an apportionment of the current Pacific cod trawl cap and caps for the flatfish fisheries.
  - BSAI non-AFA trawl catcher processor multi-species Tanner crab (*C. bairdi*) Zone 2 cap consisting of an apportionment of the current Pacific cod trawl cap and caps for the flatfish fisheries.
- Bycatch limits for non-specified species or marine resources specifically for this program will not be established. However, should unreasonable bycatch or other interactions occur, specific regulations to minimize impacts will be considered.
- The cooperative(s) will have adequate internal rules. Evidence of binding private contracts and remedies for violations of contractual agreements will be provided to NOAA Fisheries. The cooperative must demonstrate an adequate mechanism for monitoring and reporting prohibited species and groundfish catch. Participants in the cooperative must agree to abide by all cooperative rules and requirements.
- Specific requirements for reporting, monitoring and enforcement, and observer protocols will be developed in regulations for participants in the cooperative program and will not be the purview of the cooperative. The Council and the non-AFA trawl catcher processor sector should specify their goals and objectives for in-season monitoring and program evaluation. Recordkeeping and reporting portions of the program can then be developed to ensure that goals and objectives of the program are met in a cost effective manner.
- A detailed annual report will be required from cooperative(s) formed. Fishery managers will review the annual report and determine if the program is functioning as desired. It is recommended that in-depth assessments of program be undertaken under the auspices of the Council/NOAA Fisheries periodically

(for example, every five years). In-depth studies will report the accomplishments of the program and indicate whether any changes are necessary.

- An economic and socioeconomic data collection initiative will be developed and implemented under the Non-AFA Trawl CP Cooperative Program. The collection would include cost, revenue, ownership, and employment data on a periodic basis to provide the information necessary to study the impacts of the program. This program will be similar to the data collection program in the BSAI crab rationalization program. Details of the collection will be developed in the analysis of the alternatives.

### C-7 Halibut/Sablefish IFQ program

#### Halibut IFQ/CDQ regulations for IPHC Areas 4C/4D

Alternative 2. Allow holders of Area 4C IFQ and CDQ to harvest such IFQ/CDQ in Area 4D

Option: with a 3 year review following implementation *Motion passed 16/0*

#### **Action 1: Amend regulations to allow medical transfers**

Alternative 2. Allow medical transfers

*Limitation:* Option 2: 2 of the previous 5 years

*Evidence of Qualifying Medical Condition:* Use the language on Page 13 of the Public review draft Option 1. licensed medical doctor, or nurse practitioner (including local representatives)

*Motion passed 16/0*

#### **Action 2: Amend hired skipper provisions**

Alternative 2. To use the hired skipper exception, a QS holder must demonstrate at least a 20% vessel owner interest in the vessel to be used and have continuously owned the vessel as documented by the contemporary abstract of title for the previous: b. 12 months with an option to allow for replacement of vessel in case of a constructive loss. *Motion passed 14/2*

#### **Action 3: Add vessel clearance requirements**

Alternative 2. Add vessel clearance requirements to the BS and AI sablefish regulations.

Option 1. Add check-in/check-out for the Aleutian Islands and Bering Sea sablefish fishery (e.g., in Dutch Harbor, Adak, St Paul, St George, Akutan, and Atka)

or

Option 2. Require VMS when fishing in the Aleutian Islands and Bering Sea sablefish fishery  
*Motion passed 17/0*

#### **Action 4: Amend sablefish product recovery rate**

Alternative 2. Change product recovery rate from 0.98 to 1.0 for bled sablefish. *Motion passed 17/0*

#### **Action 5: Amend the halibut block program in Areas 2C, 3A, 3B, 4A, 4B, 4C, and 4D**

Alternative 2. Increase block limits to 3 or 4 blocks

a) limit is 3 blocks unless unblocked QS is held, in which case the limit is 1 block

*Motion passed 16/1*

#### **Action 5: Amend the halibut block program in Areas 3B, 4A**

Alternative 3. For all QS blocks that yield more than 20,000lb, block is converted to one block of 20,000 based on 2004 TACs and the remainder is unblocked. *Motion passed 16/1*

#### **Action 5: Amend the halibut block program in Areas 2C, 4A**

Alternative 5. Increase the areas 2C and 3A halibut sweep-up level to the 5,000 lb equivalent in 1996 QS units. *Motion passed 17/0*

#### **Action 6: Amend Area 3B, 4C halibut quota share categories**

Alternative 2. Allow IFQ derived from D category QS to be fished on C category vessels *Motion passed 14/2*

#### **Action 7: Amend fish down regulations for Area 2C halibut and Southeast Outside District sablefish**

Alternative 2. Eliminate the exception to the fish down regulations for Area 2C halibut and Southeast area sablefish. *Motion passed 17/0*

**C-8 Halibut Subsistence**

Action 1. Revise the subsistence halibut regulations for gear and harvest to address local area issues.

Alternative 1. No action.

- (a) - (c): 30 hooks  
three times the individual gear limit
- (d): 30 hooks per vessel  
power hauling  
20 halibut per vessel

Alternative 2. Change gear and annual limits in local areas.

(a) in Kodiak road zone and Chiniak Bay:

Issue 1. Gear limit, annual limit, and community harvest permit program:

**No Action: Motion passed 15/0**

~~Option 1. 5 hooks and 20 fish annual limit~~

~~Option 2. 10 hooks and 20 fish annual limit~~

Issue 2. Limit stacking on a single unit of gear per trip provided the subsistence user(s) are on board the vessel to:

~~Option 1. one hook limit (no stacking)~~

**Option 2. two times the hook limit with community harvest permit program**

(b) in Prince William Sound: **No Action: Motion passed 15/0**

~~Issue 1. Gear limit and community harvest permit program:~~

~~Option 1. 5 hooks~~

~~Option 2. 10 hooks~~

~~Issue 2. Limit stacking on a single unit of gear per trip provided the subsistence user(s) are on board the vessel to:~~

~~Option 1. one hook limit (no stacking)~~

~~Option 2. two times the hook limit~~

(c) in Cook Inlet: **No Action: Motion passed 15/0**

~~Issue 1. Gear limit and community harvest permit program:~~

~~Option 1. 5 hooks~~

~~Option 2. 10 hooks~~

~~Issue 2. Limit stacking on a single unit of gear per trip provided the subsistence user(s) are on board the vessel to:~~

~~Option 1. one hook limit (no stacking)~~

~~Option 2. two times the hook limit~~

(d) in Sitka Sound LAMP: **Motion passed 15/0**

Seasonal gear and vessel limits:

June 1 to August 31

September 1 to May 31

15 hooks per vessel

no power hauling

5 halibut per day/vessel

10 halibut per day/vessel

Option: Apply ~~above seasonal restrictions to all of Area 2C~~

**15 hook/vessel from June 1<sup>st</sup> to August 31, in all of Area 2C Motion passed 19/0**

Option for areas (a) - (d): ~~Require mandatory retention of rockfish. A fisherman would be required to stop subsistence halibut fishing for that day if the legal limit of rockfish allowed under State regulations were caught. This applies to the current State limits for rockfish only. Subsistence users would not be restricted below current bag limits.~~

**The AP supports the idea of mandatory retention of rockfish, but we are unclear whether the BOF or Council has jurisdiction. We support cessation of subsistence halibut fishing and prohibition of setting more gear once subsistence limit of rockfish was caught that day. Motion passed 15/1**

Action 2. Revise the list of eligible subsistence halibut communities.

~~Alternative 1. No action.~~

Alternative 2. Add to list of eligible communities: *Motion passed 14/0*

Option 1. Naukati

Option 2. ~~Port Tongass Village~~

Action 3. Create a subsistence halibut possession limit for Area 2C, and/or 3A, and/or 3B.

~~Alternative 1. No action.~~

Alternative 2. Possession limit equal to two daily limits.

Option: Possession limit equal to one daily limit. *Motion passed 18/0*

Action 4. Revise the definition of charter vessels.

~~Alternative 1. No action.~~

~~Alternative 2. Allow the use of charterboats for subsistence halibut fishing~~

Alternative 3. ~~Adopt the State of Alaska definition of charter vessels to redefine a charter vessel as state registered.~~ **A charter vessel is one that is registered as such with the Alaska department of Fish and Game.** (*Motion passed 19/0*) Restrict the use of the charter vessel to the owner of record and the owner's immediate family (the owner must be an eligible subsistence user). Prohibit the use of a charter vessel for subsistence fishing while clients are on board. Prohibit the transfer of subsistence halibut to clients.

Action 5. Revise the \$400 customary trade limit for subsistence halibut by IPHC regulatory area.

~~Alternative 1. No action.~~

~~Alternative 2. Revise the customary trade limit to \$100.~~

~~Alternative 3. Eliminate the customary trade limit (\$0).~~

Alternative 4. ~~Eliminate the \$400 customary trade limit but allow:~~

**Customary trade is limited to: (the AP intends to keep the \$400 annual limit)**

1. Rural residents eligible for subsistence harvest of halibut (**may be reimbursed for ice, bait, gas and or gear expenses directly related to harvest of subsistence halibut**) with other members in their community subject to the annual limit.
2. Allow customary trade and barter **is allowed** between a member of an Alaska tribe eligible to harvest halibut for subsistence and any other member of an Alaska tribe provided that monetary exchange be limited to **reimbursement for ice, bait, gas and or gear expenses directly related to harvest of subsistence halibut subject to the annual limit.** ~~sharing expenses directly related to the subsistence harvest of halibut.~~  
**Subsistence caught halibut cannot enter commerce.**

*Motion passed 19/0*

Action 6. Allow subsistence halibut fishing in non-subsistence areas under special permits.

~~Alternative 1. No action.~~

Alternative 2. Allow the use of **community harvest permits**, educational permits, and ceremonial permits in non-subsistence use areas by tribes whose traditional fishing grounds are located within these areas, with the associated **daily bag permit** limit.

*Motion passed 19/0*

**D-1 Groundfish Specifications**

The AP recommends the Council approve the 2004 SAFEs and the EA for BSAI and GOA.

**GOA**

The AP recommends the Council adopt the 2005 and 2006 SSCs ABCs as TACs for all stocks with the following exceptions: (see chart for recommended changes)

- The Pcod TAC should be reduced according to the table in order to account for the apportionment to the State waters fishery in 2005 and 2006

Proposed 2005 Gulf Pacific cod ABCs, TACs, and State guideline harvest levels (mt).

Specifications	Western	Central	Eastern	Total
ABC	20,916	33,117	4,067	58,100
BOF GHL	5,229	8,031	407	13,667
(%)	25	24.25	10	23.5
TAC	15,687	25,086	3,660	44,433
	Cook Inlet	993	3.00%	
	Kodiak	4,140	12.50%	
	<u>Chignik</u>	<u>2,898</u>	<u>8.75%</u>	
	Central	8,031	24.25%	

Proposed 2006 Gulf Pacific cod ABCs, TACs, and State guideline harvest levels (mt).

Specifications	Western	Central	Eastern	Total
ABC	18,396	29,127	3,577	51,100
BOF GHL	4,599	7,063	358	12,020
(%)	25	24.25	10	23.5
TAC	13,797	22,064	3,219	39,080
	Cook Inlet	874	3.00%	
	Kodiak	3,641	12.50%	
	<u>Chignik</u>	<u>2,548</u>	<u>8.75%</u>	
	Central	7,063	24.25%	

- For the following species the 2004 TAC should be rolled over to 2005 and 2006.
  - Shallow water flatfish and flathead sole in the central and western GOA
  - Arrowtooth flounder gulfwide
  - Other slope rockfish in EYAK/SEO

(see chart for recommended changes)

NOTE: The AP recommends that shortraker and roughey rockfish catch and bycatch be closely monitored by NMFS. The concern is potential overfishing of these rockfish stocks.

**GOA groundfish PSC**

The halibut PSC apportionments annually and seasonally for 2004 as listed should be rolled over for 2005 and 2006

2005 Trawl		2005 Hook and Line	
Jan 20 - Apr 1	550 mt	1st trimester	Jan 1 - Jun 10 250 mt
Apr 1 - Jul 5	400 mt	2nd trimester	Jun 10 - Sep 1 5 mt
Jul 5 - Sep 1	600 mt	3rd trimester	Sept 1 - Dec 31 35 mt
Sept 1 - Oct 1	150 mt		
Oct 1 - Dec 31	300 mt	DSR	Jan 1 - Dec 31 10 mt
<b>TOTAL</b>	<b>2,000 mt</b>		<b>300 mt</b>

Season	Trawl fishery categories		
	Shallow Water	Deep Water	Total
Jan 1 - Apr 1	450 mt	100 mt	550 mt
Apr 1 - Jul 5	100 mt	300 mt	400 mt
Jul 5 - Sep 1	200 mt	400 mt	600 mt
Sept 1 - Oct 1	150 mt	any rollover	150 mt
Oct 1 - Dec 31	no apportionment		300 mt
<b>TOTAL</b>	<b>900 mt</b>	<b>800 mt</b>	<b>2,000 mt</b>

**BSAI**

The AP recommends the Council adopt the SSC's 2005 and 2006 ABCs as TACs as noted in table 1.

Additionally, we recommend that the 2005 and 2006 OFL and ABC for Atka mackerel be rolled over from the 2004 OFL and ABC rather than the projected numbers put forward initially by the plan teams and SSC given the scientific report provided to the Council by the stock assessment authors at the AFSC to this effect. *Motion passed 15/4.*

*Minority Report*

*After a motion failed 7/11/1 that would have shifted 5300mt of pollock to yellowfin sole (representing a cost of 0.3% of the pollock TAC and a gain of 6.0% to the yellowfin sole TAC), the AP was left with a main motion which allocated the ~10,000mt TAC reduction of cod and sablefish by 75% to pollock. The net effect is that the total pollock allocation in 2005 will exceed the 2004 allocation by 7,000 mt, even though more than 11,000mt of pollock were left unharvested this year. The minority believes it is more appropriate to allocate this fish to the yellowfin sole fishery, which closed four months early in 2004 due to insufficient TAC.*

2. The AP recommends the following seasonal apportionment of the fixed gear Pacific cod TAC.

**TABLE 5.—2004 GLAR SHARES AND SEASONAL APPORTIONMENTS OF THE BSAI PACIFIC COD TAC**  
 [Amounts are in metric tons]

Gear sector	Percent	Share of gear sector total	Subsets percentages for gear sectors	Share of gear sector total	Seasonal apportionment <sup>1</sup>	
					Date	Amount
Total hook and line and pot gear allocation of Pacific cod TAC	81	101,662		500		
Incidental catch allowance						
Processor and Vessel subtotal		101,162				
Hook-and-line Catcher/Processors			83	80,930	Jan 1-Jun 15	46,669
Hook-and-line Catcher/Vessels			33	3,333	Jan 1-Jun 15	3,372
Pot Catcher/Processors			33	3,333	Jan 1-Jun 15	182
Pot Catcher/Vessels			15	15,174	Jan 1-Jun 15	121
Catcher/Vessels < 60 feet L.O.A. using hook-and-line or pot gear			14	1,418	Sept 1-Dec 31	2,003
Catcher/Vessels < 60 feet L.O.A. using hook-and-line or pot gear					Sept 1-Dec 31	1,335
Trawl gear total	47	44,895		46,344	Jan 20-Apr 1	9,105
Trawl Catcher/Vessel			50	46,344	Jan 20-Apr 1	1,829
Trawl Catcher/Processor			50	46,344	Apr 1-Jun 15	4,664
Trawl Catcher/Vessel					Jan 10-Nov 1	9,269
Trawl Catcher/Processor					Jan 10-Nov 1	23,422
Trawl Catcher/Vessel					Apr 1-Jun 15	14,050
Trawl Catcher/Processor					Jan 10-Nov 1	9,269
Trawl Catcher/Vessel					Jan 1-Apr 30	1,585
Trawl Catcher/Processor					Apr 30-Aug 31	797
Trawl Catcher/Vessel					Aug 31-Dec 31	1,585
<b>Total</b>	<b>100</b>	<b>199,328</b>				

<sup>1</sup> For most non-trawl gear the first season is allocated 83 percent of the TAC and the second season is allocated 40 percent of the TAC. For jig gear, the first season and third seasons are each allocated 40 percent of the TAC and the second season is allocated 20 percent of the TAC. No seasonal harvest constraints are imposed for the Pacific cod fishery by catcher vessels less than 60 feet L.O.A. using hook-and-line or pot gear. For trawl gear, the first season is allocated 60 percent of the TAC and the second and third seasons are each allocated 20 percent of the TAC. The trawl catcher vessel allocation is further allocated as 20 percent in the first season, 15 percent in the second season and 20 percent in the third season. The trawl catcher/processors allocation is allocated 50 percent in the first season, 30 percent in the second season and 20 percent in the third season. Any unused portion of a seasonal Pacific cod allowance will be reapportioned to the next seasonal allowance.

*Motion passed 19/0*

3. The AP recommends the following bycatch allowances, and seasonal apportionments of Pacific halibut, red king crab, Tanner crab, opilio crab, and herring to target fishery (PSC) categories, modified for herring.

TABLE 7.—2004 PROHIBITED SPECIES BYCATCH ALLOWANCES FOR THE BSAI TRAWL AND NON-TRAWL FISHERIES

Prohibited species and zone	Trawl Fisheries					
	Halibut mortality (mt) BSAI	Herring (mt) BSAI	Red King Crab (animals) Zone 1 <sup>1</sup>	C. opilio (animals) COBLZ <sup>2</sup>	C. bairdi (animals)	
					Zone 1 <sup>1</sup>	Zone 2 <sup>1</sup>
Yellowfin sole	686	171	33,843	2,776,981	340,844	1,788,459
January 20—April 1	262					
April 1—May 21	195					
May 21—July 4	49					
July 4—December 31	380					
Rock sole/other flat/flathead sole <sup>4</sup>	779	25	121,413	969,130	365,320	596,154
January 20—April 1	448					
April 1—July 4	164					
July 4—December 31	167					
Turbot/arrowtooth/sablefish <sup>5</sup>		11		40,238		
Rockfish						
July 4—December 31	69	9		40,237		10,988
Pacific cod	1,434	25	26,563	124,736	183,112	324,176
Midwater trawl pollock		1,456				
Pollock/Atka mackerel/other <sup>6</sup>	232	179	406	72,428	17,224	27,473
Red King Crab Savings Subarea <sup>3</sup> (non-pelagic trawl)			42,495			
<b>Total trawl PSC</b>	<b>3,400</b>	<b>1,876</b>	<b>162,225</b>	<b>4,023,750</b>	<b>906,500</b>	<b>2,747,250</b>
<b>Non-trawl Fisheries</b>						
Pacific cod—Total	775					
January 1—June 10	320					
June 10—August 15	0					
August 15—December 31	455					
Other non-trawl—Total	58					
May 1—December 31	58					
Groundfish pot and jig	exempt					
Sablefish hook-and-line	exempt					
<b>Total non-trawl PSC</b>	<b>833</b>					
PSQ reserve <sup>7</sup>	342		14,775	326,250	73,500	222,750
<b>PSC Grand total</b>	<b>4,575</b>	<b>1,876</b>	<b>197,000</b>	<b>4,350,000</b>	<b>980,000</b>	<b>2,970,000</b>

<sup>1</sup> Refer to § 679.2 for definitions of areas.

<sup>2</sup> C. opilio Bycatch Limitation Zone. Boundaries are defined at 50 CFR part 679, Figure 13.

<sup>3</sup> In December 2003, the Council proposed limiting red king crab for trawl fisheries within the Red King Crab Savings Subarea (RKCSS) to 35 percent of the total allocation to the rock sole, flathead sole, and other flatfish fishery category (see § 679.21(e)(3)(ii)(B)).

<sup>4</sup> "Other flatfish" for PSC monitoring includes all flatfish species, except for halibut; (a prohibited species), greenland turbot, rock sole, yellowfin sole and arrowtooth flounder.

<sup>5</sup> Greenland turbot, arrowtooth flounder, and sablefish fishery category.

<sup>6</sup> Pollock other than pelagic trawl pollock, Atka mackerel, and "other species" fishery category.

4. The AP approves halibut discard mortality rates for 2005 CDQ groundfish fisheries. *Motion passed 20/0*

Summary of recommended Pacific halibut discard mortality rates (DMRs) for calculating bycatch mortality in the 2005 CDQ groundfish fisheries off Alaska.

	Used in 2004	Recommendations for 2005
<b>CDQ Trawl</b>		
Atka Mackerel	85	85
Bottom Pollock	85	85
Flathead sole	67	67
Pelagic pollock	89	90
Rockfish	74	74
Yellowfin sole	82	84
<b>CDQ longline</b>		
Pacific cod	11	10
Turbot	7	15
<b>CDQ pot</b>		
Pacific cod	5	8
sablefish	36	33

# North Pacific Fishery Management Council

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Certified Kay Bendix  
Date 1/28/05

## MINUTES SCIENTIFIC STATISTICAL COMMITTEE December 6-8, 2004

The Scientific and Statistical Committee met December 6-8, 2004 at the Anchorage Hilton in Anchorage, AK. Members present:

Rich Marasco, Chair  
Steve Hare  
Seth Macinko  
David Sampson

Gordon Kruse, Vice Chair  
George Hunt  
Franz Mueter  
Farron Wallace

Keith Criddle  
Pat Livingston  
Terry Quinn  
Doug Woodby

Members absent:

Mark Herrmann

Sue Hills

Ken Pitcher

### B-1(e) Plan Team Nominations

It is recommended that Ms. Michele K. Culvar, Washington Department of Fish and Game, be appointed to both the Bering Sea/Aleutian Islands and Gulf of Alaska Groundfish Plan Teams. In addition, it is recommended that Mr. Scott Miller, NMFS, be appointed to the Alaska Scallop Plan Team.

### B-7 Protected Species Reports

Bill Wilson (NPFMC) presented information regarding progress in the development of a Steller sea lion recovery plan, preparations for a conference on Northern fur seals, and a proposal to consider changes in the trawl closures around St. George Island. Robin Angliss (NMFS) presented information and responded to questions about the MMPA List of Fisheries for 2005. Public testimony was provided by Paul McGregor (At-Sea Processor Association), Gerry Merrigan (Prowler Fisheries), Thorn Smith (North Pacific Longline Association), and Donna Parker (Arctic Storm Fisheries).

*A. List of Fisheries (LOF).* The SSC was provided with a white paper, "Summary of Analysis for the Proposed List of Fisheries for 2005", to review in advance of the meeting. Three additional documents were provided to the SSC immediately before presentation of this agenda item: a supplement to the white paper that provides a more detailed description of the mortality/severe injury incidents; a NOAA technical memorandum "Compilation of Marine Mammal Incidental Take Data from the Domestic and Joint Venture Groundfish Fisheries in the US EEZ of the North Pacific, 1989-2001" (Perez, M.A. 2003); and, a draft NOAA technical memorandum "Analysis of Marine Mammal Bycatch Data from the Trawl, Longline, and Pot Groundfish Fisheries of Alaska, 1998-2003, Defined by Geographic Area, Gear Type,



and Target Groundfish Catch Species” (Perez, M.A., 2004). SSC comments are based on the Summary Analysis, supplemental table, and staff analysis, alone.

*It ain't what we don't know that gets us in trouble; it's what we know that ain't so.*  
*Will Rogers (1879–1935).*

The LOF determination process poses several challenges. While the analysts have used a reasoned approach to address these challenges, the robustness of the analysis is conditional on the reasonableness of the assumptions and methods used in the analysis. Consequently, the reasonableness of the approach should be explicitly examined. Three critical issues that should be explored are:

1. Incidents of serious injury and mortality in commercial fisheries are rare. Sampling rare events is problematic. In practice, unusual observations are often characterized as “outliers” and omitted from data used for estimation. While incidents of mortality and serious injury are unusual, it would not be appropriate to treat observed incidents as “outliers”. When unusual observations are retained in data used for estimation, they can have a pronounced influence on the resulting estimates. The best defense against unusual observations exerting undue influence on the resulting estimates is to increase sample size as much as practicable. This would argue for basing the estimates on an average of the full time series of observations.
2. Data used in the LOF determination may have been generated under conditions that are not characteristic of current fisheries. For federally managed fisheries, this problem involves a tradeoff of increased observations over a longer time series and changes in the characteristics of fishing gear, and how and where that gear is used. The choice of a 5-year window is reasonable, but so would a longer or shorter window. The problem with many state-managed fisheries is the lack of recent verifiable information about marine mammal mortalities and serious injuries. Unless new information is developed for these fisheries through a verifiable sampling program, there does not seem to be a good alternative to continued use of estimates based on old information. Because estimated mortalities and serious injuries in state-managed fisheries affect overall estimates of mortality-serious injury for the state fisheries and related federally managed fisheries, it may be expedient to use funding earmarked for management of federal fisheries to develop a monitoring or sampling program for marine mammal mortalities in the state-managed fisheries.
3. Scaling from observed mortality to estimated mortality necessitates specific assumptions regarding the representativeness of observed hauls. These assumptions and the limitations of these assumptions are not unique to scaling observed mortality to estimates mortality; similar assumptions and limitations are at play in the estimation of target and incidental catches of fish. Specifically, it is assumed that the likelihood of incidence of serious injury or mortality is invariant across vessel size, fishing location, fishing time, gear configuration, etc. Concern about these types of limitations was instrumental to the decision to segregate the six fisheries defined in 2003 into the 22 fisheries defined for 2005. Because the area fished by unobserved vessels are not coincident with the areas fished by observed vessels, scaling observed mortality-serious injury incidents to include catches by unobserved vessels may not provide good estimates of overall mortality-serious injury incidents. Scaling observed incidents of mortality and serious injury from observed hauls to unobserved hauls on observed vessels may be less problematic. However, if observers are notified by crew whenever mortality-serious injury incidents occur, it may be that all hauls are, in effect, observed for mortality and serious injury to marine mammals. If all hauls are, in effect, observed for mortality and serious injury to marine mammals, the observations are for the population of hauls and should not be expanded for unobserved hauls on observed vessels. (These issues may be considered in Perez (2003) and Perez (2004), but these documents have not yet been reviewed by the SSC.)

Because some marine mammal stocks may overlap in space and time, and because the patterns of overlap are not well-understood, the analysts were not comfortable with assigning particular mortality-serious injury events to either the transient or resident sub-units of Eastern North Pacific killer whale stocks. Similarly, the analysts were not comfortable with assigning particular mortality-serious injury events to the western or central sub-units of North Pacific humpback whale stocks. In October, the SSC suggested that one approach to this dilemma would be to weight the mortality-serious injury events by the probability that they involved marine mammals from particular population sub-units. The analysts have instead taken the stance that because they cannot rule out the possibility that particular mortality-serious injury events involved animals from particular population sub-units, the LOF determination with respect to each population sub-unit should allow for the possibility that mortality-serious injury event involved animals from that population sub-unit. While the approach taken by the analysts is not inappropriate for estimating the mortality-serious injury incidence for particular population sub-units, the Summary of Analysis should clearly note that it would not be consistent to sum the mortality-serious injury incidence across population sub-units. Samples taken from marine mammals killed incidental to fishing may help to assign particular mortality-serious injury incidents to particular population sub-units. While on-going research on the distribution of marine mammal stocks may help assign particular mortality-serious injury incidents to particular population sub-units, the lack of information about the stability of stock distributions over time may preclude using new information to assign historic mortality-serious injury incidents. In addition, we note that research on the distribution of marine mammal stocks may lead to the definition of additional population sub-units.

The SSC recommends that the Council consider asking NMFS to extend the comment period on the proposed LOF for 2005. An extended comment period will permit time for the SSC and public to review the Technical Memoranda (Perez 2003, Perez 2004) that document mortality-serious injury incidents, how observed mortalities are assigned to target fisheries, and how observed mortalities are scaled to estimated mortalities.

*B. Steller Sea Lion Recovery Plan.* It is anticipated that the Steller seal lion recovery team will complete work on a draft recovery plan in February or March, 2005.

*C. Northern Fur Seal.* The Pribilof Islands Collaborative Northern Fur Seal working group has scheduled a 3-day scientific workshop on Northern fur seals for January 28-30, 2005.

*D. Steller Sea Lion—Trawl Closures Around St. George Island.* The Council has received a request to reexamine the size of trawl closure zones around the Pribilof Islands.

#### **C-4 EFH and Habitat Areas of Particular Concern**

The SSC received presentations from Cathy Coon (NPFMC) and John Olson (NMFS) on the following: alternative 5B options analysis, review of the HAPC process and the proposed Dixon entrance HAPC. Ben Entiknap (Alaska Marine Conservation Council), Jon Warrenchuk (Oceana), John Gauvin (Groundfish Forum) and Whit Sheard (Ocean Conservancy), gave public comment.

The SSC provides the following comments and recommendations.

##### ***C-4a. Alternative 5B options analysis and finalize alternatives***

There are now three sub-options for the Aleutian Islands portion of alternative 5b of the EFH EIS including the original, an option revised by Oceana and an option revised by the fishing Industry. The revised alternative proposed by Oceana targeted bottom trawl fisheries and proposed open/closed areas

based on historic bottom trawl effort. This proposal was then modified by the fishery industry to account for important fisheries areas where bottom trawl groundfish catch is greater than or equal to 200 mt, based on observer data for 1991-2003.

**The SSC recommends that future analyses of alternative 5B options include, if possible, overlays of coral and sponge catch data and coral and sponge areas previously identified by the industry for each of the sub-options. Further, the analysis should include an overlay with specific areas recently identified to contain endemic species and areas of high diversity. This would help the evaluation of the ability of the alternatives to meet the purpose of the action. The SSC recommends that GIS maps be provided that clearly display differences in area coverage between each sub-option to aid comparison among sub-options. The SSC recommends that the option proposed by Oceana and the option reflecting industry input go forward as separate alternatives (e.g. 5b and 5c).**

#### ***C-4b. Review HAPC process***

The SSC notes the difficulty in evaluating current proposals in a consistent manner following established criteria. **The SSC recommends that rating criteria be presented to the SSC for review prior to releasing the RFP. These criteria should be made available to the public when RFP is released.**

#### ***C-4c. Review proposed Dixon Entrance HAPC area***

No comments.

#### **C-6 Observer Program**

The SSC received a report on the preliminary draft of the EA/IRFA for a fishery management plan amendment to establish a new program for observer procurement and deployment in the North Pacific from Kent Lind and Nicole Kimball. Public testimony was given by Robert Mikol of Ocean Logic.

The report contains expanded alternatives that include implementation of the program to the BSAI and GOA instead of just the GOA. The SSC commended the preparers on providing clear statements of the need for action and problems with the current observer program.

The following is a list of issues that should be addressed in the document. First, the next draft should include a detailed discussion of the benefits that would arise from implementation of the alternatives being considered. It was clear from the needs statement that the new program would be implemented to address data quality issues and bias in estimates of catch and bycatch that are thought to exist in the present program. However, there was no mention of the possible beneficial effects resulting from a reduction in the levels of uncertainty and bias in fishery catches.

Second, there should be a section in the document that discusses how government operating costs will be affected by the various alternatives. For example, the check-in/check-out system would impose considerable costs on the agency responsible for program implementation. Marginal costs of implementation need to be identified, as well as, who would pay for these costs.

Third, the document would benefit from more detail and examples of implementation issues. For example, what kind of algorithm would be used to allocate coverage to tier 3 and 4 vessels? Calculations could be run on 2004 data to show how different components of the fleet are going to be impacted by the alternatives. Other examples could be given as to the types of instances in which 200% vessel coverage might be reduced and what would trigger increases in the level of coverage in the 30% vessels.

Fourth, the document would benefit from an analysis of the current level of bias in data from the segment of the fleet with only 30% coverage. This would be useful as a baseline against which expected improvements to the program, and hence, the success of the new program can be judged. The SSC provided suggestions on an experimental approach to achieve this in minutes from the February 2003 meeting, and staff are referred to those. The gist of the suggestions was based on the expectation that observed trips are probably not representative of unobserved trips both in terms of fishing locations and fishing behavior. The suggestions included conducting the experiment as part of the new program, with some trips selected by fishers and some by NMFS. This would address the biased location issue. To address the biased behavior, a second aspect was to have extended periods of 100% coverage with the idea that observed vessels would eventually be more likely to behave as if unobserved. The SSC notes that the suggested experimentation would mostly be a revision and extension of current coverage, and that this would reduce the added cost of such experimentation.

Finally, Congressional action required to implement the program should be discussed. Overtime and hazard pay issues should also be discussed.

The SSC believes that incorporation of the items identified above will be important for the evaluation of the overall benefits and costs of the new observer program, as well as, the distribution of costs and benefits.

#### **D-1(a) AI Special Management Area**

The SSC received the staff presentation from Diana Evans and heard public testimony from Donna Parker (Arctic Storm). The staff prepared an excellent and informative discussion paper on future management alternatives for the Aleutians, including a special management area within the BSAI FMP, a separate FMP for the Aleutian Islands, or a fishery ecosystem plan. The motivation for this paper is the recurrent focus of management issues in the Aleutian Islands, including Steller sea lions, pollock stock issues, the pollock allocation to the Aleut Corporation, the discovery of cold-water coral gardens, and issues related to habitat.

The SSC encourages further development of this discussion paper. As the paper is further developed, a statement of goals and objectives of the proposed action will have to be developed. Also, Council staff should consult with State of Alaska scientists and the USFWS for their input. To aid in selection of alternatives, Council staff should consider (1) physical factors (oceanography, climate), (2) biological factors (species ranges and abundances, life history characteristics), and (3) socio-economic factors (fishing fleets, communities, fisheries). There seems to be a change in oceanographic conditions at about 170°W, which is the current boundary of the Aleutian Islands management area. However, fishery considerations may warrant inclusion of the Fox Islands group to the east. A special volume will soon appear in the journal of Fisheries Oceanography devoted to the scientific understanding of the Aleutian Islands ecosystem. Papers from this volume may be helpful in the development of the discussion paper.

#### **D-1(b) BSAI Salmon Bycatch**

The SSC received a briefing from David Witherell (NPFMC staff) on the dramatic increase in salmon bycatch in the Pollock "B" season over the last two fishing seasons. Public testimony was provided by Karl Haflinger (SeaState). Bycatch of other salmon (nearly all chum salmon) for 2004, as of 11/15/04, is 456,885 salmon compared to the 1990-2001 annual average of 69,322 salmon; as of 11/15/04 the 2004 bycatch of Chinook salmon (62,471) has triggered ESA Section 7 consultation. In view of the magnitude

of the problem the SSC recommends a thorough review of the entire approach to salmon bycatch management in the BSAI. Some information suggests that exclusion from the salmon savings areas may be increasing rather than decreasing salmon bycatch. The SSC recommends a full analysis to verify whether this is the case. Salmon savings areas were established as fixed spatial entities whereas the marine ecosystem is inherently dynamic. In addition, the regulatory environment has changed considerably since the establishment of the savings areas. The end result is a rigid management regime when adaptive flexibility appears to be necessary. The SSC recommends that the Council consider exploring a variety of mechanisms for introducing individual vessel or vessel-pool accountability for bycatch. While previous attempts at introducing individual vessel accountability (e.g., Salmon VIP program) have suffered from operational difficulties, new options may be available under contract-type arrangements that are possible within some segments of the fishing fleet as a consequence of changes in the management environment (e.g., CDQs, AFA). In the short-term, an experimental approach may be warranted as the Council endeavors to achieve their goals for salmon bycatch management.

#### **D-1(c) Review Rockfish Management Discussion Paper**

Jane DiCosimo (NPFMC) presented an outline for a discussion paper on rockfish management developed by Council staff and the AFSC rockfish working group (RWG). Public testimony was given by Ben Entiknap (Alaska Marine Conservation Council), Gerry Merrigan (Prowler Fisheries), and Jon Warrenchuk (Oceana).

The SSC appreciates the cooperative effort given to development of the discussion paper on rockfish management and looks forward to receiving the full report as expected in February 2005. In addition, to the items listed in the outline, which includes some of the items previously requested by the SSC, the SSC requests that Council staff and the RWG include a discussion of bycatch management and, under item 5, a listing of species and the pertinent issues for each species or species groups. Also, the SSC requests that the discussion paper address the local depletion issues as previously requested by the SSC in December 2003.

#### **D-1(d) Receive Report from Non-target Species Committee**

Jane DiCosimo (NPFMC) gave a report from the non-target species committee with alternatives for amendments to the FMP to improve management of non-target species. The SSC commends the non-target species working group for its work. The SSC recommends that criteria be clearly specified by the working group in determining which species are sensitive and clearly define the threshold for which species are non-specified.

#### **D-1(e&f) Final Groundfish Specifications GOA/BSAI: General Comments**

##### **Two-year Specifications and Projections:**

Due to Amendments 48/48, groundfish specifications will now be made for the next two years instead of just one year. The Plan Teams had limited time to deal with the second year of projections and thereby used the projection tables typically available for determining overfishing and overfished condition. Fisheries for four stocks in the EBS start very early in the year (walleye pollock, Pacific cod, rock sole, and Atka mackerel), and alternative projections were prepared by Jim Ianelli (AFSC) that use more realistic projections of catch in 2005 for determining ABC in 2006. The projection of catch for pollock is the 2004 TAC minus 18,000 mt for the Aleutian Islands. For Pacific cod, the minimum of the 2004 TAC

and the 2005 ABC projection was used (which turned out to be the latter). For rock sole and Atka mackerel, the 2004 projected catch was rolled over into 2005. **The SSC concurs with the use of these alternative projections for this assessment only.**

The Plan Teams have formed a working group to come up with a standard algorithm for doing out-year projections. The SSC would like to work with this group. **It may be useful to have a workshop involving Plan Teams, SSC, NMFS, and Council staff to come up with a consistent set of standards to be used for projections of all stocks and areas.**

Gulf of Alaska Projections:

**The SSC requests that the GOA Plan Team come up with a general policy regarding updates of stock assessments in the off-year of the 2-year assessment cycle.** This year, some authors reran their models with updated catch data, while others used results from the previous stock assessment. Also, the amount and types of information presented varied between assessment chapters. A common method should be used by all stock assessment authors and the rationale for the choice should be developed by the Plan Team.

SAFE Chapter Contents:

In its review of the SAFE chapter, the SSC noted that there is variation in the information presented. Several years ago, the SSC developed a list of items that should be included in the document. The SSC requests that stock assessment authors exert more effort to address each item contained in the list. Items contained in the list are considered critical to the SSC's ability to formulate advice to the Council. The SSC will review the contents of this list at its February meeting.

#### **D-1(e) GOA Groundfish Specifications for 2005 and 2006**

##### **Walleye pollock**

This assessment updates the age-structured model with recent survey, fishery and biological information. In addition, a sensitivity analysis was conducted in which either ADF&G survey data or EIT survey data series were downweighted in the analysis to see if it had a major effect on estimates of population parameters.

Biomass as estimated by the 2004 ADF&G trawl survey (which samples a portion of the shelf in the nearshore environment) increased 48% and the 2004 Shelikof Strait survey suggested an increase of 8% in biomass over the 2003 survey. No new bottom trawl survey was done in 2004. When these data are integrated into the assessment model, results are similar to previous years: a large increase in biomass in the late 1970s and early 1980s and an overall pattern of decline since then with some increase expected in 2004 and 2005 due to the above average 1999 and 2000 year classes entering the fishery.

The model's estimate of the 1999 year class strength further declined from last year's assessment and is now believed to be just above average with high confidence. Differences among assessments are likely due to the fact that natural mortality was fixed at a conservatively low level. Actual mortality of juveniles may have been much higher because of predation from arrowtooth flounder, resulting in progressively smaller estimates of 1999 year class strength. In contrast, the estimate of 2000 year class strength has shown the opposite trend in recent assessments and is now believed to be just below average, implying lower than expected mortality. Recent surveys suggest that year classes since 2000 have been poor. **The SSC recommends that the assessment authors consider the role of arrowtooth flounder predation**

**within the assessment model, for example by using arrowtooth biomass (or estimates of predation) as a covariate in estimates of natural mortality for younger age classes.**

Of the 6 models evaluated in the assessment, model 2a is comparable to last year's preferred model and keeps survey catchability fixed at  $q=1$ . Model 1 estimates NMFS trawl survey catchability, but results in a log-likelihood that is only marginally smaller than if catchability is fixed, indicating that the available data do not justify the free estimation of  $q$ . Model 2a provides more conservative biomass estimates and **we concur with the plan team that model 2a is the best choice for reference model.**

Several aspects of conservatism are built into the assessment: (1) catchability is fixed at  $q=1$ , which results in a lower biomass estimate than an assessment that accounts for catchability, (2) there is no correction for a lower than expected proportion returning to Shelikof Strait in 2002, 2003, and 2004, and (3) a slightly more risk-averse harvest policy is used as in previous years. The stock assessment authors recommend a further downward adjustment to the harvest rate allowed under this policy by temporarily using an  $F_{50\%}$ . **The Plan Team did not see a compelling reason for this ad hoc adjustment and instead recommended setting the 2005 ABC equal to the average of the 2004 ABC and the projected 2005 yield under an adjusted  $F_{40\%}$  harvest strategy (Tier 3b). The SSC concurs, resulting in a 2005 pollock ABC for GOA waters west of  $140^{\circ}W$  of 85,190 t (excluding 910 t for PWS) and an OFL of 144,340 t and corresponding sub-area apportionments. The corresponding ABC and OFL for 2006 are 85,390 t and 103,250 t.**

The SSC concurs with the Plan Team recommendation to use a "step-up" approach, primarily as a buffer against future declines in spawning biomass and against further declines in the number of older fish in the population. These concerns are exacerbated by the large abundance of predatory arrowtooth flounder in the Gulf of Alaska.

Specific Comments to the Plan Team:

The SSC recommends that the GOA plan team develop a sound rationale for stepping-up and stepping-down ABCs when large changes occur between assessments, including a strategy to evaluate appropriate trade-offs between maximizing and stabilizing catches.

#### Eastern Gulf of Alaska

**The SSC concurs with the Plan Team recommendation for the Eastern Gulf of Alaska east of 140 degrees W. Based on biomass estimates from the 2003 bottom trawl survey (no new survey in 2004) and a Tier 5 calculation, the recommended ABC for both 2005 and 2006 is 6,520 t ( $F=0.75*M$ ) and the OFL for 2005 and 2006 is 8,690 t ( $F=M$ ) for the EYK/SEO portion.**

Specific Comments to Assessment Authors:

- p. 45, 1<sup>st</sup> paragraph: Based on cut-offs, values in the table suggest an average year class in 2003, not a weak year class.
- p. 49: The aging-error transition matrix should include a probability that both readers are off by one year in opposite directions for consistency (a maximum difference of 2 years).
- Table 1.12 should include a break-down of the different likelihood components in addition to the total log-likelihood for a full evaluation of differences among models.
- p. 53: Residual plots in Fig 1.14 – 1.16 appear to correspond to model 2a. Figure legends say model 3.

- Fig 1.21 is very difficult to read. It would be preferable to use the same style that was used for Fig 1.6 and 1.7.

### Pacific cod

For the 2005 Pacific cod assessment, the previous assessment model was applied with updated catch data. However, the assessment describes a new method for adjusting the maximum permissible ABC. Owing to uncertainty about model parameters (i.e., natural mortality rate and survey catchability) and a desire for a risk-averse harvest strategy, an adjustment has been applied since 1997 to the maximum permissible  $F_{ABC}$  to obtain a recommended  $F_{ABC}$ . For the 2000 to 2003 assessments, an adjustment factor of 87% was used, based on the ratio of the  $F_{ABC}$  to  $F_{40\%}$  in the 1999 assessment. As it has been several years since this factor has been recalibrated, the authors applied a new approach that considers the tradeoff between average yield and variability in yield (estimated as one-half the average squared first difference). This quantity is maximized when  $F_{ABC}$  is equal to 77% of the maximum permissible  $F_{ABC}$ . The SSC agrees with the Plan Team that this adjustment is appropriate for now, because risk-averse adjustments have not been recomputed since 1999. However, the SSC also agrees that this should be considered an interim approach as modifications are likely with the future development of a new cod assessment model and further analyses of this and alternative methods.

**The estimated 2005 spawning stock biomass is 91,700 t, which is above  $B_{40\%}$ , thus placing cod in tier 3a. The SSC concurs with the author's and Plan Team's recommendation to set the 2005 ABC at 58,100 t (and 51,100 t for 2006), based on a fishing mortality rate of 0.24, equivalent to 77% of the maximum permissible fishing rate ( $F_{40\%}$ ). This adjustment factor is based on the author's new method that considers a tradeoff between average yield and variability in yield. The SSC agrees with the author and Team's recommended apportionment of cod in the eastern (7%), central (57%), and western gulf (36%), which results in 4,067 (east), 33,117 (central) and 20,916 t (western) in 2005 and 3,577 (east), 29,127 (central) and 18,396 t (west) in 2006. The SSC further concurs with the OFL estimates under tier 3a of 86,200 t for 2005 (and 65,800 t) in 2006.**

#### SSC Recommendations to the Stock Assessment Authors:

- The SSC was intrigued by the stock-recruit fits for the two periods 1977-1988 and 1989-2001 and we thank the authors for including this analysis. For the 2006 assessment, the SSC asks the authors to explore whether these findings can be used to elevate the BSAI cod stock to tier 1 or 2. If it is deemed that MSY is too variable between periods to apply any MSY estimates to this stock, then next year's assessment should consider potential implications of this variability in stock productivity on estimation of the  $F_{35\%}$  and  $F_{40\%}$  reference points.
- The authors are asked to examine interannual variability in cod weight-at-length estimates (index of condition) and potential relationships with cod density, stock-recruit, or environmental conditions. Condition indices have been useful metrics in analyses of the health of Atlantic cod stocks.
- The SSC also requests that the authors provide justification for their assumption that there are no gender-based differences in length-at-age or weight-at length for Pacific cod. If there is sexual dimorphism in growth, then size-based selection in the fisheries will generate time variations in sex ratios that can have important consequences to the stock's productivity.

### Sablefish

The new assessment for the sablefish stock in the BSAI and GOA areas uses the same basic age-structured modeling approach used in recent previous assessments, with the addition of new input data



from the 2004 longline survey and from the 2003 longline survey and fishery. The survey biomass index shows decreases in 2003 and again in 2004, but both are above the low point of the series observed in 2000. The projected spawning biomass for 2005 is 37% of the estimated unfished level and is projected to decline further, with the depth of the decline largely depending on the uncertain strength of the 2000 year class.

**The SSC supports the Plan Team's recommended ABC and OFL levels for all areas and the survey-based scheme for apportioning ABC and OFL to areas.**

Area	2005		2006	
	ABC	OFL	ABC	OFL
Total	21,000 t	25,400 t	19,895 t	23,100 t
EBS	2,440 t	2,950 t	2,310 t	2,690
AI	2,620 t	3,170 t	2,480 t	2,880 t
GOA	15,940 t	19,280 t	15,105 t	17,530 t

These ABC values are the maximum permissible yield from an adjusted  $F_{40\%}$  harvest strategy.

The SSC also agrees with the Plan Team's recommended apportionment of the sablefish ABCs by area. For 2005, these ABCs are 3,570 t (SEO), 2,580 t (WYAK), 7,250 t (C), and 2,540 t (W). For 2006, these ABC apportionments are 3,383 t (SEO), 2,445 t (WYAK), 6,870 t (C), and 2,407 t (W).

The new assessment estimates the natural mortality coefficient rather than using an assumed value, but the coefficient of variation specified for the prior probability distribution ( $CV = 0.001$ ) was constraining, which implies that the estimates of uncertainty about the model results (e.g., the 5<sup>th</sup> and 95<sup>th</sup> confidence intervals depicted in Fig. 3.10) understate the true level of uncertainty.

Specific Comments to the Assessment Authors:

- The plot of the model estimates of recruitment (Fig. 3.11) shows an unusual pattern in the standard errors, with the smallest errors associated with the largest estimates of recruitment. The SSC requests that the authors double-check their calculations and the data plotting procedure that produced this figure.
- The new assessment fit a Beverton-Holt stock-recruitment relationship with log-normally distributed recruitment within the assessment model. The predicted recruitment levels are essentially constant over the range of spawning biomass values estimated by the model, which implies that this stock has extremely high resilience. The stock-recruitment relationship shown on p. 251 suggests that overcompensation may be occurring and the authors are encouraged to explore the use of a Ricker model in the assessment.
- A number of references cited in the text are missing from the reference list, including Bailey (2001), Rice (2001), and Hunt (2002).

### Flatfish

The flatfish group is partitioned for management purposes into deep-water flatfish, rex sole, shallow-water flatfish, flathead sole, and arrowtooth flounder. Deep-water flatfish consists of Dover sole, Greenland turbot and deep-sea sole and the shallow-water complex is comprised of northern and southern rock sole, yellowfin sole, butter sole, starry flounder, English sole, Alaska plaice and sand sole. This group is now being assessed on a biennial cycle and no updated information was presented for deep-water flatfish and shallow-water flatfish. This year an age-structured assessment for Dover sole, which had

been presented last year as an appendix was brought forward, updated and used for setting ABC and OFL. However, it will continue to be part of the deep-water complex for management purposes. In addition, an age-structured model for rex sole was presented for review.

The SSC commended the authors for the work to develop age-structured models for these species and reminds the authors of the SSC 2003 recommendations to consider adding more detailed ecosystem consideration information in the flatfish chapters and exploring survey catchability and temperature relationships. The need for this latter analysis is highlighted in the preliminary model for rex sole, which showed a poor fit to the 2003 survey data point and may be related to the warm bottom temperatures observed in that year. Also recommended last year was a re-evaluation of the natural mortality rates used for the tier 5 flatfish species, whose rates have not been evaluated for about 15 years. The SSC noted inconsistencies in the presentation of material in the rex and Dover sole sections. Some material in the executive summary was not presented elsewhere in the section, citations to some references at the end of the section were missing, and inconsistencies between tables of data sources and years and text describing which years of data were used. A section for data gaps and research priorities was in the Dover sole section but did not contain any material. The rex sole section would benefit from a table of survey biomass by depth zone, as was shown in the Dover sole section. Tables of trawl survey estimates need to more clearly indicate depth ranges for each survey. Some material presented on mean length-at-age was interesting and suggested the need for further exploration of the role of density-dependence in influencing these trends for Dover and rex sole. The rex sole assessment lacked description of the assumptions used regarding survey estimates for  $q$ .

**The SSC concurs with the recommendations of the plan team. The recommended 2005 and 2006 ABCs and OFLs are as follows (biomass for each year corresponds to the projection given in the SAFE report issued in the preceding year):**

Species	Year	OFL	ABC
Deep-water complex	2005	8,490	6,820
	2006	8,490	6,820
Rex sole	2005	16,480	12,650
	2006	16,480	12,650
Shallow water complex	2005	63,840	52,070
	2006	63,840	52,070
Flathead sole	2005	56,500	45,100
	2006	53,800	42,850
Arrowtooth flounder	2005	253,900	216,900
	2006	270,050	230,740

**The SSC agrees with the plan team recommendation for regional ABC apportionments, which are as follows:**

Species	Year	Western	Central	WYAK	EYAK/SEO	TOTAL
Deep water flatfish	2005	330	3,340	2,120	1,030	6,820
	2006	330	3,340	2,120	1,030	6,820
Rex sole	2005	1,680	7,340	1,340	2,290	12,650
	2006	1,680	7,340	1,340	2,290	12,650
Shallow water flatfish	2005	21,580	27,250	2,030	1,210	52,070
	2006	21,580	27,250	2,030	1,210	52,070
Flathead sole	2005	11,690	30,020	3,000	390	45,100
	2006	11,111	28,527	2,842	370	42,850
Arrowtooth flounder	2005	26,250	168,950	11,790	9,910	216,900
	2006	27,924	179,734	12,539	10,543	230,740

**Rockfish: General Considerations**

The SSC appreciates the attention given by the SAFE authors and the Plan teams to the recommendations that the SSC made last year regarding the “F40 report” by Goodman et al., the contributions to stock productivity of older female rockfish, local depletion, and the effects of disaggregation of ABCs. Recognizing that the request entails substantial ongoing work, and that the rockfish working group and Council staff have been preparing an outline of issues to address in a discussion paper on rockfish management, we provide a select list of issues here that we request attention to, pending completion and our review of the discussion paper next year.

**SSC Comments to the Assessment Authors:**

Regarding the contribution of older females to stock productivity, the SSC requests that the SAFE authors examine the consequences for rockfish management in both the BSAI and GOA. Regarding the contribution of older females to stock productivity, the SSC requests that the SAFE authors examine the consequences for rockfish management in both the BSAI and GOA. It remains uncertain if older/larger individuals contribute to stock productivity disproportionate to their biomass. This is evident in comparison of “larval viability” results in the POP BSAI assessment that indicates little or no reduction in biomass projections whereas GOA results indicate reduction in biomass projections. Nevertheless, the SSC requests that this type of management strategy evaluation be done for those species for which loss of older females is most prevalent or suspected. We also request that an evaluation of the actual degree of loss of older aged females be provided, including an evaluation of how to adjust for early fishery data where there may have been intense fishing prior to historic age collections. We encourage comparison of BSAI and GOA results.

**Pacific Ocean Perch (POP)**

The 2004 assessment is a simple update of the last year’s model incorporating revised catch estimates from 2003 (10,861 mt) and 2004 (11,800 mt) for purposes of improving projections. Several additional analyses were presented as appendices to the assessment in response to past SSC comments. These included a (1) draft manuscript from a Bayesian spawner-recruit analysis presented to the SSC in

December 2003, (2) an evaluation on the effects of "larval viability" on spawning biomass, and (3) several alternative projection strategies. The Bayesian spawner-recruit analysis suggests that the current harvest rate is reasonable. However, as noted in the past by both the SSC and authors, the resiliency of GOA POP is largely influenced by several large recruitments in the late 1980's. The SSC supports further analyses and encourages authors to explore alternative spawner-recruit analyses based on subsets of the data and contrast those with an analysis using all of the data. Regarding the analysis of the effect of selective removal of older females, the SSC commends the authors for conducting this analysis, and points to requests made above in the BSAI section.

**The SSC agrees with the Plan Team determination under Tier 3a of  $F_{ABC} = 0.060$  with 2005 ABC = 13,575 t, and the OFL (given  $F_{35\%} = 0.071$ ) is 16,266 t. The SSC supports the geographic distribution of the ABC as 2,567 t for the Western GOA, 8,535 t for the Central GOA, and 2,473 t for the Eastern GOA. 2005 OFLs are 3,076 t, 10,266 t, and 2,964 t, for those areas, respectively. Recognizing the effects of the trawl closure on harvest opportunities in the eastern area, the SSC supports the Plan Team recommendation to apportion 841 t of the Eastern section 2005 ABC to the West Yakutat area where trawling is permitted.**

The SSC also concurs with Plan Team recommendations for 2006, where ABC=13,292 t, allocated to subareas as: Western = 2,525 t; Central = 8,375 t; WYAK = 813 t; SEO = 1,579 t. 2006 OFL is 15,887 t allocated to subareas as: Western = 3,019 t; Central = 10,008 t; and Eastern = 2,860 t.

#### **Northern Rockfish**

The SSC concurs with the Plan Team determination that GOA northern rockfish falls into tier 3a, where the  $F_{ABC} = 0.056$ , ABC = 5,091 t, and the OFL (given  $F_{35\%} = 0.068$ ) is 6,050 t for 2005. Corresponding values for 2006 are ABC = 4,750 t and OFL = 5,640 t. The SSC supports the geographic apportionment of the 2005 ABC, with 808 t to the western area, 4,283 t to the central area, and only 2 t to the eastern area, which is combined with other slope rockfish in that area for orderly fishery management concerns. The 2006 ABC geographic apportionments are 775 t in the Western area, 3,995 t in the Central area, and 2 t in the Eastern area. Note that in the eastern area, 2 t of northern rockfish are combined with other slope rockfish for orderly fishery management concerns.

The 2004 assessment is an update of last year's model that incorporates recent catches from 2002 (3,713 mt), 2003 (5,343 mt) and 2004 (4,736 mt) for purposes of revising projections. The same apportionments were recommended as last year, based on survey biomass estimated proportions from the past three years.

The SSC appreciates the SAFE author's attention to SSC comments from December, 2003 and looks forward to the planned analyses regarding local depletion and the concentration of catches from just five relatively small fishing grounds, with one area ("Snakehead") producing nearly half the catch.

#### **Shortraker, Rougheye, and Other Slope Rockfish**

No survey was conducted in 2004 and biomass estimates remain unchanged. Biomass estimates for the shortraker/rougheye rockfish management group are calculated as the unweighted average of the last three trawl surveys. Data from above 100-m depth is removed to exclude juvenile fish, which are not part of the exploitable biomass. This results in an exploitable biomass of 32,723 t for shortraker, 40,281 t for rougheye and 89,460 t for "other" rockfish.

A new age-structured model for rougheye was presented in appendix 9A to the SR/RE SAFE report. The model incorporates the bottom trawl and longline survey data and two years of survey age composition

data. The SSC encourages further development of this model, but estimates of recruitment, natural mortality and catchability parameters will be problematic until more data are available. The SSC concurs with the authors that an independent ageing error matrix be constructed instead of relying on the error structure borrowed from the POP assessment.

In response to SSC concerns, the authors prepared appendix 9A to the SR/RE SAFE report detailing alternative ABCs for these species individually as well as a complex. Four separate alternatives were presented: (1) combined shortraker/rougheye ABC of 1,760 t, (2) combined shortraker/rougheye ABC based on the 2003 SSC method, (3) a combined shortraker/rougheye ABC based on the 2003 SSC method, but using a revised estimate of shortraker and rougheye catches based on Observer data and proportion applied to the shortraker ABC, and (4) separate GOA ABC's for shortraker and rougheye.

The SSC accepts Plan Team's recommendation to adopt separate ABC's for shortraker and rougheye, based on assurances from management staff that accurate species composition estimates will be available in 2005. The SSC endorses the 2005 NMFS and Alaska Longline Fisherman's Association's cooperative project to obtain information on the species catch composition. When this project is completed, the SSC encourages a thorough follow-up analyses and presentation.

**The SSC agrees with the authors' and Plan Team's determination of setting a single OFL for rougheye rockfish for the GOA of 1,531 t for both 2005 and 2006. The SSC also agrees with setting separate ABCs apportioned by area: 188 t to the Western area, 557 t to the Central area, and 262 t to the Eastern area for a total of 1,007. Apportioned ABCs for 2006 are the same values. The SSC agrees with the authors' and Plan Team's determination of setting a single OFL for shortraker rockfish for the GOA of 982 t for both 2005 and 2006. The SSC also agrees with setting separate ABCs apportioned by area: 155 t to the Western area, 324 t to the Central area, and 274 t to the Eastern area for a total of 753 t. Apportioned ABCs for 2006 are the same values.**

**The ABC determination recommended by the SAFE authors and Plan Team for "other" slope rockfish is acceptable to the SSC, such that the total 2005 ABC is 3,900 t, apportioned to the Western, Central, West Yakutat, and combined East Yakutat/SEO areas as 40 t, 300 t, 130 t, and 3,430 t, respectively. These are the same values also apply to 2006. The OFL level remains unchanged as well at 5,150 t for 2005 and 2006.**

### **Pelagic Shelf Rockfish**

The SSC notes that the dark and light forms of dusky rockfish are now formally recognized as two species. The dark species (*Sebastes ciliatus*, common name is dark rockfish) inhabit shallow water areas and the variably colored species (*Sebastes variabilis*, common name is dusky rockfish) inhabit deeper waters. Both species continue to be assessed within the pelagic shelf rockfish complex, but dusky rockfish is independently assessed in an age-structured model and dark rockfish exploitable biomass is estimated from trawl survey data. The Plan Team has recommended that dark dusky be removed from the FMP, and the SSC has previously requested a rationale for this. The SSC thanks the Plan Team for providing this rationale in their minutes for 2004, and we endorse the three points of the rationale: (1) separation at species level, (2) distribution of dark rockfish to nearshore habitats that are not specifically assessed by the GOA trawl survey, and (3) the risk of overfishing dark rockfish in local areas given the relatively high TAC for the pelagic shelf rockfish assemblage as a whole.

Substantial data enhancements were made to this year's model for light dusky rockfish because new age data became available. New information include: (1) age data from the 2000 and 2002 fisheries, (2) the

2003 survey results, (3) additional age data from the 1987-2001 surveys, (4) updated 2003 and 2004 fishery catch, and (5) 2004 fishery lengths.

The authors provided three alternative model configurations detailed in appendix 10A to the pelagic shelf rockfish SAFE report. Model alternative 1 was the same model presented in last year's assessment with a simple update of recent catches and alternative 2 included all of the new information. In response to Plan Team concerns in 2003, authors model 3 alternative down-weighted the catch time series and increased survey biomass weight to account for inaccurate catch accounting during the beginning of the fishery and provide a better fit to survey data that had showed strong positive residuals. **The SSC agrees with the Plan Team decision to use model 3 to derive biomass estimates and tier 3a calculation of FABC = F40% = 0.12. The corresponding 2005 ABC level for light dusky rockfish is 4,060 t and the OFL, where F35% = 0.148, is 5,020 t. In 2006, ABC is 3,920 t and OFL is 4,830 t.**

The SSC accepts the tier 5 ABC calculations for yellowtail, widow, and dark rockfish ( $F = 0.75M = 0.0675$ ), resulting in a combined 2005 and 2006 ABC of 497 t and OFL = 663 t ( $F = M = 0.09$ ).

The SSC agrees with the geographic apportionment of the 2005 combined pelagic shelf rockfish ABC to the Western, Central, West Yakutat, and combined East Yakutat/SEO areas as 377 t, 3,067 t, 211 t, and 898 t, respectively. Apportionment of the 2006 ABC to the Western, Central, West Yakutat, and combined East Yakutat/SEO areas is 366 t, 2,973 t, 205 t, and 871 t, respectively. This apportionment is based on a weighting scheme of the past three surveys (1999, 2001, and 2003) of 4:6:9.

Specific comments to stock assessment authors:

Catch during the early part of the fishery is suspect and the SSC recommends that the authors investigate other methods such as extrapolation from bycatch rates for estimating catch during the early part of the time series. The SSC also recommends exploration of model sensitivity to 1) alternative catch data streams and 2) fixed and age specific natural mortality rates. The SSC notes that the maturity schedule is not well estimated due to low sample size and the age error matrix is borrowed from northern rockfish assessment. Both should be priority research items and should be investigated.

### **Demersal Shelf Rockfish**

The biomass estimate for this complex is estimated from a habitat-based stock assessment based on yelloweye rockfish density derived using line transects conducted from submersibles. Computations for biomass were updated using recent fish weight data. Given the particular vulnerability of demersal shelf rockfish to overfishing, **the SSC agrees with the precautionary use of a lower F (= 0.02) than the maximum permitted (F = 0.023) under the tier 4 designation. The calculated 2005 ABC of 410 t takes into account that an estimated 10% of the available biomass is composed of species other than yelloweye. The OFL fishing mortality rate under Tier 4 is F35%=0.031. Adjusting for the 10% of other species in the complex gives an overfishing level of 640 t. ABC and OFL levels continue unchanged into 2006.**

Specific Comments to the Assessment Authors:

- The SSC appreciates the efforts by the authors to enumerate mortality in non-commercial fisheries and looks forward to seeing these estimates in future assessments, as available.
- The SSC recommends that the authors provide further analysis and estimation procedures for the 10% ABC adjustment for non-yelloweye rockfish species.

### **Shortspine Thornyhead Rockfish**

No survey information is available for this year. The 2005 and 2006 ABCs and OFLs are a rollover of 2004 specifications.

**The SSC continues to support the tier 5 calculation using the average of the two most recent survey biomass estimates,  $F = 0.75M = 0.0025$ , and  $F_{OFL} = 0.03$ . The resulting 2005 and 2006 ABC is 1,940 t and OFL is 2,590 t. The SSC concurs with the area apportionments of the ABC as 410 t, 1,010 t, and 520 t to the Western, Central, and Eastern areas, respectively.**

### **Atka Mackerel**

No assessment model has been developed for GOA Atka mackerel, which are managed under Tier 6. The 2004 catch through early November 2004 was 817 t, 35% above the 2004 TAC of 600 t. The ABCs and OFLs for 2005 and 2006 are the same as the 2004 specifications where ABC = 600 t and OFL = 6,200 t.

### **Skates**

Skates in the GOA are assessed on a biennial schedule and there are no new assessment data in 2004. The issues surrounding ABC and OFL specification continue, and revolve around the degree to which ABCs and OFL should be ascribed to individual species and geographic areas. The SAFE authors recommended separate ABCs for big and longnose skates apportioned across the three geographic areas, and gulf wide specifications for skates in the genus *Bathyraja*.

The plan team recommended that OFLs be set gulf-wide, rather than area specific, but retained the author's recommendation for area specific ABCs for the two major species.

**The SSC concurs with the plan team's recommendation as a reasonable step forward, and agrees to gulf-wide OFLs for big skates of 5,332 t, longnose skates of 3,757 t, and all other skates of 1,769 t. The SSC agrees with area specific ABCs for big skates of 727 t in the Western section, 2,463 in the Central section, and 809 t in the Eastern section. Area-specific ABCs for big skates are 66 t, 1,972 t, and 780 t in the Western, Central and Eastern areas, respectively. The gulf-wide ABC of all other skates is 1,327 t. These ABCs apply to both 2005 and 2006.**

### **Specific Comments to Assessment Authors:**

The SSC is grateful to samplers with ADF&G who collected catch data and biological samples for Kodiak landings. We encourage similar sampling of Homer landings. However, the SSC reiterates its recommendation from the December 2003 minutes:

**“that no directed fishery be allowed for skates until a data collection plan is submitted by the industry and approved by the Council. The primary data collection need is the collection of accurate skate species composition data so that harvests of big skate, longnose skate, and *Bathyraja*-species complex can be monitored relative to their individual biomass levels. Means to collect these data could include onboard observers, video recording of longline catches (perhaps using systems similar to those developed in British Columbia), logbooks, dockside sampling, or some combination of these. Also, an ability to collect representative samples of age, weight, length, and sex data is important to characterize the fishery removals from the stocks. These recommended data-collection requirements are necessary owing to the significant portion of the skate catch that is unobserved. A directed skate fishery should be allowed only if such a data collection program is approved and provided that annual bycatch needs of other fisheries have been safely accommodated.”**

## Other Species

The GOA Plan Team made a compelling argument that the TAC for other species should be changed from 5% of the TAC of all species to less than or equal to 5% for additional flexibility and conservatism. **The SSC recommends moving forward with this change but also suggests considering whether it might be possible to move directly to specifying aggregate ABC and OFL for the other species group in the GOA.**

## D-1(f) BSAI Groundfish Specifications

### Walleye Pollock

#### Eastern Bering Sea:

The EBS stock assessment for walleye pollock continues to be a world-class assessment that integrates multiple data sources in a holistic manner. The EBS stock continues to be at high levels about  $B_{msy}$  although it is likely that the population will decline in the near future. The SSC agrees with the Plan Team that the reference model (Model 1) provides the basis for estimating population parameters. The SSC further agrees that no change is needed in the harvest policy, so that ABC and OFL are set under Tier 1a. Thus, 2005 ABC is 1,960,000 mt and 2005 OFL is 2,100,000 mt. Using the Ianelli alternative projection (see our comments in the preamble, titled "D-1(e&f) Final Groundfish Specifications GOA/BSAI: General Comments"), 2006 ABC is 1,617,000 mt and 2006 OFL is 1,944,000 mt (based on a projected 2005 catch of 1,474,000 mt).

#### Bogoslof Islands:

There is no new information, so the SSC recommends a rollover of last year's Council-approved ABC and OFL under Tier 5. Thus, 2005 ABC is 2,570 mt and 2005 OFL is 39,600. The same values are to be used for 2006 as well. The SSC ABC is set lower than that for the Plan Team, based on a target biomass of 2,000,000 mt, for additional conservatism. The Council has approved this adjustment for several years.

#### Aleutian Islands:

Stock assessment authors have made a valiant effort to produce an age-structured assessment for the Aleutian Islands using the Near, Rat, Andreanof (NRA) sub-area. The assessment attempts to integrate all data sources, although there continues to be great uncertainty in stock identification for pollock in this area. Because of very low trawl survey biomass in 2004 in the area west of 174°W, the authors needed to add in survey biomass, primarily from one large tow, in the area from 174°W to 170°W to achieve model stability. At the same time, they needed to delete catches from that same area, because they may have actually been a part of the EBS or Bogoslof stock. The SSC was concerned about the uncertainties in the survey and catch data to the extent that it could not place much confidence in the stock assessment results. This is regrettable, because the SSC firmly believes that the authors are moving in the right direction in pursuing the age-structured model. Until greater confidence in the stock structure and spatial distribution of pollock in the Aleutian Islands can be obtained through additional field research, the SSC recommends continuation of the status quo approach using Tier 5. The 2005 survey estimate of pollock biomass in the Aleutians is 130,451. Thus the ABC is obtained by multiplying by 0.75 M, in which  $M = 0.3$ , resulting in a 2005 ABC of 29,400 mt. The OFL is obtained by multiplying by M, resulting in a 2005 OFL of 39,100 mt. The same values are to be used for 2006 as well.



Specific comments to assessment authors:

### EBS

- The description in the text (p. 46) and Fig 1.22 of the EBS assessment suggest that the age component of fishery selectivity is allowed to change every 3 years, which is inconsistent with model details provided in the Appendix (p. 117)
- The SSC appreciates and encourages efforts to develop more objective ways of choosing among alternative models. Other, less computer intensive model selection approaches may be explored including cross-validation approaches and bootstrap model selection with small numbers of replicates. Shao (1996, Bootstrap model selection. *J. Am. Stat. Assoc.*, 91, 655-665) provides an overview of the use of the bootstrap in model selection. Bootstrap methods can be adapted to a wide variety of modeling situations with independent and identically distributed errors, and have also been applied to autoregressive time series and other dependent data (Shao and Tu 1995, *The jackknife and bootstrap*. New York: Springer). The use of cross-validation for model selection is detailed in Zhang (1993, Model selection via multifold cross validation. *Ann. Statist.*, 21, 299-313) and Shao and Tu (1995).

### AI

- Shading is not visible in Table 6.14
- Fig 1.24 suggests some problems with the convergence of  $q$  in the model that freely estimates  $q$ , suggesting that the estimate is either unstable or that convergence is extremely slow. It is not clear which and a figure of the posterior distribution of  $q$  or results from longer MCMC chains (with different starting values) would help.

### **Pacific cod**

This year's Pacific cod stock assessment represents a substantial revision from last year's assessment. Major changes include the use of a Kalman filter approach to split the BSAI cod ABC into BS and AI components, and a revision of the assessment model to include recent age data for 1998-2003, as well as size compositions and biomass estimates from the slope surveys conducted in 2002 and 2004. The new assessment model that includes this new information is called model 2, whereas the old assessment model that does not include age data and slope survey results is model 1. The authors also illustrated differences in the stock-recruit relationship between year classes spawned during the periods 1977-1988 and 1989-2002. The authors and the Plan Team recommend model 2 for use in estimating ABC. The SSC agrees that model 2 is the better model. The SSC thanks the author's fine work to include these components and feels that these additions represent substantial improvements to the cod assessment.

The estimated 2005 spawning biomass for the BSAI stock is 295,000 t, about 3% below  $B_{40\%}$ , thus qualifying Pacific cod qualify for tier 3b. However, since 1998, ABC has been set at less than the maximum permissible ABC obtained from  $F_{40\%}$ , because of concerns about statistical uncertainty in the assessment, particularly model parameters (i.e., natural mortality and survey catchability). During 2001-2002, the recommended  $F_{ABC}$  was estimated as 87% of  $F_{40\%}$ , based on the ratio of  $F_{ABC}$  to  $F_{40\%}$  from the 1999 assessment. During 2003 and 2004, concerns about performance of the assessment model led to fixing ABC at the 2002 level of 223,000 t. Given the projected 32% reduction in spawning biomass for 2005 compared to 2004, a method other than this fixed ABC is needed for 2005. The assessment authors proposed an approach that considers the trade-off between average yield and variability in yield (estimated as one-half the average squared first difference), a quantity that is maximized when  $F_{ABC}$  is set equal to 90% of the maximum permissible  $F_{ABC}$ .

**The SSC concurs with the author's and Plan Team's recommendation to set the 2005 ABC at 206,000 t, which is 9% below the maximum permissible ABC of 227,000 t. The SSC also concurs**

with their recommended 2005 OFL level of 265,000 t, based on the tier 3b formula. Likewise, the SSC agrees with the Plan Team's recommended 2006 ABC of 195,000 t and 2006 OFL of 226,000 t. In agreeing to the use of a new method of calculating a recommended ABC for 2005 (an adjustment based on a tradeoff between yield and variability in yield), the SSC is not necessarily endorsing formal adoption of this particular approach on an ongoing basis. Over the long term, the performance of this method, as well as possible alternatives, should be evaluated. However, from a practical standpoint, the adjustment factor (0.9) is very similar to the factor (0.87) used 3-4 years ago, and it maintains the practice of setting ABC slightly below maximum permissible ABC, given some of the uncertainties in this stock assessment.

SSC Recommendations to the Stock Assessment Authors:

- The SSC was intrigued by the stock-recruit fits for the periods 1977-1988 and 1989-2002 and we thank the authors for including this analysis. For the 2006 assessment, the SSC asks the authors to explore whether these findings can be used to elevate the BSAI cod stock to tier 1 or 2. If it is deemed that MSY is too variable between periods to apply any MSY estimates to this stock, then next year's assessment should consider potential implications of this variability in stock productivity on estimation of the  $F_{35\%}$  and  $F_{40\%}$  reference points.
- The authors are asked to examine interannual variability in cod weight-at-length estimates (index of condition) and potential relationships with cod density, stock-recruit, or environmental conditions. Condition indices have been useful metrics in analyses of the health of Atlantic cod stocks.
- The SSC also requests that the authors provide justification for their assumption that there are no gender-based differences in length-at-age or weight-at length for Pacific cod. If there is sexual dimorphism in growth, then size-based selection in the fisheries will generate time-variations in sex ratios that can have important consequences to the stock's productivity.
- Lastly, the SSC requests that the assessment authors provide likelihood profiles or similar analyses that illustrate the consistency of model fits to the various input data sources. This is especially important in situations where new data sources (e.g., age data) are incorporated into an assessment model.

## **Sablefish**

The SSC's comments on the assessment for the BSAI and GOA stock are given in the GOA section above.

## **BSAI Flatfish**

### General Comments

Assessments are conducted for six individual flatfish species – yellowfin sole, Greenland turbot, arrowtooth flounder, northern rock sole, flathead sole and Alaska plaice - and for a combination "other flatfish" group. With the exception of Greenland turbot (which is discussed separately below), the Bering Sea flatfish stocks all show a common trend over the past two decades. All of these stocks peaked in biomass sometime during the mid 1980's to early 1990's and have declined slightly or held relatively stable up to the present. Survey estimates of biomass are higher for all flatfish stocks and increases ranged from 4% to 41%. Projections indicate that none of the stocks are overfished or approaching an overfished condition (this determination cannot be made for the other flatfish complex because they are managed under Tier 5). The flatfish stocks all fall under Tier 3a management as reliable point estimates

exist for  $B$ ,  $B_{40\%}$ ,  $F_{35\%}$ , and  $F_{40\%}$ . For each of these stocks, the Plan Team recommended ABCs and OFLs be set at  $F_{35\%}$  and  $F_{40\%}$ , respectively. The SSC concurs with the Plan Teams recommendations.

As part of the continuing effort to incorporate ecosystem effects, detailed examination of stock recruitment relationships were made for several flatfish stocks, specifically: flathead sole, northern rock sole, arrowtooth flounder, Alaska plaice and yellowfin sole. As part of these explorations, the assessment authors fit separate stock recruitment models to subsets of the data to examine the possible effect of a 1989 climatic regime shift. For yellowfin sole, the spawner-recruit analysis focused on the 1976-77 regime shift. If a reliable stock-recruitment relationship is found, a stock could be considered for management under Tier 1. In all cases, significantly different stock recruitment relationships were found for subsets of the data. These results appear to illustrate the non-stationarity of stock-recruitment relationships over time for Bering Sea flatfish stocks and provide the basis for questioning whether a single stock-recruitment curve adequately captures the dynamics of the stock. These stocks are excellent candidates for ongoing harvest policy investigations in a Management Strategy Evaluation framework, and the SSC looks forward to results from these analyses.

### Yellowfin Sole

The stock assessment this year is a straight-forward update of last year's assessment that incorporates new catch and survey information. For the past couple of years, the assessment has allowed catchability to differ from 1.0 by allowing a temperature effect. For this year, the temperature effect is modeled exponentially rather than linearly as in past years. The recommended OFLs and ABCs are:

	<u>2005</u>	<u>2006</u>
OFL	148,000 t	133,000 t
ABC	124,000 t	114,000 t

### Greenland Turbot

The stock assessment is a straight-forward update of last year's assessment and incorporates new catch and length frequency data from the fishery as well as updated aggregated longline survey index. Natural mortality is currently assumed to be 0.18 but auxiliary information indicates this may be too high and a full evaluation of alternative rates is forthcoming in future assessments. Although the stock qualifies for Tier 3 management, the SSC concurs with the stock assessment authors and the plan team and recommends setting the ABC at a value lower than the maximum permissible. The stock continues its longterm decline, estimated at about 9% annually in the longline survey. Recruitment continues to hover around the relatively low levels seen since the late 1970s. On the basis of these concerns, the recommendation to set  $F_{abc}$  equal to the 5-year average value of 0.07, as was done last year, was accepted. OFL is computed under Tier 3a with  $F_{OFL}=0.32$ . Area apportionments of ABC on the basis of relative survey biomass were accepted. The recommended OFLs and ABCs are:

	<u>2005</u>	<u>2006</u>
OFL	19,200 t	11,100 t
ABC	3,930 t	3,600 t

The ABC was apportioned to the Bering Sea and Aleutian Islands as follows:

	<u>2005</u>	<u>2006</u>
BS	2,720 t	2,500 t
AI	1,210 t	1,100 t

### Arrowtooth Flounder

The assessment is a straight-forward update of last year's assessment with the incorporation of new EBS shelf and slope trawl survey and 2003 and 2004 fishery data. The authors continued exploring a temperature effect on catchability but concluded that  $q$  was not freely estimable given the present level of information. An unequal sex ratio was allowed in the model this year by using a prior on the sex ratio estimated from the trawl surveys. The recommended OFLs and ABCs are:

	<u>2005</u>	<u>2006</u>
OFL	132,000 t	103,000 t
ABC	108,000 t	88,400 t

### Northern Rock Sole

This chapter has been retitled this year from rock sole to northern rock sole, reflecting the fact that two species of rock sole – northern and southern – are found in the Bering Sea. Northern rock sole are dominant, comprising an estimated 98% of commercial catch. The assessment is a straight-forward update of last year's assessment with some exploration of variability in catchability and natural mortality. Similar to other flatfish assessments, a temperature effect on catchability was explored, however, no effect was detected. Catchability was allowed to be different from 1.0, the value used in previous assessments. A prior, based on the results of a herding experiment, was used in the model and the resultant value was approximately 1.5. Natural mortality was also freely estimated in this assessment and the resultant estimate of 0.16 is lower than the value of 0.18 used for the past 11 assessments. The recommended OFLs and ABCs are:

	<u>2005</u>	<u>2006</u>
OFL	157,000 t	129,000 t
ABC	132,000 t	111,000 t

### Flathead Sole

The assessment is a straight-forward update of last year's assessment with updates in catch, survey biomass, length and age data. Additionally, the growth schedule, maturity schedule and age-length transition matrix were re-estimated. A temperature effect on catchability was again explored and a significant effect was found. The recommended OFLs and ABCs are:

	<u>2005</u>	<u>2006</u>
OFL	70,200 t	56,100 t
ABC	58,500 t	48,400 t

### Alaska Plaice

The assessment is a straight-forward update of last year's assessment with updates in catch, survey biomass, length and age data. Additionally, the growth schedule, maturity schedule and age-length transition matrix were re-estimated. A temperature effect on catchability was again explored but no

significant effect was found. The estimated age at 50% selectivity increased again in this year's assessment from 10.3 years to 10.9 years, following an increase from 8.5 years to 10.3 years in the previous year's assessment. This had the effect of greatly increasing  $F_{40\%}$  and  $F_{35\%}$  since 50% selectivity to the fishery occurs more than 2 years later than the age at 50% maturity (8.5 years). The recommended OFLs and ABCs are:

	<u>2005</u>	<u>2006</u>
OFL	237,000 t	115,000 t
ABC	189,000 t	109,000 t

### Other Flatfish Complex

This complex consists of Dover sole, rex sole, longhead dab, Sakhalin sole, starry flounder and butter sole in the EBS and Dover sole, rex sole, starry flounder, butter sole, and English sole in the AI. Starry flounder and rex sole comprised 95% of the landings in 2004. For this year's assessment 2003 catch data was updated and 2004 data included and 2004 EBS and AI trawl survey biomass estimates included. The continued evaluation of species-specific natural mortality rates that was recommended by the SSC for the past two years is still encouraged. The recommended OFLs and ABCs are:

	<u>2005</u>	<u>2006</u>
OFL	28,500 t	28,500 t
ABC	21,400 t	21,400 t

### Rockfish: General Considerations

Under the GOA section, the SSC provided some general comments apropos to GOA and BSAI rockfish stock assessment authors.

### Pacific Ocean Perch (POP)

The 2004 assessment is an update of last year's model with the addition of 2004 survey data, 2003 age composition from the AI fishery, and an update of recent catches in 2003 and 2004.

**The SSC agrees with the Plan Team and the SAFE authors that the data warrant a tier 3b calculation resulting in the OFL = 17,300 t for 2005 and 17,408 t for 2006, and ABC = 14,600 t for 2005 and 2006. The SSC agrees with the ABC area apportionment recommended by the Plan Team and SAFE authors for both 2005 and 2006: 2,920 t to the eastern Bering Sea, 3,210 t to the eastern Aleutian Islands, 3,165 t to the central Aleutian Islands, and 5,305 t to the western Aleutian Islands. ABC levels and apportionments for 2006 are the same as for 2005, but the OFL is 17,408 t.**

The SSC appreciates the efforts of the SAFE authors in providing an analysis of the effects of disproportionate contribution to productivity by old females. Requests for further analysis are provided above. The SSC also recommends the author explore alternate models that consider changes in selectivity over time and explore estimating recruitments prior to age 10.

### Northern Rockfish

In 2003, an age-structured model was used for the first time for the BSAI northern rockfish stock. The current model follows similar methodology, with new data on fisheries catch, survey estimates for 2004 and age compositions for 2003 and 2004. Citing difficulties with fitting the model, authors presented

alternative models with and without constraints on survey catchability. The SSC agrees with authors and Plan Team recommendation to use of the more conservative model with constrained catchability.

**The SSC concurs with the Plan Team that data support tier 3a calculation. The SSC agrees with the 2005 BSAI ABC of 8,260 t and OFL of 9,810 t. The 2006 BSAI ABC is 8,040 and OFL is 9,480.**

The SSC recognizes that additional genetic sampling was conducted, and we encourage the genetic analysis to be conducted in a timely manner to achieve a more solid basis for apportionment determinations.

### **Shortraker and Rougheye Rockfish**

The 2004 assessment is an update of the Kalman filter approach to estimate biomass incorporating new survey information. The SSC notes that the NMFS Regional Office and Observer Program developed a catch accounting program that now separates shortraker and rougheye rockfishes by area.

**The SSC agrees with the Plan Team and SAFE authors' recommendation for separate tier 5 calculations of ABC and OFL for shortraker and rougheye rockfishes in the BSAI area. This agreement is based on the expectation that the observer program will adequately account for catches of the individual species. The ABC and OFL levels for shortraker are 596 t and 794 t, respectively, and 223 t and 298 t for rougheye, respectively, for both 2005 and 2006. The SSC agrees with the Plan Team recommendation to set BSAI-wide quotas for each species.**

#### Comments to Assessment Authors and Regional Fishery Managers:

The SSC is sympathetic to the author's recommendation to apportion the EBS and AI areas as a precautionary measure to protect a presumptive stock structure. However, the SSC notes that the appropriate boundary for a geographic split is uncertain, and requests that the assessment authors examine recent genetic data and provide their recommendation in this regard. The SSC is also concerned with the potential for exceeding harvest specifications and requests that management closely monitor bycatch of these species.

### **Other Rockfish**

The 2004 assessment includes new survey data for the Aleutian Islands, southern Bering Sea, and eastern Bering Sea slope; updated catches in the EBS and AI; and updated length frequency data. There are 8 rockfish species within the "other rockfish" complex for the purposes of setting ABCs and OFLs with the majority of biomass from dusky and shortspine thornyhead.

The authors developed a Schaefer surplus production model and additionally provide separate tier 5 calculation for shortspine thornyheads. The authors provided tier 6 calculation for the remaining species; however, the SSC agrees with the Plan team that the biomass estimates for the remaining rockfish are unreliable. Therefore, we do not agree to splitting out SST from other rockfish in specifying ABCs, and recommend that the ABC and OFL be set for the entire "other rockfish" complex, with the OFL being set for the entire BSAI, and ABCs apportioned geographically..

**In agreement with the plan team, the SSC recognizes tier 5 calculations with reference points  $F_{ABC} = 0.75M = 0.053$ , and  $F_{OFL} = M = 0.07$ . The OFL values for both 2005 and 2006 are 1,870 t, and the ABC levels are 810 t and 590 t in the Bering Sea, and Aleutian Islands, respectively, for both 2005 and 2006.**

## Atka Mackerel

The new assessment for Atka mackerel in the Aleutian Islands uses the same age-structured modeling approach as in recent years, with the addition of catch updates, 2003 fishery age composition data, 2002 AI bottom trawl survey age composition data, and 2004 AI bottom trawl survey biomass estimates and length composition data. The survey biomass estimates indicate a steady increase since 1997, the series lowest point.

The authors explored several alternative model formulations. The SSC concurs with the recommendation by the assessment authors and the Plan Team to use the Model 4 configuration as the basis for the ABC calculations. This formulation adjusts for within-year mortality to estimate survey biomass, assumes lognormal error for the survey biomass estimates, and estimates the survey catchability coefficient (subject to moderate constraints).

The Model 4 estimates of stock biomass indicate a steep increase in biomass from 2002, resulting from recruitment of an exceptionally strong 1999 year class. The female spawning biomass is projected to be above the  $B_{40\%}$  level in 2005 but below it in 2007.

**The SSC supports the Plan Team's recommended ABC for 2005 of 124,000 t with a corresponding OFL of 147,000 t. For 2006 the SSC supports use of Ianelli's alternative projections for an ABC of 107,000 t and OFL of 127,000 t, based on an expected catch in 2005 of 63,000 t.**

**The SSC supports the survey-based scheme for apportioning ABC to areas:**

<u>Area</u>	<u>2005</u>	<u>2006</u>
EBS and Eastern Aleutians	24,550 t	21,190
Central Aleutians	52,830 t	45,580
Western Aleutians	46,620 t	40,230

These ABC values are the maximum permissible yield from an adjusted  $F_{40\%}$  harvest strategy.

The new assessment, like previous assessments, uses an assumed value for the natural mortality coefficient. This implies that the estimates of uncertainty about the model results (e.g., the 5<sup>th</sup> and 95<sup>th</sup> confidence intervals depicted in Fig. 15.15) understate the true level of uncertainty.

The new assessment fit a Beverton-Holt stock-recruitment relationship with log-normally distributed recruitment within the assessment model but with an assumed steepness parameter of 0.8. The estimated relationship had recruitment values that were essentially constant over the range of spawning biomass values estimated by the model for 1977 to 2004.

Specific Comments to the Assessment Authors:

The SSC requests that the assessment authors provide support for the assumptions that there is no sexual dimorphism in the schedules for length-at-age and weight-at-length.

## Squid and Other Species

The SSC appreciates the SAFE authors' efforts to assemble and to present reviews of life history and fishery information for the other species groups, skates, sculpins, octopus and sharks, which is helpful in assessing the tier status and evaluating the appropriate approach to specifying allowable biological catch levels.

*Squid.* The SSC agrees with the SAFE authors and Plan team that reliable biomass estimates do not exist for squid, but catch data are reliable. So, **the SSC agrees with the authors' and team's recommendations for management under Tier 6. OFL is set equal to average catch over 1978-1995, and ABC is set equal to 75% of this value. The SSC supports the recommended ABC = 1,970 mt and OFL = 2,620 mt for both 2005 and 2006.**

*Other species.* The "other species" group includes sculpins, skates, sharks, and octopi. The SSC supports the Plan team and SAFE authors' recommendation for group level specifications; however, we understand, as was true last year, that group level specifications would not be compliant with the current FMP. Further, we agree with the SAFE authors that reliable biomass estimates exist for skates and sculpins, but not for sharks and octopus. Hence, we fall back to the method used last year of calculating the other species specifications as sums of tier 5 calculations for skates and sculpins, and tier 6 calculations for sharks and octopus, and **recommend one set of ABCs and OFLs for the other species complex.**

In 1998 the SSC recommended Tier 5 procedures for specification of other species ABC involving multiplication of the natural mortality rate by estimated biomass. At the time, this shift in methodology would have indicated nearly a 4-fold increase in maximum allowable ABC. The SSC was uncomfortable with such a large increment and implemented a 10-year stair-step process to gradually change the ABC. We are currently in the 7<sup>th</sup> year of this stair-step process, and 2006 will be the 8<sup>th</sup> year.

The following table shows the SSC's ABC and OFL computations for other species. For skates and sculpins, the SSC endorses the plan team's biomass estimation procedure based on the most recent 10-year average biomass estimates from the EBS shelf and AI plus the latest (2002) EBS slope survey, which was conducted just once in the last 10 years. We accept the plan teams estimates for M=0.19 for sculpins and M=0.10 for skates, (taken as the lowest values in SAFE Tables 16-19 and 16-14, respectively) and resulting determinations of OFL and maximum ABC levels. For octopi, average catch over 1992-2002 is taken from Table 16-20 of the SAFE document (no new values are available for 2003 and 2004). For sharks average catch data from 1997 to 2001 are taken from Table 6 of the appendix to the other species SAFE.

<u>Species</u>	<u>Biomass</u>	<u>M</u>	<u>OFL</u>	<u>Max ABC</u>
Sculpins	206,000	0.19	39,200	29,400
Skates	478,000	0.10	47,800	35,800
Sharks			550	412
<u>Octopus</u>			<u>371</u>	<u>278</u>
Total			87,921	65,890

The stair-step procedure computes the proportion of the difference between the 1997 other species ABC (25,800) and the current estimate of the maximum ABC (59,715) and then adds that amount to the 1997 ABC. **Thus, the SSC recommends setting the other species 2005 ABC as 53,863 t (25,800 + (7/10)\*(65,890-25,800)). The SSC recommends the 2005 OFL to be the sum of the Tier 5 and 6 estimated OFL values or 87,921 t. The corresponding ABC value (using the 8/10 stair-step) for 2006 is 57,872 t. The OFL for 2006 remains the same as in 2005.**



## **D-1 (e&f) APPENDIX C Ecosystems Considerations For 2005**

The Ecosystems Considerations for 2005 Appendix of the groundfish SAFEs provides a most useful overview of the status of the Bering Sea and Gulf of Alaska ecosystems and the environmental conditions that affect and are affected by fisheries. Over time, the Ecosystem Consideration Report has grown in size and complexity. To be most useful to the assessment authors, plan team members and the SSC in assessing the conditions in which the fished populations exist, the document needs a concise overview section that emphasizes a few critical points that may need to be taken into consideration in the development and evaluation of the SAFE documents. The Ecosystem Assessment section of the report serves this purpose but needs more work to be most useful. Elements that should be included are: major changes in ocean climate that could affect recruitment (e.g., changes in advection patterns, water temperature, or mixing events that could affect ecosystem productivity), changes in prey populations, changes in predator populations, and major changes in impacts on other or protected species, and the aggregate effects of humans on the ecosystem. In addition, where possible, analyses of the biological and fisheries implications of these changes should be provided where known. Thus, this section of the document would provide a heads-up to changes that could affect managed fish population in the short or long term, or for critical conservation issues. Additionally, when appropriate, this section could point to gaps in our ability to interpret the changes noted and the potential need for research.

The purposes of the Ecosystem Consideration Report will be best served if it does not become a repository of annual progress reports that provide information on the status of research programs, but little in the way of results and analysis of their significance. These might best be included as appendices that could inform the reader about ongoing work that addresses information needs identified in the chapter.

As a potential aid to readers, the SSC suggests developing a matrix that summarizes known effects of different ecosystem components on individual stocks. The matrix would list the current or projected future status of the most important ecosystem attributes along one axis and individual stocks along the other axis. Within the matrix, the effect of a given attribute (in its current state) on the productivity of a given stock may be summarized as 'negative', 'no effect', 'positive', or 'unknown'. This would encourage and facilitate the use of ecosystem information by stock assessment authors and highlight where information is missing.

## **D-1(e&f) GOA/BSAI SAFE Appendix D: Economic Status**

The SSC did not receive a staff presentation on the Appendix D: Economic Status of the Groundfish Fisheries off Alaska, 2003. While this document continues to provide a useful summary of the limited economic data collected regarding Alaska Region fisheries, it could become much more. Rather than simply repeating verbatim a discussion on regional economic analyses presented in last year's document, the Economics SAFE should have presented rigorous descriptions of the models used in the EA. Specifically, Appendix D should have included a detailed discussion of the assumptions and statistical properties of the model used to generate the estimates of gross revenues reported in the EA<sup>1</sup>. Similarly, Appendix D should have included a detailed discussion of the assumptions and properties of the model used as a basis for the estimates of fleet overcapacity reported in the EA. Without detailed descriptions of these models, it is difficult to judge the credibility of conclusions regarding the economic consequences of the five alternatives.

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<sup>1</sup> The brief discussion included as Appendix F was uninformative about model structure, assumptions, and statistical properties.

## D-1(e&f) Harvest Specification EA/IRFA

1. Changes to the categories of social and economic impacts listed on Page 97 do not fully encompass the suite of impacts included in the original categories. Specifically, *subsistence* does not encompass the full suite of *non-market use values*. Non-market use values include recreational, subsistence and other cultural harvests, values associated with observing fish in nature, harvest values of ecologically related species, the value of ecosystem services contributed by a sustainable fishery, and values associated with preserving the opportunity to use a fishery resource at some future time, as well as the value of preserving the opportunity to use other resources that are dependent on the resource.
2. Pages 98 & 99 of the EA provided estimated and projected revenues. Table 4.11 and the accompanying discussion should be augmented to include actual revenues where estimates of actual revenues are available. Including actual revenues will help to convey information about the coherence between model-based estimates of revenue and observed revenues. The text should be carefully edited to specify whether statements such as "From 2002 through 2004, an increasing trend in overall revenue is evident" (Page 99) refer to trends in actual revenues or merely trends in model projections.
3. The discussion on Page 103 on Operating Cost Impacts should be modified to recognize that the classification of costs into variable costs and fixed costs is not exact, but is instead dependent on the timeframe considered and expectations. It is important to recognize that fishers may incur loans to pay for capital goods over extended periods and that the associated costs may not be avoidable over the length of the loan. Similarly, operators may incur maintenance costs for fishing and processing gear even if that gear is unemployed in a particular year. Consequently, it is inappropriate to assert that variable costs are avoidable under Alternative 5.
4. The discussion page 104 suggests conclusions about changes in net revenue associated with the proposed Alternatives. However, because the Alternatives are likely to result in different costs and different revenues, it is not possible to determine whether net revenues will increase or decrease without additional information on the structure of the cost and revenue functions.
5. It is surprising that the estimates of excess capacity reported on page 108 are similar across fisheries that have been "rationalized" and those that have not. For example, despite being "rationalized" in 1998 and despite a persistence of near-record pollock stock biomass, the pollock fishery is estimated to have a higher level of excess capacity than any other fishery discussed. Moreover, there is some inconsistency between the implicit invocation of the Gordon-Schaefer bioeconomic model in the discussion of net returns (page 104) and the suggestion (page 108) that a fleet unconstrained by TAC "would" catch more than that level. Although little can be done to address these puzzles before the document is finalized, further consideration is warranted in future drafts.
6. The EA assumes that demand for fish from the BSAI/GOA is perfectly elastic, but some of the conclusions are not consistent with the assumption of perfectly elastic prices. For example, the discussion about consumer effects (pages 106 and 107) is incorrect if demand is perfectly elastic. Under the assumption of perfect elasticity, changes in the quantity of fish landed from the BSAI/GOA are too small to affect price, thus consumer surplus is invariant with respect to landings from the BSAI/GOA. Clearly, the problem here is with the assumption of perfectly elastic demand.
7. The discussion on subsistence (page 109) should be expanded to note that commercial fishing often provides the employment/income needed to support the purchase of inputs used in the pursuit of subsistence activities. Consequently, alternatives that affect employment and wages in the commercial fishery can be expected to have indirect impacts on subsistence activities.
8. Passive use values (page 110) should not be treated as synonymous with non-consumptive benefits from ecosystems. Passive use values can also arise from activities such as commercial fishing. Just as some people (even those living in distant urban centers) receive value knowing that cowboys still exist, some people find value in the sheer existence of commercial fishing.
9. The section on communities (page 111) should be broadened to recognize that communities may derive value from fishing activities that are not solely dependent on gross and net revenues derived from fishing. For example, there seems to be potential to inform the discussion of both community

impacts and impacts on subsistence by considering the on-going debate in the Pribilofs over closed areas designed to protect marine mammals. This debate clearly illustrates the breadth of non-monetary concerns that can be associated with the linkages between communities and marine resources.

10. Footnote 8 (page 101) may be incorrect regarding the magnitude of CDQ program-wide royalties. For example, at the recent "Managing Our Nation's Fisheries" conference, a presentation by a representative of a CDQ group indicated that annual royalties to the CDQ groups, collectively, were on the order of \$50 million. While this figure presumably included royalties from CDQ crab allocations in addition to CDQ finfish allocations, it would be prudent to review information used to derive the estimate of aggregate CDQ royalties reported in the EA and to reference those sources.

## Miscellaneous

While it is invaluable for the SSC to meet in conjunction with the Council meetings, our agenda is so full at these regular meetings that we are not often able to explore fundamental issues such as the role and development of multispecies models and multispecies management regimes or mechanisms to increase the sophistication and predictive power of economic and anthropological analyses of fisheries management measures. We propose that the SSC be provided with a regularly scheduled (perhaps 1x per year) opportunity to hold a 1-2 day workshop on topics of interest. This workshop could be scheduled on additional days either preceding or following a regularly scheduled meeting, or at a separate time.<sup>2</sup>

We propose that the first such meeting be scheduled in association with the February Council meeting, either on the Friday or Saturday preceding the Council meeting. We anticipate that this first meeting will provide an opportunity for the SSC members and ASFC scientists to discuss multispecies statistical models that have been included in the BSAI SAFE and alternative conceptual frameworks for multispecies modeling. At the same meeting or at a future meeting, we would have an opportunity to meet with AFSC and NMFS-AKR staff to discuss future directions for the Economics SAFE and the extension of the Economics SAFE to include analyses of other social dimensions of fisheries.

## Report from BSAI Crab Overfishing Definition Working Group

We received an oral progress report from Shareef Siddeek (ADF&G) on recent work by the Working Group to develop new overfishing definitions and harvest control rules for BSAI crab fisheries. The approach being taken is similar to that used by Clark to develop the  $F_{35\%}$  type of  $F_{MSY}$  proxy, but includes the additional feature of depensation in the spawner-recruit relationship. The WG is making good progress on developing the framework for revising the overfishing definitions.

Many BSAI crab stocks appear to undergo cycles in population size, which suggests that any overfishing definition will need to account for such natural variation. The authors should strive to develop a harvest control rule that avoids forcing the fishery into unnecessary rebuilding restrictions during naturally occurring periods of low productivity. For example, a harvest control rule that has a relatively high and fixed MSST will send such a cyclic population in and out of rebuilding. The authors will need to evaluate simulated crab populations that exhibit natural cyclic fluctuations.

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<sup>2</sup> The disadvantage of holding a meeting on Wednesday is that some potential participants may be precluded from attending because they would need to be available to the Council. The disadvantage of holding a meeting on the Friday or Saturday preceding the Council meeting is that it would require participants to be away from home over the weekend. Holding a dedicated (6<sup>th</sup>) annual meeting, while very desirable, could be difficult to schedule and would be more costly than piggybacking off one of the regularly scheduled meetings.