New England Fishery Management Council
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C.M. "Rip" Cunningham, Jr., *Chairman* | Thomas A. Nies, *Executive Director*

MEMORANDUM

DATE: August 6, 2013

TO: Groundfish Oversight Committee (OSC)

FROM: Groundfish Plan Development Team (PDT)

SUBJECT: **PDT Meeting, Plymouth, MA, July 30, 2013**

The PDT held a meeting to discuss (1) A**mendment 18,** (2) **Framework 51,** (3) **other groundfish issues**, (4) **initial discussion of potential priorities for 2014**, (5) **other business**.

Participants

NEFMC Staff	Dr. Jamie Cournane (PDT Chair), Dr. Fiona Hogan, and Rachel Feeney (A18 lead)
NMFS/NERO	Tim Cardiamenos, Michael Ruccio, Sarah Heil, Dan Caless, and Dr. Will Whitmore
NEFSC/SSB	Paul Nitschke, Chad Demarest, Dr. Chris Legault, and Kathy Sosebee
State	Sally Sherman (ME DMR) and Steven Correia (MA DMF)

1. Amendment 18

The PDT discussed progress on the tasks provided by the Committee and/or Council in June, including the Northeast Hook Fishermen's Association proposal, the Northern Economics report, developing a permit ownership cap, defining and capping private permit banks, and exploring ideas to provide the industry with access to capital. The PDT also discussed issues related to defining ownership and excessive shares in the fishery. Comments are summarized in a specific PDT memo to the Committee on Amendment 18, dated August 7, 2013.

2. Framework 51

2.1. Update on American plaice and Gulf of Maine cod rebuilding plans

Need

New rebuilding plans need to be developed for American plaice and Gulf of Maine (GOM) cod. Both stocks had original rebuilding plan end dates in 2014. However adequate progress towards rebuilding was not made, which requires new rebuilding schedules to be developed within two

years (see letter to Council from Acting Regional Administrator Dan Morris dated May 30, 2012). The Magnuson-Stevens Act states that rebuilding time periods should be as short as possible, not to exceed 10 years.

Concerns about rebuilding plans

The PDT is concerned that, for most stocks, has not occurred according to plan due to: 1) starting in the wrong place (e.g., terminal year of the assessment), 2) the difficulty of setting catch advice that is related to achieving a target fishing mortality rate, and 3) recruitment that was less optimistic than what is seen in the projections.

The PDT noted that management based on rebuilding plans and F-rebuild for groundfish has not typically worked well in the past. Groundfish stocks have not rebuilt as predicted from past projections. For most stocks, updates to data and assessment models have revealed that stock size was smaller than believed when rebuilding began, that fishing mortality was higher than expected, and/or that realized recruitment was lower than predicted. For two stocks (redfish and GB haddock), rebuilding has occurred much quicker than planned, mainly because of better than expected recruitment. Redfish had a 50 year plan due to life history constraints, but the stock rebuilt in less than 10 years. One groundfish stock (Southern New England/Mid-Atlantic (SNE/MA) yellowtail flounder) is rebuilt not because the stock biomass has increased but because biomass reference points changed in response to perceived changes in stock productivity (i.e., lower recruitment and biomass).

As rebuilding plan end dates get closer, inadequate progress toward a set biomass target can also require disproportionate cuts in catch to achieve the calculated F-rebuilding mortality rate. ABCs based on F-rebuild can dramatically change from one assessment to the next if recruitment is not realized as the rebuilding end date approaches. The enhanced PDT projection simulation work showed that long-term projections are unreliable and tend to be optimistic. ABCs based on F-rebuild are also unreliable, since F-rebuild in the near term is dependent on recruitment from longer term projections.

The PDT also discussed whether comparing short-term rebuilding, versus long-term rebuilding and comparing the outputs relative to revenues, yields and stock rebuilding would be a better approach. Another approach could be to develop biomass, trawl index, or recruitment threshold that, when exceeded, catches could be increased (e.g., to 75% F_{MSY}). Such approaches would require further discussion and development.

Revised American plaice and GOM cod rebuilding plans

Recent assessments and assumptions- American plaice was last assessed during the 2012 groundfish updates, with a terminal year of 2010 for the assessment. An estimated catch was used for the 2011 and 2012 bridge years in the projection. The SSC set 2013-2015 ABCs for American plaice using 75%F_{MSY} projections. GOM cod was assessed at SARC 55 in December 2012. Two accepted models (base and m-ramp) were used for setting constant catch ABCs for 2013-2015 by the SSC in January 2013.

The PDT proposes to develop two rebuilding plan options (see below) for each stock that meets two requirements:

1) Assume no changes in the SSC's ABC decisions.
2) F-rebuild is not allowed to be initially limiting ($75\%F_{MSY} <$ F-rebuild).

Rebuilding plan options-

1) Developed to be more conservative using a time period less than 10 years, with $75\%F_{MSY}$ still estimated to be below but closer to the F-rebuild estimate.
2) Developed based on the maximum 10-year plan.

The PDT also based all rebuilding plans on a 50% probability of success to help avoid confusion between rebuilding timelines, probability of rebuilding, and the interaction with the ABC uncertainty buffer ($75\%F_{MSY}$ or the newer constant harvest buffers). For example, reducing the rebuilding timeline has the same effect as increasing the probability of rebuilding by a certain date. Rebuilding schedules less than the maximum 10-year or rebuilding plans with a higher probability than 50% will make it more likely that F-rebuild will be used for ABC determination in the future.

Rationale- The PDT felt that one way to rebuild stocks is with uncertainty buffers on the fishing mortality rate. Basing ABCs on F-rebuild is not desirable, since it can quickly lead to dramatic reductions in the ABCs based on less accurate longer term projections as the rebuilding end date gets closer. In addition, as F-rebuild approaches zero then it is less likely to get adopted for ABC determination (e.g., SNE/MA winter flounder). ABCs based on F-rebuild are less desirable since considerable uncertainty surrounds the F-rebuild estimate due to the estimate's dependence on future recruitment, which is difficult to predict.

Results- Rebuilding schedule development was based on the latest projection for each stock that was used for estimating the ABCs and ACLs. These projections were treated more as theoretical projections since the PDT did not change bridge year catch assumptions. The PDT also assumed the ACL catch for the three years that are already in place. However, the original bridge year catch assumptions are similar to the updated PDT catch from DIMS (See Appendix B).

The proposed rebuilding plan options that meet the PDT requirements (see above) are shown in Figures 1-3. American plaice has the 7, 8, and 10-year plan options at 50% probability of success (Figure 1; Appendix A: Tables A1-A3). GOM cod has 8 and 10-year plan options at 50% probability of success (base case Figure 2, Appendix A: Tables A4-A6; m-ramp Figure 3, Appendix A: Tables A7-A9).

American plaice

Option 1- rebuild in 7 or 8 years- American plaice could rebuild in seven years with a fishing mortality that is still above $75\%F_{MSY}$. A rebuild schedule of 8 years was also calculated with similar results.

Option 2 - rebuild in 10 years- F-rebuild was estimated to be below F_{MSY} with the maximum 10 year rebuilding plan.

GOM cod

There is little difference in the rebuilding time needed under the accepted base case or m-ramp model (M=0.2 in projections) for GOM cod. However, the catches estimated in the out years and the SSB_{MSY} are different between the models. The m-ramp projection assumes a change in M back to 0.2. The SARC 55 Panel concluded that if m is currently 0.4, then it seemed more reasonable to assume that in the short-term m would remain at 0.4, rather than reduce to 0.2. However, a change back to 0.2 is required to rebuild the stock. It is not known when M will change back to 0.2 in the future for the m-ramp formulation, so interpretation and development of rebuilding plans using the m-ramp model is more difficult.

Option 1-rebuild in 8 years- GOM cod requires at least eight years for F-rebuild to remain above $75\%F_{MSY}$.

Option 2- rebuild in 10 years- F-rebuild was estimated to be below F_{MSY} with the maximum 10 year rebuilding plan.

Conclusions- The PDT discussed all the developed options for American plaice and GOM cod. The PDT discussed under what circumstances that a rebuilding time line could be extended beyond the requirement to minimize time (i.e., species generation time, recruitment, extenuating fishery considerations). Some PDT members were concerned that even under a shorter time frame (i.e., 7 versus 10 years) fishing mortality rates might not be achieved. Recent catch estimates for American plaice and Gulf of Maine cod are in the Appendix B.

The PDT also discussed concerns that under both stock projections, catches would be increasing appreciably, even in the near term. The PDT viewed this as unrealistic and an inaccurate portrayal of potential future catch streams.

Next Steps- The PDT anticipates input on these approaches from the OSC and SSC at their August meetings. Following this feedback, the PDT plans to continue working on these plans in advance on the September OSC meeting.

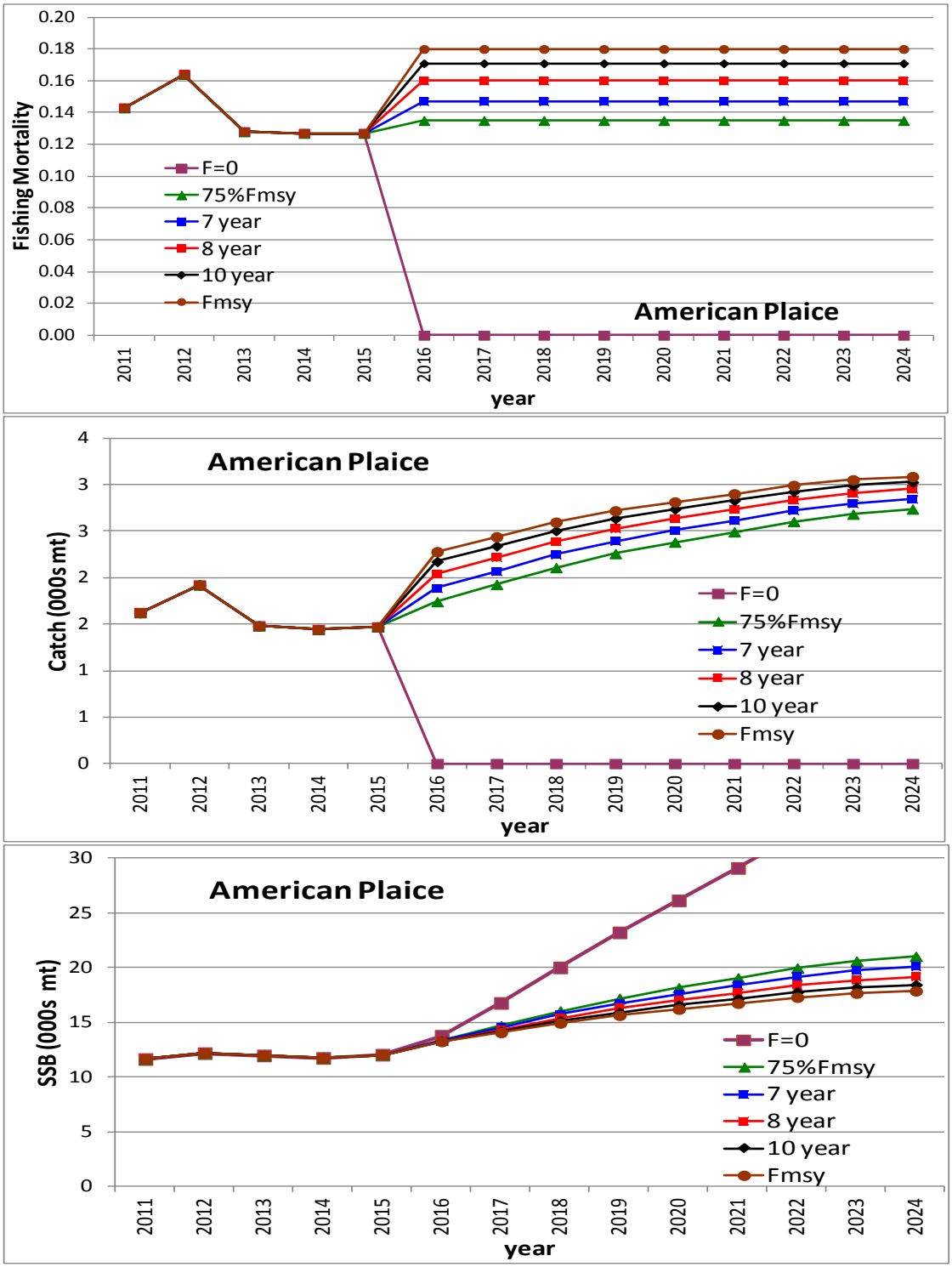

Figure 1: American plaice fishing mortality, catch, and SSB trends for F=0, 75%F_{MSY}, and F_{MSY} projections. Proposed rebuilding plans that meet the PDT requirements are shown in the 7 year, 8 year, and 10 year projections. Bridge year catch and ACL assumptions were made from 2011-2015.

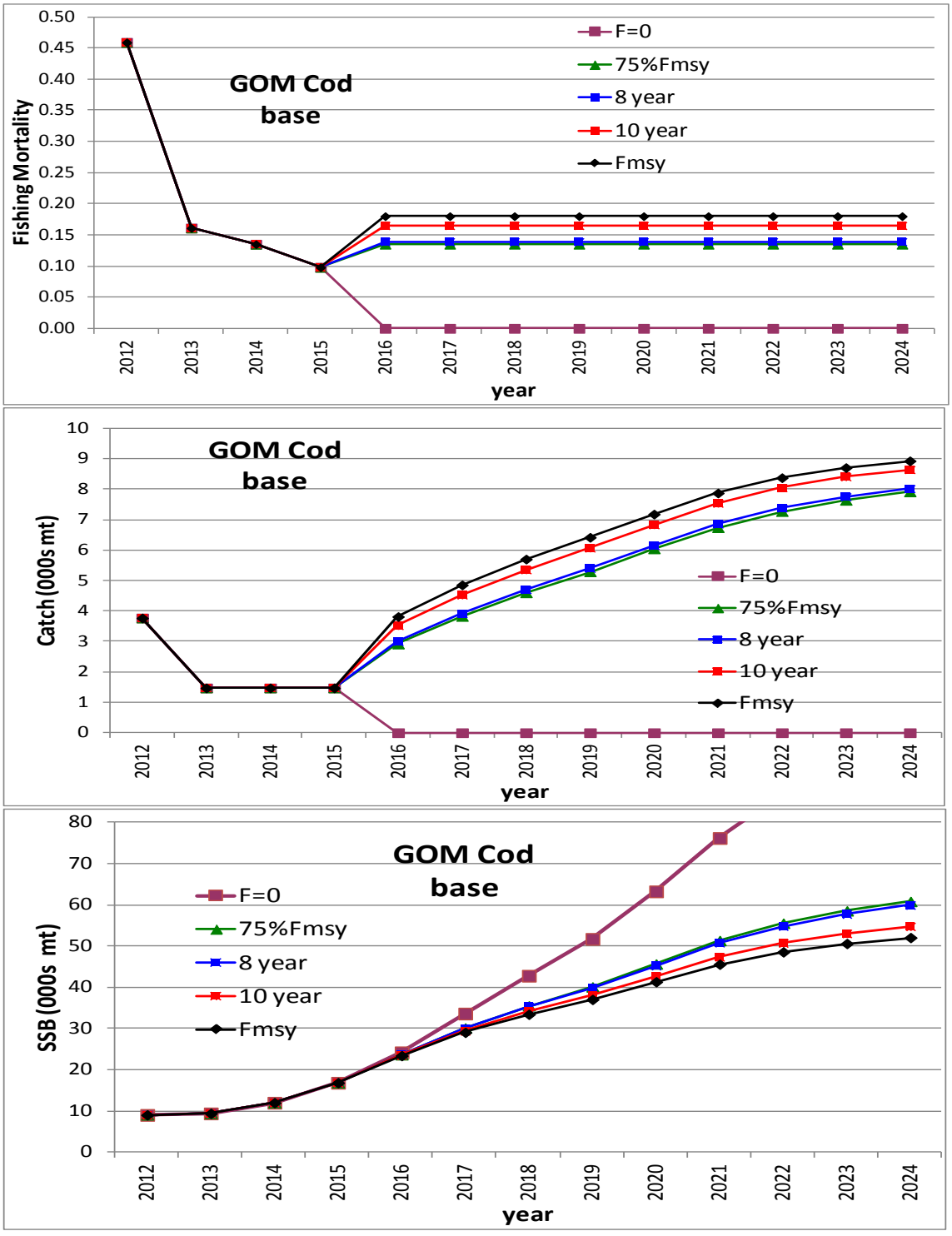

Figure 2: Gulf of Maine cod base model fishing mortality, catch, and SSB trends for F=0, 75%F_{MSY}, and F_{MSY} projections. Proposed rebuilding plans that meet the PDT requirements are shown in the 8 and 10 year projections. Bridge year catch and ACL assumptions were made from 2012-2015.

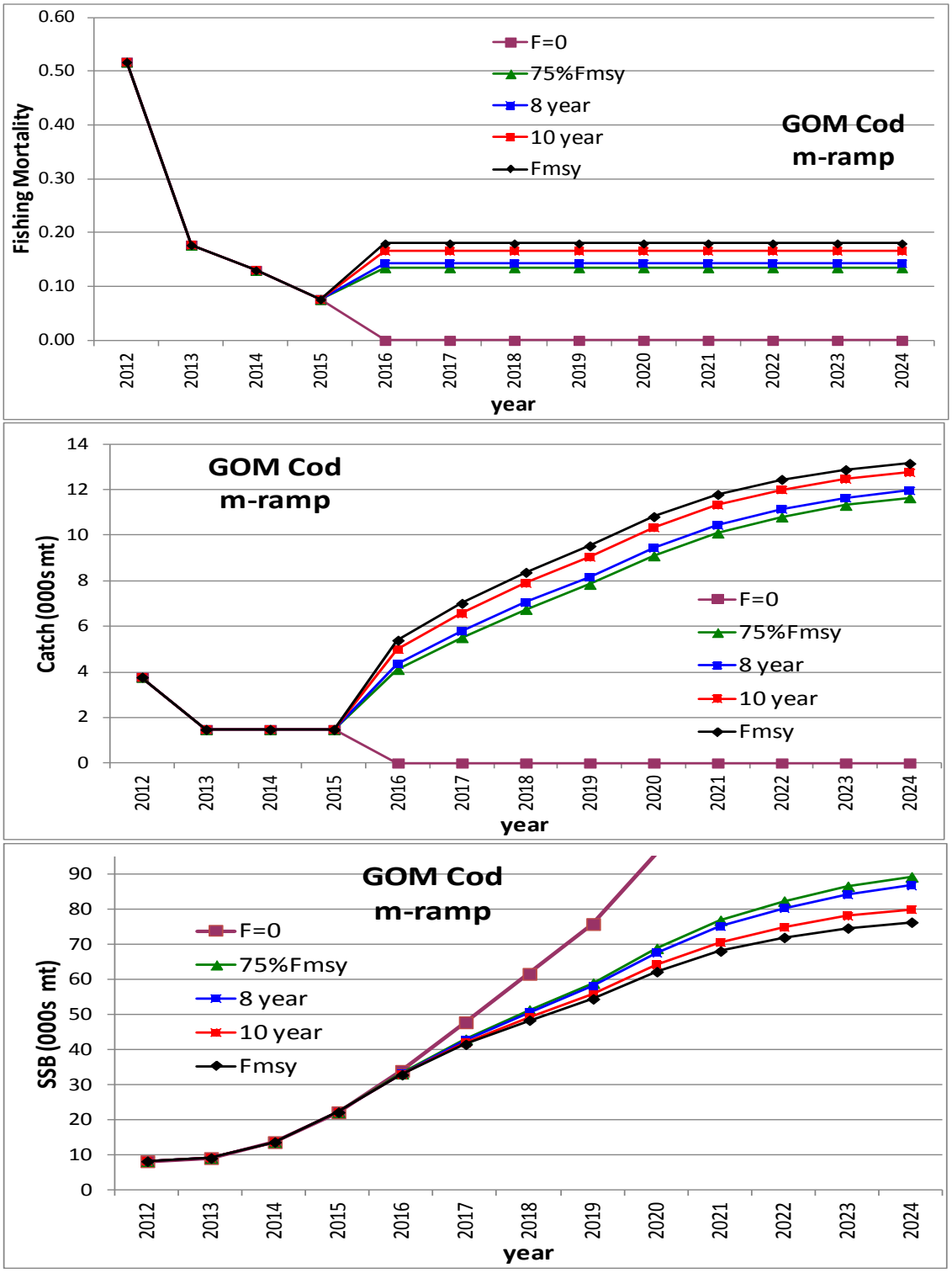

Figure 3: Gulf of Maine cod m-ramp model fishing mortality, catch, and SSB trends for F=0, 75%F_{MSY}, and F_{MSY} projections. Proposed rebuilding plans that meet the PDT requirements are shown in the 8 and 10 year projections. Bridge year catch and ACL assumptions were made from 2012-2015.

2.2. Discuss Georges Bank yellowtail flounder assessment

Dr. Chris Legault, lead assessment scientist for Georges Bank yellowtail flounder (GB YTF), was available via conference call to answer PDT questions about the assessment. The PDT was concerned about the scale of the assessment and catch advice from the assessment, considering the poor performance of past assessments. The PDT also questioned what the potential stock implications were for catch at or above 500 mt, based on the TRAC assessment. Dr. Legault explained that based on the assessment findings, coupled with the survey trends, truncated survey and fishery age structure, poor condition factors, and poor recruitment, quotas higher than 500 mt was not recommended. Some on the PDT commented that the Fref value (123 mt) from the assessment model could be the upper bound, and serve as the OFL[1]. However, the PDT discussed that this Fref quota advice (123 mt) is a very precise value from an assessment with a large retrospective pattern and poor model performance. The PDT did not recommend an OFL or ABC.

ICES WCSAM

The first World Conference on Stock Assessment Methods (WCSAM) was held in Boston in July, 2013. One component of WCSAM was a workshop that focused on simulation studies for a number of fish stocks, including GB YTF. The GB YTF assessment has a retrospective pattern; the most recent updated assessment recommends the lowest quota ever (123 mt).

A number of models were run, prior to the workshop, on the original GB YTF data with varying results. The catch advice ranged from -3,000 t to 12,000 t. The time varying natural mortality (M) model reached 1.8 in recent years and had no retrospective pattern. The random walk models corresponded with each other early in the time period, but showed more spread after the mid-1990s. The M walk model did better when the survey catchability (Q) was generated in random walk than when it was generated from M. A catastrophe term (high brief M) was not investigated to see what happened to the large 2005 year class, but the retrospective pattern appeared before 2005. Spatial aggregation could affect availability to surveys and is suggested by the occurrence of large deck tows of YTF in the Canadian survey. The changes in the Q model were large and would require a major behavioral shift, which was not considered likely. YTF lack a swim bladder, reducing the applicability of acoustic surveys. The survey/exploitation vector autoregressive model (SEVAR) model behaved well when only observation error was included; process error resulted in more divergence.

Overall, none of the models performed well. Random walk models performed poorly against themselves and other random walk models. SEVAR did well against itself with observation error only. SEVAR performed poorly against random walk or step change. Biological characteristics, such as sexual dimorphism, as causes of the assessment issues were briefly discussed; however, the stock assessment of winter flounder does not have the same issues despite having a similar

[1] Fref is currently 0.25, which is a US/Canada negotiated value. The F_{MSY} proxy was F40%, which was evaluated at GARM III to be 0.25. When the F_{MSY} proxy (F40%= 0.25) was applied to the approved benchmark assessment model, it gave the same answer as if Fref=0.25 was applied to the approved model. In addition, the approved benchmark split series model is not rho adjusted. In the past, the rho adjusted model has not been used to determine the GB yellowtail flounder OFL. Although, it has been suggested in the past to use the rho adjusted values when setting the ABC or TMGC quota.

life history and distribution. A solution to the yellowtail modeling issues (retrospective) was not solved with an alternative model at the workshop.

2.3. Update on white hake specifications

Ms. Kathy Sosebee, lead on the recent white hake assessment, was available via conference call to answer questions about the assessment. The recent assessment indicates that recruitment seem to be very stable, as long as catches do not fluctuate. Ms. Sosebee mentioned that LPUE from the otter-trawl fishery shows recent increase in white hake catches in the eastern Gulf of Maine (matching anecdotal information from fishermen).

Recent assessment and assumptions
White hake was assessed in February 2013 at SARC 56 using a statistical catch-at-age model (ASAP). White hake is not overfished and overfishing is not occurring. SSB was at 83% of the SSB_{MSY} proxy, but SSB is projected to be at SSB_{MSY} in 2013. Biological reference points were based on an F_{MSY} proxy of $F_{40\%}$ with re-sampling from a cumulative distribution function (CDF) of 1963-2009 recruitment.

The SARC panel recommended using the short term recruitment series (1995-2009) for short term projections through 2016 (Figure 4). However, there was very little difference in projected catches between the projections using the short term and the long term recruitment series in the short term (2014-2016), since it takes several years for recruitment assumption effects to enter the catch. Differences between the projected catches start diverging after 2016. Projections that assume no increase in recruitment from what was observed during the last 15 years show that catches will decline after 2016. PDT projections assume the same estimated catch in 2012 as the recent 2013 assessment.

Methods to estimate catch in 2013
The PDT considered several methods to estimate catch in 2013:

1) Assume the emergency action ABC or ACL (**4,177** mt and **3,974** mt, respectively) which was based on the SARC assessment's $75\%F_{MSY}$ projection.
2) Assume that the catch for the second half of the calendar year (July-December) is the same as the first (January-June) from the DMIS quota monitoring database (1296.7 * 2 = **2594** mt). Recent landings are distributed relatively evenly across the year. It was about 50/50 for each half year in 2011 (Table B7, white hake assessment report http://nefsc.noaa.gov/publications/crd/crd1310/partb.pdf).
3) Estimate catch that assumes the declining trend in catch will continue in 2013 (Jul-Dec CY13 catch = (Jul-Dec CY12 catch)*(May-Jun CY13 catch / May-Jun CY12 catch)). This estimated Jul-Dec 2013 catch at 1,041 to give a total catch estimate of **2,338** mt.

Trends in catch and effort
The PDT discussed possible reasons why the white hake catch trends appear to be declining, since the terminal year of the model (2011), given the recent increases in biomass in the stock assessment and projections. Comments from industry in the past indicated that white hake was constraining in 2011 and quota monitoring also suggests that most of the white hake quota was caught in 2011.

The PDT speculated that knowing the reason for the decline might be important when making assumptions in the calculation of the ABCs. If the decline is due to fishing constraints by another stock, perhaps fishing mortality reductions and stock increases should be appropriately estimated in the projections. If the declines in the catch are due to CPUE and stock reductions, perhaps the ABC will be increased erroneously.

In general, the PDT discussed which stocks were limiting fishing in 2012, since many of the groundfish stocks' ACLs were not fully utilized. Cape Cod/GOM yellowtail flounder was the only stock that appeared to be limiting (Table 1). The PDT questioned how Cape Cod/GOM yellowtail flounder constraints could limit the targeting of white hake in the central Gulf of Maine. The estimated decline in white hake catch remains a source of concern for the projections.

The PDT also discussed whether or not white hake catch and effort would continue to decline, given the 2013 increase in the ACL for white hake and the 2013 changes in the ACLs for many of the groundfish stocks.

Given these issues, the PDT decided to use the simple 2013 catch estimate (Method 2) which assumes the catch in that the second half of the year would be similar to the first half (2,594 mt) as the best estimate of 2013 catch to be used for the white hake projections. This assumes that the 2013 emergency action ABC is not limiting white hake catch and that other stocks have been limiting in the past and will continue to limit the white hake catch in 2013. The PDT raised concerns that white hake projections might be optimistic; since it appears that no other stock limited the white hake catch in 2012.

Below is a summary of catch and ABC assumptions used in the projections.

Year	Catch (mt)	ABC	Percent ABC caught
2008	1,545	(effort controls)	-
2009	1,872	(effort controls)	-
2010	2,014	2,832	71%
2011 (terminal yr)	3,039	3,295	92%
2012	2,900	3,638	80%
2013	2,594	4,177	62%

Candidate white hake ABCs

The PDT developed several candidate ABCs for 2014-2016 all based on the recommended short term recruitment series suggested by the SARC. The PDT developed candidate ABCs ranging from the straight 75%F_{MSY} ABC control rule to ABC's that consider higher uncertainty buffers based on past PDT work (enhanced PDT projection simulation work and comparisons of resulting Fs from ABCs in the 2012 groundfish update assessments) which showed that the 75% control rule ABCs did not adequately cover the uncertainty in most of the groundfish assessments. The enhanced PDT and 2012 groundfish updates showed that projections tend to be overly optimistic and the ABCs that were set from the 75%F_{MSY} control rule resulted in overfishing for most of the groundfish stocks.

Results

Projections are summarized in Tables 2-4 and Figures 5-7. All projections assume 2,900 mt in 2012 and 2,594 mt in 2013, the candidate ABC or F_{MSY} from 2014-2016 and 75%F_{MSY} or F_{MSY} from 2017 to 2025. Projections are done to 2025 to show the longer term trends and effects of the recruitment assumption.

Five candidate white hake 2014-2016 ABCs were developed by the PDT for SSC consideration:

1) The straight 75%F_{MSY} ABCs from the projections (4,642 mt in 2014, 4,713 mt in 2015 and 4,645 mt in 2016).
2) The 2014-2016 ABCs are held constant at the 2014 75%F_{msy} estimate (4,642 mt). This approach assumes that the small changes in the projections from 2014-2016 are within the error of the projections. These ABC estimates admit that the small changes are not justified and are within the error of the projections. This has negligible effects on the projections and the uncertainty buffers. Like the straight 75%F_{msy} projection this constant ABC does not result in a meaningful increase in the uncertainty buffer.
3) The 2014-2016 ABCs are held constant at the 2013 75%F_{msy} estimate (4,177 mt). This ABC does not result in a decrease from the 2013 ABC but does provide a larger uncertainty buffer relative to the 75%F_{MSY} control rule. However, this catch is slightly higher than long term catches supported by the recent recruitment over the last 15 years. These candidate ABCs are similar to the SSC's setting of the constant harvest ABC's used for other groundfish stocks (e.g., Cape Cod/GOM yellowtail flounder, witch flounder, GOM cod, and GB cod) that create a larger buffer in the out years when projections become more uncertain.
4) The 2014-2015 ABCs are held constant at the estimated long term (100 year projection) sustainable catch from fishing at F_{MSY} (3,997 mt), assuming recruitment does not increase from what was observed over that last 15 years. This approach is similar to the SSC's setting of ABCs for SNE winter flounder and SNE yellowtail founder. However for SNE winter flounder and SNE yellowtail, the long term 75%F_{MSY} estimate was used, and here, the PDT proposes using the long term catch from F_{MSY}. The resulting ABCs have a larger uncertainty buffer that avoids possible large reductions in future ABCs if recruitment does not improve (from the observed recruitment in the last 15 years).
5) The 2014-2015 ABCs are held constant at the estimated long term (100 year projection) sustainable catch from fishing at 75%F_{msy} (3,659 mt) assuming recruitment does not increase from what was observed over that last 15 years. This approach is similar to the SSC's setting of ABCs for SNE winter flounder and SNE yellowtail flounder. The resulting ABCs have the largest uncertainty buffer (from the list of PDT candidate ABCs). This approach may avoid a possible future reduction in the ABCs, if recruitment does not improve from the observed recruitment in the last 15 years. This ABC is a reduction from the 2013 emergency action 75%F_{MSY} ABC (4,177 mt), but it still is above the PDT's estimated catch for 2013 (2,594 mt).

Summary of candidate ABCs developed by the PDT:

year	(1) ABC	(2) ABC	(3) ABC	(4) ABC	(5) ABC
2014	4,642 mt	4,642 mt	4,177 mt	3,997 mt	3,659 mt
2015	4,713 mt	4,642 mt	4,177 mt	3,997 mt	3,659 mt
2016	4,645 mt	4,642 mt	4,177 mt	3,997 mt	3,659 mt

Comparison of ABCs

PDT candidate ABC (1) and (2) do not provide larger uncertainty buffers relative to the 75%FMSY control rule, which have been shown not to provide adequate buffers for preventing overfishing for most groundfish stocks in the past. PDT candidate ABCs (3) and (4) only differ from each other by 180 mt, and judging from past projection performance, this difference is likely within the error of the projections. OFL have not yet been calculated for each candidate ABC scenario but can be quickly done once an ABC had been set by the SSC. OFL calculations are relatively straight forward but time consuming due to the number of projections needed.

Stock	Cumulative Kept (mt)	Cumulative Discard (mt)	Cumulative Catch (mt)	Sub-ACL (mt)	Percent Caught
GB Cod East	37	30	68	162	42
GB Cod	1,489	133	1,622	4,605	35
GOM Cod	2,084	127	2,211	3,699	60
GB Haddock East	288	78	366	6,880	5
GB Haddock	927	271	1,198	27,438	4
GOM Haddock	213	33	246	653	38
GB Yellowtail Flounder	202	13	216	368	59
SNE/MA Yellowtail Flounder	419	44	463	760	61
CC/GOM Yellowtail Flounder	845	113	958	1,046	92
Plaice	1,368	237	1,605	3,278	49
Witch Flounder	917	66	983	1,448	68
GB Winter Flounder	1,927	5	1,932	3,387	57
GOM Winter Flounder	251	9	260	715	36
SNE Winter Flounder	1	105	106	303	35
Redfish	4,108	321	4,429	8,325	53
White Hake	2,432	38	2,471	3,283	75
Pollock	6,360	103	6,463	12,612	51
Northern Windowpane	0	130	130	129	101
Southern Windowpane	0	106	107	72	148
Ocean Pout	0	39	39	214	18
Halibut	16	45	61	36	169
Wolffish	0	30	30	73	41

Table 1: Fishing year 2012 commercial (sector and common pool catch monitoring) summary from June 14, 2013.

					(2) short R	(3) short R	(4) short R	(5) short R
	(1) short R	Short R	long R	long R	75%Fmsy	75%Fmsy	Fmsy	75%Fmsy
year	75%Fmsy	Fmsy	75%Fmsy	Fmsy	constant 2014	constant 2013	constant long term	constant long term
2012	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116
2013	0.091	0.091	0.091	0.091	0.091	0.091	0.091	0.091
2014	0.150	0.200	0.150	0.200	0.150	0.134	0.128	0.117
2015	0.150	0.200	0.150	0.200	0.148	0.130	0.124	0.112
2016	0.150	0.200	0.150	0.200	0.150	0.130	0.123	0.110
2017	0.150	0.200	0.150	0.200	0.150	0.150	0.150	0.150
2018	0.150	0.200	0.150	0.200	0.150	0.150	0.150	0.150
2019	0.150	0.200	0.150	0.200	0.150	0.150	0.150	0.150
2020	0.150	0.200	0.150	0.200	0.150	0.150	0.150	0.150
2021	0.150	0.200	0.150	0.200	0.150	0.150	0.150	0.150
2022	0.150	0.200	0.150	0.200	0.150	0.150	0.150	0.150
2023	0.150	0.200	0.150	0.200	0.150	0.150	0.150	0.150
2024	0.150	0.200	0.150	0.200	0.150	0.150	0.150	0.150
2025	0.150	0.200	0.150	0.200	0.150	0.150	0.150	0.150

Table 2: Fishing mortality from SARC 56 white hake AGEPO projections. Numbers in parentheses are candidate ABC projections described in the text above. "Short R" is a projection using short term recruitment (1995-2009) in the CDF. "Long R" is a projection using the entire (1963-2009) recruitment series. F_{MSY} = 0.2 and 75%F_{MSY} = 0.15.

					(2) short R	(3) short R	(4) short R	(5) short R
	(1) short R	Short R	long R	long R	75%Fmsy	75%Fmsy	Fmsy	75%Fmsy
year	75%Fmsy	Fmsy	75%Fmsy	Fmsy	constant 2014	constant 2013	constant long term	constant long term
2012	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900
2013	2,594	2,594	2,594	2,594	2,594	2,594	2,594	2,594
2014	4,642	6,062	4,657	6,082	4,642	4,177	3,997	3,659
2015	4,713	5,913	4,775	5,995	4,642	4,177	3,997	3,659
2016	4,645	5,623	4,829	5,859	4,642	4,177	3,997	3,659
2017	4,573	5,366	4,912	5,797	4,581	4,760	4,830	4,960
2018	4,420	5,055	4,979	5,747	4,426	4,575	4,633	4,741
2019	4,226	4,741	4,971	5,648	4,234	4,352	4,399	4,484
2020	4,098	4,538	4,998	5,613	4,107	4,198	4,233	4,298
2021	3,968	4,360	5,038	5,609	3,976	4,043	4,069	4,118
2022	3,877	4,238	5,061	5,604	3,880	3,931	3,949	3,985
2023	3,811	4,159	5,084	5,605	3,811	3,848	3,862	3,887
2024	3,767	4,105	5,094	5,602	3,768	3,794	3,803	3,822
2025	3,733	4,066	5,106	5,605	3,734	3,752	3,759	3,772

Table 3: Catch from SARC 56 white hake AGEPO projections. Numbers in parentheses are candidate ABC projections described in the text above. "Short R" is a projection using short term recruitment (1995-2009) in the CDF. "Long R" is a projection using the entire (1963-2009) recruitment series.

					(2) short R	(3) short R	(4) short R	(5) short R
	(1) short R	Short R	long R	long R	75%Fmsy	75%Fmsy	Fmsy	75%Fmsy
year	75%Fmsy	Fmsy	75%Fmsy	Fmsy	constant 2014	constant 2013	constant long term	constant long term
2012	28,886	28,886	28,886	28,886	28,886	28,886	28,886	28,886
2013	32,384	32,384	32,397	32,397	32,384	32,384	32,384	32,384
2014	35,043	34,673	35,158	34,785	35,040	35,160	35,206	35,292
2015	35,204	33,521	35,766	34,073	35,214	35,784	36,005	36,418
2016	34,790	31,999	36,514	33,667	34,873	35,891	36,287	37,026
2017	34,017	30,359	37,153	33,362	34,086	35,371	35,870	36,805
2018	33,049	28,784	37,665	33,115	33,089	34,164	34,578	35,361
2019	31,652	27,088	37,581	32,571	31,764	32,622	32,950	33,561
2020	30,821	26,047	37,784	32,373	30,884	31,541	31,795	32,270
2021	29,880	25,047	38,076	32,384	29,936	30,420	30,608	30,958
2022	29,190	24,381	38,278	32,357	29,236	29,590	29,724	29,980
2023	28,719	23,953	38,393	32,313	28,725	28,981	29,081	29,268
2024	28,389	23,646	38,447	32,323	28,403	28,589	28,659	28,791
2025	28,152	23,444	38,584	32,316	28,160	28,290	28,338	28,433

Table 4: SSB from SARC 56 white hake AGEPO projections. Numbers in parentheses are candidate ABC projections described in the text above "Short R" is a projection using short term recruitment (1995-2009) in the CDF. "Long R" is a projection using the entire (1963-2009) recruitment series.

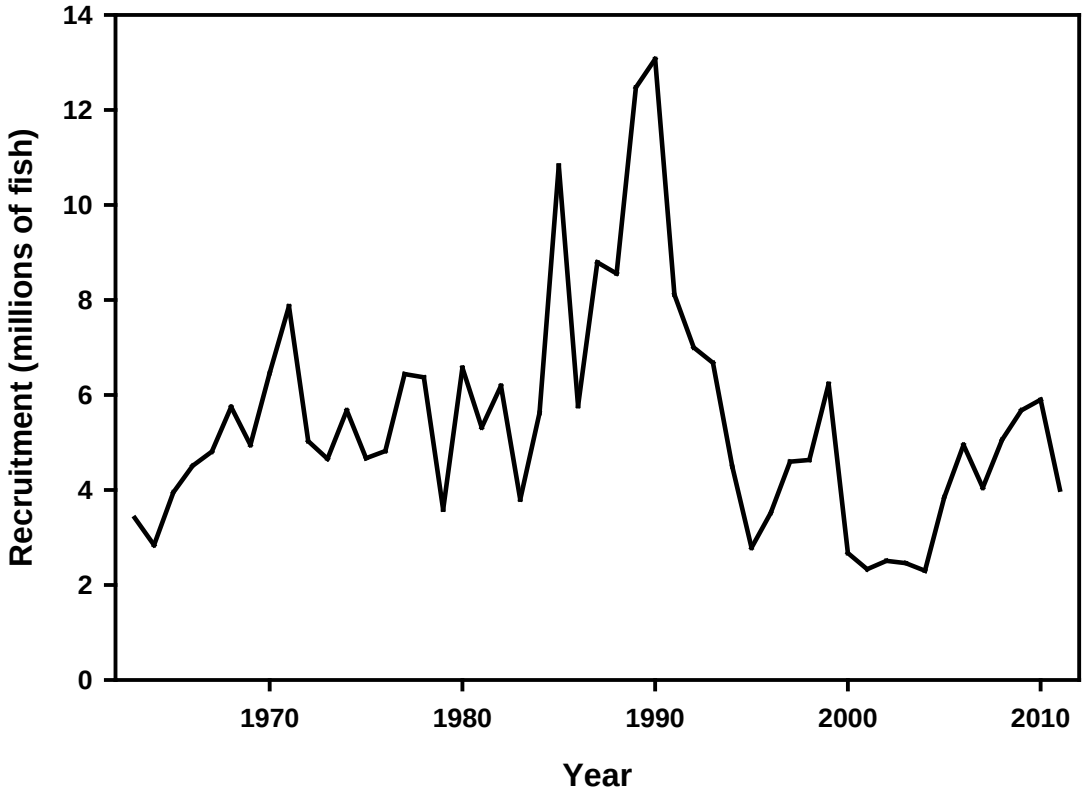

Figure 4: The time series of Gulf of Maine-Georges Bank white hake recruitment at age-1. Long term recruitment series is drawn from this series , 1963 to 2009, and the short term recruitment series is also, 1995-2009.

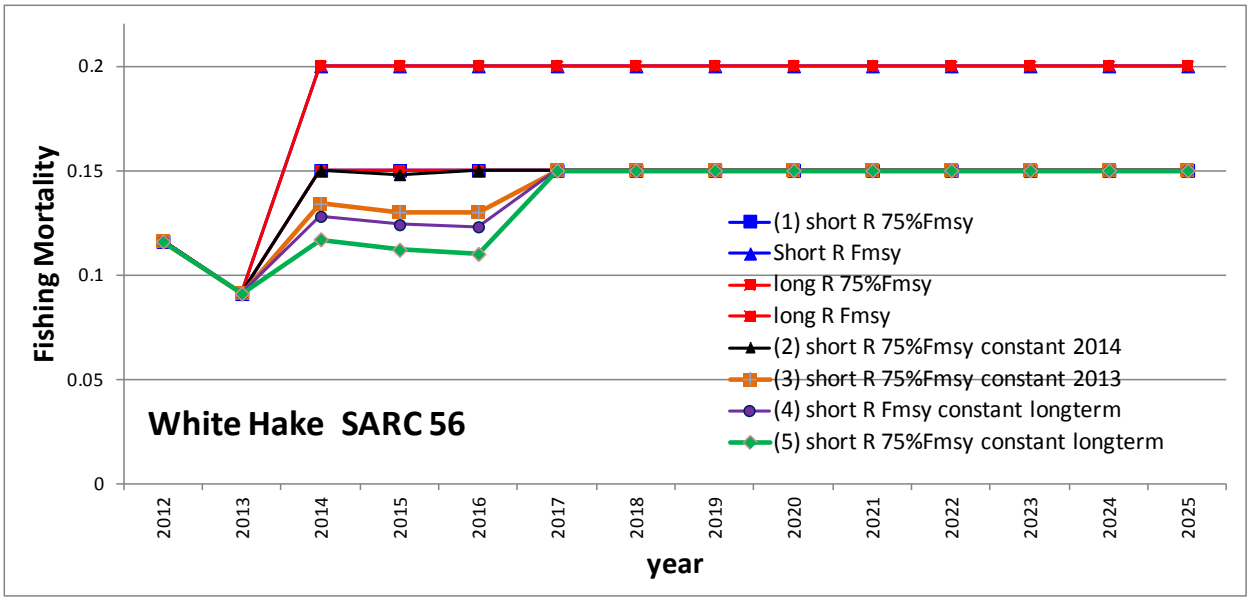

Figure 5: Fishing mortality from SARC 56 white hake AGEPO projections. Numbers in parentheses are candidate ABC projections described in the text above. "Short R" is a projection using short term recruitment (1995-2009) in the CDF. "Long R" is a projection using the entire (1963-2009) recruitment series. . F_{MSY} = 0.2 and 75%F_{MSY} = 0.15.

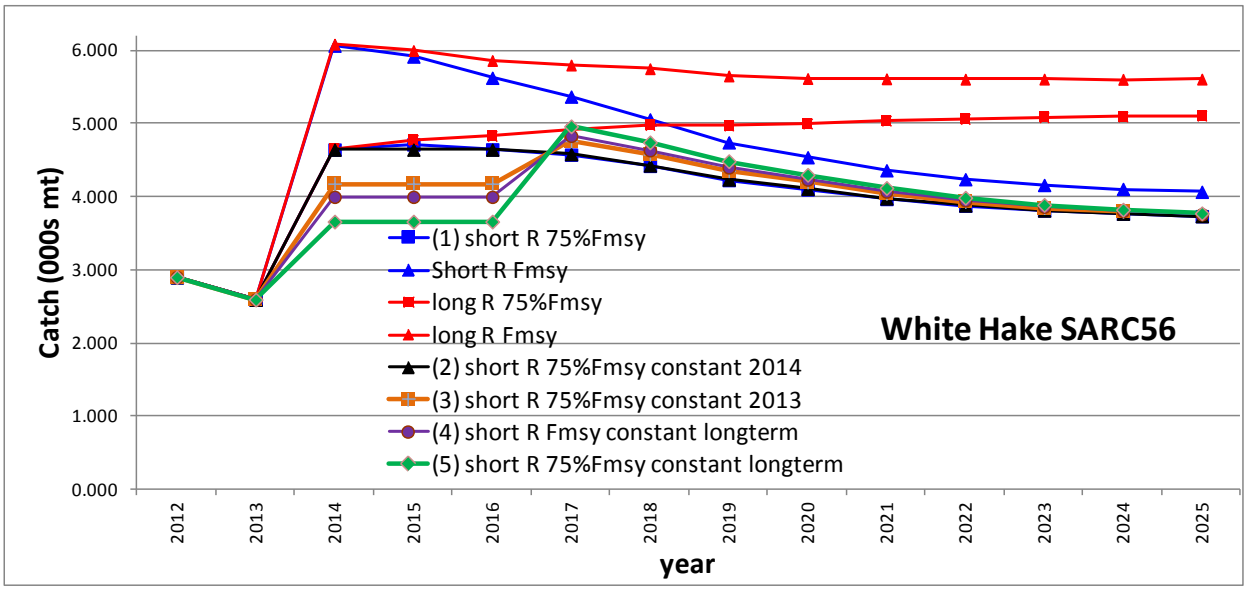

Figure 6: Catch from SARC 56 white hake AGEPO projections. Numbers in parentheses are candidate ABC projections described in the text above. "Short R" is a projection using short term recruitment (1995-2009) in the CDF. "Long R" is a projection using the entire (1963-2009) recruitment series.

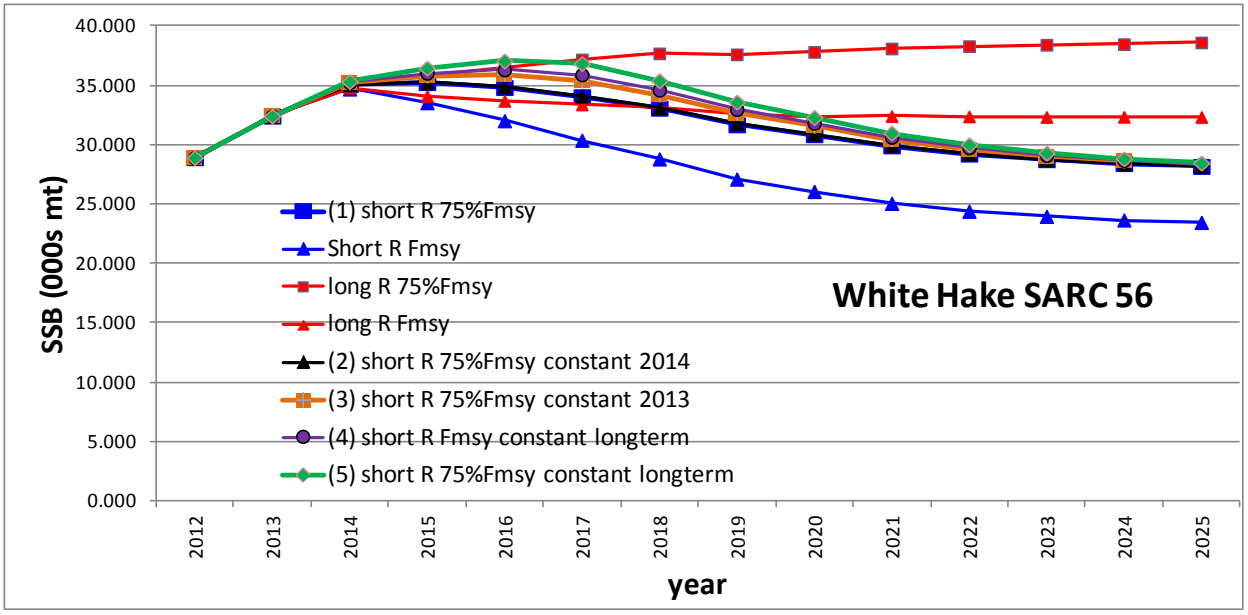

Figure 7: SSB from SARC 56 white Hake AGEPO projections. Numbers in parentheses are candidate ABC projections described in the text above. "Short R" is a projection using short term recruitment (1995-2009) in the CDF. "Long R" is a projection using the entire (1963-2009) recruitment series.

3. Other groundfish issues

3.1. Whiting, halibut, and wolffish AMs

Whiting AMs- Framework 48 adopted the sub-ACL for George Bank yellowtail flounder in the small-mesh fisheries (i.e., bottom otter-trawl with codend mesh size of less than 5 in). AMs need to be developed by FY2014 and could be retroactive if there is an overage in FY2013. There is interest in coordinating with the MAFMC, because of the squid fishery. The PDT discussed some possible AMs in a general sense (e.g., gear restrictions, area-based closures, gear-restricted areas for the sub-ACL). The PDT will continue to work on this issue.

Halibut and wolffish AMs- The total halibut quota for FY2012 was 83 mt, with 61 mt of commercial catch caught in federal waters and State waters and other sub-component catch remain forthcoming. An overage of the total ACL in 2012 would trigger gear-based AMs in 2014 (as adopted in Framework 48). This AM does not overlap with areas being considered by Habitat Omnibus Amendment 2. However, alternatives under consideration in Habitat OA2 may open areas in the southern part of the Western Gulf of Maine Closure. If that happens, halibut and wolffish catch rates could rise in those areas, and the AMs for these stocks adopted in Framework 48 may need to be revisited.

3.2. Haddock spillover

The PDT discussed recent catches of haddock by stock. Table 5 summarizes recent catch by stock area from FY2010-2012 and FY2013 catches for data reported though July 24, 2013. In general, the PDT noted that recent ACLs were not exceeded for these stocks. The PDT discussed

that it is difficult to infer why ACLs were not reached based on the information provided in the table alone. In addition, recent haddock catches by month are provided (Table 6).

Commercial Haddock Catches by Stock (mt)				
Fishing Year	Stock	Commercial sub-ACL	Total Commercial Catch	% of sub-ACL Caught
2010	GOM	825	377.7	46
	GB	40,440	8,340.2	21
2011	GOM	778	485.6	62
	GB	30,580	3,840.5	13
2012	GOM	653	246.0	38
	GB	27,438	1,197.6	4
2013	GOM	187	38.5	21
	GB	26,196	268.3	1
Note. 2013 catches for data reported through July 24, 2013.				

Table 5: Summary of recent commercial haddock catches (mt) by stock area, FY2010-2013 as of 7/24/2013.

Commercial Haddock Stock Landings by Month

metric tons of live weight

	FISHING_YEAR							
	2010		2011		2012		2013	
MONTH	GB Haddock	GOM Haddock	GB Haddock	GOM Haddock	GB Haddock	GOM Haddock	GB Haddock	GOM Haddock
5	1,385.7	23.0	984.1	33.2	234.5	23.4	87.7	8.9
6	1,146.4	14.2	920.4	25.0	107.2	14.7	42.0	13.3
7	409.8	6.9	161.5	9.9	72.2	6.3	97.2	10.7
8	595.2	21.8	177.4	12.4	60.9	9.7	0.0	0.0
9	542.1	12.2	162.3	14.5	71.7	12.4	0.0	0.0
10	362.1	15.5	149.6	23.8	52.9	7.4	0.0	0.0
11	631.6	15.7	123.0	36.1	27.2	8.1	0.0	0.0
12	874.7	11.6	294.8	16.5	58.3	7.9	0.0	0.0
1	520.7	18.1	172.2	9.3	70.7	13.8	0.0	0.0
2	108.5	19.6	65.1	190.5	40.5	33.2	0.0	0.0
3	220.6	198.5	83.8	98.2	25.0	54.2	0.0	0.0
4	1,487.6	20.7	502.5	9.3	105.6	21.6	0.0	0.0
Grand Total	**8,285.0**	**377.9**	**3,796.6**	**478.6**	**926.8**	**212.6**	**226.9**	**32.9**

Includes estimate of missing dealer reports

Source: NMFS Northeast Regional Office

Report Date: 8/6/13

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Table 6: Commercial haddock landings by stock area and month, FY2010-2013 as of 8/6/2013.

3.3. RA authority for in-season US/CA adjustment

An update will be provided at the next PDT meeting.

3.4. Disapproved reporting issues in FW48

An update will provided at the next PDT meeting.

3.5. Carryover issues

NERO personnel provided an overview of the carryover issue (which has been the subject of past PDT discussions). Framework 50 used 305(d) of MSA to clarify carryover, which remains unchanged; however, how NMFS accounts for carryover that is used in determining if accountability measures (AMs) are necessary will be handled differently beginning in FY 2014 and beyond (See Appendix C for detailed description).

Under the clarified carryover program, there are two components: A *de minimus* amount automatically provided that is not expected to cause any ACL overage and changes to catch accounting for sectors that bring forward and use more than the *de minimus* amount (up to the full 10% available).

NMFS is in the process of determining an appropriate *de minimus* amount and will provide the analysis to the PDT and Committee for review and comment. The *de minimus* amount is expected to be quite small so that it falls within the management uncertainty for the fishery and would not, if fully utilized, cause the sector sub-ACL to be exceeded. As such, it is expected to be consistent with National Standard 1 guidance.

Under the clarified program, sectors can continue to bring forward up to 10% of unused ACE from the previous fishing year. If this carryover is used in subsequent year (e.g., FY 2013 carryover used in FY 2014) there are two possible outcomes under the clarification:

- If the total fishery level ACL is <u>not</u> exceeded for the year, the carryover catch does not trigger accountability measures (AM). Essentially, sectors that use carryover ACE in this scenario benefit from underutilization of other components of the fishery and are not subject to an AM.
- If the total fishery level ACL <u>is</u> exceeded, the amount of carried over catch that contributed to the overage will be subject to the repayment AM specified in regulation. Under this scenario, the repayment may not equal the amount of carryover used, dependent on if other fishery components fully utilized available catch limits. Only in a situation where all fishery components used 100% of their sub-ACLs would sectors repay the full amount of carryover used. By ensuring accountability for any stock-level overage, this carryover approach would be consistent with National Standard 1 guidance.

NERO received comments during the Framework 50 rulemaking that the Council should be working to modify the carryover program, but NERO will continue to move forward unless the Council takes action. If further FW51 clarification is needed on this issue, the OSC and Council might want to consider discussing how best to proceed.

4. Potential priorities for 2014

The PDT discussed potential priorities for CY2014 that the Groundfish OSC might want to consider proposing to the Council. Those potential priorities with a regulatory requirement include: ABCs for the three winter flounder stocks, pollock, and US/CA stocks (Georges Bank yellowtail flounder, Eastern Georges Bank haddock, and Eastern Georges Bank cod).

The PDT suggested continuing work on Amendment 18. The Committee may want to consider further development of groundfish spawning closures proposed by the Closed Area Technical Team. On May 30, 2012, the Council was notified that Gulf of Maine haddock is approaching an overfished condition; this may become a regulatory requirement pending a future stock status update.

5. Other business

Dr. Whitmore provided an update on work on discards rates. He and others at NERO are continuing to work toward technical solutions. This was discussed on a previous PDT conference call and the work remains ongoing.

Mr. Demarest requested time at the next PDT meeting to discuss his current VMS project.

Appendix A

year	F=0	75%Fmsy	7 year	8 year	10 year	Fmsy
2011	0.143	0.143	0.143	0.143	0.143	0.143
2012	0.164	0.164	0.164	0.164	0.164	0.164
2013	0.128	0.128	0.128	0.128	0.128	0.128
2014	0.127	0.127	0.127	0.127	0.127	0.127
2015	0.127	0.127	0.127	0.127	0.127	0.127
2016	0.000	0.135	0.147	0.160	0.171	0.180
2017	0.000	0.135	0.147	0.160	0.171	0.180
2018	0.000	0.135	0.147	0.160	0.171	0.180
2019	0.000	0.135	0.147	0.160	0.171	0.180
2020	0.000	0.135	0.147	0.160	0.171	0.180
2021	0.000	0.135	0.147	0.160	0.171	0.180
2022	0.000	0.135	0.147	0.160	0.171	0.180
2023	0.000	0.135	0.147	0.160	0.171	0.180
2024	0.000	0.135	0.147	0.160	0.171	0.180

Table A1. Fishing mortality from 2012 groundfish update American plaice AGEPRO projections. Original bridge year catch (2011-2012) and ACLs (2013-2015) catch were assumed in all projections. Rebuilding projections that rebuild the stock in 7, 8 and 10 years that meet the PDT requirements are shown. Projections at F=0, 75%Fmsy, and Fmsy are also shown for comparison.

year	F=0	75%Fmsy	7 year	8 year	10 year	Fmsy
2011	1,624	1,624	1,624	1,624	1,624	1,624
2012	1,922	1,922	1,922	1,922	1,922	1,922
2013	1,482	1,482	1,482	1,482	1,482	1,482
2014	1,442	1,442	1,442	1,442	1,442	1,442
2015	1,470	1,470	1,470	1,470	1,470	1,470
2016	0	1,742	1,887	2,043	2,174	2,280
2017	0	1,927	2,069	2,219	2,342	2,440
2018	0	2,108	2,247	2,391	2,506	2,597
2019	0	2,259	2,393	2,529	2,636	2,719
2020	0	2,382	2,510	2,638	2,738	2,815
2021	0	2,493	2,617	2,738	2,831	2,902
2022	0	2,604	2,723	2,839	2,927	2,993
2023	0	2,683	2,799	2,909	2,990	3,053
2024	0	2,738	2,847	2,954	3,029	3,088

Table A2. Catch from 2012 groundfish update American plaice AGEPRO projections. Original bridge year catch (2011-2012) and ACLs (2013-2015) catch were assumed in all projections. Rebuilding projections that rebuild the stock in 7, 8 and 10 years that meet the PDT requirements are shown. Projections at F=0, 75%Fmsy, and Fmsy are also shown for comparison.

year	F=0	75%Fmsy	7 year	8 year	10 year	Fmsy
2011	11,631	11,631	11,631	11,631	11,631	11,631
2012	12,171	12,171	12,171	12,171	12,171	12,171
2013	11,961	11,961	11,961	11,961	11,961	11,961
2014	11,733	11,733	11,733	11,733	11,733	11,733
2015	12,031	12,031	12,031	12,031	12,031	12,031
2016	13,759	13,356	13,321	13,285	13,254	13,227
2017	16,760	14,681	14,511	14,327	14,174	14,052
2018	20,009	16,033	15,723	15,400	15,133	14,920
2019	23,207	17,178	16,746	16,288	15,914	15,624
2020	26,134	18,150	17,601	17,029	16,562	16,186
2021	29,102	19,047	18,386	17,717	17,163	16,729
2022	32,165	19,944	19,179	18,404	17,775	17,276
2023	34,778	20,578	19,737	18,872	18,192	17,649
2024	36,862	21,016	20,098	19,175	18,430	17,858

Table A3. Spawning stock biomass from 2012 groundfish update American plaice AGEPRO projections. Original bridge year catch (2011-2012) and ACLs (2013-2015) catch were assumed in all projections. Rebuilding projections that rebuild the stock in 7, 8 and 10 years that meet the PDT requirements are shown. Projections at F=0, 75%Fmsy, and Fmsy are also shown for comparison.

year	F=0	75%Fmsy	8 year	10 year	Fmsy
2012	0.459	0.459	0.459	0.459	0.459
2013	0.161	0.161	0.161	0.161	0.161
2014	0.135	0.135	0.135	0.135	0.135
2015	0.098	0.098	0.098	0.098	0.098
2016	0.000	0.135	0.139	0.165	0.180
2017	0.000	0.135	0.139	0.165	0.180
2018	0.000	0.135	0.139	0.165	0.180
2019	0.000	0.135	0.139	0.165	0.180
2020	0.000	0.135	0.139	0.165	0.180
2021	0.000	0.135	0.139	0.165	0.180
2022	0.000	0.135	0.139	0.165	0.180
2023	0.000	0.135	0.139	0.165	0.180
2024	0.000	0.135	0.139	0.165	0.180

Table A4. Fishing mortality from SARC 55 gulf of Maine cod base run AGEPRO projections. Original bridge year catch (2012) and ACLs (2013-2015) catch were assumed in all projections. Rebuilding projections that rebuild the stock in 8 and 10 years that meet the PDT requirements are shown. Projections at F=0, 75%Fmsy, and Fmsy are also shown for comparison.

year	F=0	75%Fmsy	8 year	10 year	Fmsy
2012	3,767	3,767	3,767	3,767	3,767
2013	1,470	1,470	1,470	1,470	1,470
2014	1,470	1,470	1,470	1,470	1,470
2015	1,470	1,470	1,470	1,470	1,470
2016	0	2,911	2,993	3,517	3,814
2017	0	3,818	3,915	4,522	4,854
2018	0	4,594	4,700	5,350	5,702
2019	0	5,283	5,394	6,064	6,417
2020	0	6,037	6,151	6,829	7,179
2021	0	6,733	6,851	7,534	7,872
2022	0	7,263	7,378	8,046	8,375
2023	0	7,631	7,749	8,404	8,706
2024	0	7,908	8,016	8,641	8,928

Table A5. Catch from SARC 55 gulf of Maine cod base run AGEPRO projections. Original bridge year catch (2012) and ACLs (2013-2015) catch were assumed in all projections. Rebuilding projections that rebuild the stock in 8 and 10 years that meet the PDT requirements are shown. Projections at F=0, 75%Fmsy, and Fmsy are also shown for comparison.

year	F=0	75%Fmsy	8 year	10 year	Fmsy
2012	8,995	8,995	8,995	8,995	8,995
2013	9,355	9,355	9,355	9,355	9,355
2014	11,949	11,949	11,949	11,949	11,949
2015	16,795	16,795	16,795	16,795	16,795
2016	24,175	23,567	23,550	23,435	23,372
2017	33,584	30,077	29,983	29,363	29,016
2018	42,760	35,449	35,273	34,074	33,398
2019	51,697	40,043	39,756	38,001	37,003
2020	63,228	45,603	45,192	42,662	41,287
2021	76,173	51,292	50,773	47,332	45,543
2022	87,114	55,489	54,800	50,697	48,536
2023	96,531	58,494	57,710	53,025	50,574
2024	104,039	60,772	59,909	54,727	52,017

Table A6. Spawning stock biomass from SARC 55 gulf of Maine cod base run AGEPRO projections. Original bridge year catch (2012) and ACLs (2013-2015) catch were assumed in all projections. Rebuilding projections that rebuild the stock in 8 and 10 years that meet the PDT requirements are shown. Projections at F=0, 75%Fmsy, and Fmsy are also shown for comparison.

year	F=0	75%Fmsy	8 year	10 year	Fmsy
2012	0.517	0.517	0.517	0.517	0.517
2013	0.177	0.177	0.177	0.177	0.177
2014	0.130	0.130	0.130	0.130	0.130
2015	0.076	0.076	0.076	0.076	0.076
2016	0.000	0.135	0.143	0.166	0.180
2017	0.000	0.135	0.143	0.166	0.180
2018	0.000	0.135	0.143	0.166	0.180
2019	0.000	0.135	0.143	0.166	0.180
2020	0.000	0.135	0.143	0.166	0.180
2021	0.000	0.135	0.143	0.166	0.180
2022	0.000	0.135	0.143	0.166	0.180
2023	0.000	0.135	0.143	0.166	0.180
2024	0.000	0.135	0.143	0.166	0.180

Table A7. Fishing mortality from SARC 55 gulf of Maine m-ramp run (m=0.2) AGEPRO projections. Original bridge year catch (2012) and ACLs (2013-2015) catch were assumed in all projections. Rebuilding projections that rebuild the stock in 8 and 10 years that meet the PDT requirements are shown. Projections at F=0, 75%Fmsy, and Fmsy are also shown for comparison.

year	F=0	75%Fmsy	8 year	10 year	Fmsy
2012	3,767	3,767	3,767	3,767	3,767
2013	1,470	1,470	1,470	1,470	1,470
2014	1,470	1,470	1,470	1,470	1,470
2015	1,470	1,470	1,470	1,470	1,470
2016	0	4,110	4,341	4,996	5,390
2017	0	5,507	5,785	6,560	7,010
2018	0	6,747	7,055	7,895	8,372
2019	0	7,846	8,172	9,043	9,532
2020	0	9,099	9,440	10,337	10,818
2021	0	10,100	10,443	11,330	11,791
2022	0	10,804	11,148	12,006	12,452
2023	0	11,316	11,644	12,466	12,879
2024	0	11,649	11,969	12,762	13,155

Table A8 Catch from SARC 55 gulf of Maine cod m-ramp run (m=0.2) AGEPRO projections. Original bridge year catch (2012) and ACLs (2013-2015) catch were assumed in all projections. Rebuilding projections that rebuild the stock in 8 and 10 years that meet the PDT requirements are shown. Projections at F=0, 75%Fmsy, and Fmsy are also shown for comparison.

year	F=0	75%Fmsy	8 year	10 year	Fmsy
2012	8,196	8,196	8,196	8,196	8,196
2013	9,094	9,094	9,094	9,094	9,094
2014	13,649	13,649	13,649	13,649	13,649
2015	22,156	22,156	22,156	22,156	22,156
2016	33,951	33,136	33,089	32,950	32,862
2017	47,825	42,975	42,713	41,963	41,522
2018	61,633	51,296	50,774	49,286	48,419
2019	75,841	58,971	58,150	55,829	54,483
2020	95,799	68,889	67,648	64,239	62,248
2021	114,755	76,902	75,240	70,707	68,130
2022	130,536	82,387	80,376	75,016	72,010
2023	143,324	86,602	84,290	78,162	74,689
2024	154,005	89,281	86,809	80,067	76,358

Table A9. Spawning stock biomass from SARC 55 gulf of Maine cod m-ramp run (m=0.2) AGEPRO projections. Original bridge year catch (2012) and ACLs (2013-2015) catch were assumed in all projections. Rebuilding projections that rebuild the stock in 8 and 10 years that meet the PDT requirements are shown. Projections at F=0, 75%Fmsy, and Fmsy are also shown for comparison.

Appendix B

Estimated CY 2011, 2012 and 2013 NE Multispecies American Plaice Catch (mt)

	ACLs and sub-ACLs; (with accountability measures (AMs))							sub-components: No AMs	
Stock	**Total Groundfish**	Commercial Groundfish*	Landings	Discard	Recreational	Herring Fishery	Scallop Fishery	State Water	Other
	A to G	A+B+C	A	B	C	D	E	F	G
Plaice									
2011	1,615.1	1,574.8	1,383.4	191.5				16.4	23.8
Jan - Jun 2011	733.7	705.8	601.1	104.7				10.4	17.5
Jul - Dec 2011	881.4	869.0	782.3	86.7				6.1	6.3
2012	1,838.2	1,709.3	1,467.5	241.7				28.0	100.9
Jan - Jun 2012	882.5	844.1	713.0	131.1				10.0	28.4
Jul - Dec 2012	955.6	865.1	754.5	110.6				18.0	72.5
2013	1,574.2	1,472.5						32.7	69.0
Jan - Jun 2013	773.5	702.8	597.4	105.4				17.2	53.5
Jul - Dec 2013 (est)	800.7	769.7						15.5	15.5

Values in live weight
*Includes estimate of missing dealer reports
Source: NMFS Northeast Regional Office
August 5, 2013: Data Dates: May 28 2013, July 31, 2013

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Sector/Common Pool:
Jan 2011 -Jun CY13 commercial data from Data Matching and Imputation System
Jul-Dec CY13 value = (Jul-Dec CY12 value)*(May-Jun CY13 value / May-Jun CY12 value)

State Water, Other Subcomponent - CY sum of monthly average FY10 and FY11 actual catch plus monthly average of FY12 and FY13 catch limit

Estimated CY 2012 and 2013 NE Multispecies GOM Cod Catch (mt)

	ACLs and sub-ACLs; (with accountability measures (AMs))							sub-components: No AMs	
Stock	**Total Groundfish**	Groundfish*	Landings	Discard	Recreational	Herring Fishery	Scallop Fishery	State Water	Other
	A to G	A+B+C	A	B	C	D	E	F	G
GOM Cod									
2012	3,636.7	3,345.0	2,669.5	143.5	531.9			240.8	50.9
Jan - Jun 2012	1,860.4	1,726.2	1,317.3	79.0	329.9			114.3	19.9
Jul - Dec 2012	1,776.3	1,618.8	1,352.2	64.6	202.0			126.5	31.0
2013	2,237.6	2,030.0			1,062.3			153.0	54.7
Jan - Jun 2013	1,505.7	1,375.0	514.3	41.4	819.3			101.5	29.2
Jul - Dec 2013 (est)	732.0	655.0			243.0			51.5	25.5

Values in live weight
*Includes estimate of missing dealer reports
Source: NMFS Northeast Regional Office
August 8, 2013: Data Dates: May 28 2013, July 31, 2013

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database

Sector/Common Pool:	Jan 2012 -Jun 2013 commercial data from Data Matching and Imputation System Jul-Dec CY13 value = (Jul-Dec CY12 value)*(May-Jun CY13 value / May-Jun CY12 value)
Recreational	- CY12: wave 6, 2011 - wave 5, 2012 landings only - CY13: sum of monthly average FY11 actual catch plus monthly average of FY12 and FY13 catch limit
State Water and Other Subcomponent	- CY sum of monthly average FY11 actual catch plus monthly average of FY12 and FY13 catch limit

Appendix C

Description of Carryover Program as clarified by NMFS in Framework Adjustment 50 (from Appendix V in the FW 50 Environmental Assessment)

3.0.3 Carryover program clarification discussion. Although NMFS believes the current accounting practice for carryovers for FY 2013 can be justified, such practice is not appropriate for FY 2014 and thereafter because there is sufficient time to alert the fishing industry of how NMFS intends to carry out the accounting for carryovers moving forward in a way that is consistent, to the extent practicable, with Magnuson-Stevens Act national standards and other provisions. This is necessary to reconcile the fundamental conflict between ensuring long-term compliance with catch limits and the need to provide at some level the safety and management benefits of carryovers. Because the Council did not specify how to account for carryovers in light of this conflict in Amendment 16 nor in proposed Frameworks 48 and 50, NMFS has determined it has the responsibility under Section 305(d) to propose regulations that ensure that the measures of Amendment 16 and Frameworks 48 and 50 can be carried out in a manner consistent with the provisions of the Magnuson-Stevens Act. NMFS has concluded it has the authority to propose such regulations because they are consistent with the authority provided the Secretary of Commerce in Section 305(d) of the Magnuson-Stevens Act. This section makes clear that the Secretary has the authority and responsibility to implement regulations to carry out existing fishery management plan provisions to ensure their function in accordance with the Act. In this case, such an approach is justified by this unusual circumstance where previously approved Council-recommended measures must now be reconciled in order to be carried out consistently with the Magnuson-Stevens Act and the National Standard guidelines NMFS proposes a two-part system to clarify carryover operations in FY 2014 and beyond. This proposed approach would provide at least a nominal (*de minimus*) amount of carryover with the potential to provide up to the full 10 percent without triggering reactive pound-for-pound accountability measure overage paybacks, dependent on the final total fishery catch relative to the total fishery ACL. The carryover accounting process used by NMFS in this proposed system is the fundamental clarification, as explained in the following paragraphs. Carryover would continue to be available only when sectors under harvest available ACE in the prior year by an amount sufficient to provide the carryover level in question. This would apply to both *de minimus* and other carryover.

First, NMFS proposes to provide an automatic *de minimus* amount of carryover. This will ensure some level of carryover that industry can count on and factor into their decision making late in the fishing year. NMFS has not yet determined what an appropriate *de minimus* amount would be. Examples may include an amount sufficient to cover an average trip's landing for the stock in question. The rationale being that if a single trip is not made late in the fishing year because of safety concerns or market conditions, the foregone catch from that trip could be carried forward. Other options include a small percentage of the following year ACE for the stock in question (e.g., 1 percent of the stock's FY 2014 ACE). This would better ensure that available *de minimus* carryover was consistent with the prevailing stock conditions and catch advice for the year in which carryover would be harvested.

The expectation is that the *de minimus* amount of carryover provided may be justified for multiple reasons. The amount provided, if taken, would not be expected to cause fishery-level ACLs to be exceeded. The analysis conducted for FY 2012 to FY 2013 carryover has illustrated

that the fishery has not operated in a manner that fully utilizes available allocations. Even with the 10 percent routinely set aside from the sector sub-ACL to provide carryover, few stocks have utilized greater than 85 percent of the available stock level ACL. As previously stated, NMFS is continuing to develop *de minimus* carryover analyses and will provide completed results to the Council's Groundfish Plan Development Team and Groundfish Committee for their review and input. It is not expected that the *de minimus* carryover amount would be re-evaluated annually; however, if the ongoing analysis indicates this would be a critical component to ensure ACLs were not likely to be exceeded, then annual review could be contemplated.

Second, NMFS would allow sectors to continue fishing beyond their initially allocated ACE up to the full carryover amount for which they are eligible based on their prior year under harvest. The maximum amount would remain 10 percent, inclusive of the automatic *de minimus* carryover. At the end of the fishing year or as soon as possible thereafter, NMFS would evaluate the total fishery catch relative to the total ACL. The amount of carryover counted against the sector ACE would depend on if the total catch is above or below the ACL. Here are the proposed accounting procedures NMFS would use:

- If the total ACL for the year is not exceeded, any carryover used would not be counted against a sector's ACE. No reactive AM would be required. Essentially, because the total ACL was not exceeded, most likely because some sectors or other fishery components did not fully utilize their respective allocations for the year, there is no consequence associated with the use of carryover. This would result in accounting that is similar to the current carryover accounting practice wherein carryover use is not directly attributed to sector ACE.
- If the total ACL for the year has been exceeded and carryover was used, NMFS would only count the amount of carryover used above the total ACL against sector ACE. Individual sectors involved with the ACL overage as a result of carryover use would be subject to pound-for-pound overage repayment specified by the FMP accountability measures. It is possible that some portion of carryover use may not be attributed to sector ACE, even if the ACL is exceeded. If other fishery components contribute to the ACL overage, sectors would only be charged for the carryover ACE used.
- In the event that a situation similar to FY 2013 occurs wherein substantial catch reductions are required, NMFS would consult with the Council about modifying the allowable carryover amount in excess of the *de minimus* level so that the total potential catch did not exceed the OFL. For FY 2013, NMFS is making such a modification using section 305(c) authority in large part due to the timing considerations and lack of adequate public notice and comment; however, in future similar situations NMFS would rely on 305(d) authority and Council recommendations to effect such changes. The rationale for so doing would be clarifying the carryover amount(s) to be consistent in a given year with the annual catch limit requirements of the Magnuson-Stevens Act.

NMFS believes this proposed approach maintains the original intent of the carryover program established by Amendment 16 and improves the consistency of the program with the intent of the annual catch limit requirements of the Magnuson-Stevens Act and NS 1 guidelines. Under this proposed clarification, sectors could continue to fish beyond their initially allocated ACE, up to the amount of their eligible carryover (up to 10 percent); however, there is some risk involved

with using carryover. If the fishery level ACL is exceeded, individual sectors that made use of carryover would face an accountability measure. This system would set a total potential catch above the fishery-level ACL; however, the insurance that accountability for any ACL overage that would result due to use of carryover use is sufficient to justify this approach.

NMFS recognizes that this proposed clarification is a substantial change to the existing carryover program. However, NMFS has been clear that beyond FY 2013, the existing carryover program requires revision to operate consistent with the Magnuson-Stevens Act, the FMP, and NS 1 guidelines. NMFS acknowledges that this general description of the proposed accounting change does not explicitly discuss the implications of leasing ACE. Leasing, as well as other complexities of the accounting system have not yet been closely evaluated by NMFS or discussed with the Council and public. As a result, NMFS is soliciting public comment on the overall conceptual approach proposed. After considering comments received, NMFS may further clarify any remaining details, either in collaboration with the Council or independently, for FY 2014 implementation. The Council may also take action to revise the carryover program for FY 2014.