

UNITED STATES OF AMERICA
+ + + + +
DEPARTMENT OF COMMERCE
+ + + + +
NATIONAL OCEANIC AND ATMOSPHERIC
ADMINISTRATION

+ + + + +
NATIONAL MARINE FISHERIES SERVICE

+ + + + +
THE HIGHLY MIGRATORY SPECIES ADVISORY PANEL
MEETING

+ + + + +
WEDNESDAY,
OCTOBER 3, 2007

+ + + + +
SILVER SPRING, MARYLAND

(This transcript was prepared from
audio tapes provided by the National Oceanic
and Atmospheric Administration.)

TABLE OF CONTENTS

| AGENDA ITEM | PAGE |
|--|------|
| Amendment 2 Presentation and Summary of Public Comments to Date | 3 |
| Public Comment on Amendment 2 | 129 |
| Amendment 2 Breakout Session | |
| Amendment 2 Report Back/Group Discussion | 174 |
| Dr. William Hogarth in Attendance to Hear Swordfish Revitalization Group Report Out | 267 |
| Amendment 1 Essential Fish Habitat Presentation | 306 |
| Group Discussion and Comment on Amendment 1 | 346 |

P R O C E E D I N G S

MS. WILSON: I am Jackie Wilson.

What we are going to do now is go through the draft Amendment 2 to the Consolidated Highly Migratory Species Fishery Management Plan. I am going to be basically giving you an overview of what we have in the proposed rule and draft environmental impact statement right now.

So the purpose of this is to give you an overview of a draft environmental impact statement, or DEIS that I will be referring to throughout the presentation and its proposed rule. This presentation is basically going to give you an overview of the current status of several shark species.

I am going to also outline the alternatives and alternative suites -- I will explain in a minute what those are -- that were analyzed in the DEIS, and I will outline the impact of the current preferred alternative suite.

1 At the end, you will see where
2 comments can be sent via mail, fax or e-mail.
3 Just so you know, the original comment period
4 was slated to end on October 10th. We are
5 going to extend that to November 2nd.

6 So there were a number of stock
7 assessments on sharks that occurred in 2005
8 and 2006. There was the large coastal shark
9 complex, which is LCS that you will see on
10 many of the slides throughout the rest of the
11 presentation.

12 The LCS assessment also assessed
13 sandbar sharks separately and black tip
14 sharks, and it separated black tips into a
15 Gulf of Mexico population and an Atlantic
16 population based on tagging studies.

17 There is also a dusky shark that
18 took place, and the Canadians did an
19 assessment on porbeagle sharks in 2005.

20 Now the large coastal shark or LCS
21 stock assessment was done according to the
22 SDAR process. That's the Southeast Data

1 Assessment and Review process. This consists
2 of three workshops that are open to the
3 public. The public can come, bring data.

4 Then there is an assessment
5 workshop that actually runs through the
6 models, and then in the review workshop the
7 assessment is peer reviewed by independent
8 reviewers, and they give basically their take
9 on how the assessment was run, if it is the
10 best available science, et cetera.

11 So during the assessment the peer
12 reviewers suggested that, due to the variation
13 in life history parameters, different catch
14 and effort abundancies that took place, it was
15 not appropriate to assess the complex, the
16 large coastal shark complex, as a whole.

17 Based on that, we are changing the
18 determination of the large coastal complex,
19 which previously was overfished with
20 overfishing, to unknown.

21 In that assessment, sandbar
22 sharks, as I mentioned before, were also

1 assessed separately. The sandbar shark
2 assessment showed that sandbar sharks are
3 overfished. The assessment also recommended
4 a total allowable catch or TAC of 220 metric
5 tons whole weight or 158 metric tons dressed
6 weight.

7 The assessment also showed that
8 overfishing was occurring for sandbar sharks.
9 So we have now made the determination that
10 sandbar sharks are overfished, and overfishing
11 is occurring.

12 Now for the black tip sharks, as I
13 mentioned, they were assessed as two separate
14 populations based on tagging studies that took
15 place that showed that these are isolated
16 populations. So the Gulf of Mexico black tip
17 sharks were assessed, and there was an
18 Atlantic population of black tip sharks that
19 were also assessed.

20 The assessment showed that black
21 tip sharks are healthy. That is, they are not
22 overfished, and overfishing is not occurring.

1 However, the assessment cannot give reliable
2 parameter estimates for the Atlantic black tip
3 population. So it was determined that it is
4 unknown for that Atlantic black tip population
5 in terms of being overfished and overfishing
6 occurring.

7 Now there was a dusky shark stock
8 assessment done in 2006. It is the first time
9 dusky sharks were actually assessed by
10 themselves, and this was done before the CR
11 process was actually in place for sharks.

12 The dusky sharks, as many of you
13 know, have been prohibited since 2000.
14 However, the assessment showed that, despite
15 this prohibition, that they are overfished,
16 with approximately 100 to 400 years for
17 rebuilding for this species, as well as
18 overfishing is occurring.

19 Finally, in 2005, the Canadians
20 did an assessment on porbeagle sharks. The
21 United States to date has not done a porbeagle
22 specific stock assessment. However, the NMFS

1 scientists reviewed the porbeagle stock
2 assessment. They deemed it to be the best
3 available science and appropriate to use for
4 domestic management measures.

5 According to that stock
6 assessment, porbeagle sharks are overfished
7 with approximately 100 years for rebuilding,
8 but overfishing is not occurring.

9 So based on these number of stock
10 assessments that were done and on the results
11 that they found, a number of new management
12 measures need to be put in place, and this
13 mainly is to -- or because sandbar and dusky
14 sharks are overfished with overfishing
15 occurring, and porbeagle sharks are
16 overfished.

17 So we need new management measures
18 in place to rebuild these stocks, as well as
19 stop overfishing and prevent it for other
20 species. Right now, our time frame to have
21 the final management measures in place is in
22 early 2008.

1 Okay. One thing you probably
2 noticed in this DEIS is that we have
3 structured it slightly different than how we
4 have done other environmental impact
5 statements. What we have done this time is we
6 have actually taken an approach of alternative
7 suites.

8 What the alternative suites do is
9 each alternative suite -- and there's five of
10 them, and I will go through that in more
11 detail in a moment, but each alternative suite
12 has one of the seven topics that I am showing
13 you here.

14 Typically, what we have done in
15 the past is we would take these seven key
16 topics, and we would have alternatives for
17 each one of the key topics I am showing you
18 here. Then what we would do is we would
19 combine and try to analyze what the impact was
20 of the preferred alternative for each one of
21 those key topics.

22 Instead, what we have done is we

1 have an alternative suite which is comprised
2 of a different version, basically, of these
3 seven key topics here. What that allowed us
4 to do is to analyze the cumulative impact of
5 that alternative suite, hoping that it would
6 make those impacts more transparent to the
7 public.

8 As you will see, it is also split
9 among different types of permit holders. So
10 we are also hoping that it would allow permit
11 holders with a directed or incidental shark
12 permit to understand better exactly how the
13 management measures would affect them in the
14 future.

15 So what I am going to show you
16 here are the five different alternative
17 suites. As I mentioned before, each
18 alternative suite is comprised of different
19 versions of those seven key topics that were
20 just on the previous slide.

21 The alternative suites are
22 arranged so that we have analyzed the range,

1 basically, in our management measures, which
2 we are required to under the National
3 Environmental Protection Act or NEPA, and it
4 ranges from Alternative 1 -- or Alternative
5 Suite 1, which is the status quo; and if we
6 implemented that, that basically would
7 implement what the current shark regulations
8 are right now -- all the way down to
9 Alternative Suite 5, which would be to close
10 all shark fisheries, including commercial and
11 recreational. So that is the range,
12 basically, we looked at in our analysis.

13 Alternative Suite 2 would be
14 management measures that only affect directed
15 shark permit holders as well as recreational
16 anglers, but under Alternative Suite 2
17 incidental shark permit holders would not be
18 able to retain shark products.

19 I am going to be going through in
20 detail what each one of these alternative
21 suites entails in just a moment.

22 Alternative Suite 3 basically

1 would affect directed and incidental shark
2 permit holders, as well as recreational
3 anglers.

4 Alternative Suite 4, which is
5 currently the preferred alternative suite,
6 would establish a shark research fishery. In
7 that shark research fishery, fishermen would
8 be allowed to land sandbars and other shark
9 species. Fishermen participating outside of
10 the shark research fishery would not be able
11 to retain any sandbar sharks.

12 Again, Alternative Suite 5 is kind
13 of at the endpoint of our range in terms of
14 closing all shark fisheries.

15 So what I am going to go through
16 next is a series of slides that are going to
17 be structured according to the table I am
18 showing you here. Those seven key topics are
19 across the top, and we are going to be going
20 through each key topic for all of the
21 alternative suites which are down on your
22 vertical axis there.

1 You will see the acronym SKD.
2 That stands for the directed shark permit
3 holders. SKI stands for the incidental
4 commercial shark permit holders. So this is
5 just to give you an idea of how we are going
6 to run through this presentation, key topic by
7 key topic across all of the different
8 alternative suites.

9 Just so you know, we've got some
10 handouts that are also on the table up there.
11 There is a table that gives you -- it is also
12 in Chapter 2 of the DEIS, but it compares all
13 of the alternative suites for all the
14 different management measures, which you are
15 welcome to take home for later comparison.

16 So the first thing I am going to
17 be talking about are the species and quota
18 complexes. They are interrelated. So we
19 consider them in one basically big topic here.
20 I am going to go through the species and
21 quotas for each alternative suite.

22 One of the things I want to stress

1 is the main focus of the EIS is basically
2 large coastal sharks. We are not going to be
3 changing quotas, management measures for small
4 coastals in this particular action, and for
5 the most part, we are not going to be changing
6 pelagics except for porbeagle sharks, which I
7 will go through in just a moment.

8 In the beginning slides here, I am
9 also going to be focusing on the commercial
10 management measures. There is going to be a
11 slide where I am going to be talking about
12 recreational management measures in a moment
13 as well.

14 So under Alternative Suite 1, the
15 status quo, we would basically maintain what
16 we currently have in place in the shark
17 fishery. That is, there is a commercial quota
18 of 1017 metric tons for large coastals, 454
19 metric tons for small coastals.

20 We would also maintain the current
21 quotas that we have for pelagic sharks, blues
22 and porbeagles. We would maintain our current

1 prohibited species. Right now, there's 19
2 prohibited shark species. We would also
3 maintain our 60 metric ton whole weight,
4 display and research set-aside for our
5 exempted fishing programs.

6 We have people who submit
7 applications to us to either collect sharks
8 for public display or to conduct research on
9 sharks under exempted fishing permits. We
10 have a specific quota that is set aside for
11 those types of permits.

12 In addition, we would remove or
13 apply our under- and over-harvest, as we do
14 now -- that is, for the same trimester and the
15 following year, and we would also be
16 maintaining the species complexes as you see
17 now. We would have a large coastal, small
18 coastal, pelagics, and our prohibited species.

19 Under Alternative Suite 2 we would
20 be looking at -- some things would change just
21 a bit. For instance, we would pull sandbar
22 sharks out of the large coastal shark complex.

1 We would establish a separate sandbar shark
2 quota of 116.6 metric tons dressed weight.

3 Now this quota is coming from the
4 recommendation from the stock assessment that
5 recommended 220 metric tons whole weight or
6 158. What we did is we looked at mortality in
7 other fisheries outside of the directed shark
8 fishery. We basically accounted for mortality
9 in those fisheries and established a
10 commercial quota that would then allow the
11 total mortality of sandbar sharks to be under
12 that 220 or 158 metric tons dressed weight.

13 Again, there is a handout on the
14 table up there that also goes through step by
15 step how we calculated those quotas, if people
16 are interested.

17 Now we would also establish the
18 complex that -- So sandbar sharks would be
19 taken out of the large coastal complex. The
20 remaining large coastal complex would now be
21 called the non-sandbar LCS complex. This is
22 basically all the other large coastals minus

1 sandbar sharks.

2 According to the stock assessment
3 recommendations, they recommended that for
4 blacktip sharks in the Gulf of Mexico and the
5 Atlantic that the catch does not increase and
6 basically stays the same as the historical
7 catch rate.

8 So we established a non-sandbar
9 LCS quota of 541.2 metric tons, which is
10 basically the historical catch rate of all
11 those other species besides sandbar sharks.
12 That is how we came up with that quota.
13 Again, there is a handout in the back that
14 explains how we did that specifically.

15 Under Alternative Suite 2, we
16 would maintain the status quo for small
17 coastals, pelagics and blue sharks. Now based
18 on the porbeagle stock assessment that showed
19 that porbeagles are overfished, under
20 Alternative Suite 2 we are proposing to place
21 porbeagle sharks on the prohibited species
22 list. This would basically curb any future

1 fishery for these species and allow them to
2 rebuild at a faster rate.

3 We would still maintain our 60
4 metric ton whole weight for EFPs. However, we
5 would change how we allocate specific portions
6 of that set-aside for sandbar sharks and dusky
7 sharks.

8 Specifically, for sandbar sharks
9 we would set aside one metric ton dressed
10 weight for public display. So out of that 60
11 metric ton whole weight, only one metric ton
12 would be allowed to be taken for public
13 display. Another one metric ton dressed
14 weight would be allowed to be taken for
15 research under exempted fishing permits.

16 Also, because of the current state
17 of dusky sharks, we are proposing to not allow
18 dusky sharks to be collected under public
19 display, and mortality to do research would be
20 at the discretion of the agency.

21 We would continue to remove over-
22 harvest from the next season. I will explain

1 in a minute what we propose to do with
2 seasons. However, we would change on how we
3 apply our under-harvest, in that we would only
4 allow a carryover of 50 percent of the base
5 quota for species that are healthy. For
6 species that are either overfished, have
7 overfishing occurring or are unknown, we would
8 not allow any carryover of underharvest to
9 help rebuild those species at a faster rate.

10 Now for Alternative Suites 3 and
11 4, we are proposing to do the same thing that
12 I just outlined for Alternative Suite 2 in
13 terms of quotas and species complexes. So we
14 basically would have the same structure in
15 terms of a sandbar shark and a sandbar shark
16 quota, a non-sandbar LCS and a non-sandbar LCS
17 quota.

18 Under Alternative Suite 5, we
19 would have no commercial quotas, and basically
20 all shark products would be prohibited.

21 Okay. Next on to commercial
22 retention limits. Under the status quo,

1 currently the directed shark permit holders
2 are allowed a 4,000 pound dressed weight large
3 coastal shark trip limit, and there is no trip
4 limit for small coastals or pelagics.

5 Incidental permit holders are
6 allowed five LCS and 16 pelagics and small
7 coastals combined per trip.

8 Under Alternative Suite 2, this
9 would only apply to directed shark permit
10 holders. Under Alternative Suite 2, what we
11 would allow would be for directed shark permit
12 holders, they could retain eight sandbar
13 sharks and 21 non-sandbar LCS per trip, and
14 there would be no trip limit for small
15 coastals or pelagic sharks.

16 Now again, how we came up with
17 these trip limits and the associated quotas is
18 available in a handout back on the table up
19 here as you come in, if you would like more
20 details on that.

21 The incidental permit holders
22 would not be allowed any retention of sharks.

1 In addition, we would instate that all sharks
2 have to be landed with fins on through the
3 point of landing. Under the status quo,
4 fishermen land sharks with just the second
5 dorsal and anal fin. Under the Alternative
6 Suite 2 fishermen would still be allowed to
7 remove the head and clean the shark at sea,
8 but they would have to land the shark with all
9 of their fins attached.

10 Under Alternative Suite 2, we are
11 also proposing to not allow any sandbar
12 retention if you have pelagic long line gear
13 on board.

14 Alternative Suite 3, again, this
15 is going to apply to directed and incidental
16 permit holders. Because we have a larger
17 universe of permit holders now, when we
18 established our trip limits, we had to take
19 that quota basically and spread it over a
20 larger universe of permit holders. So that
21 resulted in a reduction in terms of the trip
22 limit.

1 So directed and incidental permit
2 holders would be allowed to land four sandbar
3 sharks and 10 non-sandbar LCS per trip. For
4 directed shark permit holders, they would
5 still have no trip limit for small coastals
6 and pelagics, but the status quo in terms of
7 pelagics and small coastal sharks would still
8 apply for incidental permit holders.

9 Under Alternative Suite 3 we are
10 also proposing to have all sharks be landed
11 with their fins on.

12 Now Alternative Suite 4, our
13 preferred alternative, is a little different.
14 We are proposing under Alternative Suite 4 to
15 establish a research fishery. Fishermen
16 within that research fishery would be able to
17 land sandbar sharks as well as other shark
18 species, and they would be afforded higher
19 trip limits than fishermen operating outside
20 of the research fishery.

21 Fishermen operating outside of the
22 research fishery would not be allowed to land

1 sandbar sharks, but they would be able to land
2 22 non-sandbar LCS as well as small coastals
3 and pelagics, depending on whether they had a
4 directed or incidental permit.

5 Now the one thing I want to just
6 clarify for the research fishery: The way we
7 have it in the proposed rule is currently
8 every year NMFS would come out with research
9 objectives regarding sharks, and they would
10 put that out in a public notice.

11 Fishermen that were interested in
12 fishing in that research fishery and
13 interested in helping us reach those research
14 objectives would then apply. They would apply
15 under the exempted fishing research program
16 that we currently have in place.

17 The agency would then select
18 fishermen. There's a number of criteria that
19 we are considering. It is also a thing that
20 we would love to have feedback on, on the
21 criteria that you think is most appropriate in
22 order to consider fishermen to participate in

1 the research fishery.

2 For instance, we would look at
3 past violation history, their ability and
4 desire to meet the research objectives, their
5 flexibility to be able to fish at different
6 times and in different places.

7 So we would select -- right now,
8 we are suggesting between five and 10 boats as
9 what we could accommodate in that research
10 fishery. The whole idea behind the research
11 fishery is to allow a few individuals to still
12 basically fish for sharks and make an income
13 or a living or parts of their income off of
14 shark products.

15 The reason we only have five to 10
16 boats is because we have a reduced sandbar
17 quota. It is only 116.6 metric tons dressed
18 weight. So in order to accommodate fishermen
19 to actually make some portion of their living
20 off of shark products, we would have to shrink
21 that universe, and so we are proposing to do
22 that within the research fishery.

1 Basically, fishermen fishing
2 outside of that research fishery would be
3 catching sharks in more of an incidental
4 manner. They wouldn't be directing as much on
5 sharks anymore.

6 The other thing with Alternative
7 Suite 4 is we are also proposing to have
8 sharks landed with their fins on. Again,
9 sharks could have their heads removed at sea.
10 They could be cleaned, but they would have to
11 be landed with all of their fins attached.

12 Finally, under Alternative suite 5
13 there would be no retention of any shark
14 species.

15 So next, under time area closures:
16 Alternative Suite 1, the status quo, we
17 basically would maintain our current HMS,
18 including both bottom long line and pelagic
19 long line and gill net time area closures.

20 Under Alternative Suite 2, we
21 would maintain our current HMS time area
22 closures, but in addition, we would implement

1 the eight preferred South Atlantic Fishery
2 Management Council's marine protected areas,
3 and I am going to show you a slide in just a
4 second that shows you where those green
5 protected areas are, but we would basically
6 back-stopping their measures, and we would not
7 allow bottom long line fishing to occur in
8 those marine protected areas.

9 Under Alternative Suites 3 and 4,
10 we would also have -- we would maintain our
11 current time area closures, and we would also
12 implement those eight marine protected areas
13 that are currently preferred by the South
14 Atlantic Council.

15 Under Alternative Suite 5, we
16 would have -- basically, the entire Atlantic,
17 Caribbean and Gulf of Mexico would be closed
18 for commercial shark fishing.

19 This is a slide that basically
20 shows where those eight closures are. They
21 extend -- you can't really tell, but it
22 basically goes from the tip of North Carolina

1 all the way down to the Florida Keys with the
2 East Hump and unnamed Hump, and again these
3 are the current preferred marine protected
4 areas by the South Atlantic Council. We would
5 be back-stopping their measures with
6 prohibiting bottom long line gear in these
7 areas.

8 Under Reporting, I am now going to
9 be talking about the reporting that we do in
10 order for quota monitoring. Currently, under
11 the status quo, Alternative Suite 1, we would
12 maintain our current observer and logbook
13 reports. We would have our current dealer
14 reporting; that is, the reports would have to
15 be received within -- I'm sorry. The reports
16 would have to be postmarked within 10 days
17 after the bi-monthly reporting period. That
18 is currently what shark dealers have to do.

19 Under Alternative Suite 2, because
20 we have -- we are considering increased
21 retention limits in comparison to Alternative
22 Suite 3, but basically we would have dealer

1 reporting within 24 hours of receiving shark
2 products to avoid over-harvest of those
3 reduced quotas. So we would bump up the
4 reporting period by shark dealers so that we
5 could monitor their quota in a more timely
6 fashion and avoid over-harvest.

7 We would still maintain our
8 logbooks and our observer requirements and, in
9 addition, currently under the status quo in
10 terms of quota monitoring -- this is not in
11 terms of how the stock assessment is done; I
12 just want to clarify. But under the status
13 quo, any unclassified sharks that come in get
14 counted against the larger coastal shark
15 quota.

16 It is our way that we account for
17 mortality for species that have been not
18 identified down to the species level, which is
19 currently the regulations, that dealers have
20 to report down to the species level.

21 Under Alternative Suite 2 we would
22 have all unclassified sharks be counted

1 against sandbar sharks or the sandbar shark
2 quota.

3 Alternative Suite 3, because we
4 had a larger universe of permit holders we
5 spread the quota amongst -- that is, directed
6 and incidental permit holders -- we have a
7 lower retention limit. We are assuming that
8 that lower retention limit is going to allow
9 the shark fishery to stay open longer than
10 what has been historically experienced.

11 So dealer reports would have to be
12 received by NMFS -- again, currently it is
13 postmarked, but this would be received by NMFS
14 within 10 days of the end of a reporting
15 period. Again, the reporting period would
16 still be a bi-monthly event for the shark
17 dealers.

18 We would still maintain our
19 logbook and observer requirements, and
20 unclassified sharks would be counted against
21 the sandbar shark quota.

22 Alternative Suite 4 for the shark

1 research fishery: Our reporting for quota
2 monitoring would be different for within the
3 shark research fishery versus outside the
4 shark research fishery.

5 What I didn't mention before is
6 one of the conditions of being in the shark
7 research fishery is that there would be 100
8 percent observer coverage. So we would base
9 our quota monitoring on those scientific
10 reports from the scientific observers within
11 the research fishery.

12 Outside of the research fishery,
13 we would still be monitoring the quota
14 according to the dealer reports that have to
15 be received by NMFS within 10 days of the
16 reporting period.

17 In Alternative Suite 5, we would
18 basically have no commercial fishery in place.
19 However, we would want to improve on the
20 logbook discard reporting for our coastal
21 fishery's logbook. That is also known as the
22 snapper-grouper logbook, if people aren't as

1 familiar with coastal fisheries terminology.

2 Currently, right now about 20
3 percent of the fishermen are selected to
4 report discards in that snapper-grouper or
5 coastal fisheries logbook, and we would
6 actually want to try to improve on that so we
7 could get a better picture of what is going on
8 in terms of shark bycatch and discards.

9 We would also want to place
10 observers in long line and gill net fisheries
11 to monitor shark bycatch. So we would work
12 with other councils that operate or regulate
13 other long line and gill net fisheries.

14 In terms of seasons, currently,
15 under the status quo, we have trimesters.
16 That is January to April, May to August,
17 September to December. Under Alternative
18 Suite 2, we would have one season. That is
19 what we are proposing now. That season would
20 start basically January 1 of each year and
21 would go until the quotas were filled.

22 For sandbar and non-sandbar LCS,

1 we would basically close the fishery for
2 sandbar and non-sandbar when either of those
3 reach 80 percent, and it would be closed with
4 a five-day notice within filing of the Federal
5 Register.

6 Now this 80 percent and the five-
7 day notice is also one of the things we have
8 asked for public comment on. If people think
9 an 80 percent threshold is appropriate to
10 avoid over-harvest, perhaps it should be
11 higher or lower, as well as a five-day notice
12 if that is an appropriate amount of time to
13 inform fishermen, but to not go over the
14 harvest before we close down the fishery.

15 For pelagics and small coastals,
16 we would close their respective fisheries when
17 their quotas reach 80 percent, and, again,
18 that would occur with a five-day notice within
19 filing of the Federal Register.

20 For Alternative Suites 3 and 4, we
21 would have the same thing that I just
22 explained for Alternative Suite 2; that is,

1 one season, fishery closing within 80 percent
2 with a five-day notice.

3 Under Alternative Suite 5, we
4 would have no commercial seasons.

5 Now in terms of regions,
6 currently, we have a North Atlantic, a South
7 Atlantic, and a Gulf of Mexico. We have three
8 regions that are in place in the shark
9 fishery.

10 Under Alternative Suite 2, we are
11 proposing to go to one region. So basically,
12 the season would open up January 1 of each
13 year across all regions at the same time and,
14 when it closed, it would also close at all
15 regions at the same time.

16 Now this would help in some of our
17 quota monitoring. We have had some issues
18 where you have had quota, for instance, that
19 is caught in the Gulf of Mexico, gets put on
20 a truck, goes over to the South Atlantic, and
21 then could get counted against the South
22 Atlantic quota. We now would have one region,

1 one season, and it would be a much more clean
2 way in terms of monitoring the quota.

3 Under Alternative Suites 3 and 4,
4 we would also be establishing one region, and
5 under Alternative Suite 5, we would have no
6 commercial regions in place.

7 Now for recreational measures:

8 Under the status quo we currently have
9 recreational fishermen are allowed to retain
10 one shark that is greater than 54 inches in
11 fork length per vessel per trip, except for
12 prohibited species. In addition, they are
13 allowed to land one Atlantic sharpnose and one
14 bonnethead per person per trip.

15 Under Alternative Suites 2 and 3
16 and 4, we would still allow the -- or we still
17 have the status quo in place in terms of our
18 size and bag limits. So that wouldn't change.
19 However, we are considering limiting the
20 species that recreationalists can land, mainly to
21 limit the species down to the species that are
22 easily and positively identifiable by

1 recreational fishermen.

2 Currently, this is the list that
3 we have here: bonnetheads, Atlantic sharpnose,
4 nurse, tiger, lemon, the three different
5 hammerheads, short fin mako, common thresher,
6 oceanic whitetip and blue sharks.

7 This is another area we would like
8 for public comment. Do people feel this list
9 is appropriate? Are there other species that
10 should be added? Are there species that
11 should be removed?

12 Then under Alternative Suite 5,
13 basically, we would have a catch and release
14 only fishery; that is, if we shut the fishery
15 down for both commercial and recreational
16 fishermen.

17 Okay. I know I have thrown a lot
18 at you. So what I want to do is just go over
19 the summary of what we currently have under
20 our preferred Alternative Suite 4. These are
21 the management measures that we are currently
22 preferring.

1 We would establish a separate
2 sandbar shark quota of 116.6 metric tons, and
3 we would establish a separate non-sandbar LCS
4 quota of 541.2 metric tons.

5 We would establish a small
6 research fishery where you could land sandbar
7 sharks and other species besides prohibited
8 species. Outside of that research fishery,
9 there would be no sandbar retention, but
10 fishermen would be allowed to land 22 non-
11 sandbar LCS, and then the number of small
12 coastals and pelagics would be dependent upon
13 their permit type, whether they had directed
14 or incidental shark permits.

15 We would implement the eight
16 marine protected areas that are currently
17 preferred by the South Atlantic Council, and
18 all sharks would have to be landed with their
19 fins still attached.

20 We would go to one region and one
21 season, and dealer reports would have to be
22 received by NMFS within 10 days of the end of

1 a reporting period. Again, within that shark
2 research fishery we would be monitoring the
3 quota based on the scientific observer
4 reports.

5 We would close the sandbar and the
6 non-sandbar LCS fishery when either quota
7 reached 5 percent with a five-day notice
8 within filing of the Federal Register, and all
9 unclassified sharks would be counted against
10 the sandbar shark quota.

11 We would maintain the status quo
12 for the recreational size and bag limits.
13 However, we would limit the number -- or limit
14 the species that recreational anglers can land
15 to species that are easily identifiable.

16 So those are the current
17 management measures under our preferred
18 Alternative Suite that we are looking at.

19 I am going to quickly run through
20 the impacts of these preferred management
21 measures. Now as many of you guessed, due to
22 the reduced quotas and retention limits, we

1 are anticipating positive ecological impacts
2 as a result of these actions.

3 We would reduce the landings of
4 sandbar sharks from currently about 728 metric
5 tons per year down to 116.6 metric tons in the
6 commercial fishery, and non-sandbar LCS would
7 essentially stay around the same. Currently,
8 we have about 582 metric tons being landed,
9 and it would go down to 541.2 metric tons.
10 Again, these are estimates on what would
11 happen in the fishery.

12 Due to how we have the retention
13 limits set up, both for within and outside of
14 the research fishery for sandbar sharks, we do
15 anticipate an increase in the number of
16 discards from currently, there's about 9.6
17 metric tons, to about 13.1 under the preferred
18 alternative. However, due to the overall
19 reduced quota for sandbar sharks, the number -
20 - or the level of mortality would still be
21 below that recommended 158 metric tons dressed
22 weight. This includes both recreational

1 mortality and mortality in other fisheries as
2 well.

3 We would reduce the discards of
4 the non-sandbar large coastals from 153.3,
5 which is currently going on, down to about
6 56.6 metric tons per year, and dusky shark
7 mortality would be reduced from 33.2 down to
8 about 9.2 metric tons per year. Again, this
9 is mainly from having only a few number of
10 vessels that would be operating in a directed
11 type fashion on sharks.

12 We would also reduce the landings
13 of porbeagle sharks to about -- currently,
14 there isn't much of a directed fishery for
15 porbeagle sharks in the United States. There
16 is only on average about 1.6 metric tons
17 dressed weight landed per year. Most of those
18 animals are released alive. So we would
19 predict a nominal increase in porbeagle
20 discards by prohibiting the retention of
21 porbeagle sharks.

22 Now in terms of economic impacts,

1 there are substantial economic impacts
2 anticipated due to the reduction in the quotas
3 and the retention limits. Fishery-wide, we
4 are looking at estimated losses in gross
5 revenues from the reduced sandbar and non-
6 sandbar LCS landings of about \$1.8 million per
7 year. The negative economic impacts are
8 expected to be more for the fishermen
9 operating outside of the research fishery,
10 because they would not be able to land sandbar
11 sharks.

12 The total gross revenues for the
13 five to 10 vessels that would be operating
14 inside the research fishery is somewhere
15 around 490,000 per year. Then, depending on
16 the number of vessels that would be operating
17 in the fishery, we estimate between 98,000 to
18 49,000 per vessel per year.

19 The total gross revenues for all
20 the vessels operating outside of the research
21 fishery we have estimated at \$1.5 million per
22 year based on the proposed retention limits

1 for those non-sandbar LCS landings.

2 The other thing that we looked at
3 in terms of -- if you look in Chapter 4 at our
4 cumulative impacts section, we looked at what
5 permits our directed shark permit holders and
6 our incidental shark permit holders typically
7 hold in other fisheries to get an idea of how
8 much of the effort that could be reduced by
9 these management measures would be shifted
10 over into other fisheries.

11 What we found is that, due to the
12 limited access in IFQ systems in those other
13 fisheries, if fishermen don't currently hold
14 permits in those other fisheries now, they are
15 actually not going to be able to shift much of
16 their effort into those other fisheries. So
17 basically, the losses that are experienced
18 here will not necessarily be able to be gained in
19 other fisheries.

20 Okay. Now the number of potential
21 affected permit holders: Currently, we have
22 231 directed, 298 incidental, and 269 shark

1 permit holders. That is the entire universe
2 of permit holders. However, not nearly that
3 many boats are landing sharks.

4 So what we looked at for our
5 active universe -- that is, the number of
6 vessels that are actually actively going out
7 there and fishing for sharks. We had on
8 average from 2003 to 2005 129 vessels with
9 directed shark permits and 62 vessels with the
10 incidental shark permits actually reporting
11 landings of sandbar sharks. So that universe,
12 that active universe, is actually much smaller
13 than the number of total permits we have out
14 there.

15 So we anticipate that basically,
16 since only five to 10 vessels could
17 participate in that research fishery, the
18 majority of those 129 directed and 62
19 incidental permit holders will be affected by
20 these management measures.

21 In addition, most of the directed
22 and incidental permit holders occur in

1 Florida, New Jersey, and North Carolina, and
2 most of the shark dealers are in Florida and
3 North and South Carolina.

4 There are some other items I just
5 want to touch on very quickly that are in the
6 rule. These deal with the timing of the shark
7 stock assessments. We basically looked at
8 whether keeping the current timing of the
9 shark stock assessments or if we should have -
10 - which is every two to three years -- or if
11 we should increase that timing and have a
12 shark stock assessment at least once every
13 five years.

14 We also looked at the timing of
15 the release of the HMS Stock Assessment and
16 Fishery Evaluations, the SAFE report, for each
17 year. Basically, right now we have to release
18 the SAFE report as of February of each year.
19 We are now looking in the rule to basically
20 still release one every year, but release it
21 in the fall versus basically February of each
22 year.

1 We also are looking at updating
2 the de-hooking requirements for smalltooth
3 sawfish. Under the 2003 Biological Opinion,
4 smalltooth sawfish were not allowed to be de-
5 hooked. More research has been conducted on
6 this, and under the modification that occurred
7 in March of '07, they are now allowing, if it
8 is practicable and safe to fishermen, that
9 they can actually de-hook smalltooth sawfish.

10 We are also clarifying that dealer
11 reports need to be species specific. That is
12 currently what is in the regs. However, we
13 are still getting unclassified sharks coming
14 in. We are also clarifying the definition of
15 who needs to have a dealer permit to receive
16 shark products. That is, the first receiver
17 of shark products should be the one who has
18 the dealer permit.

19 Now this is just the tentative
20 timeline. We did scoping on these issues in
21 January. We have submitted a pre-draft to you
22 all in the last AP meeting in March. Since

1 then, we have put together the Draft
2 Environmental Impact Statement and its
3 proposed rule.

4 At the time that we made this, it
5 was a 75-day comment period. It has now been
6 extended to November 2nd. We are expecting to
7 do an EIS -- the final EIS, in the late fall,
8 with a final rule in early winter and having
9 it effective in early 2008.

10 So this is the address, the e-mail
11 address, and fax number. Again, the comment
12 period has been extended to November 2nd.

13 Next, I want to quickly go through
14 a summary of the comments that we have
15 received to date. We do have a comment
16 summary as well as CDs that have a list of all
17 the comments that we have received for you all
18 to have. We will make sure we put those out
19 on the table.

20 Basically, we received -- I have
21 broken this down into different topics, but we
22 received a number of comments on quotas.

1 These ranged from that we should have
2 considered individual transfer quotas and that
3 we should have also considered species
4 specific quotas.

5 People commented on that 60 metric
6 ton whole weight shark display or research
7 quota, and that it should be reduced, and that
8 dusky sharks should be allowed for public
9 display.

10 The proposed non-sandbar LCS quota
11 is too low. Reducing the shark quotas will
12 cause derby-style fishing, and the quotas
13 should be closed at 90 to 95 percent, since
14 under-harvest will not be applied to the next
15 year, or that quotas should close at 80
16 percent with being filled with a five-day
17 notice.

18 We have also reduced comments that
19 NMFS should preempt the states and that NMFS
20 should reduce, not eliminate, the commercial
21 porbeagle quota in the preferred Alternative
22 Suite.

1 We also received a number of
2 comments on retention limits. I don't know if
3 I necessarily need to read through every
4 single comment. We will just try to hit the
5 range here, but basically we received comments
6 on retention limits for the preferred and that
7 the 22 non-sandbar LCS per trip -- that would
8 be outside of the research fishery -- is not
9 economically viable.

10 We should not split up the quota
11 among a few boats, but instead should split it
12 up amongst 40 to 50 boats and only allow one
13 to two trips per year. And the gill-netters
14 are unfairly penalized. They catch very few
15 dusky and sandbar sharks. So we should have
16 a separate blacktip quota and associated trip
17 limit for gill net fishermen.

18 We should have separate trip
19 limits for incidental permit holders; that we
20 should have regionally based trip limits; and
21 if fishermen have an observer on board, they
22 should be allowed to keep all dead sharks that

1 come to the boat. And finally, whether or not
2 we considered bycatch of sandbar sharks.
3 Under National Standard 9, to minimize bycatch
4 was violated and that NMFS discard estimates
5 of sandbar sharks are flawed.

6 We also received comments on the
7 time area closure: Basically, will the VMS or
8 Vessel Monitoring Systems be implemented with
9 those MPAs; that we should have only
10 considered the MPAs Alternative Suite 5, and
11 that whether or not a transit exemption for
12 vessels traveling through the MPAs will be
13 allowed.

14 In terms of the Shark Research
15 Fishery, people commented that they needed
16 more information on how fishermen would be
17 selected for the Shark Research Fishery, that
18 NMFS should select fishermen based on how much
19 revenue they make from sharks, their ability
20 to conduct research, and any past violations.
21 Then there were questions on what type of
22 research NMFS needs on sharks and whether or

1 not -- I'm sorry, what research NMFS needs on
2 sharks and what will it need in the future,
3 and NMFS should place observers on all of the
4 commercial fleet to collect data.

5 Finally, there was comments on how
6 will NMFS ensure that boats selected for the
7 Research Fishery are equally distributed
8 geographically, and will NMFS determine when
9 and where shark fishermen can fish within that
10 Research Fishery.

11 Okay, in terms of reporting, we
12 got comments that dealers have not reported on
13 a species specific basis, and that having
14 reports received within 10 days of the end of
15 the reporting period is not enough time for
16 dealers to put together their reports.

17 There are other comments that they
18 support stringent restrictions on dealer
19 reports, and dealers should report within 24
20 hours or perhaps every week.

21 There was also questions on how
22 dealer reports are used in the stock

1 assessments, if no one identifies down to
2 species, and how can NMFS continue to allow
3 dealers to report as unclassified. What is
4 the current definition of a shark dealer, and
5 can federally permitted dealers buy state
6 landed sharks, and do they have to report
7 those sharks?

8 Okay, comments on the seasons and
9 regions. We had support for the one
10 season/one region. We also had comments that
11 we should consider closing during April, May
12 and June to protect the pupping season, even
13 if we do establish one season and one region.
14 The other comment is that fishing should open
15 on July 1 so that the catch is not dominated
16 just by the Southeast, and having one region
17 will disadvantage some areas that do not have
18 sharks present early in the season.

19 One region would penalize the Gulf
20 of Mexico where blacktips are healthy, and the
21 Gulf of Mexico should be managed separately,
22 as well as the Caribbean.

1 Okay, landing sharks with fins
2 attached. There was support for the
3 requirement to land sharks with their fins on.
4 There was also comments that sharks cannot be
5 properly dressed and stored with their fins
6 on, and this will result in wasting the
7 research.

8 We also had comments on why are we
9 considering keeping fins on through landing,
10 and whether or not it is an identification
11 issue. NMFS should relook at the five percent
12 ratio of fins to carcass, and NMFS should
13 consider a different ratio, and what should I
14 report in my logbook if NMFS does not keep the
15 five percent rule?

16 What is the proper way to dress a
17 shark with the fins still attached? Will NMFS
18 be providing a diagram on how this should be
19 done? And requiring fins on will change the
20 entire pricing structure for sharks.

21 Prohibition of porbeagle sharks,
22 we had support for the prohibition. There's

1 comments that people have been misidentifying
2 porbeagle as mako sharks. There was questions
3 if NMFS will propose similar measures at
4 ICCAT, and there is also questions on what
5 would the rebuilding time frame for porbeagle
6 sharks be without the 1.6 metric tons annual
7 landings of porbeagle sharks by U.S. fishermen
8 per year? And prohibiting U.S. landings of
9 porbeagle sharks will not rebuild the stock.

10 There was questions, if the
11 Canadian porbeagles enter U.S. water, and if
12 it is appropriate to use a Canadian assessment
13 for U.S. management. There was also comments
14 that tournaments have no impacts on
15 porbeagles. The Large Pelagic Survey or LPS
16 as well as the Marine Recreational Fisheries
17 Statistics Survey or MRFSS were not designed
18 to gather reliable data on porbeagles;
19 therefore, NMFS has underestimated the impact
20 of prohibiting porbeagles on recreational
21 fishermen.

22 In terms of recreational measures,

1 we had a comment that there should be no
2 recreational retention. We also had other
3 comments that spinner, blacktip, bull and
4 silky sharks should be included on that list
5 that recreational fishermen can land.

6 Does NMFS have a plan for
7 educational outreach for recreational
8 fishermen, and why not have -- or why not have
9 identification workshops for recreational
10 fishermen, similar to what we have for shark
11 dealers?

12 Are there any estimates regarding
13 the level of misidentification by recreational
14 fishermen? This is not just a recreational
15 problem but also happens in the commercial
16 sector. Why would commercial fishery -- why
17 would we allow a commercial fishery in a
18 depleted stock -- basically, why would we
19 allow a commercial fishery in a depleted stock
20 but not allow it for recreational fishermen,
21 and the recreational landing of sandbar sharks
22 were taken into account in the commercial

1 quota, but recreational fishermen would not be
2 allowed to land them under the proposed
3 regulations.

4 Charter headboat and recreational
5 impacts were not analyzed, and, therefore,
6 National Standard 4 to not discriminate among
7 user groups was violated.

8 Alternative Suites. So we have
9 support for the preferred. We also had
10 support for Alternative Suite 5. We also had
11 some new alternative suites, an Alternative
12 Suite 6 -- I'm sorry. Alternative Suite 6 was
13 actually one of the ones for the timing of the
14 shark stock assessment. They supported the
15 status quo.

16 There was support for an
17 incidental year-round fishery for sharks. The
18 small research fishery in the preferred
19 alternative suite would basically benefit only
20 a few fishermen but disadvantage a majority of
21 the fishermen. And there were comments that
22 the preferred alternative suite would set a

1 bad precedent by allowing directed shark
2 fishery to continue on depleted stocks, and
3 NMFS should ban commercial fishing but still
4 allow recreational fishing.

5 There was also support for
6 Alternative Suite -- (END OF TAPE 5).

7 (BEGIN TAPE 6) -- to any reduction in the
8 number of sandbar sharks for public display.

9 We also received comments on the
10 science. They do not agree with the findings
11 of the sandbar shark stock assessment due to
12 data issues and what fishermen are seeing on
13 the water, and the stock assessment did not
14 use all the available data, including fin
15 data.

16 How does NMFS account for Mexican
17 landings? NMFS should not use stock
18 assessments conducted in Canada, and NMFS
19 should take a precautionary approach rather
20 than rebuilding sharks within 70 years. NMFS
21 should consider a total ban on sandbar shark
22 landings in all fisheries. Then given the

1 long rebuilding time frame, can NMFS truly
2 rebuild these stocks?

3 The economic impact. We received
4 comments that we only analyzed the impacts on
5 commercial fishermen, but did not analyze it
6 for recreational fishermen; that all of the
7 alternative suites besides the status quo
8 would cause severe economic consequences, why
9 was a buyout for the commercial fishery not
10 considered. The environmentalists should fund
11 a buyout of the commercial shark fishery, and
12 has NMFS considered ways to retrain fishermen
13 for other jobs?

14 If only a few people can land
15 sandbar sharks, who will want to buy them?
16 Will dealers even be interested in buying
17 shark product? And if NMFS shuts down the
18 shark fishery this will put more pressure on
19 imports, and countries that do not have the
20 conservation benefits as the U.S. will
21 benefit. And did NMFS consider the other
22 economic hardships from these measures in

1 addition to cutbacks in other fisheries?

2 If NMFS does not go with the
3 status quo, NMFS should declare a fisheries
4 disaster.

5 Okay. Got through those. Now
6 what we are going to do is we have something
7 a little different than what we did for
8 swordfish. We have -- due to the number of
9 questions we wanted to get feedback from on
10 the AP, we have a Group A list of questions,
11 and then we also have a Group B list of
12 questions.

13 So we will split the tables up,
14 three and four or four and four, depending on
15 how many tables we finally have here. We made
16 handouts to give people of the different
17 groups, so you know exactly which questions
18 you are addressing.

19 Basically, we are looking for
20 feedback. One of the comments we received --
21 so this is questions in Group A. One of the
22 questions is that NMFS should supply a diagram

1 on how you should dress sharks with the fins
2 still attached. So one of the questions we
3 are posing to you is, does the agency need to
4 supply fishermen with a diagram of how to
5 dress a shark and, if so, what do you think
6 that diagram should look like?

7 Another question is: Should NMFS
8 allow a few fishermen to land the sandbar
9 shark quota or should NMFS split it up amongst
10 all the shark permit holders? Should the
11 quota be divided amongst directed and
12 incidental or only directed permit holders?
13 So these are a little more pointed questions.

14 What are the pros and cons of
15 keeping the current regions and trimesters?
16 That is, we are proposing to go to one region
17 and one season. Are there still pros and/or
18 cons of the current management regime that we
19 have in terms of regions and trimesters?

20 How should NMFS determine what are
21 readily identifiable species that recreational
22 fishermen can land?

1 So these are four unique questions
2 for Group A. Then we have one kind of
3 overarching question we are going to ask both
4 groups, and that is, of the proposed
5 alternatives, which one do you think is the
6 most appropriate?

7 So we would like feedback on: Of
8 all the proposed measures that we put out
9 there, which ones do you think we should go
10 forward with in the final rule?

11 Questions for Group 2 or Group B:
12 Assuming NMFS goes final with alternative
13 suite 4, to establish a small shark research
14 fishery, what criteria should NMFS use to
15 ensure the fair and equitable selection of
16 fishermen in the shark research fishery? So
17 again, this is getting feedback on what those
18 criteria should be.

19 Should NMFS increase dealer
20 reporting for better quota monitoring? If so,
21 how frequent should shark dealers report to
22 NMFS?

1 How would you improve the proposed
2 definition of a shark dealer to ensure that
3 the entity responsible for the identification
4 and reporting of shark products has a dealer
5 permit? So we just want feedback on who it is
6 you think basically should have the shark
7 dealer permit.

8 Then given the current lag in
9 reporting times, is closing the different
10 shark fisheries when the quotas reach 80
11 percent of being filled an appropriate
12 threshold to avoid overharvests? That is, is
13 80 percent appropriate? Should it be less?
14 Should it be more? And is a five-day notice
15 of a closure enough time to notify fishermen
16 and also to avoid overharvests?

17 So those are the four questions
18 for Group B that we would like people to
19 consider, and again there is the overarching
20 question of: Of the proposed alternatives,
21 which one do you think is the most
22 appropriate?

1 At that, we are done with this
2 presentation.

3 MODERATOR: Hang on one second
4 before, go ahead.

5 MS. BELCHER: Yes. I just wanted
6 to emphasize just a couple of points. Jackie
7 mentioned for the shark research fishery that
8 we were doing that to allow just a few vessels
9 to survive off of those 116.6 metric tons.

10 The other reason to do the
11 research fishery is to keep timelines going
12 for the assessments, so we have something to
13 assess the stock with next time, and also to
14 conduct specific research that the previous
15 assessment recommended that we do.

16 A lot of that research was aimed
17 at sandbar sharks. So we are hoping to get
18 more information from this research fishery.
19 It is more than just an economic bonus for
20 those 10 vessels that might get in.

21 The other thing I wanted to
22 emphasize was in regard to the stock

1 assessments. Our preferred alternative is one
2 stock assessment at least every five years,
3 and this is to allow us to actually
4 incorporate how management has affected the
5 stock as we go on.

6 Usually, it takes us two to three
7 years to get management in place after a stock
8 assessment. So if we have the stock
9 assessment every two to three years, we never
10 actually know what the current management
11 regime is doing to the stock.

12 So once every five years, we
13 figure we are going to get at least a year,
14 maybe two years, of the current management
15 regime into the next stock assessment, so we
16 know what things we are doing.

17 It doesn't mean that we can't do
18 the stock assessment in two years if we feel
19 we need to. It just means that we have a
20 longer space of time to try to figure out what
21 management is actually doing. So thanks.

22 MODERATOR: Okay. Just a quick

1 review of what we are going to do over the
2 next few minutes.

3 First, we are going to take
4 technical questions, any questions for
5 clarification or technical questions that you
6 want to address to Jackie on this specific
7 presentation. We are going to do that, and
8 then we are going to follow that with -- there
9 is a public comment period scheduled for this
10 morning. So we may have some people here in
11 the audience from the public that want to
12 address Amendment 2, this presentation.

13 PARTICIPANT: Could we get maybe a
14 show of hands of the number of folks that are
15 interested in speaking?

16 MODERATOR: One -- okay, right.
17 Very good.

18 PARTICIPANT: Did you have a
19 question?

20 PARTICIPANT: I've got one comment
21 and one on the presentation.

22 MODERATOR: Okay. And then after

1 those two periods, we are going to break. We
2 will break up into these -- you will get more
3 instructions on breaking up into these
4 breakout groups to address the topics that
5 Jackie has just identified.

6 So do you have a question on
7 public comment?

8 PARTICIPANT: No, I got a question
9 on her presentation.

10 MODERATOR: I will get to that,
11 but did you have a specific question on public
12 comment?

13 PARTICIPANT: No, I want to give
14 public comment.

15 MODERATOR: You want to give a
16 public comment? Okay, so that will be number
17 7. Okay. Then, Gail, you had a quick question
18 on what?

19 MS. JOHNSON: You said first
20 receiver. Does that mean an actual buyer?
21 That does not mean the dock. Right?

22 MS. WILSON: So the first receiver

1 basically would be the entity, whether it be
2 the dealer or, if they hire someone in a truck
3 to go and pick it up, who receives the shark
4 product. The first person who receives the
5 shark product would have to have the dealer
6 permit.

7 MS. JOHNSON: Nothing to do with
8 buying it, just actually physically moving it
9 from the boat --

10 MS. WILSON: Yes.

11 MS. JOHNSON: -- to another thing
12 which then becomes the receiver?

13 MS. WILSON: Yes, and then, for
14 instance, if it is a truck that a dealer has
15 sent out to pick up the shark product, they
16 would be covered under the dealer permit from
17 that dealer. Okay? So they have to be buying
18 for that dealer to pick that up.

19 I think what we are trying to get
20 at is -- and correct me if I'm wrong, but of
21 dealers that then buy product for another
22 dealer, they hold the product, and then

1 somebody comes in -- another dealer comes in
2 and buys that product. This is to get away
3 from that, just to have the first entity that
4 takes possession of the shark product as the
5 one who is supposed to have a shark permit --
6 a dealer permit, sorry.

7 PARTICIPANT: Gail, would it help
8 if I read what we proposed? Okay.

9 What we proposed was first entity
10 means -- first receiver, sorry, means the
11 entity, person or company that takes for
12 commercial purposes immediate possession of
13 the fish or any part of the fish as the fish
14 are offloaded from a vessel of the United
15 States, as defined under 600.

16 While we are discussing in the
17 comments summary, I will type up both the
18 current definition of the dealer and our
19 proposed, so those Group Bs can discuss and
20 see if there are other things.

21 There's also a couple other
22 definitions of first receiver which I will try

1 to type in as well, so everybody can see what
2 the different options could be.

3 MODERATOR: Okay. I've got a few
4 hands up. Let me make sure I get this right.
5 I've got Dewey, Jason, Terry and Rusty and
6 Russ Nelson and Bob Hueter and Sonja and Tom.
7 Okay. Well, we'll get to you all -- okay, and
8 Lisa. All right. That ought to keep us busy
9 until about two. All right.

10 So, Dewey, go ahead. Please, just
11 a reminder. Please state your name.

12 MR. HEMILRIGHT: I was getting
13 ready to. Dewey Hemilright.

14 I had a couple of questions to ask
15 about the dusky stock assessment that was done
16 in-house by National Marine Fisheries. Who
17 were the reviewers for that?

18 MS. WILSON: We actually don't
19 know that here. The agency -- it just wasn't
20 provided to us, and so that is something that
21 the Southeast Center both conducted the
22 assessment and coordinated the review, I

1 believe, with the Northeast Center. But the
2 actual names of the individual reviewers was
3 not provided to us. So I can't tell you.

4 MR. HEMILRIGHT: Do you think it
5 would be possible -- I mean, the rest of the
6 time with your other assessments, it is public
7 knowledge. I was wondering if that -- also,
8 with the porbeagle stock assessment that is
9 done in Canada, is the same guy that did the
10 stock assessment there one of the reviewers
11 for the large coastal sharks, Dr. Steve
12 Campana?

13 PARTICIPANT: I believe Steve was
14 at least one of the people working on the
15 assessment. There were several doing the
16 Canadian assessment. It wasn't just Steve,
17 though I know he was on that committee.

18 MR. HEMILRIGHT: And in reference
19 to the shark fins, why did National Marine
20 Fisheries choose another avenue instead of
21 using their own best available science on
22 sandbars that they have, some published and

1 unpublished reports? Why did you all decide
2 to go with leaving the shark fins on?

3 If there is 100 percent observer
4 coverage on the vessels that's in the skinny
5 pick fishery or research fishery, if you've
6 got them researched there, why is there any
7 need for them to leave the fins on? Why can't
8 they just take them off, if they got somebody
9 observing them?

10 The last final thing, but I have
11 more later, is that if they come in and you've
12 got somebody to observe them, are you all
13 going to just all of a sudden stop the five
14 percent law; because when you write something
15 in your logbook, more than likely you will be
16 over five percent. That is also the Shark
17 Finning Act and you all's five percent law.
18 So how does that work into effect about
19 leaving the fins on, coming to the dock,
20 cutting them off, and then writing them down
21 in your logbook, because that seems to be a
22 stickler there, and I have yet to see that

1 addressed in the last couple of meetings.

2 MS. WILSON: The five percent law
3 is a law by Congress, and that is not
4 something that NMFS can change. We can't
5 change the five percent law.

6 So you would have to petition
7 Congress in order to change that. So the
8 rationale behind keeping the fins on is to
9 prevent fishing. One of the number one cases
10 that gets prosecuted in the shark fishery at
11 least is dealing with an excess of that five
12 percent.

13 So finning has been occurring.
14 So this is a way to stop finning. This is a
15 way that NMFS can actually institute
16 management measures to help stop finning.

17 Now your other question was?

18 Sorry, just the second part of that.

19 MR. HEMILRIGHT: My other question
20 is, if you had the observers in this research
21 fishery, and you got somebody there that's
22 looking at it, why do you have to leave the

1 shark fins on? And if you do when you come to
2 the dock, even though you talked about the
3 Shark Finning Act, there's also two things
4 National Marine Fisheries has is the five
5 percent law and shark finning. So there's two
6 things. So you might better check about that.

7 There's the Shark Finning Act and
8 a five percent law that you all have that's
9 currently being prosecuted in the courts.

10 PARTICIPANT: The Shark Finning
11 Act is embedded in Magnuson, and it requires
12 the five percent. If you take a look in the
13 Magnuson Act, the five percent is in there.

14 PARTICIPANT: I think you are
15 missing his point.

16 PARTICIPANT This is something,
17 you know, we have been hearing and have had
18 some discussions with Enforcement about that,
19 and I think primary enforcement would move to
20 at the dock where sharks would be coming in.
21 If they have their fins on, then you had met
22 the test there, and then beyond that. But

1 what we have heard from Enforcement, and I
2 would encourage Jeff to jump in if he wants,
3 is that they may still review the logbooks if
4 there's -- it's part of a larger suite of
5 information, if it was relevant, but I believe
6 the primary test would be at the point of
7 landing, are the fins attached?

8 So, Jeff, if you want to jump in
9 or not.

10 MR. RADONSKI: Yes, I agree. You
11 know, for the fishermen, it is going to be the
12 landing, if it's intact. But it would still
13 be viable that through the records we could
14 check to see how the fish were cut out,
15 because we know we can't be at every single
16 landing. So there could still be illegal fins
17 that could be trafficking through.

18 MS. WILSON: I think the point,
19 though, is that it would only be part of a
20 larger review.

21 MR. RADONSKI: Right. It is not
22 going to be on that event where the agent

1 boards the boat and the fins were intact, and
2 then he is going to wait and see what the
3 paperwork is going to be. No. It will be the
4 long term investigations that we do.

5 MS. WILSON: And, Dewey, just to
6 address your other thing, fishermen -- if we
7 went with the preferred, there still would be
8 fishermen landing sharks outside of the
9 research fishery. They wouldn't be sandbar
10 sharks. They wouldn't -- I mean, we would
11 have still our observer requirements in place,
12 but there is a chance they wouldn't have an
13 observer on board.

14 So they wouldn't have somebody
15 seeing what they are doing when they are
16 catching the sharks. So it is to avoid -- you
17 would basically apply it, whether or not you
18 have an observer on board in terms of
19 consistency and easy to enforce. You have to
20 land those animals with their fins on. Not
21 everybody is going to have an observer on
22 board that can still land sharks.

1 MR. HEMILRIGHT: The only thing
2 about that, though -- and I'll get on with it
3 -- is that the sandbar will be probably the
4 only one that has the five percent, will be
5 larger than five percent. The rest of the
6 species, the blacktips and all that, will be
7 under five percent.

8 So, you know, it is something here
9 that we keep talking about. It's almost to be
10 like the greenstick issue, I guess, until we
11 are gone, because it just seems like there is
12 nobody wants to work here. Look at the best
13 available science that you all have in your
14 all's repertoire to look at, and I guess we go
15 back over. But my thing was, no matter what
16 happens, when I land a shark and it is over
17 five percent and I write that in my logbook,
18 there's ongoing action right now based on
19 nothing but a logbook report that -- that's
20 all, nothing else. But he sent in his
21 logbooks, and two years later facing the
22 repercussions of it, and that is my only -- if

1 it can be out in the open or something cleaned
2 up here, it doesn't seem like it's very easy,
3 even though it should be, that's the problem.

4 It is not landing shark fins. It
5 is what you write in your logbook that comes
6 down to haunt you.

7 PARTICIPANT: Dewey, can I just
8 ask? Your point on the other species, sandbar
9 is the only one that would be five percent.
10 So you are saying, for the other species five
11 percent is okay? I wasn't quite clear on what
12 your point was.

13 MR. HEMILRIGHT: You all's best
14 available science that you all have, that you
15 all made the five percent law with, had a wide
16 variety of sharks. I think that looked at if
17 you took sandbars, I think it was 11 or 12 --
18 I'm not sure right now. My memory is not good
19 on that -- and you had a high of 6.9 percent
20 and you had a low of like 3.2, and you all
21 chose the middle.

22 So, therefore, you set the

1 parameters, and all the reading I have of your
2 all's information that I am privy to or out in
3 the public, it said a scale that anything like
4 your spinner sharks, your blacktips, through
5 research that you all the best available that
6 you all have in your all's hands would be that
7 the other sharks would be less than five
8 percent. But it was crystal clear that not
9 only in the research that was done to start
10 the five percent law and other sharks research
11 that you all have and have used for
12 international issues that's not published yet,
13 showed a higher variety.

14 So my thing is that, no matter if
15 you have observer or not, how do we still
16 answer -- leaving the fins on, you don't have
17 points of entry of enforcement there all the
18 time. They are just the manpower and just the
19 way it works. So you write it down in your
20 logbook, and you send that in.

21 Well, what do you send in, because
22 it is obvious that it is more than that, and

1 I'm just trying to -- even though it appears
2 like we are pretty much finished right now
3 with the way you all have this, just answer
4 this question. What do you write in your
5 logbook?

6 Even though all the fins are
7 landed, you've come to the dock, and it's
8 going to be over five percent if you are
9 catching a majority of sandbars which the data
10 shows that in certain regions and places you
11 will catch a majority of sandbars, also the
12 observer program, what limited amount it does,
13 shows also with sandbars.

14 So that was my crux of the thing,
15 but there's two things that you have there.
16 You have the finning act, and you also have
17 the five percent law. They are not embedded.
18 Sometimes they are chosen to be as a law
19 enforcement tool on two separate occasions,
20 you know, so one or the other which one you
21 all choose.

22 The five percent law that's a

1 finning act prohibition is a rebuttable. You
2 can rebut that, but your all's five percent
3 law, when you go to a judge and court, that's
4 not rebuttable, you know. It's either you are
5 over five percent, even though it doesn't
6 matter.

7 So I'm just trying to clear that
8 up. What do you write down? Leaving the
9 shark fins on the sharks, you know, could be
10 one way, except Enforcement is not going to be
11 there all the time to look at it.

12 My asking for about how to clean
13 these sharks -- well, if you all come up with
14 the idea of a law, you all ought to have a
15 diagram on telling us how to do it, you know.

16 It's you go out shark fishing. You come in.
17 You put the sharks on your boat. Then you got
18 to go to the dock in 90 degree weather in the
19 summer or whatever times. Throw them out on
20 the dock, re-clean them with the knuckles and
21 stuff like that.

22 You know, I've been thinking. I

1 haven't had a chance to experience leaving
2 knuckles on and all that stuff like the back
3 fins or areas, but you still haven't answered
4 the question, even though you're talking about
5 fixing the problem of leaving the shark fins
6 on. You still haven't -- what do you write in
7 your logbook if you are over, because
8 Enforcement is not going to be there everyday?

9 MR. SCHRATWIESER: Jason
10 Schratwieser. I have a couple of questions
11 regarding allowable species for the
12 recreational fishery.

13 I noticed in your presentation
14 that silky sharks and spinner sharks were
15 omitted, but in the hard copy we have here
16 they are allowed.

17 MS. WILSON: There are a couple of
18 typos in there. What we gave you in the
19 presentation is currently, and it is correct
20 in the proposed rule.

21 MR. SCHRATWIESER: So what we have
22 right here is not correct, in the big volume

1 here?

2 MS. WILSON: Yes. There are a
3 couple of typos in there. That isn't, but if
4 you look in the proposed rule, it gives you
5 the list, and that list mirrors what I gave
6 you in the presentation. Spinners and silkies
7 would not be on the list right now.

8 MR. SCHRATWIESER: Okay. And the
9 other thing I had is: Talking to some folks,
10 presumably you are omitting blacktips, which
11 we think are a fairly healthy species, because
12 of identification problems. with duskies and
13 sandbars?

14 MS. WILSON: With spinners, and it
15 is hard to distinguish between a blacktip and
16 a spinner.

17 MR. SCHRATWIESER: Okay. Do we
18 have any information that spinners are in bad
19 shape?

20 MS. WILSON: Currently, they are
21 part of the LCS complex and would be
22 designated as unknown. They haven't had a

1 spinner specific assessment done.

2 MR. SCHRATWIESER: Well, I just
3 want to go on and comment. I think that you
4 can differentiate between the two, and I think
5 that it is a bad idea to restrict species that
6 are currently, we think, doing well. It's a
7 very popular recreational species, and I want
8 to go on record as saying that the
9 recreational public is against that. Thank
10 you.

11 MS. BEIDEMAN: Terri Beideman.
12 Five-day notice: What about pelagic longline
13 fishermen that are out at sea? Are they
14 grandfathered in on their trip? Five days is
15 not sufficient for closure. But really
16 probably more to the point is on the finning.
17 I kind of feel like we are going in a devo
18 kind of direction where we are evolving
19 backwards.

20 Efficiency of cleaning -- these
21 are food products. Trying to pack them on a
22 boat with ice and accommodate seafood safety -

1 - it's not good to have tails on tunas. It is
2 not good to have fins on sharks either. It
3 makes it difficult in the fish hole. It is
4 not the best.

5 Dewey has a point. We should go
6 back and take a look at when these ratios were
7 calculated. It was a combination of species,
8 and they came up with a conglomerate. They
9 picked the middle, the five percent.
10 Unfortunately, it is now in legislation.
11 However, if you are talking specifically about
12 large coastals and sandbar sharks that have
13 larger fins, they are going to be a higher
14 ratio, and you are, in fact, going to be
15 forcing people to break the law and write it
16 down and have repercussions down the road from
17 Enforcement, because they are following the
18 rules because of the miscalculation back in
19 the day.

20 So you have to realize that. They
21 figured blacktips and all this fish in
22 together when the five percent came up. It

1 was a rush to get something in, to do
2 something for finning, and in the legislation
3 the five percent kind of came up. But if you
4 are talking on a species by species,
5 particularly on sandbars and large coastals,
6 talk to Dewey. He knows that it is going to
7 be over five percent, and you are going to be
8 forcing him to break the law and potentially
9 have his behind hanging out there for
10 enforcement. That's it.

11 MODERATOR: Thank you, Terri.
12 Rusty, Russ, and then Bob.

13 MR. HUDSON: Rusty Hudson,
14 Directed Shark and also proxy for North
15 Carolina Fisheries Association today with
16 regard to shark.

17 I have a lot of questions, but I
18 am going to try to narrow it down for you,
19 Jackie, until we can get into a better format
20 to deal with all these questions.

21 The finning definition, number
22 one, requires a person to save the fins and

1 throw the carcass away. Is that correct?

2 MS. WILSON: Well, again you guys
3 can correct me if I'm wrong, but finning is --
4 I mean, if you break that five percent,
5 according to law, then you have been finning.
6 It is with the assumption that they have
7 thrown the carcass away and they have kept
8 just the fins on board.

9 MR. HUDSON: Okay. So you are
10 saying that that is the way you proceed. Now
11 with those first sharks that were done in '91,
12 seven of those sandbars were all juveniles.
13 The rest of them were mostly larger sharks, as
14 far as sandbars go.

15 The two fellows that were doing
16 the cleaning of the sharks -- you never gave
17 us a diagram on exactly how to clean the log
18 and how to be able to trim the fin with no
19 meat on there exactly so that you come up
20 exactly below five percent. They were not
21 able to come below five percent. They were
22 above five percent.

1 Then there was another 30-some-odd
2 sharks brought in by both Brent Winter and
3 Steve Branstader (phonetic), and in those
4 cases it ranged all the way up to nine percent
5 with these sandbars as far as fin-to-carcass
6 ratio.

7 We did our own work through the
8 state of North Carolina, and we wound up
9 finding that, based on how you dress the log,
10 how you trim the fins, we wound up with seven
11 and eight percent all day long with sandbar
12 sharks, specifically.

13 So what you have done is exactly
14 what I said in '92 in my comments then when I
15 was pushing for a minimum of six percent, and
16 if they left meat on, just like Bill Hogarth
17 had going for North Carolina, 10 percent,
18 because of the fact of the way you dress the
19 carcass.

20 At those times, we used to be able
21 to bring in the hammerhead fins, because the
22 meat is higher in urea is not palatable for

1 the market.

2 So, basically, when I said back
3 then you were going to criminalize the
4 directed fleet in particular that built this
5 market, you did, you being NMFS, not you,
6 Jackie.

7 Second, with regard to the dusky
8 shark assessment in-house review, I think that
9 you should call the Science Director, Alex,
10 and ask him to provide those names or, if it
11 is up in the Northeast, Nancy, and have them
12 provide those names so that we can be sure;
13 because if you remember, back in 2000 Bill
14 Hogarth brokered a settlement agreement with
15 us, and in that settlement agreement we had
16 certain scientists that we didn't trust, and
17 we had our reasons for not trusting those
18 scientists.

19 Now basically, as far as the
20 conflict of interest that occurred last year,
21 it occurred in two places, at the assessment
22 workshop level and at the review workshop

1 level. In particular, we were opposed to the
2 situation that existed with Colin Sinfendorfer
3 (phonetic) being brought in, who has been a
4 beneficiary of NMFS money, Steve Campana, same
5 deal, and also the Chairman, Andy Payne out of
6 CEFAS, who has this deal with CIE that was
7 created, Center of Independent Experts. It
8 was created by NOAA, NMFS, in the idea of
9 being able to review science.

10 We had problems with CIE with the
11 very first review that was part of the court
12 order. That is why it went over to NRC. So
13 with the situation with the conflict of
14 interest, to make it even worse Chairman Andy
15 Payne is the Greek assessment girl's boss,
16 Murdoch McAllister's boss, and we definitely
17 felt like three out of the five that were
18 there were in conflict of interest because of
19 the way they conducted themselves, both before
20 the workshop and during the review workshop.

21 That is just our opinion, you
22 know. So it is going to be part of our

1 written comment.

2 With the blacktip, Atlantic
3 blacktip, we provided NMFS Science Center with
4 a lot of logbooks, private, weighout slips
5 from businesses. They are in 1992, June.
6 when we did that, these logbooks specifically
7 showed blacktips on the Atlantic side being
8 caught by commercial. But in your database
9 that you used to do the assessment after you
10 broke out the Atlantic from the Gulf of
11 Mexico, you had zero pounds of landings for
12 1990, '89, '88, '87, '86, '85, '84, '83, '82.
13 And yes, I can tell you, I even personally
14 sold blacktip.

15 So I know that they exist in our
16 commercial logbooks, business logbooks,
17 landings, everything, receipts, is there, and
18 it was provided by NMFS, and I am still
19 wondering why it wasn't produced for the
20 workshop.

21 Furthermore, you paid to have
22 Ramon Bonfil come to the assessment workshop

1 in February of 2006, and he was supposed to
2 bring the Mexican data. That suddenly has
3 disappeared. So we had no Mexican data to be
4 able to work -- correct me if I'm wrong -- the
5 assessments for these straddling stocks that
6 we share with Mexico.

7 If you take six percent of the tag
8 recaptures of sandbar, they come from Mexico.
9 You take 16 percent of the tag recaptures of
10 dusky shark, they come from Mexico, and we
11 also know there is a lot of blacktip that come
12 and go between the U.S. and Mexico.

13 So here we were giving them
14 swordfish and tunas, and it kind of seems
15 wrong that they aren't willing to cooperate on
16 a science level. This has been going on since
17 the early Nineties with the Mexicans.

18 So it just frightens me that you
19 all are able to have that kind of science
20 going on, just like the typos the gentleman
21 brought over a minute ago with Table 2.1. It
22 is obvious, if you have the hard copy, you got

1 problems in Chapter 2. You got typos and
2 problems in Chapter 1, and I will be detailing
3 that in the housekeeping section that I will
4 be providing to you before November 2nd.

5 This is going to be the real
6 kicker. Two-thirds of the sharks that are
7 landed, according to Atlantic states, are
8 unidentified. So you haven't really
9 publicized it, but with your experimental
10 shark fishery for sandbar, you are going to --
11 as far as a research thing, every animal that
12 comes to the dock this year will be deducted
13 from the supposed sandbar quota next year, if
14 it has gone into the logbooks as unidentified.

15 So technically, with the overages,
16 if you go to one region -- this huge mess you
17 got out in Louisiana, they are going to deduct
18 that from everybody from Maine to Texas. So
19 we think that is fundamentally wrong.

20 You should be able to manage your
21 animals throughout their range. That includes
22 Louisiana. That includes Mexico, but it is

1 not occurring.

2 I don't know who is right or
3 wrong, but at the February 2006 assessment,
4 Dr. Julie Neer, who was the coordinator of the
5 LCS-NSCS workshops fundamentally for John
6 Carmichael and the SEDAR process, had said
7 that the VIMS data for the links, stations,
8 sexes of all the sandbars would be provided at
9 that assessment workshop.

10 Well, at the point that, when it
11 came time, we were told that NMFS had asked
12 for it, that it was not provided because they
13 could not compel VIMS to provide it, because
14 it was on, in part, state finance and
15 whatever.

16 Now I'm at an Atlantic States
17 meeting last year, and their transcripts are
18 all there, and Dr. Musick was with me, side by
19 side, and said that NMFS never asked him for
20 the sandbar data. So who is right, and who is
21 wrong? Dr. Neer or Dr. Musick.

22 So, fundamentally, yes, we have

1 problems with the sandbar assessment, and we
2 have problems with the way Amendment 2 is
3 being predicated, and we figure that you need
4 to take a real hard look at what you are
5 getting ready to do, because you have no
6 relief, no retraining, no retooling, anything
7 in the process for the guys that you are going
8 to displace, and that's the directed shark
9 fishery.

10 We are the ones that answered NMFS
11 call in the Eighties and built this fishery,
12 not the incidental permit holders or the
13 bycatch people. We provided a market for them
14 to be able to go into.

15 As soon as you kill the directed
16 shark fishery, you kill the directed shark
17 market. So your incidental shark catch is
18 going to become a bycatch and discard, which
19 it is mostly anyway, because you have these
20 issues.

21 When you are going to have us
22 leave fins on a carcass and you are going to

1 deal with HACCP issues, Hazard Analysis and
2 Control Point scenarios, when that core
3 temperature jumps above 40 degrees or that
4 shark when you are unloading it off of that
5 boat out on the dock -- correct me if I am
6 wrong, but I think it is at the point of first
7 landing that you are supposed to be doing a
8 lot of this work.

9 So then you are going to plug up
10 the fish house. You are going to wind up
11 having sharks laying all around taking X
12 amount of time per shark trying to get the
13 fins off of the carcass, get the humps off of
14 the carcass, get the belly flaps off the
15 carcasses and then get them into the vats that
16 usually hold 1,000 pounds at a time.

17 So all this process is going to
18 give you a very compromised product. I have
19 said time and again, fit the fleet to the
20 quota. The quota is too small. The directed
21 shark fisheries is who built it. Those are
22 the guys that you need to focus on.

1 You need to take this limited
2 access permit system of '99 and cull it down
3 so that you have the directed guys that are
4 active, which gets me to the part where you
5 had the -- and I guess it is on page 6 of this
6 right here -- but the number of potential
7 affected permit holders on bullet 2.

8 You had an average of 129 vessels
9 with directed shark permits and 62 vessels
10 with incidental shark permits who reported
11 landings between 2003 and 2005. Which states
12 were those boats from? Can you give us a
13 breakout of those particular 129 directed
14 guys, because they are the ones that concern
15 me most?

16 The incidental guys are going to
17 mostly have between one and five sharks per
18 event, and they are not going to amount to a
19 whole lot of thousands of pounds in a year.
20 So there's a lot of things -- and just like
21 Dewey brought up, there is a rebuttable
22 science situation with the Act, and this idea

1 of mining the logbooks for law enforcement
2 several years after the fact, and because you
3 all need to show me how to dress this shark
4 with the carcass, you know, and the fins and
5 everything left on there -- show me.

6 Then once you have shown me how to
7 successfully do it and pack them logs into the
8 ice hold and avoid these HACCP issues and
9 everything, then maybe we can embrace all
10 that. But when I was told in June at the
11 South Atlantic Council meeting by Chris
12 Rilling that you all probably weren't going to
13 go with the fins on like Europe is being done
14 or promoted us to do until maybe your
15 Amendment 3 or something like that, maybe 4,
16 but right now it is on Amendment 2.

17 So we have a problem the way that
18 is unfolded. With that, I am not going to go
19 ahead and go on a further rant except to say
20 that I come from the for-hire sector all of my
21 life, as well as commercial for most of my
22 adult life.

1 What I see with you taking the blacktip
2 and the spinner and the bull shark and silky
3 and stuff like that away from the recreational
4 is wrong, because those animals, particularly
5 in the state of Florida, are extremely
6 important to that recreational component, the
7 for-hire guys, the rec guys, et cetera.

8 If you are going to wind up
9 killing our fishery, then why don't you just
10 make it all a catch and release, and you will
11 never have an issue. It's just like you are
12 saying, hammerheads are easy to recognize.
13 Well, what if you get that cryptic species
14 that's just been discovered off of South
15 Carolina of hammerhead, and it looks like a
16 scallop, but it's genetically not? Now how
17 are you going to deal with that rare shark?
18 I mean, it's going to look like a scallop, but
19 it's not.

20 So all of these things are things
21 that are of issue to us, but there is no way
22 I can dignify in an oral comment, whether it

1 was at the Panama City meeting or whether it
2 is here today, all of the things that concern
3 us. Some things, I am holding back on for a
4 reason.

5 Once we get back to the idea of
6 are we going to have a level playing field
7 here or do you all want us out of the
8 business, where are we going to go with it?

9 We got Ken and we got Sonja. Both
10 of those groups were part of the Ocean
11 Wildlife Campaign that was out to eliminate us
12 at certain points. Well, they got plenty of
13 money now. Their business of dealing with
14 sharks has become a mega-business worldwide.

15 As soon as the directed shark is
16 gone and the witnesses are gone, then you are
17 going to have the situation of the big stick.
18 Anybody that has a bycatch of sharks then is
19 going to come under a scrutiny with these same
20 scientists, this same science in the future.
21 I pity all of them, the shrimp fleet, the
22 recreational for-hire guys, the swordfish

1 guys, anybody that has a bycatch of sharks.

2 So with that, I'll just stop for
3 the time being.

4 MODERATOR: I have Russ Nelson,
5 Bob and then Sonja.

6 MR. NELSON: Thank you. After
7 Rusty's comments, I almost feel like I
8 shouldn't proceed, but I will.

9 I see some sort of -- I mean,
10 there's a lot of disingenuity in the way you
11 present this information. I think that's part
12 of the process. When you have a staff
13 preparing options papers and things for a
14 council, you get a much more objective balance
15 of the pros and cons for every particular
16 action.

17 I think that in this process when
18 you all internally develop your preferred
19 options, you tend to respond in the EIS and
20 the Federal Register notice with just comments
21 that support what you have chosen as a
22 preferred option.

1 For instance, there is one clear
2 distinct anatomical feature that lets one tell
3 the difference between a blacktip and a
4 sandbar shark, and it is not mentioned here
5 anywhere. You make it seem like it's -- maybe
6 you all have a difficulty with this, but most
7 people can tell their fish apart.

8 I really have a problem with this
9 idea of telling us -- asking us to come here
10 and then telling us which five questions we
11 might be able to comment on, but I don't think
12 that is going to be an issue, because the ones
13 of us who don't want to will ignore that and
14 say what we want.

15 Finally, what you are doing in
16 this amendment is reallocating six species of
17 sharks from a mixed recreational/commercial
18 fishery to a 100 percent commercial
19 allocation.

20 Now you haven't called it an
21 allocation, but that is still what you are
22 doing, and there are new specific measures in

1 the Magnuson-Stevens Act that address
2 allocation decisions and require specific
3 sector-by-sector analyses of the economic
4 impacts of the alternative.

5 In fact, you've only got two
6 alternatives. You've got the status quo and
7 then you've got a 100 percent allocation of
8 these species to the commercial sector in
9 here.

10 I don't think that that analysis
11 would stand up to a close NEPA scrutiny nor a
12 scrutiny under the new allocation criteria in
13 the Magnuson Act. So I think that some of
14 these things should be reexamined.

15 MS. SCHULZE-HAUGEN: To respond to
16 that, the statement that there are no pros and
17 cons in the presentation -- I think we had a
18 lot of ground to cover and identified just
19 trying to lay out what the measures were.

20 If you read the EIS, there are the
21 pros and cons elaborated in the text, and I
22 think we struggled a bit with this

1 presentation, because there was so much ground
2 to cover. But the information is there.

3 So if there are specific
4 suggestions for presentation style, I would
5 welcome that, but the information is
6 available.

7 MR. NELSON: Margo, let me respond
8 with one simple question. If you are looking
9 at a shark and you think it is a blacktip and
10 you think, well, maybe it's a sandbar, what's
11 the feature that you look for to tell the
12 difference?

13 MS. SCHULZE-HAUGEN: I would look
14 at the dorsal fin.

15 MR. NELSON: At the dorsal fin?

16 MS. SCHULZE-HAUGEN: You could
17 also look at the stripe, things like that.

18 MS. WILSON: But the other thing,
19 Russ, too, is that the list that it was -- It
20 wasn't because blacktips are misidentified
21 with sandbars. Sandbars and duskies and the
22 silkies typically are misidentified among each

1 other. Blacktips and spinners can be
2 misidentified for those two, but we didn't
3 create that list because we thought sandbars
4 were being misidentified as blacktips and vice
5 versa.

6 We created that list, because
7 those are ones that we thought -- but again,
8 it is open to public comment on that list --
9 are what species could be positively
10 identified.

11 So I just wanted to clarify. We
12 didn't think sandbar sharks and blacktips were
13 being misidentified for one or the other.

14 PARTICIPANT: And just to follow
15 up -- sorry -- on the questions for the
16 tables, I think we all thought you would
17 answer the questions that you wanted. We are
18 trying to provide some narrower questions in
19 the hopes of getting some very specific
20 feedback, but you are welcome, all of you, to
21 comment on whatever you would like.

22 MODERATOR: Thank you. Bob and

1 then Sonja, and then Tom.

2 MR. PETER: Thank you. Bob Peter,
3 Mote Marine Lab. Under the premise that I
4 thought we had, that this was a Q&A session,
5 I am going to attempt to ask three questions.

6 Question Number 1, Jackie, is:
7 Isn't it true that the fins-on provision helps
8 with species ID and enforcement?

9 MS. WILSON: Yes, that is true.

10 MR. PETER: So that is more than
11 just an anti-finning provision. It helps with
12 that.

13 Question number 2 is: Since the
14 research sandbar fleet is going to have 100
15 percent observer coverage, what does that mean
16 for observer coverage of the non-research
17 fleet?

18 MS. WILSON: Talking with John
19 Carlson who heads up the observer coverage, he
20 is going to try to keep the same observer
21 coverage outside of the research fleet,
22 especially on other trips such as snapper,

1 grouper and other non-kind of targeted shark
2 BLL trips, because it is one of the few ways
3 we actually get information on those other
4 trips.

5 So we are going to try to sustain
6 that level of observer coverage.

7 MR. PETER: Well, then I have to
8 have a corollary question. Does this mean
9 that the observer program will get increased
10 funding in order to cover that or do you just
11 estimate that there will be shifts, and there
12 will be enough observers in the present
13 program to cover the entire research fleet and
14 whatever the five or 10 percent of the non-
15 research fleet?

16 MS. WILSON: Well, the thing is
17 that in the research fishery, the directed
18 research -- or the directed fleet would be
19 reduced, down to five to 10 boats. So it
20 would be fewer boats than what they currently
21 have to cover under the bottom longline
22 observer program.

1 So it is really a shift, I think,
2 in the terms of observers that they currently
3 have and how they can reallocate that, both
4 within and outside the research fishery.

5 MR. PETER: Okay. The last
6 question has to do with this blacktip/spinner
7 question. I am still a little bit unclear as
8 to the justification for this, especially
9 given that blacktips in the Gulf of Mexico
10 appear to be the only healthy stock we have.

11 Species confusion has me confused.
12 Certainly, there is no confusion with the
13 ridgeback species like sandbars and duskies.
14 They are clearly separable. I'm at a loss to
15 understand why NMFS would have a greater
16 concern about spinners and bull sharks than
17 they have about a group like hammerhead
18 sharks, which are left in the authorized
19 species group.

20 MS. WILSON: Again, that list was
21 put together as a list that is positively
22 identifiable. So it is sharks that they

1 wouldn't confuse with something else
2 potentially.

3 A blacktip could potentially be
4 confused with a spinner shark. The
5 alternative is we put both of those species --
6 (END OF TAPE 6).

7 (BEGIN TAPE 7) -- fishermen would be able to
8 positively identify the species that they
9 catch and report it accordingly.

10 MR. PETER: You know, I understand
11 that, but where is the concern for the spinner
12 coming from? We haven't done a stock
13 assessment on spinners. It is part of the LCS
14 group. There are a lot of other species in
15 the LCS group that stay on the recreational
16 species list.

17 I, for one, for example, would
18 possibly have greater concern about
19 hammerheads than I would about spinners. They
20 are certainly easily identifiable and removed.
21 I just don't quite follow the logic in doing
22 this, and bull sharks -- nobody is mentioning

1 bulls, and I don't understand why they are
2 prohibited from the recreational fishery.

3 PARTICIPANT: Hey, Bob, I believe
4 some of the confusion is stemming from whether
5 or not we were trying to protect the species.
6 What we are trying to do is pick out species
7 that any angler, someone who goes out once a
8 year, once a decade to fish for sharks, can
9 then easily identify.

10 Most of the anglers that go out
11 infrequently -- and we are not talking about
12 charter captains, they should know how to ID
13 these sharks. We are talking about just
14 random Joe who goes out to shark fish. They
15 see a shark with black tips. They assume it
16 is a blacktip. It may not be a blacktip. It
17 may be a spinner.

18 So therefore, we are having
19 problems getting reliable information. They
20 see a hammerhead. They know it is a
21 hammerhead shark. They may not know if it is
22 a scalloped or a great, but at least they know

1 it is a hammer. So we can get that
2 information.

3 It is more of just an
4 identification problem rather than a concern
5 over the status.

6 MR. PETER: Okay. So this is
7 stemming more from having a more reliable
8 information base than for the recreational
9 fishery?

10 PARTICIPANT: Yes. And as for
11 bull sharks, my understanding is they can be
12 confused with sandbars and dusky.

13 MR. PETER: Absolutely not, not if
14 we very simply educate the recreational
15 fishermen of the difference between a
16 ridgeback and a non-ridgeback species, and
17 anybody can figure that out very quickly.

18 Well, I will reserve comments on
19 all this for later. I just wanted those
20 questions answered. Thank you very much.

21 MS. FORDHAM: Sonja Fordham,
22 Ocean Conservancy. I want to say thank you,

1 Jackie, for what I found to be a very good,
2 clear, straightforward presentation, and it
3 was the right amount of detail for me. So
4 thank you for that.

5 I think it is clear that this is a
6 comprehensive amendment and that you guys have
7 put a lot of work into it. I might not agree
8 with everything you have done, but it is clear
9 to me that you have thought a lot about this,
10 and I appreciate that.

11 I do, as you might expect, have a
12 lot of comments on it, but I understand this,
13 like Bob, to be a Q&A, and I recognize that we
14 are almost an hour late for public comment.
15 So I just have two questions for
16 clarification, and I look forward to the
17 breakout groups to comment on different
18 elements of the plan.

19 For the research fishery that is
20 allowed to land sandbar sharks, I understand
21 that they are allowed to land them under this
22 new quota, but are they allowed to target

1 sandbar sharks?

2 MS. WILSON: Potentially, they
3 could. It would be dependent on the research
4 objectives. So whether or not how much that
5 mimics what the current directed fishery is,
6 it is not currently known right now, but they
7 could potentially be directing on them. But
8 they would be constrained to that 116 metric
9 ton sandbar quota.

10 MS. FORDHAM: Okay.

11 PARTICIPANT: I would just like to
12 add to that. Keep in mind, at least part of
13 the fleet we want to have continue fishing the
14 way they are now, so we can continue those
15 time series. So part of the fleet probably
16 will be targeting sandbars, if that is what
17 they used to do. So we can continue those
18 time series.

19 MS. FORDHAM: Okay. Then the
20 second question is this might not happen. I
21 guess it depends on what they target and how
22 soon you get the research fishery certified

1 and so forth. But what if the non-sandbar
2 shark quota gets filled? Is the research
3 fishery allowed to go and continue to target
4 sandbar sharks or is there no research fishery
5 if the non-sandbar shark quota is filled?

6 MS. WILSON: Currently, how we
7 have it is, if either one of those are filled,
8 it all shuts down for the sandbar and the non-
9 sandbar LCS.

10 MR. DePERSIA: Tom DePersia. Did
11 anybody make any analysis of how many
12 recreationally caught porbeagles are in the
13 sample?

14 MS. WILSON: When we looked at
15 what was reported to us, which came from our
16 Southeast Center who does the data collection,
17 I believe there was only one recreational
18 reported porbeagle shark. It is in the most
19 recent FMP.

20 MR. DePERSIA: In northern New
21 England above Cape Cod, we only have about
22 four sharks that we can catch out there, or we

1 are catching, porbeagles, makos, threshers and
2 blue sharks. Porbeagle is one of the few
3 edible sharks that we have in our area,
4 because we catch mostly blue sharks.

5 I think it would be unfortunate to
6 close the fishing of porbeagles in our area.
7 We have people come from all over the world to
8 fish for porbeagles, because it is one of the
9 few places they can catch them, is in northern
10 New England.

11 I think the major damage is being
12 done in Canada, if I am not mistaken. Do you
13 know how many porbeagles were caught in
14 Canada?

15 MS. WILSON: I don't know that
16 number off the top of my head, but they have
17 a directed fishery. We do not have a directed
18 fishery.

19 MR. DePERSIA: Once again, this is
20 another situation where foreign countries are
21 -- American fishermen are suffering the
22 consequences because of overfishing in another

1 nation.

2 PARTICIPANT: I would just like to
3 add that Canada has taken strong actions to
4 reduce the number of porbeagle in their
5 fishery. So it is not like they are not
6 taking any action.

7 MR. DePERSIA: Okay. I just don't
8 think it is a good idea to close porbeagle
9 sharks to recreational fishermen.

10 MODERATOR: Tom, thank you. Lisa,
11 Glenn, and then Bill.

12 MS. GREGG: Lisa Gregg, Florida
13 Fish and Wildlife Conservation Commission.

14 I have a question on the
15 reporting. In the preferred alternative, the
16 shark research fishery, it says dealer reports
17 received by NMFS within 10 days of end of
18 reporting period would be used to monitor
19 landings outside the research fishery.

20 Is there a processing time that
21 NMFS has with processing the reports -- I mean
22 with the dealer reports once they are

1 received, because it seems like you've got a
2 10-day standard for the dealers, but is there
3 some processing time that NMFS has to abide by
4 also once they receive those reports?

5 PARTICIPANT: No, not
6 specifically. That change has been driven, in
7 large part, by the way the regulations are
8 currently written, that the dealer reports
9 have to be postmarked within 10 days, and what
10 we have discovered is that the reports are
11 routinely coming in with no postmark.

12 The Postal Service is not
13 postmarking them. So that is not a viable
14 method of determining compliance. So we have
15 moved to a "received by." But as far as a
16 statutory or regulatory requirement for us to
17 turn around those reports, no. We do it as
18 quickly as we can, but there is nothing --
19 there is no timeframe for it.

20 MS. GREGG: Also, I am going to go
21 back to the issue that Jason and Russell and
22 a few others have brought up, about the

1 blacktips and the spinners and the ID issues.

2 You brought up this measure of
3 positively identifiable, and to me, what I'm
4 seeing is an arbitrary application of this
5 positively identifiable standard, because if
6 this had been applied when you listed
7 Caribbean sharpnose as a prohibited species,
8 then you've got -- there isn't a single non-
9 invasive method to distinguish a Caribbean
10 sharpnose from an Atlantic sharpnose. Yet an
11 Atlantic was not listed, and the Caribbean is.

12 That may only be an issue in the
13 far southern portions of Florida, but it is
14 still an issue. So to me, I see an arbitrary
15 application of this standard.

16 I guess I feel like, as long as --
17 that maybe "positively identifiable" ought to
18 be changed to "as long as there is a
19 noninvasive method to distinguish the species,
20 then I don't think I would be concerned"
21 should be taken into consideration.

22 If there is isn't a noninvasive

1 method to be able to distinguish the two
2 species, then you have to start looking at ID
3 issues. Otherwise, it is an education issue,
4 and we shouldn't start -- we can't start
5 taking away species from a recreational
6 fishery just because you think the
7 recreational fishermen might have a problem,
8 when there is still a way to distinguish the
9 two species from each other.

10 So -- and this is going to be a
11 real problem in florida, because our state --
12 we try as best as we can to be consistent with
13 Federal regulations, but this is going to be
14 a problem, because we are primarily a -- we
15 are a recreational shark fishery in Florida.

16 Our commercial shark fishermen are
17 limited to the recreational bag limit within
18 state waters of Florida. So this is a primary
19 -- primarily a shark fishery, at least within
20 state waters, and our ability to maintain
21 consistency with Federal regulations is
22 greatly compromised when you start bringing in

1 these type issues.

2 So I think that's all I have.

3 MODERATOR: Thank you, Lisa.

4 Glenn, Bill and Mark.

5 MR. DELANEY: Thank you. Glenn
6 Delaney.

7 I'm not sure. Rusty may have made
8 my comments. I know a few other people.

9 PARTICIPANT: I'm sorry to cut in,
10 but in the interest of the public comment,
11 could we really try and keep this to the
12 technical questions. We are getting a lot of
13 technical questions followed by comment, and
14 I know it's all good comment, but we do have
15 members of the public that have come for a
16 specific time on the agenda.

17 So if we could try and wrap this
18 up or maybe pause and take the comments and
19 return or something. I just don't want people
20 to be waiting too long when I know they have
21 come for a specific time.

22 Is it a technical question or is

1 it really a comment?

2 Well, and I realize that folks
3 have a bit strayed from the technical
4 questions, and so --

5 MODERATOR: We have four Advisory
6 Panel members that are on the list right now.
7 I would recommend we try to get through those
8 as fast as possible. We will draw the line
9 right there, and then we will go to the public
10 comment period.

11 PARTICIPANT: Is that acceptable
12 to folks?

13 MR. DELANEY: You know, Bluewater
14 Fishermen Association is certainly on strong
15 record, I'm sure, opposed to finning, and I
16 think the industry as a whole was always
17 opposed to finning, and I think that what
18 Congress and the industry didn't know at the
19 time the legislation was adopted was that five
20 percent was not the best reflection of best
21 available science, and has now put us in a
22 bind.

1 So I think it is important for the
2 agency to not just step aside and say, well,
3 Congress adopted a law, so our hands are tied.
4 The agency makes recommendations to Congress
5 all the time, and perhaps this is an area that
6 needs to be revisited.

7 I think that a lot of questions
8 are being raised in the scientific community
9 domestically. We had an excellent report by
10 Clay Porch on behalf of the SCRS from ICCAT
11 indicating that there were a lot of technical
12 questions about the five percent, given the
13 species that they reviewed.

14 There is a report that came out of
15 Europe. We had an excellent discussion at
16 that at the ICCAT Advisory Committee meeting.
17 I think -- I don't want to put words in her
18 mouth -- but even Sonja seemed to embrace the
19 notion that the five percent was not an
20 effective tool and that alternatives needed to
21 be looked at.

22 So there is a problem there, and I

1 think we need to recognize it and not just
2 hide behind the statute. If Congress needs to
3 fix something, then Congress should be advised
4 of that.

5 Now right now we are moving from a
6 situation where a fisherman at least has the
7 opportunity by being able to remove the fins
8 at sea to comply with the law by simply
9 throwing some fins overboard.

10 Now that may be very adverse to
11 the interests of fishermen to throw fins, i.e.
12 money, overboard, but at least it gives that
13 fisherman an opportunity to comply with the
14 law and be under the five percent in the case
15 of sandbars.

16 The move that you are proposing
17 now has been explained, will force fishermen
18 or guarantee at least some fishermen will be
19 in violation of the law every time they land
20 a shark whole with fins on board, and the
21 notion that they will be subsequently
22 prosecuted based on a paper trail of after-

1 the-fact landing, and when those fins are
2 removed and logbooks and dealer reports is not
3 a theoretical or hypothetical situation. You
4 are doing it now.

5 People are being fined hundreds of
6 thousands of dollars for exactly that
7 situation. So we need to deal with this, and
8 keep in mind that the whole purpose of this is
9 to stop finning, not to just find ways to put
10 fishermen in violation and prosecute them and
11 collect large fines and put them out of
12 business in some cases.

13 So let's keep in mind and an eye
14 on the prize. So I just ask that this is
15 something that the agency needs to review. I
16 don't think it is adequate to just simply say
17 Congress passed a law and we have to live with
18 it forever. We need to do something about
19 this.

20 The international scientific
21 community is pointing out the problem. The
22 domestic scientific community is pointing out

1 the problem. We don't want finning in our
2 fishery, and we just need to find a better way
3 to get that done.

4 So I don't know how this could be
5 approvable. You have to give fishermen a
6 reasonable opportunity to comply with the law,
7 and you are not. I mean, by requiring a
8 fisherman to land a carcass with fins on
9 that's in violation of the law is not a
10 reasonable opportunity to comply with the law.

11 So I'm sure General Counsel will
12 have to take a look at that and consider
13 seriously whether that is a reasonable
14 opportunity to comply with the law and
15 approvable under Magnuson. So let's find a
16 better way to do this. Thank you.

17 PARTICIPANT: Well, Glenn, just to
18 that point, we welcome any comments on how to
19 improve.

20 MODERATOR: Thank you, Glenn.
21 Three more, Bill, Mark and Rich, and then
22 we're done with Advisory Panel members.

1 MR. DAUGHDRILL: Bill Daughdrill,
2 Gulf of Mexico Fishery Management Council.

3 My question is what was your
4 rationale to combine all regions, and did you
5 consider this -- when you combined them, that
6 this would eliminate a healthy recreational
7 fishery of the blacktip shark in the Gulf of
8 Mexico?

9 PARTICIPANT: Well, first of all,
10 combining the regions is really a commercial
11 basis, and so I'm not quite sure of the
12 connection with the recreational fishery that
13 you are making there. But to clarify, on the
14 region we are doing -- proposing to have one
15 region for the commercial fishery is in part
16 because the quotas have been shrunk
17 considerably to 116 metric tons.

18 If you split that up over amongst
19 the different regions, we felt it would be a
20 very small quota available in those different
21 regions. So that is, in fact, why we are
22 proposing one region now.

1 I don't quite know -- I guess I
2 just don't understand your question with
3 regard to the recreational -- how that will
4 affect recreational fishermen in the Gulf of
5 Mexico. They are currently not managed under
6 regions, and they wouldn't have regions. You
7 know, it wouldn't change necessarily for the
8 rec guys. So I'm sorry if I am not answering
9 your question there.

10 MODERATOR: Okay, thank you.

11 Mark? Mark Lingo?

12 MR. LINGO: This is Mark Lingo for
13 Texas Parks and Wildlife Department.

14 My question is I'm new to this
15 whole meeting here. So hello, everyone. Is
16 there any precedent for the inclusion or
17 exclusion of a fish on the allowable list
18 based solely on the easily identifiable
19 standards that you all are talking about? Has
20 this happened before or is this something new?

21 MS. WILSON: We have criteria when
22 we put something on a prohibited species list.

1 I think this is fairly new in terms of what we
2 are proposing for a recreational landed
3 species, what would be allowed to be landed by
4 recreational fishermen.

5 MR. LINGO: Thank you.

6 MODERATOR: And finally, Rich
7 Ruais.

8 MR. RUAIS: I'll be quick. I just
9 wanted to align myself with the problem that
10 Dewey continues to point out, and pointed out
11 at the last Advisory Panel meeting and of
12 course, with Glenn's comments, which I don't
13 think you can get a better summary of the
14 problem you are about to set up, because you
15 are continuing to ignore the basic issue, and
16 it has to be fixed.

17 It is true that you can't maybe
18 fix the Federal law, but you've got to find a
19 way to not put something in the plan that
20 automatically puts a fisherman in violation of
21 a Federal law, and the burden does fall upon
22 the agency, in our eyes, to fix that issue.

1 The other comment or question I
2 had was I thought we had a commitment at the
3 last Advisory Panel meeting with somewhere
4 between five or 10 vessels being selected to
5 participate in the research program. It is
6 clear that the economic impacts are going to
7 extend to somewhere around 180 directed
8 vessels and 298 incidental vessels and then a
9 whole bunch of dealers.

10 I thought we agreed and got a
11 commitment from the agency that within the
12 plan itself that there would be discussion
13 about the need for some type of remedy here to
14 -- I mean, these are clearly as draconian an
15 impact of a plan as one could design, and if
16 there ever were a better case for a buyout, I
17 don't know where it is.

18 I thought we had a commitment
19 that, even if someone considers it unusual,
20 that that whole discussion, because of the
21 level of impact, would be included in this
22 plan, and it would be moving forward

1 simultaneously with the implementation of the
2 plan, and I don't see it. Maybe I'm missing
3 it, but I would like to know where that
4 commitment went to.

5 MS. WILSON: It is on page 1-10.

6 MR. RUAIS: And it's all set. The
7 buyout plan is ready to rock and roll?

8 MS. WILSON: Well, it goes through
9 fishery disasters. It goes through capacity
10 reduction programs, and so it talks about what
11 the processes are, and then maybe Alan can
12 help me out here, but I believe the agency is
13 also working on guidelines for disaster
14 declarations that are in the mix. So there is
15 --

16 MR. RUAIS: That's a terrific
17 answer, and I appreciate it. Alan, if at some
18 point either after the public comment or not,
19 if you could maybe describe some of those
20 actions or plans that are taking place, it
21 would be terrific for us to hear that, and I
22 appreciate the response.

1 MODERATOR: Thanks, Rich. We are
2 going to -- Jackie, thank you very much. I
3 think that concludes the questions from the --
4 and comments from the Advisory Panel.

5 We are going to ask the members of
6 the public that have come to address this
7 topic. Bill has opened up his seat here for
8 you all to have access to a mic. So I would -
9 -

10 MS. WILSON: Why don't we have
11 folks come up to the front?

12 MODERATOR: Oh, to the podium?

13 MS. WILSON: Sure.

14 MODERATOR: Okay, that's fine.
15 All right. So there were about six or seven
16 of you. I'm not sure if there is any
17 particular order. Does anybody want to go
18 first? Yes, sir?

19 When you get to the podium, if you
20 would just identify yourself, and perhaps, if
21 it is applicable, what organization you
22 represent. Thank you.

1 We are asking members of the
2 public to limit their comments to no more than
3 five minutes, if possible.

4 MR. OLSEN: Okay. My name is
5 Harold Olsen, actual hands-on shark fisherman,
6 have been doing it since -- started it in
7 1985; have been through all the rigorous cuts
8 and closures and everything, and I came up
9 here to talk to some of the people here that
10 really needed to know from an actual shark
11 fisherman.

12 I already made a comment at
13 another Fort Pierce meeting, and if anybody
14 wants to just talk to me about something or
15 anything, I'm open for -- I'm here to talk to,
16 and that's all I wanted to say while I'm here.
17 Thank you.

18 PARTICIPANT: Where are you from?

19 MR. OLSEN: The shark infested
20 waters of Charleston, South Carolina.

21 MODERATOR: Okay, who would like
22 to go next?

1 MR. MUSICK: I'm Jack Musick.
2 Many of you already know me. I am the Program
3 Director for the Shark Research Program at the
4 Virginia Institute of Marine Science and have
5 been at this in one way or another -- that is,
6 studying sharks -- since 1961.

7 I also currently serve as the
8 Chair of the Atlantic States Marine Fisheries
9 Commission Shark Technical Committee. We are
10 in the throes of developing our first plan.
11 We are three-quarters of the way there.

12 In general, the ASC plan, as it
13 stands now, has made every attempt to be
14 complementary to the National Marine Fisheries
15 Services plan so that the regulations in state
16 waters dovetail very closely with those in
17 Federal waters.

18 I have a couple of comments
19 relative to maybe some differences between the
20 recommendations that our committee made at its
21 last meeting and alternative 4, as it stands.

22 Number one, we think it is really

1 important to begin the fishing year on July
2 1st or, even better, the 15th, because as it
3 stands now, if it begins January 1st, the Mid-
4 Atlantic Fishery will be kaput. The quota
5 will be filled long before the sharks are up
6 in our area, from Virginia north.

7 Now in addition, one of the
8 measures that we are recommending to the
9 Commission is that state waters from Virginia
10 up to New Jersey be closed to shark harvest
11 from the 15th of May to the 15th of July.

12 The reason for this is that the
13 primary nursery grounds and pumping grounds
14 for sandbar sharks of the Chesapeake Bay,
15 Delaware Bay and then the coastal lagoons in
16 Virginia, Maryland, Delaware and New Jersey,
17 and our thought is to protect the pregnant
18 female sharks when they come into that area to
19 pup.

20 Therefore, it would be better, if
21 that regulation is passed, to begin on July
22 15th to coincide with the opening up of state

1 waters in that area.

2 Also for recreational species, I
3 agree with what several people have said here
4 already, that blacktip, spinner and bull
5 should be allowed in the rec fishery. People
6 down south, particularly representatives on
7 our committee from Florida, was pretty adamant
8 about that. I wouldn't include the silky.

9 Now to address this problem of
10 identification, again I will reiterate what
11 Bob said. These three species are all non-
12 ridgebacks. This ridgeback character is not
13 kind of an ephemeral character. It's there.
14 You can see it. It's there when the sharks
15 are dead. It's there on the logs after the
16 sharks are cleaned.

17 So the only species on the list,
18 if we add blacktip, spinner and bull, that is
19 a ridgeback, in fact, is the tiger shark,
20 which everybody can identify. The rest of the
21 species that are presently on the list and
22 these three species are all non-ridgebacks.

1 So I think that the identification
2 problem is a moot point, if you do that.

3 The other thing is, so far as
4 enforcement is concerned, once the ASMSC plan
5 comes into effect, which will probably be in
6 the beginning of '09 -- is the best bet --
7 remember that the state marine patrol officers
8 then will involved in enforcement for all
9 shark regulations, and particularly since we
10 are in endeavoring to make our regulations
11 consistent with your regulations, it should be
12 a pretty simple fact.

13 Some of us already in the states
14 have had workshops for enforcement people so
15 that they can identify the sharks.

16 My last comment is a minor one.
17 There was a statement in the comment section
18 about gill-net fisheries being penalized,
19 because they don't catch sandbar or dusky
20 sharks. That may be true in the southeast,
21 but it is certainly not true north of Cape
22 Hatteras where the gill-net directed catch and

1 the bycatch is primarily sandbar sharks and
2 then some duskies thrown in.

3 So those are my comments. Thanks
4 for listening.

5 PARTICIPANT: Dr. Musick, good to
6 see you again. In a December 9, 2005,
7 Virginia Pilot interview with you, you made
8 this following quote, "The problem here along
9 the East Coast was that, when Jaws" -- I
10 believe 1975, the movie came out, which is
11 identical to the sandbar burgeon population
12 that NMFS says existed then.

13 When Jaws came out, and this is
14 the truth, the fishing mortality from
15 recreational fishing on sharks exploded.
16 Thousands of tons were landed each year. By
17 1985, we had seen in many species at least a
18 50 percent decline in abundance, and at that
19 time the commercial fishery took off.

20 So I guess what you are saying is
21 that sandbar and other coastal shark species
22 had already been collapsed 50 percent or more

1 by the recreational component between '75 and
2 '85. Is that accurate?

3 MR. MUSICK: Sandbars hadn't
4 declined by that amount, but dusky shark
5 certainly had. They were targeted
6 particularly by the tournament fishermen,
7 particularly adult -- large adults. In
8 addition, duskies were being taken in the
9 pelagic swordfish fishery at the edge of the
10 shelf in the wintertime.

11 So that is one of the species that
12 had declined at least by 50 percent in our
13 dataset by 1985. Sandbars had already
14 declined maybe by 30 percent. A large part of
15 the decline was caused by recreational
16 fishers.

17 MS. WILSON: Thanks, Jack.

18 MR. HEMILRIGHT: Just a quick
19 thing here. I was doing pretty good until you
20 made your last comment about gill-nets and in
21 North Carolina.

22 MR. MUSICK: I didn't say anything

1 about North Carolina.

2 MR. HEMILRIGHT: You said Cape
3 Hatteras.

4 MR. MUSICK: I said north of Cape
5 Hatteras.

6 MR. HEMILRIGHT: Oh, okay. So
7 you're talking about unclassified landings in
8 Virginia with gill-nets and stuff.

9 MR. MUSICK: I was talking about
10 what species are taken in the gill-net
11 fisheries north of Cape Hatteras, Virginia,
12 Maryland, Delaware and so on, where there are
13 primarily sandbar sharks and some duskies.
14 South of Cape Hatteras in North Carolina,
15 there is no doubt the blacktips are very
16 important.

17 MR. HEMILRIGHT: But is there any
18 type of -- over the last few years, we see all
19 these numbers of unclassified coming out of
20 Virginia. I'm sure you are not -- maybe not
21 aware of the amount.

22 What would be the breakdown of

1 what has been called -- not been called, but
2 the species percentage of sandbars, how much
3 of it is blacktips, how much of it is the
4 dusky shark?

5 It's quite obvious that we look at
6 these areas, and I almost think it is a little
7 -- not too late, but it is kind of good we are
8 starting to do something here in 2007 with our
9 state fisheries. Virginia has been probably
10 one of the biggest problems of having the
11 largest amounts of unclassified sharks coming
12 out of their data that's caught in state
13 waters.

14 I was just wondering, with the
15 gill-nets, what size gill-nets are they using.
16 I mean, and the classification of the sharks.
17 Is it just a couple of sandbars? I mean, it
18 seemed like the predominant fishery in
19 Virginia state waters with gill-nets was
20 catching a lot of unclassified sharks. Do you
21 know what some of the classifications would
22 be?

1 MR. MUSICK: Dewey, I agree with
2 you completely. There is a big problem in the
3 gill-net fishery in Virginia waters.
4 Unfortunately, I work as a research agency and
5 not the regulatory agency.

6 The breakdown, based on our 30-
7 some years of data, which is primarily
8 longline but different size hooks, is that
9 sandbar sharks make up about 80 percent of the
10 shark species that occur in those in-shore
11 waters, in state waters where this fishery is
12 being taken -- where this fishery takes place.

13 So it's some dusky sharks,
14 primarily sandbar sharks, and then blacktips
15 are a minor component. Does that answer your
16 question?

17 Right. That fishery needs to be
18 observed. That's the problem, but I wouldn't
19 imagine that the composition is very
20 different, because sandbar sharks are the most
21 abundant sharks at all sizes, right from
22 neonates up to adult pregnant females.

1 MS. WILSON: All right. Thanks,
2 Jack.

3 MR. MUSICK: Thank you.

4 MODERATOR: Thanks, Dewey. Thank
5 you, Jack. Diana, you are up.

6 MS. McCURIE: (Phonetic). My name
7 is Diana McCurie, and I am board member of the
8 Shark Research Institute. I am a super-
9 activist for the Ocean Conservancy and
10 volunteer my time at two New Jersey aquariums
11 to help promote shark awareness and
12 conservation.

13 I live in southern New Jersey and
14 have spoke with many local commercial
15 fishermen and sport fishermen, and
16 unfortunately, they did not acknowledge what
17 I had to say.

18 I do believe many forget or lack
19 the knowledge of the declining numbers of many
20 shark species all over the world. We cannot
21 forget that the other parts of the world rape
22 our oceans for its sharks and its fins, and

1 they have caused their numbers to plummet
2 severely.

3 I would like to offer my
4 appreciation to the HMS Amendment. It is all
5 about improving shark research and management,
6 because so often sharks are ranked below tuna
7 and swordfish.

8 The current underlying logic of
9 sustainable use is the rationale that we are
10 only making appropriate economic use of sharks
11 by fishing for them. In other words, if the
12 sharks are not harvested, we are not making
13 appropriate use of the sharks. So there is a
14 drive to push fishing for sharks.

15 Added to that is the notion that
16 the level of sustainable is determined by
17 taking out the maximum number of sharks that
18 can be removed from population to sustain its
19 current level. In effect, this means even in
20 a well managed shark fishery, we hammer the
21 populations until they fall, to the extent
22 there are just enough sharks to maintain

1 reproductive viability.

2 The sustainable yield is then
3 considered as the annual harvest that knocks
4 the population back to the minimum viability
5 level.

6 Other factors such as broad
7 ecosystem balance and viability are not taken
8 into account unless they have a direct and
9 visible effect on the target's population
10 viability.

11 The concept puts the right to
12 harvest ahead of all else. As a result, short
13 term commercial interests too often prevail,
14 and the long term impacts on the species or
15 regional ecosystem are ignored.

16 Unfortunately, fishery science and
17 population estimates have proven to be
18 dangerously flawed with sustainable yields
19 based upon greatly degraded baselines. The
20 drastic declines in shark populations
21 worldwide are evidence that sustainable yields
22 have been little more than calculated guesses,

1 the truth only becoming evident over several
2 decades or longer.

3 Shark Research Institute supports
4 the precautionary principle and asks for a ban
5 on all shark fishing. Unfortunately, our
6 entire world is looking for the monetary gain
7 our planet has to offer, and it would be nice
8 if this was not overlooked. Only in a perfect
9 world would shark fishing be banned.

10 I know I am hearing some gasping
11 at that point.

12 As far as the existing proposal, I
13 do strongly support significant cuts in the
14 catch of highly overfished sandbar sharks. My
15 concern does lie within NMFS opted for the
16 maximum rebuilding timeframe, which is the 70
17 years allowed by law for severely overfished
18 sandbar sharks, and intends to allow continued
19 fishing for other large coastal sharks.

20 Why should we take the maximum
21 allowed by law and not a precautionary
22 approach? The proposed quotas for the

1 sandbars are at 116 metric tons. That is much
2 higher than they should be.

3 I greatly oppose of the 541 metric
4 ton quota for the rest of the large coastal
5 complex, given that assessment for the
6 blacktip sharks state the status is unknown.

7 I would also express my concerns
8 for the other large coastal sharks that may
9 have been taken under the quota, particularly
10 the great and scalloped hammerhead sharks,
11 which have been proposed for the IUCN red list
12 of threatened species. The sharks do lack a
13 NMFS assessment.

14 Another concern under that quota
15 is the prohibited species that may be taken as
16 bycatch, particularly dusky and sand tigers.
17 Both are exceptionally depleted.

18 Considering the poor status of
19 most of these species in the complex, the
20 uncertainty of the blacktip assessment, the
21 ineffectiveness of NMFS' shark recovery plans
22 to date, and a commercial large coastal shark

1 fishery at this time is simply not acceptable.

2 I strongly support for proposals
3 to prohibit the take of porbeagle sharks and
4 urge NMFS to propose similar measures this
5 year at the ICCAT, the International
6 Commission for Conservation of Atlantic Tunas.
7 Unfortunately, porbeagles were denied the
8 protection at CITES in June. It is now even
9 more urgent that the ICCAT and North Atlantic
10 countries step up to ensure the endangered
11 species is no longer targeted.

12 I support the strongest possible
13 restrictions on dealer reporting, as the lack
14 of such measures has led to unacceptable shark
15 quota overages. There should be heavy
16 consequences for this to prevent such
17 overages.

18 I regret that NMFS has once again
19 failed to protect deep water sharks,
20 especially the slow growing species that have
21 rapidly depleted in other parts of the world
22 and become more and more at risk off the U.S.

1 Atlantic as the fishermen fish deeper and
2 develop new markets.

3 History tells us that this group
4 of sharks is simply too vulnerable to sustain
5 the fisheries. So NMFS should proactively
6 prevent the development of the fisheries
7 before our fishermen invest in them.

8 I do support a fishery for
9 research only with the NMFS personnel on board
10 every vessel, but my suggestion is to lower
11 the quota so the sandbars rebuild more
12 quickly. But why is the consideration so
13 small?

14 I would like to end with my
15 strongest support for the agency proposal to
16 require that sharks be landed with their fins
17 attached. This is the best method for
18 ensuring an end to the cruel and disgusting
19 act of shark finning.

20 It will also help improve with
21 species specific data. I urge NMFS to
22 implement this measure as soon as possible in

1 the Atlantic, because -- to also take the
2 steps to ensure its adoption in Pacific
3 waters.

4 The sooner the fins attached rule
5 is a U.S. policy, the sooner the U.S. can help
6 lead the rest of the world toward stronger
7 finning bans internationally.

8 Shark Research Institute and I
9 greatly thank the officers for today for
10 allowing me to voice my concerns for the
11 greatly misunderstood species of shark. Maybe
12 one day fishermen will see the great benefits
13 of live sharks for tourism and ecosystem, and
14 not for the instant gratification from a dead
15 shark and monetary gain.

16 MODERATOR: Thank you, Diana.
17 George?

18 MR. BURGESS: George Burgess,
19 Florida Program for Shark Research, University
20 of Florida. Many of you may know me, not as
21 much as Jack because I don't shout as much,
22 and I am not as old as Jack, but I have been

1 studying sharks since the early 1970s.

2 I would like to make a few
3 comments on the preferred alternative suite
4 number 4, specifically the following, the
5 question that was raised by Dr. Hueter
6 regarding observing the non-research vessels.

7 As one who ran the observer
8 program from 1994 to 2005, I know the
9 economics involved in observer coverage, and
10 I know that gathering the appropriate amount
11 of money from what comes as recommendations
12 from forums like these and assessments does
13 not always get translated into dollars on the
14 ground to the interested parties in this case,
15 the Panama City National Marine Fisheries
16 Service Laboratory.

17 So I would urge them in very
18 strong terms that the funding be provided in
19 the appropriate level and the appropriate
20 mechanisms to provide the needed observer
21 coverage which is needed more now than ever,
22 considering the plight of sharks.

1 Second of all, I would like to
2 address the authorized recreational species.
3 I know this discussion has gone on for several
4 people. I would like to make the following
5 point.

6 I do not think the great
7 hammerhead and scalloped hammerhead are
8 necessarily easily identified species. In
9 fact, that was one of the more difficult
10 identifications, particularly with large
11 scalloped hammerheads and an equal size great
12 hammerheads that we had with our fishery
13 observers.

14 It was an area where we spent a
15 great deal of time in identification, and we
16 required our observers to take cameras aboard
17 the vessels and take pictures of the heads of
18 these large sharks. So I would submit that
19 those species probably do not belong on the
20 list because of difficulty in identification.

21 By contrast, I also agree with so
22 many other observers here that blacktip,

1 spinner and both sharks belong on the list.
2 Identification problems are not there with
3 those species. So I would suggest that that
4 change be made.

5 I would be equally adamant about
6 not wanting the silky shark put aboard. That
7 is the most difficult ID with dusky sharks,
8 and duskies, of course, as we all know, are
9 prohibited species. So silkies should not be
10 added to that list.

11 One of the things I would like to
12 see relative to the recreational catch is more
13 detailed species level identification by port
14 observers or landing place observers on that.
15 Unfortunately, I am not so sure that the
16 observers can tell the difference between
17 blacktips and spinners and some of these other
18 things, which shouldn't be difficult, but they
19 don't necessarily have good training to do
20 that.

21 The point that was raised earlier
22 about the research fishery quota must follow

1 the non-sandbar commercial fishery quota -- in
2 other words, if the fishery quota is used up,
3 then the research fishery quota would be
4 essentially gone.

5 It is a terrible, terrible idea,
6 and that is because, as fishery scientists, we
7 need to sample all year long. We have to have
8 seasonal sampling, January through December,
9 to look at reproductive biology, to look at
10 other things and of course, distributions and
11 abundances.

12 Under the current system, as I
13 read it, the commercial fishery then would be
14 an early year catch, and the thing would then
15 be closed and therefore, all research activity
16 would be shut down relative to getting
17 adequate information about those species. So
18 I think that would be a bad idea.

19 Then just one comment for somebody
20 who had asked about the dusky shark assessment
21 that was used. This was Cortes, Brooks, et
22 al. -- was the assessment.

1 That document has now been
2 submitted for publication with the addition of
3 Jack Musick, Jason Romine and myself as
4 authors. That has been sent off for formal
5 publication, and in doing so, will go through
6 a review process that is standard in the
7 scientific community for review for
8 publication.

9 So it will either make it or won't
10 make it on its merits based on peer
11 evaluation.

12 MS. WILSON: Quickly.

13 PARTICIPANT: Yes. One, how many
14 -- has there been any observed -- you said you
15 were head of the program. I am familiar with
16 you from -- you said '94 to 2005. How many
17 observed sets, if you go back in your memory,
18 from Virginia has there ever been of the
19 observed commercial observer program? That's
20 one question.

21 MR. BURGESS: Is your question is
22 what percentage involved that geographic

1 region?

2 PARTICIPANT: Yes.

3 MR. BURGESS: I couldn't give you
4 that off the top of my head.

5 PARTICIPANT: All right.

6 MR. BURGESS: You know, I would
7 have to look at that data. I'm sorry.

8 PARTICIPANT: And the second
9 question is: When you talk about this dusky
10 stock assessment, something that I had a big
11 problem, there was no data workshop, meaning
12 that when we were shark fishing and you caught
13 100 pound or larger dusky shark, you would
14 take him and cut him up in three chunks or
15 something to get him in your boat or to
16 package him at the dock.

17 So when you got dealer weigh-out
18 slips, there was one shark that, all of a
19 sudden, instead of being 150 pounder, he was
20 all 50 pounders. And to me, as a fisherman,
21 when I look at the data that come in -- and
22 believe me, sometimes I scratch my head

1 reading that document three or four different
2 times trying to understand it -- I would have
3 thought that, if there was a data workshop
4 beforehand done like in other things to sift
5 through, see what is good and what is bad --
6 this is a major component, because most of the
7 dusky landings come from commercial industry,
8 looking over the numbers.

9 So if most of the commercial
10 industry is basically -- it looked like they
11 never landed a shark, a dusky shark, over 60
12 pounds, basically, when you look at it,
13 because you look at the dealer weigh-outs, and
14 you have big dusky sharks. They are cut in
15 there different pieces, and on the thing they
16 don't take and put them back together. They
17 just say, well, this was a 50-pound carcass,
18 a 60-pound carcass, and stuff like that.

19 I was wondering, would that make
20 any difference in assessment or something,
21 given that probably a majority of the
22 commercial landings could have been, you know,

1 larger size sharks cut up? How would that be
2 fit into it, since you are going to get that
3 published?

4 MR. BURGESS: Multiple datasets
5 were used in the assessment, every available
6 dataset that could be. And I'll tell you, as
7 one who has played in this area a little bit
8 for the last 30 years, I've never been
9 involved in a study that has looked at stuff
10 up and down, back and forth, forward and back
11 as this thing is going to be.

12 Without tooting anybody's horn, I
13 think, pretty much a landmark study on how to
14 beat something to death. So the fact of the
15 matter is that datasets from all sources we
16 are using, including landing data, fishery
17 independent sampling, fishery dependent
18 samplings, observers and so forth.

19 So all of those things were used,
20 much as in the assessments on the sandbars and
21 so forth. (END OF TAPE 7)

22 (BEGIN TAPE 8) -- on that species. There is

1 no doubt at all about that. The fisheries
2 that began in the mid-1970s and ran through
3 the mid-1980s before there weren't enough
4 large sharks to be supporting tournaments
5 oftentimes focused on large dusky sharks,
6 because they were coastal. They could be
7 caught easily off of beaches and so forth.

8 So I know from my experience with
9 sport fishing tournaments during that time
10 period that duskies were a preferred and
11 targeted item by the recreational fishers.

12 That said, there is plenty of
13 blame to go around. You know, the commercial
14 guys got involved and have been doing their
15 own thing. The fact of the matter is that
16 dusky sharks have 74 percent at-vessel
17 mortality, hooking mortality.

18 So whether you want to keep them
19 alive or not, three-quarters of them come up
20 dead within the commercial longline fishery.
21 That's a given.

22 I might add in, relative to the

1 hammerhead sharks -- and the precautionary
2 principle was invoked here a few minutes ago.
3 Great hammerhead suffers 95 percent at-vessel
4 fishing mortality, scalloped hammerhead 89
5 percent. So in combination those two
6 hammerheads have more than 90 percent
7 mortality, and that is in a paper we have
8 submitted and is underway.

9 PARTICIPANT: That's based on how
10 much soak time, though. Different soak times
11 got different times of mortality.

12 MR. BURGESS: Right. If you would
13 like to look at it later, I have a paper --

14 PARTICIPANT: I've already seen
15 it. I was just hoping you would tell us.
16 Since you are telling the numbers, maybe you
17 will tell the public.

18 MR. BURGESS: Well, what I'm
19 trying to tell you is we analyzed for soak
20 time, for sex, for size of the animals. All
21 of these are causative factors on any
22 individual survivability.

1 If you would like to see that,
2 I've got a copy of the paper that we've
3 submitted, and we can take a look at
4 hammerheads in particular. I can't tell you
5 off the top of my head what the average is,
6 but all of these were done with the average,
7 if you will, soak time in the fishery, because
8 this was done with observer data done over
9 that ten-plus-year period with all boats in
10 all areas.

11 So whatever the average was for
12 the commercial fishery, that is what it was
13 for this data.

14 MODERATOR: Thank you. Thank you,
15 George. Is this a really quick question, very
16 direct, very specific? Okay.

17 MR. HUDSON: Rusty Hudson,
18 Directed Shark. Hi, George.

19 MR. BURGESS: How are you, Rusty?

20 MR. HUDSON: The landmark study
21 you are holding on dusky, Dewey is absolutely
22 correct about the disposition of the 150-200

1 pound carcasses getting cut into two and three
2 sections. That's the way we did it, right in
3 past management.

4 Then on that landmark study, they
5 have a Table 2.4. Have you observed the lack
6 of commercial landings associated with that
7 table? I mean, it's goose eggs, 40 pound,
8 stuff like that. That doesn't seem right, in
9 my opinion, because we landed all that in the
10 Eighties, whereas most of these swordfish was
11 a bycatch. Is that accurate? -- and always
12 discarded.

13 MR. BURGESS: Rusty, we know that
14 in the assessment process we go with the best
15 available data, and we try to go as far as we
16 can with what we have available.

17 In any assessment process, as you
18 also know, there is a timetable involved, and
19 you just can't keep putting off assessments
20 until you get every last piece of data that is
21 available for every last set, or else the
22 species that is attempted to be assessed will

1 not be assessed, and it will not be managed.

2 That said, are there holes in some
3 datasets? Of course, there are. Is there
4 hope to remedy those and do another
5 assessment? Yes, there are, and that is part
6 of the process.

7 So I guess my answer to your
8 overall question is, if there is more data
9 that was missing, we need to bring it forward
10 and produce another assessment at the
11 appropriate time and modify whatever
12 management measures are to follow as a result
13 of that.

14 MR. HUDSON: As a quick follow-up,
15 would you say it would have been more correct
16 to have had commercial there at the data level
17 with those duskies, because we weren't invited
18 to any data workshop of the duskies?

19 MR. BURGESS: The data that was
20 gathered here is the same suite of data that
21 was used in the sandbar assessment, the same
22 availability of data, basically, of those

1 datasets.

2 MS. WILSON: Just to jump in, I
3 think, as Karyl pointed out, the dusky shark
4 assessment was initiated prior to the SEDAR
5 process. So it did not follow the three-
6 workshop format that the SEDAR does.

7 MR. BURGESS: But that does not
8 necessarily follow that it was more sloppy or
9 anything else. The review process in this
10 becomes peer evaluation and publication, and
11 again I don't know what was done within NMFS
12 in terms of the evaluation.

13 MS. WILSON: It was reviewed
14 internally, but let's move on.

15 MODERATOR: Thank you, George.

16 MS. WILSON: Thank you, George.

17 MS. GRIFFIN: Hello. I'm
18 Elizabeth Griffin. I'm a marine wildlife
19 scientist with Oceana, and I am just going to
20 give a quick overview of our comments today.
21 We will be submitting a much more detailed
22 comment letter in the coming weeks.

1 I want to start by saying that we
2 are very encouraged to see the requirements to
3 land sharks whole and adding porbeagle sharks
4 to the prohibited list in all the alternatives
5 except for status quo. We strongly urge NMFS
6 to move forward with these proposals.

7 We also urge NMFS to talk to
8 people on the Hill and encourage amendment to
9 the Shark Finning Prohibition Act to require
10 sharks to be landed whole.

11 We do have some concerns with the
12 preferred alternative. First, we are
13 concerned that bycatch of sandbar and dusky
14 sharks will still remain high. This is
15 especially problematic due to the high discard
16 mortality rate of dusky sharks and the lack of
17 similar information on sandbar sharks.

18 We also feel that the large
19 coastal shark complex is in poor shape, and
20 without having better information on these
21 species and species-specific stock assessments
22 and quotas, we are concerned about continued

1 fishing of these species.

2 Finally, we are concerned over the
3 lack of a clear scientific research proposal.
4 In order to make this a valid research fishery
5 rather than just a way to allow more fishing,
6 a scientifically designed research proposal
7 with clear goals is necessary before a
8 research fishery is authorized.

9 These are definitely concerns we
10 would like to see addressed and, if they can't
11 be addressed under the preferred alternative,
12 we think that NMFS should move forward with
13 Alternative 5. Thank you.

14 MS. WILSON: Thank you.

15 MODERATOR: Thanks, Elizabeth.
16 Sylvia? Is there anybody else that's making
17 a comment? That's it? Thank you.

18 MS. FALLON: Hi. My name is
19 Sylvia Fallon. I'm with the Natural
20 Resources Defense Council, and I am here to
21 express support for increased protections for
22 the Atlantic sharks.

1 Recent studies have shown that
2 many of the shark species in the Atlantic are
3 near collapse, and this research also shows
4 that the loss of these top predators in our
5 oceans is having ecosystem-wide effects that
6 are further triggering the collapse of
7 scallops and other filter feeding bivalves.

8 So we commend NMFS' efforts to
9 protect the sandbar, dusky and porbeagle
10 sharks with their preferred Alternative 4
11 suite. We believe that these measures are the
12 necessary first steps for rebuilding severely
13 depleted sharks, which will in turn help
14 restore the ecological stability of our oceans
15 and, thus, the future of fisheries in general.

16 Our concern is whether the
17 proposed amendments provide sufficient
18 protections for the three species and the
19 remainder of the larger coastal shark complex.

20 The dusky shark, for example, has
21 already been prohibited for seven years, and
22 it continues to be overfished. NMFS' own

1 projections estimate that it could take up to
2 400 years to rebuild this stock.

3 Much of the exploitation of the
4 dusky shark is a result of bycatch from the
5 sandbar shark fishery; and while NMFS is
6 proposing to reduce the extent of directed
7 fisheries for the sandbar shark, the proposed
8 measures would still allow for a certain
9 amount of bycatch of the dusky shark, and we
10 recommend that NMFS employ additional measures
11 to reduce effort in fishing mortality of the
12 dusky shark.

13 We support NMFS' proposal to add
14 the porbeagle to the prohibited list.
15 However, NMFS has also established a total
16 allowable catch of over 10 metric tons. This
17 figure is based on the average commercial
18 landings as well as dead discards, suggesting
19 that while landings of porbeagle would be
20 prohibited, bycatch would still be allowed at
21 numbers equal to or exceeding current take
22 levels.

1 So we believe that the new
2 regulations are not likely to have any impact
3 on the overall catch of porbeagle in U.S.
4 waters.

5 Finally, we urge NMFS to develop a
6 system for evaluating the remaining sharks in
7 the large coastal complex. A number of other
8 species in this group have also suffered
9 severe declines over the past decades, and
10 they deserve careful examination.

11 As I mentioned, we believe that
12 the preferred alternative is just a starting
13 point for much needed protections for the
14 sharks and, if changes to current fisheries'
15 management plans do not adequately protect
16 these sharks, we believe that endangered
17 species protections may be warranted for some
18 of the species. Thank you.

19 MS. WILSON: Thank you. Was that
20 it for the public comment?

21 MODERATOR: That's it on public
22 comment. Is that what you asked?

1 (Off-mic comment.)

2 MS. WILSON: Well, I guess I would
3 ask the AP, do you not feel that -- The
4 breakout sessions will be the point for you to
5 get your comments on record. The breakout
6 sessions are kind of the point that we had put
7 on the agenda for the group discussion. There
8 is then the report-out for the larger group,
9 but people are making comments at this point.

10 So we are running short on time.
11 We were about to break for lunch, according to
12 the agenda, and we haven't even gotten to the
13 breakout session. So --

14 MODERATOR: Okay. Just a couple
15 of real time kind of meeting management
16 issues.

17 One, I was approach during the
18 public comment period by Jim who said he had
19 his hand up the whole time, and I didn't see
20 him during the original AP comments.

21 PARTICIPANT: I can wait. I'll
22 just make my comments known during the

1 breakout session. I just had some comments on
2 the issue of eliminating blacktip from the
3 recreational catch, but I can make those
4 comments later.

5 MODERATOR: Okay. Thank you, Jim.

6 I'm not sure what Mark just said
7 in terms of having --

8 MS. WILSON: Well, we provided the
9 trigger questions as a way to kick off the
10 discussion, let you know kind of the comments,
11 and as you notice, the trigger questions track
12 a lot of the comments that we have been
13 receiving.

14 So we are looking for your
15 specific feedback on those. We are not
16 limited to them. If there are other issues
17 you want to discuss, you are more than welcome
18 to get whatever comments you want on the
19 record. They were just something to get you
20 started. So please don't feel limited to
21 them.

22 MODERATOR: Okay. In terms of

1 where we are on the agenda -- and let me make
2 just a quick comment.

3 People should not be looking at
4 these agenda times as the end-all/be-all.
5 Okay? We start on Tuesday at 1:30. We end
6 on Thursday at 3:30, and everything else in
7 between adapts to the level of interest and
8 the level of emotion around a particular topic
9 and how many people want to speak.

10 So we are trying to be as flexible
11 as we can and still make sure we hit all the
12 agenda items in this two and half-day period.
13 We probably ought to write that on the agenda
14 next time, so people know that there is
15 nothing magic about these specific times.

16 We may have underestimated the
17 amount of time required to adequately listen
18 and hear people and members of the public
19 comment on Amendment 2. So that said, let's
20 adapt. Let's continue adapting as we go here.

21 We have about an hour set aside,
22 or maybe -- We had 90 minutes set aside for

1 breakouts, and we had a one-hour lunch period
2 set up. Okay? I suggest that we don't carve
3 out any of your lunch hour. So we should
4 still maintain that you are going to get a
5 one-hour lunch break.

6 I would suggest that we could give
7 you instructions for the breakout now. Margo,
8 I'm just kind of playing this real time. We
9 could give you instructions for the breakout
10 right now, and that will just take five
11 minutes, and you will know what your charge is
12 on the breakout sessions.

13 Then we could also ask you to have
14 enough discipline to show back up in this room
15 by a certain time, having done two things,
16 your breakout and lunch. Okay? That is one
17 reasonable way to go, as opposed to -- That
18 lets each table be flexible in terms of the
19 way they do it.

20 We could break for lunch now, like
21 it's on the agenda, come back at 12:30, have
22 our breakout at 12:30, start out breakouts at

1 12:30, and try to shorten up that time for the
2 breakouts. We don't need 90 minutes, I don't
3 think, for the breakout sessions. I am going
4 to suggest we spend about an hour on the
5 breakout.

6 So why don't we -- Would you
7 rather do your breakouts now or right after
8 lunch? Anybody -- You guys motivated to do it
9 now? Okay. All right. Then is there
10 anything preventing us from taking a little
11 bit later lunch? Nothing, right? I'm trying
12 to ask.

13 PARTICIPANT: So folks are okay --
14 We haven't had a break. We've been going
15 straight. I think people have been breaking
16 as they need it.

17 MODERATOR: We need to have a
18 break, obviously. So what we will do is we
19 will give you instructions on the breakouts,
20 and then take a break, reconvene at your
21 tables and work for an hour, and then we will
22 break for lunch and come back for the report-

1 outs. Does that make sense?

2 Okay, lunch approximately is about
3 12:30. So here we go. Let me do the best I
4 can, and will staff please keep me honest in
5 terms of am I achieving what you wanted to on
6 these breakouts.

7 We are going to have six tables.
8 I am going to ask Dewey, Jay and Randy to find
9 a home other than this table for the purposes
10 of the breakout. So we will have those three
11 tables in the front, Table 1, 2 and 3, will be
12 Group A. Is that okay, Jackie? And we will
13 address the Group A questions.

14 MS. WILSON: (Inaudible.)

15 MODERATOR: Right. So we will
16 hand out the Group A questions to Tables 1, 2
17 and 3. Tables 4, 5 and 6 will be Group B, and
18 will address Group B questions. Each table
19 will go grab a flip chart. Doesn't matter
20 which one. It doesn't have to coincide with
21 yesterday's swordfish conversation. That
22 would be a nightmare to try to make that

1 coordination.

2 So either staff members or members
3 of the tables will come grab a flip chart, and
4 you know the drill to record your group
5 answers on the flip charts, and you have
6 basically an hour from -- what time is it now?
7 It's 11:22. This is perfect, because you get
8 an eight-minute break and an hour's worth of
9 work, and then you take a lunch break.

10 So this might actually help you
11 speed your work, knowing that lunch is the
12 ultimate prize here.

13 So I would suggest that you --
14 Jackie is handing out the Group A questions
15 here. Someone else will be handing out the
16 Group B questions here. I would suggest take
17 a break and reconvene in the next five to 10
18 minutes back at your tables, and get started
19 on your breakouts.

20 We will remind you when 12:30
21 comes along.

22 (BREAKOUT SESSIONS FOLLOW.)

1 A F T E R N O O N S E S S I O N

2 PARTICIPANT: -- and they should
3 do this with advice and consultation with the
4 industry, so that fishermen are assured of
5 properly maintaining that proper fish carcass-
6 to-fin ratio.

7 We puzzled quite a bit over the
8 second question about whether the sandbar
9 allocation should go strictly to five to 10 or
10 whatever the number should be vessels involved
11 in a research program or whether this should
12 be somehow allocated among the 139 or so
13 active vessels, and for the reason that this
14 is a shark research effort, and there are --
15 who catches where and when and how is going to
16 be determined by the research protocol or the
17 research goals of that plan that we supported
18 the idea of allocating this strictly to
19 research vessels involved in that research
20 plan, and that number would be determined by
21 the research needs.

22 We were in favor of keeping the

1 three regions for shark management with one
2 season.

3 As far as the authorization --
4 authorized species for the recreational
5 fishery, the identification issue, we were,
6 based on this morning's discussion, unanimous
7 in believing that blacktip, bull and spinner
8 sharks should be kept on the authorized
9 species list, because they are identifiable.

10 Then the last question on the list
11 was which of the alternatives did we prefer,
12 and we preferred the preferred alternative,
13 number 4, which -- with the modifications that
14 we have suggested above.

15 Then we flagged a few other issues
16 that are not in this rulemaking, but we think
17 NMFS should be aggressively exploring or
18 exploring in some manner. That was the issue
19 that has come up at, I think, each of the last
20 several AP meetings: A buyout with a closure
21 of the fishery and that, as Margo said this
22 morning, that was something that was reviewed

1 and discussed, not included in this rule, and
2 I guess it is a matter of funding and other
3 things, and a plan, a business plan.

4 I think what is happening with the
5 sandbar fishery and its effect on all the
6 other shark fisheries is really putting in
7 sort of stark relief the fact that we have got
8 a very small fishery and, if it is a research
9 fishery with a very few vessels involved, and
10 the other shark fisheries will be subject to
11 what happens in the sandbar fishery and closed
12 then, there is a lot of area closures. There
13 is a lot of other regulations. There is 100
14 percent observers, research going on.

15 That at least could be going on
16 for 60-some-odd years, and that this is
17 something that should be explored for the
18 benefit of the remnant industry, as well as
19 the sharks.

20 We think that international
21 cooperation for better data collection and for
22 conservation needs to be aggressively pursued,

1 particularly with Mexico -- primarily with
2 Mexico. And at the very end of our discussion
3 we kind of just got into talking about the
4 monster shark tournaments, for lack of a
5 better word.

6 There is a resurgence of shark
7 tournaments up in the northeast, and the
8 conservation impact of them is uncertain
9 because the species they target are not listed
10 as overfished at this time, but there
11 certainly is a public perception problem. I
12 think it is giving shark fishermen a bad name,
13 and certainly recreational fishermen, and
14 there probably is some kind of oversight or
15 monitoring or at least public education with
16 the tournaments needs to be done in order to
17 make sure that they are following the rules,
18 they are reporting everything, and that they
19 can try to insert some conservation into those
20 tournaments rather than just the biggest
21 monster shark on the dock where they come and
22 take pictures of it.

1 Oh, there's more. And the fourth
2 thing was consistent state regulations, data
3 collection and enforcement. We realize there
4 are some gaps between the Federal regulations
5 and what some states are doing, and the ASMFC
6 is moving toward, as Jack said this morning,
7 a plan. We are not sure what is going on in
8 the Gulf.

9 Then porbeagle came up at the end,
10 and this was -- This is not really a
11 recommendation, because we don't all agree at
12 the table on this, and this is one porbeagle
13 for Tom and I'm not sure who Tom was. There
14 was support for allocating you one porbeagle
15 and nobody else, and that the recreational
16 catch is about 1 1/2 metric tons and, you
17 know, does that really affect the rebuilding
18 plan. But I personally don't support that,
19 but there's some people that do. But you
20 could argue about whether that's a difference
21 of whether they recover in 350 years or 380.

22 Anyway, there was some discussion

1 at the end, and if anybody at the table wants
2 to add to what I said or clarify anything or
3 correct anything, we do have a little bit of
4 time for that.

5 MODERATOR: Anybody at Table 1?

6 After we make it through these report-outs, we
7 have a little bit of time on the agenda if
8 there are some summarizing comments or any
9 kind of questions or comments that folks would
10 like to make that haven't been made already,
11 then that would be a chance to do that.

12 So in the meantime, we will
13 proceed the tables. Can we just move to this
14 table next? Mark? Could you turn on the mic
15 that is closest to you? Thanks.

16 PARTICIPANT: Okay. I got a tough
17 act to follow after Ken there, because we
18 didn't even get through all five of our topics
19 here, and you were up to seven or something.
20 We were all over the place.

21 Anyway, we did reach some
22 consensus on this. A lot of these issues, of

1 course, concern the commercial fishery, and we
2 have some distinguished members of that user
3 group with us. So they were able to fill us
4 in quite a bit on this.

5 Anyway, for the first one
6 concerning a diagram of how to address the
7 shark -- We even wrote these things out of
8 order here. Where is it? Anyway, I think
9 pretty much our commercial guys said that that
10 probably wasn't needed, but maybe just as a
11 general need for a diagram as a
12 standardization tool, just a general picture
13 or something to show how NMFS would possibly
14 like to see these animals dressed, if they are
15 going to be brought to market with the fins
16 on.

17 Number 2, should NMFS allow a few
18 fishermen to land the sandbar quota or should
19 they split it up? Here we are going to drop
20 down to 2. It was pretty much discussed among
21 the table that, by these new regulations,
22 particularly having the research group or the

1 -- what was our term here? -- the guinea pig
2 fleet for the sandbar fishery, that for the
3 most part the rest of the fishermen who would
4 be fishing under the incidental permits would
5 be basically fishing for other things, and the
6 22 fish would not be really enough for them to
7 direct their efforts on.

8 Therefore, it was almost kind of a
9 moot point to throw a few sandbars out into
10 those fishermen who can only land 22 fish. So
11 since under the preferred alternative suite it
12 would be essentially an incidental fishery, it
13 doesn't matter how the quota is distributed,
14 incidental versus directed permit holders. So
15 pretty much a moot point.

16 What are the pros and cons of
17 keeping the current regions and trimesters?
18 Again, since it will be an incidental fishery
19 under the preferred alternative, either divide
20 it under the three regions or just have one
21 region. It was pretty much, I think --
22 correct me if I'm wrong here, Dewey or

1 anybody.

2 It was just pretty much decided
3 that the commercial fishery would - If it was
4 just opened at one time, it is not going to
5 have as much difference on that small
6 incidental fleet, as if it was just open at
7 three different times, because they are just
8 not going to be following those fish around,
9 just not going to make a difference one way or
10 the other.

11 I think that some of our guys are
12 kind of saying that, for all intents and
13 purposes, the commercial shark fishery is
14 over, and it doesn't matter too much. Right?
15 I don't want to speak out of place now.

16 PARTICIPANT: Basically yes.

17 PARTICIPANT: Okay. And that's as
18 far as we got.

19 PARTICIPANT: Well, we have a
20 couple more things here.

21 PARTICIPANT: Oh, okay. The
22 porbeagles, the question of the porbeagles.

1 We did come pretty much to consensus that we
2 didn't see a reason to put them on the
3 prohibited species list.

4 At the very least, some of us were
5 in favor at least of having a small setaside
6 quota of some sort to allow some of the
7 recreational guys and even some of the
8 commercial guys who encounter these animals to
9 have the opportunity to retain some of them.
10 We didn't see a need to, particularly since
11 very few of them are being caught anyway by,
12 I think, commercial or recreational right now
13 to shut out that little bit of a fishery that
14 might be there. That could always be done
15 later, if it got to that point where it was
16 just deemed necessary.

17 Oh, that's right. The closure and
18 the five-day reporting after the closure, the
19 pelagic longline vessels who might be out for
20 30 days at a time or so wouldn't necessary be
21 able to comply with that. So that just
22 wouldn't work for them.

1 Anything else? That's all. Thank
2 you.

3 PARTICIPANT: Thank you, Mark.
4 Did anybody else from the table need to make
5 a point to clarify or to accent anything?
6 Okay, Terri and Rick.

7 MS. BEIDEMAN: Terri Beideman.
8 Just basically, what we have decided is that,
9 you know, this is for all intents and purposes
10 -- you can call it a research fishery or
11 whatever you want. It is the end of the shark
12 fishery. Okay? Now it is all but closed. It
13 is really just a formality.

14 So you have to take -- You have to
15 try to balance a couple of things, that the
16 United States doesn't get out ahead of itself
17 with regard to species that we may be dealing
18 with on an international basis, because then
19 we get -- We've already reduced, we've already
20 reduced, and then, as someone pointed out, oh,
21 50 percent reduction. Well, we already
22 reduced as far as we could. We are going to

1 be stuck with that.

2 That was one mention, and that we
3 need to be able to have the flexibility not to
4 have to throw away fish, and you should be
5 fair and be honest about where we are in that
6 reality. So that's -- You know, the fins
7 on/off issue is moot. It's how much money are
8 you going to spend to enforce this little tiny
9 rule on a very tiny little quota? Somewhere
10 along the line, that balance has to be struck.
11 So that is one of our tangents.

12 MODERATOR: Thanks, Terri. Rick?

13 MR. WEBER: Yes. I just had a
14 couple of my own notes here as well.

15 It seems to me that we should be -
16 - One of the factors you should be considering
17 as you are picking the guinea pigs is to get
18 them spread out geographically or -- You know,
19 Terri's point is not invalid, that you don't
20 want to lose the science in any of the
21 regions.

22 So if all of those research boats

1 are in one area, you are not going to know
2 what is happening in the others.

3 Two other small notes: Closing
4 the fishery at 80 percent, but then you don't
5 carry the rollover. You don't carry the
6 under-reach forward, which means if you make
7 a mistake, the fleet loses. Something doesn't
8 seem right there.

9 You know, if you call it too
10 early, sorry, guys, those fish are gone.
11 Something needs to be worked out there,
12 because it is not just yet.

13 Finally, I really don't like your
14 -- I know what you are trying to do with the
15 received-by dates, but how is somebody going
16 to know if they are not in compliance, because
17 they don't know what date you received it on?
18 With postmarking, they at least think -- You
19 know, short of a failure of the post office,
20 they think that they know that they are in
21 compliance, because they delivered it on the
22 proper date, and it is going to arrive with a

1 postmark that says that they complied.

2 Other than that, if it goes on the
3 date that you received it, you can tell
4 somebody that, oh, yes, we didn't receive
5 that. They did everything right, and still
6 end up out of compliance. Again, something
7 doesn't seem right with that.

8 Thanks. That was Rick Weber.

9 MODERATOR: Thank you, Rick.

10 Okay, Table 3 or whatever table this number
11 is. You are third among Group As. Who is
12 going to present for this table?

13 MR. HUDSON: I will. Can I sit
14 here and read from here?

15 MODERATOR: You can do whatever
16 you want as long as your mic is on.

17 MR. HUDSON: Rusty Hudson with
18 Directed Shark speaking for this Table 3.

19 First off with regard to the first
20 topic bullet on Group A discussion, the
21 directed industry, shark industry, does not
22 support the fins on requirement. That needs

1 to be understood automatic.

2 NMFS needs to provide a diagram on
3 how to dress the shark with the fins on and
4 needs to provide instructions and diagram on
5 how to remove the fins and comply with the
6 five percent law, particularly with sandbar.

7 We have a problem with the unload,
8 handling it twice in two different
9 environments. HACCP, Hazard Analysis and
10 Control Points, seafood safety, have been in
11 the law since 1994; concerns with landing, the
12 fins attached. You need to advise the dealers
13 and the fishermen how to comply with this,
14 because you are going to wind up being in 90
15 degree weather.

16 You are going to wind up having
17 the animal heat up, instead of going right
18 into the ice right off of the boat where it
19 had been in the ice, and as a result of that,
20 one of two things would have to happen.
21 Either the fish house has to make an
22 extraordinary effort to allow the people to

1 come inside the fish house in a cool
2 environment, 40 degrees or below, and be able
3 to dress these sharks out and to be able to
4 take these logs that are going to weigh a bit
5 more now, because you got whole tails
6 attached, you got bigger belly flaps attached,
7 you got areas up by the gills attached that
8 never have been part of the market carcass log
9 that has been landed all these years.

10 So the other choice would be that
11 the dealers would have to purchase the carcass
12 with the fins attached and just pay one price
13 that kind of figures both the fins and the
14 meat into it across the board. I'll give you
15 an example.

16 If you have the research fleet
17 catching sandbar, 4,000 pounds, we know that
18 we are going to be at seven percent the normal
19 way we dress the log, but you are going to
20 wind up roughly at 50 cents a pound for the
21 meat and \$30 a pound for the adult sandbar
22 fins with an \$8,000 trip. That's \$2.00 a

1 pound across the board.

2 Unfortunately, this log is going
3 to be bigger than it was in the past. So that
4 means he will probably have to drop the price,
5 plus the fish house has to do the work. So
6 they will probably only pay the fisherman
7 \$1.50. So the fisherman will lose \$2,000 on
8 a 4,000 pound trip, just to give you an
9 example of some of the loss that may occur
10 under that particular arrangement.

11 Now that gets us into the
12 conversion factor or the conversion rate of
13 trying to figure a dressed weight shark to a
14 whole weight shark for the science purposes.

15 Basically, NMFS has used the 1.39
16 conversion rate. So that if you --
17 Hypothetically, if you had a 100 pound animal,
18 and we know it is 2.0 -- so 1.39 is another
19 argument we have with them and the State of
20 North Carolina has with them, but if you have
21 a 100 pound live shark and you dress it as we
22 normally dress it, you are going to roughly

1 have 50 pounds. You know, 50 pounds times two
2 gives you the 100 pound animal.

3 Using the 1.39, instead of having
4 the 100 pound whole live animal, now you got
5 one that is about 70 pounds. So something is
6 not really right in Dodge with that
7 conversion.

8 So now you are going to have a
9 third way of dressing it, and if it is going
10 to be weighed in with the fins on, its upper
11 tail on, these extra belly flaps on, these
12 extra girdle and area around the pelvic fins
13 on, that is going to change your conversion
14 from 1.39 or 2.0 to something totally
15 different, and it is going to make it hard to
16 measure a quarter century of behavior
17 accurately on a science level as a result of
18 that.

19 Going further, landing sharks with
20 fins on makes fishermen land fish in violation
21 of the five percent rule. Federal law makes
22 them rely on a discretion of enforcement.

1 This is unacceptable, particularly if the law
2 enforcement is mining logbooks two and three
3 years after the fact instead of actually
4 observing the carcass and the fins. And if
5 the five percent is in question and it comes
6 up 6-7 percent, then they should actually
7 count the primary fins, which is the one
8 dorsal, the left and right pectoral and the
9 lower caudal.

10 That's four primary fins. It
11 makes it real easy to a ratio of one carcass.
12 If you have more than the four primary fins,
13 then you are, obviously, in violation.

14 Let's see. NMFS should make the
15 recommendation to Congress to change the
16 statute to reflect the best available science
17 on a species level, i.e., sandbar sharks.
18 NMFS has roughly 30 or 40 sandbar sharks
19 already analyzed, and they came up with 2.0
20 conversions, and they came up with levels of
21 fin to carcass that range anywhere from 3 1/2
22 up to 9.9 percent.

1 So we know it all comes down to
2 how to dress the log, how to cut the fin, how
3 not to leave too much fin on the -- I mean too
4 much meat on the fin and how not to cut the
5 carcass too small. But then there was that
6 prime market cut that has always existed for
7 a quarter century. Need to flip the page.
8 Okay.

9 I guess we are on bullet 2,
10 Jackie. I think that is how you did it, page
11 by page for each one, I think.

12 If the fisherman lands a shark
13 with fins attached and dealers process -- Oh,
14 yes, okay. This is going to be a logbook
15 discussion.

16 If the fisherman lands a shark
17 with fins attached and the dealer processes,
18 cut off the fins, or the fisherman does, and
19 the results are over five percent or whatever,
20 who is in violation, the fisherman or the
21 dealer? Are you going to require the dealer
22 to monitor those percentages or is the

1 fisherman trying to make the extra 2,000 off
2 that 4,000 pound trip. If he is able to keep
3 the current status quo trip limit, then we've
4 got a problem there, and you all need to work
5 it out -- law enforcement to work it out with
6 the directed fleet, because somebody that has
7 a one-day boat like in Florida, we cannot fish
8 in state waters longline gill-net. You can
9 catch one large coastal, and it has to comply
10 with the recreational bag limit.

11 So those guys could easily dart
12 back into the dock, having eviscerated it out
13 in the ocean, come back in, unload it, and be
14 able to still have an animal that's got a good
15 quality control; because once you start
16 letting those temperatures rise a second time,
17 you are going to have a urea problem.

18 Ammoniation is what you are going to have, and
19 it is going to destroy the shelf life, and it
20 has always been a fresh meat market, but even
21 if you freeze it, it winds up still
22 ammoniating in the freezer.

1 Maintain status quo until the
2 science can be revisited. We have several
3 reasons for this, which will be coming out in
4 our written comments in more precise detail.
5 But we want a data workshop for LCS to occur
6 early June 2008.

7 Under the SEDAR thing, they have
8 to have these three different workshops three
9 months apart. So the assessment workshop
10 early September 2008, the review workshop by
11 early December 2008, for all 22 large coastal
12 shark species.

13 Management made a decision to put
14 11 species of LCS into the prohibited species
15 category in 1999, and we were not for that,
16 because there was no science done on all
17 those.

18 The only one that you have even
19 done some form of an assessment with of those
20 11 is the dusky. The rest of them -- some of
21 them are virgin populations. Some of them we
22 haven't even caught the very first one ever in

1 history, like the narrow tip.

2 So somehow we got to quit telling
3 Congress that we've been overfished and
4 overfishing those particular animals. So that
5 means that we need to do at least some kind of
6 cursory specie-specific look at each animal,
7 its life history characteristics, and what we
8 do know from the catch histories.

9 I think that is a doable, because
10 there is a deadline of July 12, 2009, under
11 the Magnuson to be able to have overfishing
12 stop by a one-year plan that has to go into
13 effect by 2010. So that would give us the
14 ability to meet those kind of deadlines.

15 Establish some form of economic
16 relief until Section 1-5 of DS can be
17 promulgated. Is that 1.5, Jackie? Okay, 1.5
18 -- and establish some form of economic relief.

19 Well, we already submitted a
20 three-year buy-back analysis that was based on
21 3 million pounds a year of harvest. Then in
22 2004 you ratcheted us down to 2 million

1 pounds. Now you are talking about taking us
2 down to 1 million pounds.

3 You have micro-managed us right
4 out of business. So you know, somehow or
5 another, the economic relief, obviously, won't
6 come from a quota, being able to pay back a
7 30-year loan. So it is going to have to be
8 some idea of a disaster declaration or
9 whatever.

10 This year is a great example
11 because of the overages last year, that with
12 200-something, 300-something dealers out
13 there, you only had a dozen that accounted for
14 the bulk of the catch; and yet somehow or
15 another, you had all these hundreds of
16 thousands of pounds that had gotten caught, if
17 not million, and then it just got deducted
18 from this year.

19 So we have already suffered
20 disaster this year, and now with Amendment 2
21 we are suffering even more. So some plan
22 needs to go hand in hand with Amendment 2 that

1 allows this relief, retraining, retooling,
2 something, you know, because it is obvious --
3 even buy-back.

4 You know, there is a certain group
5 of people that can't take it anymore, may even
6 be bankrupt now.

7 Page flip. We got through all our
8 bullets. Let me get a drink of water. Okay,
9 bullet 3 was the seasons. Take a breath, all
10 commas, no periods. All right.

11 Seasons -- That was Gail's quote.
12 That's Gail's quote. Keep trimester seasons,
13 and I'll tell you why, because it gives us the
14 ability to deal with these straddling stocks,
15 highly migratory species, particularly
16 sandbars and blacktips; because we share them
17 with Mexico who, unfortunately, chose not to
18 bring their data to the table this past year.

19 In order to do that, we want the
20 January 1, the May 1 opening for LCS. We want
21 to protect, like we always have suggested, the
22 pupping season. So we don't want a May 1

1 opening. We want a July 15th opening, and
2 then you can modify the closed area off of
3 North Carolina to end on July 15th.

4 The second problem is North
5 Atlantic -- the water is so cold, those
6 animals don't even get there until the
7 summertime. So you need to be able to have
8 them be able to be in the fishery and have a
9 fair access to some available quota.

10 The Florida Keys is an issue, and
11 it is an issue with the mackerel, too, King
12 Mackerel which we are getting ready to deal
13 with next year. But what it is, it has to do
14 with the jurisdictional line.

15 U.S. 1 going down from Miami down
16 through the Keys, hypothetically extended out
17 to the Tortugas. If you are south of U.S. 1
18 and east, you are considered in the South
19 Atlantic Fishery Management Council's
20 jurisdiction. If you are north of and west of
21 the same U.S. 1 hypothetical line, you are in
22 the Gulf of Mexico.

1 So NMFS needs to make an elective
2 decision on these three regions, because we
3 want to keep the three regions for a couple of
4 reasons, and put the Florida Keys either in
5 the South Atlantic or in the Gulf of Mexico,
6 you know, totally.

7 Just figure out how you are going
8 to try to draw the line up there to be Dade
9 County, Monroe County on the east coast, or
10 are you going to draw it over on the west
11 coast at the Collier County-Monroe county
12 line, or are you going to just use the U.S. 1
13 thing and then you get the guys that have
14 traditionally for years bought from both
15 sides, Gulf and South Atlantic. Then you are
16 putting them in trouble with CFR 635.28(b)(3).

17 So I don't think that is right.
18 You all have had that in place since 2003,
19 December 24th, and I am totally against it,
20 because it changed the way we behaved with our
21 business, and we just now basically have
22 learned about it, and it's the last landing

1 report.

2 Retention of porbeagles should not
3 be prohibited for recreational, for hire, or
4 for commercial fisheries. We have a 200,000-
5 pound quota in place currently. We are not
6 quite reaching it. I don't know exactly what
7 the take is for the recs, but you know, they
8 have a fishery up there. You should let it
9 exist.

10 We have gone on further. Improve
11 the data collection at landings for the
12 recreational fisherman. You need better
13 enforcement for the recreational fishing,
14 because the biggest excuse that we are
15 understanding on the science level is law
16 enforcement is unable to do their job with
17 regard to the recreational and this minimum
18 size requirement of 4 1/2 foot that you have
19 on a fork link.

20 That animal is easy to tell. You
21 know, is it four and a half feet or is it
22 bigger or smaller? Yet you are saying that

1 the recs keep on landing all these small ones.
2 So you are going to have to do something about
3 that so that they understand how to be able to
4 measure an animal and be able to stay above
5 that minimum size.

6 We do not believe in having a
7 separate kind of list for the recreational
8 from the commercial. If it is legal for the
9 commercial, it should be legal for the
10 recreational, particularly, you know, when you
11 are dealing with animals like blacktip,
12 spinner and bull sharks which are a big deal
13 down our way, and you should definitely allow
14 those people to continue doing what they
15 always have done.

16 A lot of for-hire people are going
17 to take a hit on this, if they are not able to
18 land this stuff, and there's a lot of
19 recreational guys that are used to being able
20 to catch a big shark and eat it.

21 Let's see. No user group should
22 be able to target any species on an Endangered

1 Species Act list. Now basically speaking, if
2 porbeagle gets listed, if dusky,
3 hypothetically, gets listed because of this
4 landmark study, then I'm saying that you
5 should not be allowed to target. That is the
6 key word, target.

7 If you are going to go out there
8 and pluck feathers from an eagle's behind,
9 then you are going to have to wind up trying
10 to avoid those animals. That means no charter
11 for-hire guys targeting duskies or porbeagles
12 or whatever at that point, if it is going to
13 be on the Endangered Species Act, until that
14 population rebuilds.

15 If we were allowed to go target
16 turtles, we would be in trouble. So that is
17 the kind of tradeoff that I'm saying.

18 We got anything else? Okay.

19 MODERATOR: Thanks, Rusty. You
20 need a break. (END OF TAPE 8.)

21 PARTICIPANT: Could you answer one
22 question now, which is -- Oops, I need to go

1 back. This is the (inaudible). Do you know
2 the answer to that now, which is shark
3 fisherman that sell the whole carcass with the
4 fins attached to a dealer -- I sold my fish,
5 and the dealer then removes the fins, and it's
6 over five percent. Is there any liability for
7 the dealer and/or the fisherman?

8 PARTICIPANT: Well, I think this
9 is the issue that we talked about earlier,
10 where if we finalized the fins-on requirement,
11 that would not be -- The logbooks or the
12 dealer weigh-outs would not be the primary
13 enforcement tool.

14 If there was a larger body of
15 evidence that indicated violations,
16 Enforcement has indicated they may look at
17 that as well, but it would become an
18 enforcement at the point of landing. And so
19 fins-on at the point of landing, yes or no,
20 as opposed to using the dealer weigh-outs as
21 the source. But it's with that caveat,
22 though.

1 PARTICIPANT: But the law would
2 still be a five percent law, and it could be
3 prosecuted. I mean, you may try to exercise
4 that discretion, but some group may sue you
5 and compel you to enforce the law. So --

6 PARTICIPANT: Well, it's a
7 statute. Remember, the five percent is in the
8 statute. So --

9 PARTICIPANT: Right. Exactly. So
10 is somebody liable? Whops liable for the six
11 percent? You know, I caught the fish --

12 PARTICIPANT: I guess I would ask
13 if any of the Enforcement folks wanted to --
14 how they would proceed and approach that.

15 PARTICIPANT: I think that's an
16 unreasonable (inaudible).

17 PARTICIPANT: I think we've heard
18 that a couple of times. So I don't know. Any
19 takers from the back of the room?

20 PARTICIPANT: The answer to my
21 question is, no, you don't have an answer
22 right now. I just thought, if it was very

1 obvious or not -- it's not a criticism.

2 PARTICIPANT: Well, I think the
3 answer is what we've already stated. I don't
4 know that I've got a different answer right
5 now.

6 MODERATOR: Rusty, go ahead.

7 MR. HUDSON: There was a further
8 thought we had on this, that you all could go
9 to Congress, since you all were the ones that
10 gave them the information in the first place,
11 kind of how to make the rule. And you know,
12 counting the fins is another alternative, the
13 primary fins. I've already described that to
14 the carcass.

15 The other choice is to go on a
16 species by species basis, and then actually do
17 the analysis. You know, you already got 30 or
18 50 sandbars already worked up, and maybe you
19 can throw another 50 in there, and then see
20 what your percentages really are; because you
21 need to get somebody to figure out just how
22 are these guys supposed to accomplish this,

1 dressing the shark a traditional way, or are
2 you going to make it a new way?

3 It really comes down to doing just
4 a little work, get a little bit of shark slime
5 on you, and it will help us, you know, instead
6 of having a rule that hurts us. Because I have
7 always been on record of being six percent.
8 In '92, Dr. Hogarth had 10 percent in North
9 Carolina back when he was in charge of the
10 fisheries at that time, and it had to take
11 into account -- we're going way back. But you
12 know, it was the fact that some of the
13 fishermen left meat on the darn fins, and they
14 figured they were getting a little bit more
15 for the money, and yet this carcass would be
16 all different sizes. So it would vary several
17 percentage.

18 And that's what we kept finding
19 even with the NMFS people and the State of
20 Florida people that did some of this work.
21 And Eric Sander on the Geronimo II (phonetic)
22 back in '91 -- I mean, we see this in that

1 analysis, and the 2.0 is very apparent in that
2 analysis. So 1.39 is not right.

3 So all this is science, and that's
4 what we want is good science from you all.

5 PARTICIPANT: Margo, if I could
6 just clarify, this question is a little
7 different than what we had asked before. You
8 know, there's two scenarios. One is, I'm a
9 fisherman. I caught the fish. I get to the
10 dock and land it, and I cut the fins off and
11 sell my fins and sell the carcass, as opposed
12 to what may develop in the fishery is that
13 everybody is just selling their carcasses with
14 their fins on to the dealer. Then the dealer
15 takes responsibility and cuts the fins off.

16 Is the dealer also subject to the
17 five percent requirement? So he would be in
18 jeopardy, as well.

19 PARTICIPANT: Well, I would think
20 in that scenario and the way that I think the
21 regulations are structured is that dealers
22 aren't supposed to buy things that aren't

1 legal, and fishermen aren't supposed to sell
2 things that aren't legal.

3 PARTICIPANT: So if they land a
4 sandbar shark, everybody (inaudible)

5 PARTICIPANT: Well, that's not
6 what I said.

7 PARTICIPANT: Well, that's what you
8 would do under this scenario. Either the
9 fisherman or the dealer is going to be
10 breaking the law, because it's going to be
11 more than five percent.

12 MODERATOR: Okay. I'm going to
13 suggest that we move to the next table.

14 PARTICIPANT: (Inaudible.)

15 MODERATOR: Yes, I'll be glad to
16 do that, and actually I am going to move to
17 the back corner first. You all will get a
18 break. Randy, are you going to cover for that
19 table, and if you will just turn on a mic over
20 there, that would be helpful.

21 MR. GREGORY: Randy Gregory again.
22 I'm going to skip to number five on our list

1 of questions. We hit a lot of the same points
2 everybody else did. Can you hear me now?

3 The question we had -- excuse me --
4 - was, of the proposed alternatives, which one
5 do you think is the most appropriate? We
6 didn't think any of them fully met the
7 appropriate level, and we also discussed how
8 difficult a decision this was.

9 One of the things that, I think
10 every table probably is going to echo this, is
11 we need to add blacktip, spinner and bull back
12 in the recreational list.

13 We had the idea of two regions,
14 and this goes to kind of working with the
15 ASMFC, and hopefully, we can get a plan out of
16 the Gulf for state waters.

17 And with that, some of the things
18 that were brought up earlier in the public
19 comment was a start date of July 15th, and
20 maybe we could alleviate some of the problems
21 we were having on the eastern Atlantic -- on
22 the eastern coast with Virginia, Delaware and

1 Maryland with pupping of duskies and -- help
2 me out here -- duskies and sandbars, right?
3 Okay.

4 All right. And then about the --
5 we addressed or we looked at real quick the
6 assessment schedule. And the question was
7 whether five years was appropriate or not.
8 And with some of these long-lived, long time
9 to become mature animals that -- first of all,
10 we all thought we needed a good peer reviewed
11 CR type assessment on all of the animals that
12 we could possibly do that on, and then maybe
13 five years would be too short of a time to do
14 a full assessment again, but maybe with
15 updates. Did I say that right?

16 Criteria for establishing the
17 guinea pig fleet. Is that right, Dewey?
18 First of all, we thought that there needed to
19 be an established research fishery plan for
20 doing this work.

21 If it's going to be a research
22 fishery, we needed to have a really good plan

1 to conduct this. And the things that we
2 thought that we've already heard echoed a
3 couple of times, it would be very important to
4 consider time and area, and possibly historic
5 landings within those areas and times.

6 Equitable resource allocation --
7 and I'm not sure, if you will help me with
8 what that meant -- we just wanted to make
9 sure, if it was a research fishery, that when
10 the boats were out there fishing, it was going
11 to answer the questions that needed to be
12 researched. Where are the sharks? How many
13 of them are there? What are their sizes? All
14 the basic things you need to do for fisheries
15 research.

16 And we also with that wanted to
17 know -- make sure that we had scientific
18 usefulness of the fish that were landed, make
19 sure that we were getting everything out of
20 those fish that were landed as possible.

21 And then we already have some
22 standards with EFPs that people have to meet

1 to get an EFP, such as violations and -- that
2 was mainly violations, and are you going to
3 accept a boat that serves the purpose of the
4 research?

5 And examine landings from all
6 waters, not only just where the bulk of
7 landings are coming from now, but maybe where
8 they did in the past, and both in state and
9 federal water.

10 The dealer reporting, basically,
11 we said to that first question was, yes. We
12 should increase dealer reporting for better
13 quota monitoring.

14 And then we made the suggestion of
15 electronic reporting, and that could be as
16 frequently as each time a boatps landed, if we
17 are going to make this -- it's pretty easy to
18 do to computer screen at the fish house.

19 So that was just a suggestion. We
20 don't know how practical that is, but that was
21 the suggestion.

22 We were -- five days was something

1 we couldn't -- we didn't have the expertise at
2 our table to answer that question, if that was
3 going to be -- if that was enough time or not.
4 And our concern was with what another table
5 brought up, was if there are pelagic longboats
6 out there fishing, five days might be a moot
7 point to those guys who are going to be out
8 for a long time.

9 And next is the question about who
10 was going to be a dealer or not. And we
11 thought first receiver equals dealer. There
12 are not going to be as many sharks landed. It
13 would be easy enough to do this. If this is
14 a problem, the dealer needs to hire the truck
15 to go to the boat to get the fish. He needs
16 to have people on the truck, and they need to
17 know how to identify the fish. So we thought
18 first receiver should equal dealer in that
19 case.

20 And for number four in that group,
21 we said see number two, which was, there
22 should be increased reporting, and one of the

1 comments we had about that was electronic
2 reporting again, and there's our question
3 about the five days and whether that was long
4 enough. We just didn't have the expertise to
5 answer that part.

6 You guys cool with all that?

7 MODERATOR: Randy, thank you. Is
8 there anybody else from the table that would
9 like to -- okay, so we're clean? No more
10 comments from that table? All right, thank
11 you very much. Thanks, Randy. Thank you.

12 Bob, you're going to handle this
13 table? Yes, I was just wondering if you could
14 just turn your mic on.

15 PARTICIPANT: I just want to say
16 that Sonja was our scribe, and she has asked
17 me to be the deliverer, for some reason, but
18 there may be some mis-communications here. So
19 we will figure this out as we go.

20 The first question, the criteria
21 that should be used to select fishermen,
22 vessels for this research fishery. The vision

1 we have is that a pool of vessels and
2 fishermen will be accounted for based on the
3 present fishermen, and certain criteria must
4 be used to develop that pool. Otherwise, it's
5 a very arbitrary process, and it's very open
6 to litigation, which is a serious problem.

7 So what would those criteria be?
8 Obviously, number one, interest in
9 participating in this fishery, understanding
10 of the costs to be part of this, no questions
11 asked that they have to accept 100 percent
12 observer coverage. That cannot be a point of
13 discussion.

14 Definitely these fisheries should
15 represent all regions equitably. We don't
16 want them just all in one area. That's not
17 going to help with either the fishery or
18 research.

19 One person asked the question, are
20 charter/headboats possibly included in this
21 category, and our feeling was, no, this was
22 bottom longline vessels that we were talking

1 about here, but we would need a clarification
2 on that.

3 Any vessels that have had -- or
4 where owners have had major violations should
5 be excluded. Maybe other criteria along those
6 lines can be developed. From a research
7 standpoint -- and we couldn't agree more with
8 the point that was made over here that, if
9 this is going to be a research fishery, there
10 needs to be a research plan for this fishery.
11 Otherwise, it might have a derby effect, and
12 everybody rushes out there the opening day of
13 the season, catches all the fish in two weeks,
14 and that's no research plan at all. So we're
15 not going to learn much from that.

16 So if we really want to accomplish
17 something research-wise, maybe some kind of
18 staggered quota. And I think George Burgess
19 pointed this out very well this morning, that
20 really research needs to go throughout the
21 seasons.

22 And one thing I thought was good

1 was to give extra brownie points to vessels
2 that have participated in the observer
3 programs in the past. Maybe they would need
4 a little bit of extra consideration.

5 Then having said that, you develop
6 a pool, and maybe your pool is still too big.
7 So then you have to go perhaps to a lottery
8 system by region. Want to make sure that the
9 regions are all covered, again to avoid the
10 process or the question about being arbitrary
11 and raising litigation.

12 We did talk about the possibility
13 of allowing more vessels access to this very
14 small quota. There's a cost/benefit tradeoff
15 there, obviously. Economically, it gets to be
16 where it's not even worth leaving the dock for
17 such a small amount of fish. So I guess that
18 needs to be considered.

19 Let's see. Lottery system, et
20 cetera, et cetera. I think the rest of this
21 I have already covered. So the idea here is
22 to develop this pool based on very definable

1 criteria, maybe even have a ranking system or
2 a point system. Then when you get down to
3 everyone that qualifies for that, if you still
4 have too many boats, then go to a lottery
5 system to get your final fleet size.

6 Question 2, dealer reporting. Is
7 it adequate? Should it be more frequent, et
8 cetera? We agree with this group that
9 electronic reporting -- there's no reason why
10 we shouldn't be moving to that now. It's more
11 instantaneous. With e-mail, you could get an
12 automatic reply, and the person reporting
13 knows that their information has been
14 received. There's no question about whether
15 the post office delivered it or not. If you
16 don't have access to email, faxing is another
17 way to go.

18 And we said that -- or I guess
19 we're going to come up on the lag times later.
20 So and even if there are no landings, that
21 should be reported. NMFS should follow up
22 with dealers that don't report if they think

1 that they should be, or that there's something
2 out there that's being missed, because we said
3 that the focus has been on what information
4 has come in, missing what hasn't been
5 reported, and then that leads to these
6 horrendous overages in some cases.

7 Electronically, again NMFS could
8 create some kind of electronic formatted cell
9 file that everybody could use, et cetera. We
10 need to just kind of step this up and bring it
11 more into the Twenty-first Century as opposed
12 to the old way of doing things for the purpose
13 of increasing the precision of the
14 information.

15 All right. The definition of a
16 shark dealer, which we were kind of stymied
17 with what's the problem here, but then we
18 learned, as this group learned, that there's
19 this problem of the middle men that pick up
20 the sharks off the boat and truck them to
21 distribution points, and in no case is the
22 dealer actually there when the boat comes in.

1 So we really didn't have an answer
2 to this problem. I mean we just said, this is
3 a problem, and I suppose that's one answer
4 there that whoever is the first receiver must
5 be a dealer, must be permitted, and must have
6 gone through the dealer training. But there
7 may be some economic issues with that. But
8 clearly, this is a loophole that needs to be
9 closed.

10 As to when to close, I think the
11 group in general felt that 80 percent closure
12 was justified given the huge overages that
13 we've had in the past. We even discussed the
14 possibility of going from five-day warning to
15 a three-day warning, which I understand is
16 used for the bluefin tuna.

17 I think that the problem is that
18 the history of this is bad precision on
19 knowing when the quota is reached. So there's
20 big overages, and so needs to be more
21 precautionary now. If that is creating
22 underages, then maybe loosen those

1 restrictions in the future.

2 One of our commercial fishermen in
3 our group expressed concern about the 22 fish
4 rule on the bycatch vessels, the incidental
5 vessels that go through what he called high
6 grading, which is so you get 100 sharks and
7 then you select out your 22 best and throw the
8 rest away. So that's an area of concern.

9 And finally, as to which
10 alternative we think is most appropriate, the
11 group in general -- there's a consensus that
12 we do prefer the alternative that NMFS
13 prefers, Alternative 4.

14 There are many things about it
15 that we are very positive about, and didn't
16 want to go through all those positive
17 comments, but the concerns or the caveats
18 include taking the sandbar quota to the top,
19 to the limit, using the maximum allowable
20 catch rather than some lower level to allow
21 rebuilding to happen a little bit faster,
22 going ahead with blacktip fishery, allowance

1 for blacktips, even though the status of it in
2 the Atlantic of that species is unknown. The
3 fact that moving ahead with a research fishery
4 that has very poor definition, and we don't
5 know what is meant by a small research
6 fishery, that as many others have pointed out,
7 the choice of recreational species, authorized
8 species, is inconsistent, and that seems to be
9 relatively arbitrary, and that needs to be
10 fixed.

11 And the vulnerability of certain
12 species, such as hammerheads and so on, is
13 still being caught up in this grouping with
14 the large coastal assemblage. So anything
15 else? Anything I left out?

16 Oh, are you going to add
17 something? Oh, okay.

18 MS. FORDHAM: When they let me.
19 Yes? Sonja Fordham, Ocean Conservancy. I
20 have been patient, but I want to add a few
21 general comments.

22 Just to elaborate on what we just

1 talked about, we do have a concern also that
2 there is continuing, or a plan for continuing
3 the blacktip fishery in the Atlantic Ocean,
4 given that the official status of the stock is
5 unknown, and I am not clear how NMFS justifies
6 continuing that fishery under that status. We
7 think that that is quite a risky strategy,
8 given the vulnerability of this species, and
9 also the track record that NMFS has on large
10 coastal shark conservation.

11 And then there's the added concern
12 over the bycatch, bycatch of other depleted
13 shark species that could be taken in that
14 fishery, and not just the species that are
15 confirmed by NMFS to be depleted, the dusky
16 sharks and the sand tigers and the sandbars,
17 but also, like Bob mentioned, several species
18 of hammerhead sharks, in particular.

19 And NMFS has acknowledged very
20 steep declines in these species, but isn't
21 bound by a species specific assessment for
22 hammerhead sharks, but that is of real concern

1 to us.

2 We think it's time to really shift
3 the burden of proof, particularly in this
4 case, and put a moratorium on the entire large
5 coastal shark fishery in the Atlantic -- this
6 doesn't include Gulf blacktips -- until there
7 is an assessment that makes certain the status
8 of Atlantic blacktips, and there's a
9 demonstration that the bycatch species, the
10 depleted bycatch species, can be avoided, the
11 impact can be minimal on those species.

12 We support the concept of a
13 research fishery, but as Bob mentioned, it
14 seems that NMFS has just jumped automatically
15 to the maximum amount allowed under the
16 maximum rebuilding period. We, therefore,
17 think that that is quite a risky approach and
18 that the status of the species and the biology
19 warrants a much more cautious approach.

20 I think this is really my overall,
21 overarching comment on this plan, that we've
22 had this particular -- or shark regulations in

1 the Atlantic and Gulf for 14 years now, and I
2 think there has been a tendency to err on the
3 side of fishing and flexibility and, as a
4 result, we have many species, most species of
5 large coastal sharks, in a pretty dire
6 situation, and I think it is time to take a
7 different approach.

8 I would just reiterate my concern
9 for hammerhead sharks, but also thresher
10 sharks, which have also been recently
11 redlisted by the IUCN with input from the
12 National Marine Fisheries Service.

13 So in looking toward a more
14 precautionary approach, I did want to voice my
15 strong support for a lot of elements that I
16 see as precautionary that have been
17 incorporated into the preferred alternatives,
18 and that would be assuming that unidentified
19 are sandbar sharks or large coastals and
20 subtracting overages and not carrying over
21 underages for overfished species that really
22 support that.

1 We strongly support adding
2 porbeagle sharks to the prohibited species
3 list. We have been asking for many years. So
4 we are very happy that you have finally taken
5 this on.

6 I think that species like this
7 that are so slow growing and under a recovery
8 plan that spans a century really deserve the
9 most protection we can give them, and I think
10 the comment that was made earlier today by
11 NRDC that, if you don't take action, the
12 strongest action that you can for that
13 situation, then I do think that the ESA is
14 going to come into play.

15 We strongly support the fins
16 attached approach as the only sure fire way to
17 make sure that shark finning is really not
18 happening, and also, as was mentioned, to help
19 with the sorely needed species specific data
20 collection. So we are very pleased with that.

21 Earlier today, Glenn Delaney put
22 some words in my mouth about problems with the

1 ratio, and I did agree -- I hope it wasn't
2 during a closed session of ICCAT, but during
3 one of the ICCAT meetings.

4 I certainly agree that there are
5 problems with the ratios, and I think this is
6 a scientific consensus as well. But I think
7 most of the scientists have come to the
8 conclusion that the answer to that is to
9 require that sharks be landed with their fins
10 on. So we are very pleased with that. That
11 was certainly the conclusion of the European
12 report that Glenn mentioned.

13 So I think the fins attached
14 strategy and the porbeagle position in
15 particular are also very important to helping
16 NMFS lead in several international initiatives
17 that are quite pressing for improving finning
18 bans around the world.

19 I think it is really important to
20 remember that in many cases shark finning bans
21 are the only protection that sharks have in
22 other countries and on the high seas. So it

1 is imperative that these bans are enforced,
2 well enforced, and really work as they were
3 intended.

4 Also for porbeagle sharks, there
5 has been a lot of attention globally, and I
6 think the U.S. has an opportunity to lead by
7 example, but I think they also could be a
8 little bit more aggressive in pushing and the
9 fins attached on the international stage. I
10 think that will be very helpful, and I think
11 that this plan that you have put forward with
12 all these caveats is a very good start. So
13 thank you.

14 MODERATOR: Thank you, Sonja.
15 Does there anybody else at this table need to
16 weigh in at the moment? Okay. Thank you.

17 We will conclude with this table.
18 Lisa, you are up again?

19 MS. GREGG: All right. Assuming
20 that NMFS goes final with alternative suite 4,
21 we recommend that they have -- the fishermen
22 have no history of violations, but that you

1 establish a time frame, like a certain period
2 of time, in which they had to have had -- not
3 had any violations, that it not just be open-
4 ended going back near the beginning of time,
5 and also specify the violation type.

6 Is it going to be that they have
7 state and Federal violations? Is it just
8 Federal? Is it going to be major violations,
9 minor violations? We think it is important to
10 establish what type of violations that would
11 be needed to be taken into consideration.

12 We thought priority should be
13 given to people that had historical
14 participation in the fishery, you know,
15 primarily in the directed fishery, and made
16 their money from the shark fishery in general
17 instead of general fisheries. Also, priority
18 is given to people who had voluntary
19 participation in the observer program when it
20 was voluntary prior to it being a requirement,
21 and also the same as they did, establish an
22 eligible pool based on an initial set of

1 criteria and then select by lottery.

2 The second question, should NMFS
3 increase the dealer reporting? We didn't
4 think so. We thought that maybe we need to
5 fix the system that is already in place and do
6 some other things before we made dealers
7 increase reporting.

8 Definition, We thought the
9 proposed definition appeared to be okay. It
10 was more of a -- I think it was more of a
11 legal question, making sure that the
12 definition is going to address all the
13 loopholes. So we didn't seem to think that
14 there were any at this time, but there's
15 always some that seem to pop up down the road.

16 The lag in reporting time, in
17 reference to closing the shark fishery as to
18 whether or not that 80 percent threshold was
19 appropriate. Well, we really don't know. We
20 thought that it would be better to go back and
21 look at maybe the last three years or last --
22 you know, a certain number of years. Three

1 may not be the magic number, but look at the
2 reporting history, determine whether or not
3 that that 80 percent threshold is appropriate.

4 We thought, based on our
5 information that was already in existence and
6 analyzing that information, that that would
7 come up with a better estimate at what
8 percentage would be appropriate.

9 I'm going to sit down here,
10 because this was written in reference to it.
11 Also -- Well, no. Okay. Then something that
12 is already done in Florida is that, when we
13 get close -- When things get close to quota
14 being met or exceeded, that we could probably
15 incorporate polling the larger dealers into
16 the process, you know, by phone, just picking
17 up the phone and calling them and saying where
18 are you at. In that way, you don't
19 necessarily have to wait for them to submit
20 their reporting requirement. You could get
21 some rough estimates as to what is going on.

22 Is a five-day notice of closure

1 enough time to notify the fishermen? We
2 thought that in some cases with some
3 fisheries, yes, it may be appropriate, in
4 others, it wouldn't. It just depends on
5 whether or not the fishermen are out for short
6 periods of time or long periods of time.

7 So in some cases, five days may be
8 adequate, in some, they may not be. So we
9 also suggested that, while you are analyzing
10 to determine whether or not 80 percent
11 threshold is the appropriate threshold, when
12 you are analyzing that information, you can
13 also possibly put together estimated closure
14 dates.

15 So that way people would know a
16 month in advance, okay, well, based on
17 historical data, this is when -- you know,
18 this is how long it took the fishery to close.
19 So this is an estimated date. This is a
20 projected date. That way, people would have
21 more of an idea what they are working with.

22 We emphasized that real time

1 reporting was necessary. Again, electronic
2 method seemed to be the way to go.

3 Again, we didn't agree with any of
4 the proposed alternatives, but going through
5 each of the sections as they had in the
6 proposed alternatives, we thought that
7 Alternative 2, when it came to quotas,
8 species, complexes, that we thought it was
9 okay except for the porbeagle with respect to
10 recreational harvest, we thought that there
11 should be allowed some recreational harvest
12 for porbeagle.

13 Time/area closures, we thought a
14 Alternative 2, which was also used in 3 and 4,
15 status quo plus the South Atlantic Council's
16 closures -- we thought that was fine.

17 With the retention limits, since
18 we didn't necessarily agree with the research
19 approach or the research alternative, we
20 thought -- I think that the Alternative 3 best
21 mirrored that, minus the research allocation.

22 The reporting, Again, we go back

1 to the real time reporting issue. We need to
2 concentrate more on specie-specific ID and
3 make permit renewal dependent upon specie-
4 specific reporting. If they are not going to
5 do this reporting -- it is required. If they
6 are not going to do it in that manner, NMFS
7 needs to start cracking down on the dealers
8 that aren't reporting in the manner that they
9 should be and make their permit renewal
10 dependent upon that.

11 Seasons, we thought for right now,
12 keep it at status quo, either that or until
13 something new is looked at or new proposals
14 are made, that it just needed to be an
15 equitable distribution among regions.

16 As far as regions, we thought
17 Alternative 2, going with no regions, would be
18 appropriate. Then recreational measures:
19 Status quo. If commercial harvest is allowed,
20 then recreational harvest should also be
21 allowed. So we do not support removal of the
22 species that everyone else has been

1 referencing.

2 We felt like there needs to be
3 emphasis on outreach and identification, and
4 an economic analysis for reallocation. The
5 current analysis that they had provided isn't
6 sufficient, that this is -- if they are going
7 to start closing off recreational fisheries
8 and opening six species to commercial harvest
9 only, then there needs to be a very thorough
10 economic analysis done, and the current
11 analysis is insufficient in order to do
12 reallocation.

13 Then ID, the ID should only be an
14 issue for excluding species from harvest if
15 invasive methods are required to identify the
16 species, that education is really the problem
17 with this situation.

18 That's it.

19 MODERATOR: Thank you, Lisa.

20 Anybody else from this table? Okay.

21 We have a few minutes to devote to
22 folks that maybe didn't have a chance to

1 weigh-in this morning in the general
2 discussion about Amendment 1 -- I'm sorry,
3 Amendment 2. There were about 15 or so of
4 you, of Advisory Panel members, and about six
5 or seven members of the public that spoke.

6 This is an opportunity for anybody
7 that did not have that opportunity earlier
8 this morning to make a comment or to ask a
9 question of staff. We will start with Mark
10 Sampson. Mark, if you could make sure you
11 identify yourself.

12 MR. SAMPSON: Yes, thank you.
13 Mark Sampson, Ocean City, Maryland.

14 About a month ago a charter
15 captain was wheeling a shark down the dock
16 behind my boat, and somebody asked -- shouted
17 out from the crowd, what do you have in there?
18 Somebody else answered -- he said, that's a
19 dusky shark in the wheelbarrow.

20 At that, the captain spoke up and
21 said, no, this is a sandbar shark, as he is
22 proceeding his way up to the scale. At that,

1 somebody else looked at it and said, no,
2 that's a blacktip. Then at that, as it passed
3 behind my boat, my mate hopped up on the dock
4 and said, no, that's a spinner shark.

5 A year ago, I got an e-mail from
6 somebody who was very proud to tell me that he
7 thinks he caught a new state record Atlantic
8 sharpnose, and he said, I understand the state
9 record is -- whatever, 14 pounds or something;
10 and he said, this one weighed 32 pounds. He
11 said, look at the picture, tell me what you
12 think.

13 I looked at the picture, and I
14 wrote back to him. I said, well, the good
15 news is that is much larger than the current
16 state record Atlantic sharpnose, the bad news
17 is you are holding a dusky shark, which is a
18 prohibited species.

19 Misidentification within the
20 recreational sector is a big problem. I do
21 not necessarily agree with the fact that we
22 should just say that the only species that may

1 be retained by recreational fishermen should
2 be the easily identifiable species such as
3 your hammerheads and the tigers and makos and
4 threshers and whatever. But there is a
5 problem here.

6 Unfortunately, because there's so
7 many of us recreational fishermen, it is not
8 just a matter of sending everybody off to
9 school. Now those of us who are really into
10 sharks kind of know. I mean, you can look at
11 them, and you can tell, and if you say a
12 ridgeback or non-ridgeback, that's easy. You
13 know, you can look at the spinner and see
14 that's not a blacktip or whatever. But for
15 the general public, it is a problem, and it
16 has been a persistent problem.

17 I don't know what the answer is,
18 but I don't think that the answer is just
19 saying let's just keep on keeping on like we
20 are, because apparently some species, like the
21 dusky sharks, are being taken in good enough
22 quantities that there is reason for concern,

1 just incidentally, by recreational fishermen
2 who don't know that it is not -- you now, that
3 it's not a sharpnose, it's a dusky shark, it's
4 a sandbar or whatever.

5 So I do think, again while I wish
6 I could say here is my suggestion, other than
7 sort of what I've been saying for a long time
8 every year, it seems, here is better
9 education for the public, you know, the
10 recreational fishermen.

11 Obviously, it is more easy to tell
12 all the commercial permitted people, because
13 that is such a small universe, you have to go
14 to shark identification school. But we are
15 not going to be able to do that realistically
16 with all the recreational fishermen. But I am
17 concerned about this and think that somehow
18 some more efforts have to be made to educate
19 the recreational fishermen, rather than just
20 saying, well, just keep on doing like you are
21 doing, because if we are catching too many
22 dusky sharks, thinking that they are other

1 species, or too many sandbar sharks or
2 whatever, I think it just needs to be
3 addressed.

4 Just one other thing, and I made
5 this formally in my written comments earlier,
6 but I just want to throw this out here now,
7 since we have so many good minds here, people
8 to ponder.

9 A red flag that I just need to
10 throw up -- throw out, put up, that since a
11 lot of you probably would not see my official
12 public comments, I know that in our area of
13 Maryland and also off of Delaware and at least
14 in certain parts of New Jersey and, I'm
15 assuming, even to further north of there, over
16 the past decade the catch of common thresher
17 sharks has increased quite a bit.

18 This is probably primarily because
19 of the efficiency of fishermen to target these
20 fish. They are just bringing back a lot more
21 than they have. I don't know that they are
22 bringing back too many, but I'm just saying

1 they are bringing back a lot more than they
2 have.

3 I also know that a very high
4 percentage of these fish are gravid female
5 animals, big animals, 400 pounds-plus,
6 typically carrying like four pups. Is this a
7 problem? I don't know. Is there a stock
8 assessment on these fish? I haven't heard of
9 one. I've asked a few, and I have yet to hear
10 anybody say that they really have a handle on
11 common thresher sharks in the Mid-Atlantic
12 region.

13 I am just holding up this red flag
14 here now, hoping that maybe the right person
15 will pick it up and wave it in the right
16 direction, and maybe we could avert something
17 in the future that we don't want to have to
18 deal with. That's all. Thank you.

19 MODERATOR: Josh?

20 MR. LOEFER: Josh Loefer, South
21 Carolina DNR. I just wanted to echo Mark's
22 comments about the shark ID. A couple of

1 weeks ago at my lab we got a tag return from
2 a sandbar shark that the recreational angler
3 identified as a cobia.

4 MODERATOR: Rusty, can I get a
5 couple of people who have not had a chance
6 yet? I'll get back to you, Rusty. Ellen, go
7 ahead.

8 MS. PEEL: Well, speaking of
9 species identification, it seems to go both
10 ways, because I know many of you saw the
11 photo in National Fisherman, the commercial
12 magazine, not too long ago of a proud
13 fisherman holding a white marlin, and it was
14 labeled as a swordfish.

15 Now I hope that that was a mix-up
16 in the photo, but certainly I hope it wasn't
17 in the identification, because we could have
18 a bigger problem.

19 MODERATOR: Thanks, Ellen. Yes,
20 and so is Rusty. He had his hand up. I
21 wanted to just make sure I gave everybody a
22 chance that didn't have a chance this morning.

1 Okay, Rusty and Gail.

2 MR. HUDSON: Rusty Hudson,
3 Directed Shark. Mark Sampson, my question is
4 directed to you, your 32-pound Atlantic
5 sharpnose being a dusky. Would you say that
6 that animal was less than four and a half foot
7 on the fork length measurement?

8 MR. SAMPSON: Yes. However, of
9 course, you know that there is no size
10 measurement -- or size limit on Atlantic
11 sharpnose.

12 MR. HUDSON: There is on dusky.
13 Correct?

14 MR. SAMPSON: No, because you
15 can't keep them of any size. Right?

16 MR. HUDSON: Well, that's
17 prohibited also, but the big thing is that is
18 compelling to me is that NMFS is of the belief
19 that the four and a half foot minimum size is
20 not working for most of the sharks, prohibited
21 or legal for the recreational. And as a final
22 thought with the South Carolina fellow, for

1 decades in the headboat fishery, a lot of
2 times a cobia would swim by the boat and
3 everybody would yell, shark.

4 MODERATOR: Thanks, Rusty. Gail,
5 go ahead.

6 MS. JOHNSON: Thank you. Gail
7 Johnson. I am not sure how far some of these
8 shark regulations will spill over into other
9 HMS, but just in case they do, on the first
10 receiver -- the first receiver does not equal
11 a dealer, and it can't in some cases, because
12 the fish dealer, when you have a good trip of
13 swordfish, they don't have a truck available.

14 There has to be an intermediary.
15 As it was put up there, it was other than
16 solely for transport on land. That part
17 works.

18 The five-day notice --we have
19 talked about that -- doesn't work for offshore
20 boats.

21 The overarching thing, though,
22 that I think we need to look at -- I don't see

1 it being talked about -- is we talked about
2 exit strategies. We need this kind of thing
3 for fishery management plans. I'm sorry. I'm
4 getting off specifics, but we are locked into
5 a problem with the swordfish fishery right
6 now. We cannot catch our quota, and it has
7 several reasons, one of them being we are not
8 able to access all of the places that we
9 should be able to go.

10 We are kind of out of that,
11 because instead of a distinguished fisherman
12 here for sharks, we have an extinguished
13 fisherman here for sharks. But at any rate,
14 whatever we do, if it has a really big impact,
15 such as prohibiting porbeagles, there are a
16 lot of things that we only find out later that
17 we have made a slight mistake, but we can't
18 unring the bell.

19 Whatever we do, whether it is
20 prohibited species or something major like
21 closed areas, major like a research vessel
22 that you have to have this big plan, but what

1 (END OF TAPE 9) -

2 - what we do that is a big,
3 almost final thing so that, if new information
4 comes out, we don't have to go through maybe
5 even an act of Congress to change it. Thanks.

6 MS. BEIDEMAN: Terri Beideman. An
7 act of Congress is a good jumping off point
8 there. I just really wanted to reiterate, we
9 did spend a good amount of time at this table
10 talking about the issue with regard to fins,
11 and we, I think, discussed that we thought
12 that NMFS should probably go back and tell
13 Congress that they may have had the percentage
14 wrong, and being hemmed in now with this five
15 percent number, because it was an average and
16 because it was included a multiple variety of
17 species rather than just specific to these
18 very large coastals -- large, large coastals,
19 that we are putting our fishermen in a
20 position where they are going to be breaking
21 the law.

22 By being in the research fishery,

1 they will be breaking the letter of the law.
2 Down the road, as we discussed, Enforcement
3 can come flying out of the woodwork, having
4 looked over logbooks, and say you caught more
5 than five percent, even though you had an
6 observer and you had them attached, if you
7 choose that onerous path.

8 It is ridiculous. It should be
9 something you could say, look, you know, we
10 have mandated this five percent because it was
11 our data that brought that up. You should be
12 man enough to go and say, look, yep, we did
13 bring that up, but guess what. Our number
14 isn't exactly right, and we are now going to
15 put people in a bad spot. Fix it.

16 Number two, another thing that we
17 discussed here quite a bit was that -- at
18 least I did -- was that whatever we do with
19 sharks, what we would like not to do is to
20 force people to have to throw away dead fish.

21 If we have a limited quota, we
22 need to figure out how to allocate it so that

1 we aren't having people throw away dead sharks
2 willy nilly. We should be able to do that,
3 take a look at what fisheries need
4 incidental, how much they need, you know,
5 accommodate that first. So that was part of
6 our discussion.

7 MODERATOR: Thank you, Terri.
8 Rebecca.

9 MS. REGNERY: Thank you. I am
10 Rebecca Regnery with Humane Society
11 International, and I also --

12 MODERATOR: A little bit louder,
13 Rebecca, a little bit closer to the mic.

14 MS. REGNERY: How about now? Is
15 that better.

16 MODERATOR: Much better, thank
17 you.

18 MS. REGNERY: I'm sorry, I do have
19 a soft voice. I also wanted to talk about the
20 shark finning issue.

21 I understand that enforcement of
22 the five percent ratio can be difficult now

1 and is not always done consistently. I am
2 concerned that doing a ratio per species,
3 while it would be a good solution, that it
4 would be even harder to enforce and could
5 actually create an enforcement nightmare.

6 The true goal here is to prevent
7 finning and prevent wasting the resource, and
8 the rapid depletion of species abroad is
9 pretty likely if finning is continued. If it
10 is difficult to enforce here, I can imagine
11 that it would be that much more difficult
12 abroad.

13 The U.S. does have to base
14 international policy on domestic regulations.
15 The U.S. can be a leader in responsible
16 fishing, and usually is. I understand the
17 main concerns here are that we don't want our
18 fishers to be breaking the current Federal
19 law, and then also the quality control issue.

20 Fishermen and fisherwomen are some
21 of the most innovative people I have ever met.
22 I think that we can find creative ways, as

1 they have done in other countries, to deal
2 with the quality control issue. I am not an
3 expert on this, but I understand that other
4 countries are implementing this successfully,
5 the fins attached.

6 The Federal law issue is
7 definitely problematic, and I do think that we
8 need to go back to Congress and address this.

9 Our fishermen have also found
10 creative ways to comply with the ratio with
11 species where the ratio is higher than five
12 percent. This issue would also be resolved by
13 requiring fins attached, and I think that is
14 really the way we need to go in the long run.
15 I think it will be the best for the sharks and
16 for our fishers. Thank you.

17 MODERATOR: Thanks, Rebecca. We
18 have two more, and we will wind up there
19 probably, or three, I should say. Peter, you
20 had a question?

21 MR. WEISS: Yes. I have a
22 technical question, because I don't know much

1 about sharks, but I think I know what they
2 look like. The other day I was fishing with
3 my grandson, and we pulled up this thing, and
4 he says what's that. I said, well, that's a
5 shark; it's a dogfish.

6 So I don't quite understand why
7 these species are not involved in this shark
8 HMS area. There are a lot of them. I
9 honestly believe there are more dogfish than
10 there are human beings on earth, and it will
11 be nice -- It would have been good, I believe,
12 if -- there is no forum that I know of to
13 control dogfish.

14 It seems to me that they look like
15 sharks. I think they act like sharks, and I
16 don't know if -- My technical question is,
17 are they sharks and, if they are, why aren't
18 they in HMS area? Thank you.

19 MODERATOR: Thanks, Peter.

20 PARTICIPANT: The decision for
21 that predates me, but it is council managed.
22 I believe it is joint New England and Mid-

1 Atlantic, and we have also a Commission plan,
2 Atlantic States. So there are forums. It is
3 not this one, and that's about all.

4 MODERATOR: Peter, thank you. We
5 are going to wind up with Glenn and then
6 Dewey, and then while Dr. Hogarth is still
7 here, we are going to give you option. If you
8 recall, yesterday you broke out and answered
9 some very specific questions on the swordfish
10 plan and next steps on swordfish.

11 We did a quick run-around on the
12 swordfish report-outs. This is a chance
13 before Dr. Hogarth leaves to either do that
14 again for some or all of you, if you would
15 like to have that opportunity to get some of
16 that messaging out while Dr. Hogarth is here.
17 We have that built into the agenda.

18 So we'll wind up with sharks with
19 Glenn and Dewey, and then we will move there.
20 Then we will take a break after that.

21 MR. DELANEY: Thanks. Glenn
22 Delaney. I just wanted to bring everyone's

1 attention to another issue that actually
2 Elizabeth Griffin from Oceana brought to my
3 attention when we were talking about the
4 statutory five percent requirement and what
5 might need to be done about that.

6 She pointed out also that the U.S.
7 currently does not prohibit the importation of
8 shark fins from nations that have failed to
9 adopt a finning ban, which is a remarkable
10 oversight or loophole or whatever you want to
11 call it, but certainly something that ought to
12 be addressed.

13 I am not sure if the agency has
14 authority to do anything about that, absent
15 legislative or statutory provisions. So that
16 may be something that we need to pursue
17 statutorily, if we work on the other issue as
18 well. But I just thought everybody in this
19 community would be interested to know that,
20 and that is certainly something we should all
21 be concerned about.

22 Also, I just wanted to say I

1 really appreciated -- she's not going to hear
2 me say this -- Rebecca's comments. Very
3 consistent with my own. Thank you.

4 MODERATOR: Thank you, Glenn.
5 Dewey, go ahead.

6 MR. HEMILRIGHT: Dewey Hemilright.
7 There's a couple of things that I want to
8 touch on here about this research program,
9 about the guinea pig fishery, as I call it.

10 It seems like to me that what you
11 will have here is a couple of different
12 things. Before fishermen were allowed to go
13 fishing, they had to have a 4,000 pound trip
14 limit, and they went fishing wherever they
15 want. So it was kind of wide open data.

16 Now they are going to be told, it
17 appears, when they can go, what time they can
18 go. It's almost like we are getting the data,
19 you know, a little more skewed instead of
20 having a good open look at the data or the
21 research program.

22 This thing with quotas -- you will

1 have observers on these boats. So there
2 should be no problem of managing that quota
3 for sandbar sharks, because most are going to
4 do tally sheets or what. So that is pretty
5 much taken care of there as far as that quota,
6 as far as real time monitoring.

7 I would hope to think that
8 National Marine Fisheries, even though it
9 sometimes remisses me, that they get five or
10 ten boats that could get counted on that. We
11 should feel safe about that.

12 When it comes down to the
13 incidental fishery, which I don't know of
14 fleets going fishing or whatever for 22 sharks
15 which are not sandbars, which probably the
16 best available thing, that if they were all 50
17 pound carcasses -- trying to think of
18 something -- you know, that get like spinner
19 sharks or something.
20 by the time you got finished with 22 sharks
21 and maybe the fins, you got 600-700 bucks or
22 something, \$600-700.

1 Well, people can't go run an
2 operation on directed fisheries for \$600-700
3 by the time they apply the bait, fuel and
4 different things. Basically, you've taken the
5 incidental fishery, which is a couple of fish,
6 two or three fish, probably mainly for maybe
7 King mackerel guys or hook and line.

8 I don't really see gill-net guys.
9 There's all types of different laws where you
10 can sit gill-nets in certain times of year in
11 Federal waters and stuff. So I don't see that
12 being a problem as far as the quotas on the
13 incidental for 22 sharks as going over the
14 quotas or monitoring.

15 I mean, it's all of a sudden
16 getting down to there will be a very limited
17 number of places where any amounts of sharks
18 are done. So maybe we could get better at 90
19 percent of the quota.

20 Getting back to another topic of
21 discussion here is Congress and this fin data
22 here. I've probably researched this owing to

1 my hardheaded and stubbornness more than
2 anybody that's ever done this, and my reason
3 for it was we had an incident where a person
4 was charged with something, a finning
5 violation.

6 He was charged with a finning Act,
7 and doing this data and uncovering National
8 Marine Fisheries stuff and trying to get the
9 best available on everything, come to find
10 out, the actual 11 sharks that were done --
11 hell, I can't even remember that now -- maybe
12 that were done on a research cruise, had a
13 low of like 3.2 and a high of 6.9, and they
14 chose like 5-point. So right there, that was
15 skewed to begin with, because we took a
16 medium.

17 There was about 27 other sharks
18 that were done through different people in
19 stages, and they had a range of -- This is
20 sandbar sharks. So generally they have the
21 largest thing -- of 2.9 to 9.9, and this paper
22 was give out to the scientific community. It

1 was given out to ICCAT, even though it was
2 unpublished, but it was still given out. It
3 was put together by National Marine Fisheries
4 Service, an employee there.

5 Well, in Congress' writing of this
6 law when you go back and read the things, this
7 Finning Act was put in that you are allowed --
8 If you are charged with this Finning Act, you
9 are allowed to rebut, to go there and show the
10 reason why you wasn't finning.

11 Well, in a particular case on the
12 eleventh hour it went from that to being able
13 to charge with being the five percent. Well,
14 there's two different things here. Either,
15 one, he was finning or, two, he was just over
16 five percent. But the crux of the thing is,
17 when you are charged with over five percent,
18 you are not allowed, when you go before
19 administrative law judge, to rebut your
20 information. You just can't talk about the
21 reason why it was messed with the law, but you
22 could if you were charged with the Finning

1 Act.

2 This stuff about counting fins
3 and leaving fins on and all this -- you know,
4 this is the United States. This isn't a
5 European Union. So what happens across that
6 pond, even though it's probably paid for with
7 some American dollars and a few other things,
8 doesn't necessarily translate what happens
9 over here.

10 I don't understand why National
11 Marine Fisheries wants to -- We looked at
12 these different things with fins and what you
13 are going to write down on your ticket, you
14 know. Their own data, best available -- they
15 don't like to look at it -- shows a different
16 picture, a variety of things for the sandbar
17 sharks, how you clean it, all this.

18 All of a sudden, because somebody
19 don't clean a shark right or he got too much
20 meat on the fins and he is up there at
21 seven/eight percent, he is going to be charged
22 with finning, just based on a piece of paper

1 that he sent in, nothing else.

2 They can do all the research and
3 looking at things they want, but just on a
4 piece of paper. We've been asking this
5 question for a couple of years, and it appears
6 like through the elimination of the directed
7 shark fishery, maybe the question won't be so
8 more important, but it will probably be more
9 important for the international NGOs and their
10 prosecution of what happens across that pond
11 if the U.S. develops a fin-on fishery, meaning
12 leave the fins on. We get to the dock, we cut
13 them off, but you going to write in your
14 logbook? Well, we got to figure something
15 out. That's the big quandary now.

16 There was two things that was set
17 up by Congress, and Congress allowed you, in
18 my reading of it -- and I might interpret
19 something a little different, but they allowed
20 you to rebut this. they allowed you to show
21 what was wrong with it.

22 Well, sometimes Enforcement don't

1 want -- They don't want you to show what was
2 wrong with it, because it might show that
3 there's discrepancies.

4 I did a Freedom of Information Act
5 after this come up, and it took me about six
6 months, went through the proper channels. It
7 was an education from heck from me about how
8 to do this stuff.

9 I wanted to show -- I don't care
10 about what boats were landing, whose logbook
11 it was, but just to show the fin weights of
12 landing over five percent. Well, I got the
13 run-around, this and that, and all this stuff,
14 and come to find out, well, we don't have that
15 data; it's in our logbooks, and it's stuck on
16 the shelf somewhere and, basically, the only
17 one that gets it is Enforcement if they come
18 in to look at it.

19 This issue won't go away, but
20 before you all go and put a fin data or
21 landing of shark fins just because the
22 European Union has come out a nice little

1 booklet and some national Marine Fishery
2 employees had help with that -- we should do
3 this here in the U.S. and make it right before
4 we go across the pond.

5 You know, just because -- We are
6 like the poster child across the pond. Let's
7 do it here in the U.S., and then we will send
8 it over there to get everybody else to do it.
9 Well, the problem with us over here is we make
10 our fishermen jump through hoops and bounds
11 and all this other stuff, and then we go over
12 there, you know, and ain't nobody going to do
13 this stuff. But there is something wrong with
14 this stuff, and just putting -- making people
15 land shark fins on isn't going to change it as
16 far as through actual sitting down.

17 There is two differences, what
18 Congress mandated or the Finning Act of 2000
19 and the five percent law. It is just
20 arbitrary and capricious which one you want to
21 choose to enforce as far as at enforcement
22 (inaudible.)

1 Number two things: This latest
2 stock assessment is probably -- I can't do
3 nothing but laugh, because I've come to the
4 realization that my livelihood and the shark
5 fishing for me is probably gone, and I believe
6 this is probably the biggest damn lie, and I
7 never be able to probably show it, as to be
8 perpetrated about this science on these
9 sharks, as far as the independency, actual
10 independency of reviewers and birds of a
11 feather flock together, and where does the
12 money go, and the different things of showing
13 this stuff. It gets to be pick and choose and
14 mind, and people say, well, he will just be a
15 conspiracy freak or listen to him run his
16 mouth.

17 The good thing about being in the
18 United States, we still get to speak our mind,
19 and we are afforded the opportunity here. But
20 I believe it's the biggest lie that is being
21 perpetrated not only on the recreation
22 community but everybody else who has access to

1 this resource.

2 Prior to 1993 you could go fishing
3 365 days a year and catch all the sharks you
4 wanted. I believe, before the implementation
5 of the 4,000 pound trip limit and seasons and
6 quotas, you probably longline and doing all
7 this stuff, going over, you could have messed
8 up the species.

9 We are watching times come back.
10 Sharks, more sharks everywhere, limited
11 fishing. You're talking 1993 until 2007 is
12 probably 14 years. Well, either there is a
13 black hole out there swallowing these sharks
14 up or there's more sharks, and I ain't heard
15 the black hole theory.

16 I believe, by putting this stock
17 assessment off, different ones, for five years
18 -- and I have a hard time with that -- is
19 because you are allowed to. If the data ain't
20 there, well, let's manufacture it or let's fix
21 it or make it right, you know.

22 There's millions of dollars that

1 are given every year to organizations about
2 this shark research. What the heck are they
3 doing with our taxpayers' dollars, you know?
4 How is it working? How was the groups working
5 together with each other on different things?

6 There needs to be -- and I realize
7 it's to the advantage of the NGOs, that if
8 there is a no-fishery in the United States, it
9 works great with preaching the message across
10 the pond. It goes hand in hand.

11 I've heard many times today here
12 that here in the U.S. we are the poster child.
13 That's what I say. People always say, well,
14 the international area, you know, this is what
15 we do here; we look at America.

16 Well, I'm telling you what you
17 look here at America is not right. It may
18 never be shown, but this magnitude of the
19 shark fishery being closed down and people's
20 livelihoods taken away is probably the biggest
21 damn lie I've ever witnessed in my life.
22 Thank you for listening to me.

1 MODERATOR: Okay, Bill.

2 DR. HOGARTH: To respond to a
3 couple of things. First off, there was a
4 question asked yesterday about SEDAR, and I
5 want Glenn -- that is being looked at.

6 Also, Dewey, you asked about
7 dogfish. I'm looking into it. I don't have
8 an answer for you today, because it was only
9 yesterday, but they are supposed to come back
10 to me with the whole question of dogfish, the
11 numbers and percentage of catch and all the
12 stuff.

13 I just tell you, I have talked to
14 one of the committees on the Hill about the
15 finning. it will take more than National
16 Marine Fishery Service to get it changed. It
17 will take, I think, a uniform proposal by
18 probably everyone sitting in this room. I
19 think Congress, if they touch it again, in my
20 opinion, will be landing the sharks with fins.
21 That will be my impression right now.

22 So I think, if you want to do

1 something with it, you need to do it through
2 people sitting down and talking and develop a
3 proposal that we could go to Congress together
4 with. I believe that's the only way you will
5 get it done, because I have mentioned it and
6 didn't get too far with it from that
7 standpoint there.

8 Dewey, I have struggled with
9 sharks for a number of years, probably 14
10 years, like you said, and I am still
11 struggling my last year here with sharks, you
12 know, because I've tried to get data. It took
13 me forever to try to get Dr. Schwartz's data,
14 and then it ended up being published before we
15 could even get the data cleaned up by the
16 person at UNC, which I think was totally
17 wrong, but it was done. It was taken and
18 published by other people.

19 So we worked through a process.
20 It took a long time to do that. I will take
21 one more crack at looking at sharks and
22 talking to our people in the Center.

1 We have hired a scientist that
2 will be in Headquarters to do nothing but HMS
3 from now on. We won't be looking totally to
4 the Southeast Center. I want someone sitting
5 in -- that Margo has total access to, and her
6 people, on a daily basis, and that person will
7 be coming shortly to S&T (phonetic). So we
8 will -- I will sit down with -- I'm going to
9 be with these people for the Southeast Center
10 on the 15th looking at bluefin tuna, and try
11 to get one more look.

12 Seems like -- You know, we always
13 have problems with people looking at the data,
14 the lack of data or the data that goes into
15 stock assessment, but it does seem like we
16 have had, in my opinion, more questions about
17 sharks than probably any other species that I
18 have dealt with, even, I think, bluefin tuna
19 which we have had some scarcity. It does seem
20 like the sharks gives us the most problems.

21 I don't have an answer. I have
22 heard the comments. All indications, sharks

1 are in bad shape, but the question I wanted to
2 look at, and I will talk clearly, is that I do
3 want to make sure that we don't skew the data.
4 We got to look at our research program to make
5 sure it doesn't do that. That would just be
6 another problem that we create for ourselves.
7 So I heard your comments.

8 MR. HEMILRIGHT: There's two
9 things that are at your disposal with the
10 finning thing, is the Finning Act and five
11 percent, which are definitely two different
12 things that are used in enforcement tools.

13 Are you telling me that the only
14 thing that you all can do -- I think most of
15 the basis of enforcement things -- it's not
16 the Finning Act, because Finning Act you are
17 allowed to rebut yourself. That's total
18 separate. If it would stay the Finning Act,
19 it would be the greatest thing, great, because
20 you could rebut, and you could use national
21 Marine Fisheries science.

22 The other thing is the five

1 percent law that you are not allowed when you
2 go to administrative law judge to rebut. You
3 are not allowed to talk about how that law got
4 made, but with Congress you are allowed.

5 So I am hearing you on one part,
6 that it takes acts of Congress to change your
7 thing, but I am hearing on the other part
8 Congress didn't make the five percent law;
9 they made the Finning Act. So we got two
10 different things here. Which is which?

11 DR. HOGARTH: Dewey, the five
12 percent is in the statute. It sounds like you
13 know more about the Finning Law versus five
14 percent. I don't know. I'll tell you that.
15 I have to go back and research it, and I will
16 before the sun goes down tomorrow. Won't be
17 today, because I got to be on the Hill at five
18 o'clock, but I will look at that and talk to
19 Enforcement attorneys about it, because you've
20 told me something that I hadn't really looked
21 at it from that standpoint, really.

22 I have looked at the five percent

1 being in the statute, period, but I will look
2 at the other side.

3 MODERATOR: I think we really need
4 to cut this and move to swordfish, Rusty.
5 This can go on.

6 MR. NELSON: I just got a real
7 brief question. Dr. Hogarth, how was Dr.
8 Schwartz's data inappropriately procured from
9 NMFS and wound out at Chicken Little
10 University in Nova Scotia?

11 DR. HOGARTH: Because a professor
12 at University of North Carolina took it and
13 used it with this person to publish a paper,
14 and we thought we -- When I went to the
15 University system to get that data, we paid to
16 get that data, and we thought we had an
17 agreement with the University, and the
18 University didn't hold up its part of -- The
19 Dean at the Institute let another professor
20 take it.

21 PARTICIPANT: So it wasn't Dr.
22 Schwartz?

1 DR. HOGARTH: No. No.

2 MODERATOR: Thank you. Folks,
3 here is what I am going to ask. This is an
4 opportunity while Dr. Hogarth is still here
5 for a few more minutes before he heads
6 downtown, to do a quick recap of the
7 highlights of the results of your work and
8 your breakouts yesterday on swordfish.

9 So it will feel a little bit like
10 deja vu, but it is a chance to make some of
11 these points and have Dr. Hogarth here them
12 specifically. We spent an awful lot of time
13 yesterday on the swordfish question, and we
14 have that option to do that right now.

15 Rich? Rich, are you asking a
16 question? Is it a process question?

17 PARTICIPANT: No. I was going to
18 try to address Dr. Hogarth on some of the
19 highlights of our discussions yesterday, if
20 that's all right.

21 MODERATOR: Okay. Well, our
22 intent was to go group by group to review the

1 -- So we can find your --

2 PARTICIPANT: Okay. Then we'll do
3 it from --

4 MODERATOR: Do you recognize your
5 stuff up here at all?

6 PARTICIPANT: I may be able to
7 find it.

8 MODERATOR: Okay. Hang on. This
9 is all the swordfish stuff from yesterday.
10 You see it?

11 PARTICIPANT: No, no.

12 MODERATOR: Is this it? Why don't
13 you do that? Why don't you grab that up.
14 Could I ask -- That's fine. That could be
15 it. There's swordfish, swordfish. Is it that
16 one? That's the only other one.

17 PARTICIPANT: Yes, that one is
18 ours.

19 MODERATOR: Okay. So you will be
20 ready to go over there. Okay, Bill is ready
21 to go with his from yesterday. Go ahead,
22 Bill, and then we are going to get everybody

1 staged up.

2 MR. GERENCER: Okay. First of
3 all, thank you, Dr. Hogarth, for coming back
4 and listening to us. You thanked us
5 yesterday. We all owe you the same kind of
6 thanks.

7 We went through sort of a set of
8 topics for discussion, and we got through a
9 couple of them, and then we kind of stopped
10 and turned in a different direction, but
11 basically under Other Recommendations, Short
12 Term: Count the fish; estimate the true
13 mortality, because I think we are missing some
14 of that.

15 We would like to see closed area
16 bycatch -- I mean closed area research
17 initiated immediately, and then we thought,
18 well, maybe we can find a way for commercial
19 charter boats and recreational fishermen to
20 work together to catch more fish.

21 Long term, we have to find a way
22 to incentivize investment in and development

1 of a sustainable and responsible fishery.

2 A closed area review -- we feel
3 that is key; circle hooks; bycatch; avoidance
4 technology; and marketing the U.S. fish with
5 the eye of increasing U.S. fish versus foreign
6 fish.

7 Then we kind of took a left turn,
8 because we looked at the last one and said
9 what will the industry look like in the
10 future? It comes down to the fact that it all
11 depends on what we have left for quota, which
12 is sort of uncertain at the moment, and
13 chances are we may lose some of it.

14 A new fishery can't be created
15 overnight. I guess the point was are we
16 really trying to revitalize the fishery or
17 reinvent it, because we could catch the fish
18 if we went back to the tactics we used years
19 ago that got us into this depleted condition
20 we had to pull ourselves out of.

21 We could go back to all the hooks,
22 the J-hooks and open all the areas. We could

1 catch our fish in a heartbeat, but I don't
2 think anybody wants to see that.

3 What we are trying to do is
4 reinvent the fishery, but ICCAT is telling us,
5 not only do you have to reinvent it, but you
6 have to do it overnight; otherwise, we are
7 going to take the quota away from you. We
8 feel that is going to be a disaster.

9 These are our fish, not just
10 because we own 30 percent of the quota, Dr.
11 Hogarth, but because we, the industry and this
12 country, bore the brunt of the pain to bring
13 this stock back. We were in the lead of
14 conservation, bringing back these fish, and
15 now we stand to give these fish to countries
16 that don't share our passion for conservation,
17 that will catch a lot of small fish.

18 What does giving up the quota
19 mean? I was talking with Dewey and a few of
20 the other guys last night, and just say I'm an
21 optimist and we only lose 1,000 metric tons.
22 That is a little over 2 million pounds, and at

1 90 pounds a fish that is about 24,500 fish.
2 But there are a lot of countries that don't
3 catch 90-pound fish. They are catching 3-kilo
4 fish, 6.6 pounds.

5 You could catch 24,000 fish by
6 just landing 160,000 pounds there. So you can
7 imagine the kind of disaster that we could be
8 giving up. As far as financially, that is
9 about \$9 million in sales to the boats, 11
10 million in sales for a dealer, 19 million in
11 sales for a processor and about 117 million in
12 sales for a restaurant.

13 So it keeps turning over, and it
14 is a lot left out of this country, plus you
15 have to ask the question, if we give up this
16 1,000 metric tons of quota, how many birds,
17 turtles and marine mammals and billfish does
18 that mean? We are going to be giving this
19 over to countries we have no control over who
20 potentially will fish in ways that we would
21 never allow in this country, and then they
22 will turn around and sell that fish to our

1 markets.

2 I thought -- Well, I was very
3 impassioned when I talked about this, and I
4 talked to Glenn last night and a couple of
5 other people, and they said, all well and
6 good, Bill, but it is basically over.

7 Well, I hate to go Animal House,
8 but it is not over until we say it is over,
9 until we agree that we are going to give up on
10 this, and it is going to take more than what
11 we can possibly do at ICCAT, because maybe the
12 votes aren't there, but we have to find the
13 will and the support to tell them, no, these
14 are our fish, and we help rebuild this stock.
15 We are not going to just turn it around and
16 give it to people that are going to do all
17 this.

18 This is going to be a disaster,
19 not just for the swordfishing industry, but
20 for the recreational community and for the
21 environmental community, because of what this
22 will do to us.

1 We have control over these fish.
2 We have control over the other species that
3 are around them, and we are going to accede
4 that to countries that don't care as much
5 about these things.

6 So I think it is really important
7 that we find the political will and find ways
8 to give you the support that you need that is
9 above and beyond and outside of ICCAT to get
10 this done, not to give up this, because I
11 think we can, given time, reinvent this
12 fishery. We can come up with sustainable
13 responsible ways to catch our quota of
14 swordfish, because it is a U.S. resource, and
15 it is important that we do it.

16 Thanks for your time.

17 PARTICIPANT: I always agreed with
18 you when you said to Dewey that bluefin has
19 always been the number one problem, followed
20 by a number of other species, and that is
21 right. But I am beginning to think that in
22 some cases, you know, bluefin is -- The damage

1 is done, and it is going to take an awful long
2 time to recover.

3 The biggest problem I think we
4 have right now is how to avoid where we went
5 wrong with bluefin with swordfish, and we have
6 gone wrong with bluefin for 26 years. So
7 we've got to try to avoid that.

8 I think with our group, the
9 biggest point that we wanted to make is that
10 we've got to get on with research fishing.
11 The most critical thing that we need to do for
12 the swordfish fishery is reopen fishing
13 grounds.

14 If you want to revitalize, you've
15 got to reopen fishing grounds. So we need to
16 get into these closed areas, and we need to
17 see if mandatory circle hooks and safe
18 handling release practices, tools and
19 practices, can actually produce similar types
20 of conservation benefits to the closed areas.

21 So that is the most important
22 thing that has to be done. In our view,

1 everything else will take care of itself over
2 time, if we can get some areas reopened up
3 fairly soon.

4 Some of the other things that we
5 talked about that are important are: You
6 know, we tried earlier this year to charter
7 Canadian boats to catch U.S. quota. Turned
8 out that there were restrictions against doing
9 that. We couldn't do that. We think that
10 could be a quick fix over the next year or so
11 that could help out.

12 We tried, as you will recall, to
13 talk about could we lease some inactive U.S.
14 permits right now so that people could team up
15 their permits and actually use some vessels
16 that are ready to longline now. We found out
17 we currently don't have -- or St. Petersburg
18 doesn't have the authority to deal with that
19 issue. So we need to get that done as well.

20 You know, the concern that we have
21 is, if we don't show revitalization, as Bill
22 Gerencer was mentioning, we are going to be

1 outvoted. We could be outvoted at ICCAT. It
2 is very likely that we will be outvoted, and
3 that just has to be unacceptable.

4 In order to make it unacceptable,
5 it just can't be the U.S. delegation. We are
6 going to have to have the State Department.
7 We are going to have to have the Department of
8 Commerce saying that it is totally
9 unacceptable that we led the way to rebuild
10 this fishery, and that we are now going to
11 transfer this fishery to countries that don't
12 maintain the conservation ethic, the
13 conservation practices that we had.

14 We don't want to squander the
15 gains. We've rebuilt the resource largely on
16 the backs of the U.S. fishermen, and the way
17 to revitalize is to first get back into some
18 of these closed areas.

19 In terms of a future vision for
20 the fishery, we don't see it a lot different
21 than what it was in the Eighties and Nineties.
22 We think there should be a coastal, pelagic,

1 longline fleet. We think there should be a
2 high seas longline fleet.

3 We think there should be a harpoon
4 fishery, and we think there should be a newly
5 expanded recreational fishery and one that
6 receives special protection from here on in
7 for the entire south Florida. We are ready to
8 make that concession, that that ought to be
9 the highest priority use, highest valued use
10 of that Florida east coast, is as a
11 recreational fishery, and longlining should
12 not be resumed in that area.

13 What we need to do with the
14 remainder of the area is we need to see if we
15 can't refine those boundaries so that they are
16 our areas where the longliners can get it year
17 round, so that we can resume catching our 30
18 percent share of the quota.

19 A couple of other things: Some of
20 the lapsed permits from people who have, for
21 whatever reason, missed renewing, whether they
22 failed to take a safe practice type course or

1 were just out of the country or lost interest,
2 they ought to be the first -- They ought to be
3 considered for reissuing of those permits to
4 make sure that we do have the capitalization
5 to move forward.

6 We should -- We've found that in
7 the initial go-around to revitalize some of
8 the incidental catch provisions' flexibility
9 that was put in there really didn't prove to
10 be flexible, because the squid boats, for
11 example -- it was determined that they needed
12 all three permits, not just their squid
13 permit, but they needed a longline permit and
14 a directed or indirected shark fishery permit
15 and a Mid-Atlantic tuna permit, and they don't
16 have all three permits. So that was a problem
17 as well.

18 That is basically it. Our group
19 is just pleading with you and the U.S. ICCAT
20 delegation to muster whatever political
21 support we need, and we really believe it has
22 to come at the highest levels of the State

1 Department and the Department of Commerce, to
2 just tell countries like Mexico, countries
3 like Belize, that the U.S. has been a
4 historical player.

5 We played this major role in
6 rebuilding this resource, and we are going to
7 use it again, and it is just going to take us
8 some time to get there and protect our quota
9 in the meantime. Thanks.

10 MODERATOR: Rich, thank you. Does
11 anybody recognize their stuff from yesterday?
12 Yes, Ken? Go ahead. Is this it right here,
13 Ken? You want to do it from the podium or
14 here? Totally up to you. Is the mic on, Ken?

15 MR. HINMAN: Yes. I will quickly
16 run through the points that we put up on our
17 chart, and then make some additional comments.

18 We felt that any limits on number
19 of handgear permits should be removed, but we
20 did believe that there should be some
21 geographic restrictions on there. We want a
22 spatial distribution of the handgear fishery,

1 not a concentration of it in any one
2 particular area, but we do want to promote the
3 handgear fishery.

4 Pelagic longline permits and all
5 permits, for that matter: We felt that two
6 things should be done. First of all, those
7 who have been inactive should be required to
8 use their permits within a defined time or
9 lose them. The purpose for this would be to
10 try to create an incentive for people to get
11 back on the water and go swordfishing.

12 By the same token, those who have
13 lapsed permits should be given -- and do want
14 to fish for swordfish, and can't, should be
15 given an opportunity to be reissued a permit.

16 We didn't really see any reason
17 for limits on vessel upgrades, but we do
18 recognize that there are some capacity issues
19 for the fleet as a whole and some ICCAT --
20 Maybe there are some ICCAT restrictions there
21 that I am not really aware of or how they
22 would play into this, but it seems to us that,

1 if more larger vessels and more horsepower is
2 needed to get to distant water fishing grounds
3 to find swordfish, then that should be
4 allowed.

5 We see the buoy gear fishery as
6 something that has great promise in expanding
7 the commercial fishery. We do believe that
8 circle hooks should be required in that
9 fishery. One of its virtues seems to be that
10 it has very minimal bycatch, but one of the
11 problems that has been identified is the catch
12 of juvenile swordfish, undersized swordfish
13 which, if gut hooked, are going to die when
14 they are released; and if this fishery is
15 getting more and more successful in catching
16 large numbers of swordfish, especially down in
17 the Florida area, they need to be required to
18 use circle hooks so that those fish live.

19 Improved reporting and data
20 collection all across the board to make sure
21 that we are crediting ourselves with every
22 swordfish that is landed, as well as

1 discarded.

2 Seeking some kind of means to
3 control the import of swordfish that are
4 coming from countries that are not either in
5 compliance -- control, I guess we are talking
6 about -- block the import of swordfish coming
7 in from countries that are not in compliance
8 with regulations, that are not using circle
9 hooks or taking some other action in order to
10 avoid bycatch of particular sea turtles.

11 Finally, we got to the question of
12 the vision of the future of the swordfish
13 fishery. I think, like everybody else, we
14 think it depends on what we are going to have
15 to work with in the future, and that is very
16 uncertain right now.

17 On that point, I wanted to just
18 mention that there seems to be -- People seem
19 to be just talking about the U.S. giving up
20 some of its quota in terms of our inability to
21 fill our quota, but it is my opinion that this
22 issue was going to come up, regardless.

1 I think the only thing that
2 countries at ICCAT were waiting for was for
3 the swordfish stock to rebuild, and that they
4 were going to come after part of the swordfish
5 quota. It is in the hands -- I think 75-80
6 percent of that quota is in the hands of two
7 or three countries, Spain, the U.S. and Japan.
8 I think that adds up to about three-quarters
9 of the total catch, if not more.

10 When we got our historical share in
11 1991, I guess, I think we've added probably 20
12 countries to ICCAT since then. I mean,
13 there's 20 countries now fishing -- that
14 report fishing for swordfish, and sharing
15 14,000 tons. I don't think there was any way
16 that we would avoid this debate at ICCAT.

17 Now having said that, obviously,
18 us not catching our quota makes us the primary
19 target. We have a big target on our backs.
20 That is where they are going to come after,
21 but there is no way they -- You know, they
22 weren't going to get it anywhere else but from

1 countries that have it, and that is Spain, the
2 U.S. and Japan.

3 You will notice that we did not
4 have closed areas up here, and I think there
5 was a sense that there's a lot of things wrong
6 with the swordfish fishery in terms of effort,
7 economics in the fishery. There's a lot of
8 reasons that people are not going out and even
9 trying to catch swordfish, much less going out
10 and not being able to find them, and we need
11 to address this in a comprehensive way.

12 Just my personal feeling is that
13 the closed area issue is not really the
14 solution. It may be part of maybe half-dozen
15 or more things that can be looked at, and we
16 have certainly supported bona fide bycatch
17 reduction research to look at that, but I
18 think people are wrong to look at that as the
19 answer to the U.S. retaining its quota, even
20 if we had several years to work with, for two
21 reasons.

22 Back the last time we filled out

1 ICCAT quota in the mid-90s, I think the South
2 Atlantic bite in the Florida east coast areas
3 accounted for 22 percent of our total
4 swordfish catch, and over 40 percent of that
5 was undersized fish that were discarded,
6 mostly dead.

7 So just basing it on that, it is
8 hard to say how much we would really add to
9 our swordfish quota. But more importantly, if
10 we do it wrong, I think, for the very reason
11 we don't want this quota to go to a lot of
12 other countries, we don't want to keep it by -
13 - (END OF TAPE 10)

14 (BEGIN TAPE 11) -- very careful
15 that we don't try to catch those fish in the
16 closed areas, give up a lot of the gains we
17 have made and reducing bycatch, both of
18 juvenile swordfish as well as billfish and
19 tuna and sharks and dolphins.

20 So those were all my editorial
21 comments from the group, and if they would
22 like to add or disagree, that is fine.

1 MODERATOR: Ken, you are going to
2 have to have the final word on that one for
3 your group for now. Thank you.

4 Randy? Randy is going to be right
5 back here in the back corner, and if you can
6 turn that mic on. Yes, that is going to work.

7 MR. GREGORY: Well, almost 180
8 degrees from our last speaker. First of all,
9 Dr. Schwartz is getting really old, Bill. We
10 probably need to look out after him a little
11 bit.

12 One of the things that we came up
13 with -- we just came up with some ideas. One
14 of the things we thought about was remove
15 minimum size in commercial fishery for either
16 percent of the catch of number of the catch.

17 We would like to revisit the
18 closed areas with research in bycatch
19 reductions in all the areas which are open to
20 swordfishing and within those restricted
21 areas.

22 If we are going to give away -- or

1 if there was any way we could restrict imports
2 unless they meet the same conservation
3 measures as the way the fish are caught in the
4 U.S., and we would also like to loosen the
5 permit requirements, and add a general
6 category permit? Do you remember, Dewey?
7 Anyway, loosen the permit requirements.

8 We talked about some truthful
9 marketing, and if we transfer quota to other
10 countries, at least make them adopt our
11 conservation measures as best we can.

12 That's basically what our group
13 came up with.

14 MODERATOR: Randy, thank you. Now
15 Rick is going to represent his group.

16 MR. WEBER: Rick Weber. Our last
17 point first: We knew we were going to have
18 disagreement on the closed areas, but one
19 place we all agreed on is that the science on
20 the closed areas, if we are going back in,
21 needs to be sound, and we just kind of skimmed
22 across it and left it from there, went for

1 areas that we could really agree on, and moved
2 forward.

3 That was finding more of the --
4 finding more fishers. You know, if we are
5 going to catch more of the quota, we need more
6 people to be fishing for it. I was with Sue
7 and Terri, very experienced people with
8 longlines, and I agreed with their main point
9 of bringing people back in first.

10 So this point 1 was reinstate
11 lapsed permits. There are probably people out
12 there who have, for some reason or another,
13 ended up without their permit.

14 My second point, or more on the
15 recreational side, was creating the general
16 category for swordfish. You've got people
17 that are experienced with handling food
18 quality. They are doing it in the tuna.
19 Perhaps they could get in and catch swords.

20 We saw no reason for the upgrading
21 restrictions with this caveat. We are really
22 afraid of overcapitalization. So we saw it as

1 an apply, to you people, to upgrade, like
2 announce their intention to upgrade, but if
3 somebody wanted to double -- you guys should
4 monitor the total capitalization or the total
5 capacity, but if somebody wants to engage in
6 where many other countries are in high seas or
7 things like that, they should be able to get
8 to whatever it takes to catch the quota.

9 Strong agreement to improve the
10 recreational and buoy gear data collection.
11 An idea floated by you all before was a tag
12 that was left blank until Russ's system gave
13 back a number. You know, so before the fish
14 can leave the boat, it needs a tag with a
15 number that has been handed back to them by
16 the government.

17 So we are not talking about a
18 limited number of tags. Plenty of tags, but
19 the tag is not valid until you have given it
20 a valid number and they have put that valid
21 number on the fish.

22 Again, finding more people to be

1 able to fish. There were apparently people
2 out there who have sword and shark permits,
3 but their tuna permits went limited access,
4 and now they are not able to engage in PLL,
5 because they do not have the triumvirate of
6 permits.

7 Terri's strong preference was with
8 gear based permitting, and that made a lot of
9 sense to me rather than having this complexity
10 of different permits.

11 Finally, there were -- apparently,
12 you mentioned some squid boats that did not
13 have incidental permits, and that didn't make
14 any sense to us. They ought to be able to the
15 incidental permit.

16 That was what we had.

17 MODERATOR: Rick, thank you. Are
18 you going to do it from right here?

19 PARTICIPANT: Yes, and I think
20 most of it is going to be repetitive at this
21 point.

22 I think a lot of what -- well, the

1 first thing that we discussed was what long
2 term process might improve the
3 competitiveness, the economic returns in the
4 fishery, in our discussion, basically. So
5 what can we market? What does the U.S.
6 longline fishery -- how could it market itself
7 that distinguishes it from other fisheries?

8 Our way of thinking was just what
9 we have been talking about, that the U.S.
10 longline fishery is fishing in a relatively
11 environmentally friendly fashion using circle
12 hooks, releasing billfish and doing other
13 things. Perhaps those are the things that we
14 should be marketing with.

15 So the discussion centered on
16 using something like the Marine Stewardship
17 Council certification process to see if, with
18 the help of the National Marine Fisheries
19 Service providing documentation and such, that
20 Blue Water and other commercial concerns might
21 not get out fishery certified, and perhaps
22 increase the demand to some extent for this

1 fishery, at least over the long term.

2 Generally, we were thinking in
3 terms of -- you know, this fishery is looking
4 less and less like a fishery that should have
5 an access limitation program involved with it.
6 Certainly, we thought that there should be no
7 impediments to increasing vessel sizes and
8 vessel utility to access distant water
9 fisheries, particularly as -- although that
10 may mean an increase in effort, it would not
11 necessarily mean an increase in bycatch,
12 particularly if a lot of these activities were
13 moving to the north central Atlantic where
14 some of the bycatch species are much less
15 dense.

16 There is a potential for
17 increasing landings with the buoy fishery.
18 Again, we agreed it should be spread out in
19 time and space, and in order to keep increases
20 in that effort from increasing bycatch, there
21 should be clear requirements requiring the use
22 of circle hooks on buoy gear, and also a more

1 effective means of tracking, maybe requiring
2 electronic tracking devices on pingers;
3 because one source of bycatch mortality is the
4 loss of this kind of gear.

5 We thought, should we open more
6 permits? If there are fish being taken by
7 hook and line being sold in the South Atlantic
8 longline closed area, well, perhaps one
9 solution is simply to move outside the box a
10 little and give those guys permits so they can
11 fish hook and line and sell fish legally, and
12 generally to allow more access.

13 In terms of the three permit
14 requirements and other impediments to fishing,
15 the incidental catch impediments, we really
16 didn't see much reason to have most of these
17 in the fishery anymore.

18 Finally, I guess, we quickly
19 considered what we saw as our vision, given
20 from the perspective that none of us are in
21 the commercial fishing swordfish industry, but
22 I think our realistic look to the future might

1 be that the fishery is going to be smaller,
2 but trying to increase its value through value
3 added marketing and other things would
4 probably be the best. If we were to make a
5 business plan for the future of that fishery,
6 that is the way we would head.

7 That's it. Thank you.

8 MODERATOR: Russ, thank you. I
9 know we are nearing the end of the time that
10 we have with Dr. Hogarth with us. So I didn't
11 know if you wanted to make a comment. I know
12 there are a couple of people that wanted to,
13 of course, weigh in.

14 DR. HOGARTH: Well, one question
15 that I -- one thing I didn't see mentioned
16 that I have heard, well, I guess, about a year
17 ago when I was up in the New England area, but
18 the freezer vessel, that this is a fishery
19 that really would benefit quite a bit from
20 freezer vessel, and I didn't hear that. Did
21 anybody talk about it?

22 I know it is a lot of capital

1 investment, and maybe people may not be --

2 PARTICIPANT: That is one of the
3 things that we did address when we were
4 stating about increasing areas -- effort in
5 areas that had lower bycatch. In order to do
6 that, you would want to decrease the
7 restrictions on vessel size and allow the
8 freezer vessels to operate.

9 DR. HOGARTH: I really have to
10 run, but there's a couple of questions over
11 here.

12 PARTICIPANT: A quick one. Number
13 one is: in order to move in that direction, in
14 order for a rational businessman to move in
15 that direction, you need certainty in the
16 fishery and certainty that there is going to
17 be quota.

18 What we are currently facing right
19 now, you find a banker or investment community
20 that would put a lot of money up, given the
21 notion that we might be losing quota.

22 The second part of that from our

1 perspective is that that doesn't necessarily
2 fit in with our objective of the vision of the
3 future, which is a return and sort of a
4 payback to the people who did the sacrificing
5 to rebuild the resource.

6 You had a combination coastal
7 fleet, a distant water fleet, and a
8 recreational fishery that all combined to give
9 that back. Those are the priorities of
10 getting back to those.

11 Whether you want to bring in a
12 whole new set of 40 vessels that can be sight
13 unseen fishing the high seas -- there is a
14 possibility that we may need some of that into
15 the future, but that certainly isn't where we
16 see the highest priority.

17 I am just going to take the
18 opportunity, because Ken made a couple of
19 comments that were a little bit troubling.
20 One is the implication of what he was saying
21 was, well, whether the U.S. is going to lose
22 quota or not because of all these new nations

1 that have come into ICCAT at our urging and
2 because only four or five countries have 75
3 percent of the quota, we were all going to
4 lose quota.

5 No question. That is what the
6 allocation criteria was meant to do in an
7 orderly fashion, not just simply single out
8 the United States and say, because you aren't
9 using your quota, you are the one that's going
10 down, and all the other remaining three big
11 players are going to stay there.

12 Number one, so that is a very --
13 we can't accept that principle, that because
14 we are not catching it, we fill -- we do the
15 transition on our own. We equal the playing
16 field with the new players that we entice to
17 come in.

18 The second notion that he raised
19 was we got to be careful that we don't keep
20 this quota and simply redevelop these bycatch
21 problems as opposed to giving it away, as if
22 somehow we could be giving it away to Mexico

1 and Belize and Trinidad, and they could do a
2 tenth, a millionth of the job of conserving
3 where we have mandatory circle hooks right now
4 and safe handling and release practices.

5 So I don't even know how that
6 enters into anyone's psyche at this point.

7 PARTICIPANT: Rich, give me just a
8 second, because I really have to go, because
9 I'm holding up a Senator that won't be very
10 happy with me.

11 I just want to thank everybody,
12 because I think both discussions -- entirely
13 different to sharks to here, but I think what
14 I heard on swordfish is really refreshing. I
15 mean, it helps us, I think. They were very
16 positive comments, and we really need to try
17 to work quickly to work through these.

18 The other thing -- John Graves is
19 sitting here from the ICCAT Advisory
20 Committee. We really need to be working hard
21 toward 2008 with a plan on swordfish totally
22 for what we think we can protect, but what we

1 can't, we need to be realistic, I think, and
2 have a plan to go over and negotiate; because
3 2008 will be a very tough year with swordfish
4 and bluefin tuna and others.

5 Thank all of you, and I am sorry I
6 do have to run. Senator Inouye won't be very
7 happy with me.

8 MODERATOR: All right, thank you,
9 Bill. Thanks, everyone, for being willing to
10 recap that again from yesterday. I know it
11 wasn't very easy to reach back even 24 hours
12 and pull all that out again.

13 We are going to continue with the
14 agenda. We are not going to -- What time is
15 it, about four o'clock? Okay, four o'clock.
16 Let's take -- We are going to take a five to
17 10-minute break. I know everybody just broke
18 -- A lot of people just broke on their own --
19 a formal five to 10-minute break.

20 (Whereupon, the above-entitled
21 matter went briefly off the record.)

22 MR. RILLING: Let's go ahead and

1 get started, since I got the green light from
2 Margo.

3 Hello, my name is Chris Rilling.
4 I am here to give you a brief presentation on
5 progress we have made in moving forward with
6 our EFH updates or Essential Fish Habitat
7 updates.

8 You will notice on the desk up
9 there we had a copy of our pre-draft for
10 Amendment 1 for essential fish habitat for
11 Atlantic highly migratory species. I hope you
12 have or will have a chance to take a look at
13 that. We are asking for comments by the end
14 of October. We will be posting that on our
15 web page as well.

16 You will notice some slight
17 changes in terms of the PowerPoint
18 presentation in reference to the maps. We
19 have some new color maps that we have
20 included, both in the pre-draft, and that I
21 will be showing you during the PowerPoint
22 presentation today.

1 You also have a copy of the
2 PowerPoint presentation in front of you.
3 Unfortunately, we have a gentleman who was
4 here, and he stepped out for just a minute to
5 try and find us an Internet address that we
6 couldn't get to load just now.

7 His name is Doug Graham. He is on
8 a rotational assignment with us from the
9 National Ocean Service. He is with the Remote
10 Sensing Division that works on shoreline
11 mapping, and we are fortunate to have his
12 services, helping us on the technical end of
13 mapping our EFH data and trying to come up
14 with some methods for mapping and revising our
15 boundaries.

16 To run you briefly through the
17 regulatory history of HMS EFH -- I know some
18 of you have heard this before. So I will be
19 brief on most of it, but for those of you that
20 haven't, it is just a quick recap.

21 In terms of the Magnuson-Stevens
22 Fishery Conservation Act requirements, we are

1 required to identify and describe essential
2 fish habitat; minimize, to the extent
3 practicable, adverse effects on EFH caused by
4 fishing activities; identify other actions to
5 encourage the conservation and enhancement of
6 EFH; and then the Secretary set forth a
7 timeline that we need to stick to in terms of
8 making those initial identifications and
9 updating.

10 The EFH regulations, which came
11 out in 2002, further described the Magnuson
12 Act requirements, and they included
13 requirements to identify EFH for each species
14 and life stage in the fishery management
15 units. So for us that is 48 species, roughly
16 three life stages for each species. It is a
17 lot of maps and EFH that needs to be
18 described.

19 We have to identify habitat areas
20 of particular concern or HAPCs, as I will be
21 referring to them from now on. We have to
22 identify fishing and non-fishing activities

1 that may adversely affect EFH, and we have to
2 minimize fishing impacts that are determined
3 to be more than minimal and not temporary.
4 Finally, we are required to review all EFH
5 information at least once every five years.

6 In terms of the current
7 amendments, our timeline is below. The Notice
8 of Intent was published on November 7th of
9 last year. We held our initial scoping
10 meeting with you all in March, and this would
11 be our second scoping meeting.

12 The pre-draft is now available.
13 We are asking for comments by the end of the
14 month. We are hoping to have a proposed rule
15 with the draft environmental impact statement
16 sometime this winter or early spring.

17 I honestly think a lot of that
18 will hinge on the assistance we get from Doug
19 Graham working through his rotational
20 assignment. We are hoping to actually extend
21 the duration of him working with us on this
22 project.

1 When we do publish the DEIS, we
2 will have a 60-day comment period, and we are
3 hoping the final rule and final EIS will be
4 available sometime in the summer or fall of
5 next year.

6 A quick history for you on EFH for
7 HMS: our original EFH descriptions were
8 published in the 1999 Fishery Management Plan
9 for HMS, and we made some updates in Amendment
10 1 -- or excuse me, and in Amendment 1 to the
11 billfish FMP. That included several HAPCs for
12 sandbar sharks, Chesapeake Bay, Delaware Bay
13 and some further north. Great Bay was the
14 other one for sandbar sharks.

15 In Amendment 1 to the FMP, we
16 revised EFH for five shark species: Sandbar,
17 blacktip, dusky, nurse and fine tooth. In
18 this amendment we will be considering updating
19 all Atlantic HMS, including those five species
20 that were updated in Amendment 1. We've got
21 some new data for those. So we will be
22 revisiting them as well.

1 We broke our EFH review into two
2 phases. The first one was completed in the
3 consolidated HMS FMP last fall. It included
4 the following elements.

5 Data collection: we collected all
6 the data we could from state, Federal,
7 nongovernmental data sources such as the
8 observer program data, tagging programs, and
9 data from individual researchers and
10 institutions. We took the data and mapped it,
11 published it in the Consolidated FMP, but did
12 not propose any changes to the boundaries at
13 that time.

14 So essentially, we acquired all
15 the data we could, asked for the public to
16 review the data that we had provided, and to
17 give us additional information in terms of
18 data sources that we may have missed, because
19 as you know, there are a lot of data sources
20 out there for HMS.

21 We also completed a review of gear
22 impacts that may affect EFH in the

1 Consolidated FMP, and essentially our
2 determination in the FMP was that the only
3 gear that we thought could potentially have an
4 impact on EFH was bottom longline gear. Since
5 most HMS gears are fished in the water column,
6 that is one of the exceptions.

7 It is actually fished on the
8 bottom and could potentially impact habitat,
9 not necessarily for HMS but potentially for
10 some other species, and we have to look at all
11 other Federally managed species' EFH as well
12 as ours when it comes to gear impact. I will
13 be talking a little bit about the gear impact
14 at the end of my presentation.

15 We are now engaged in Phase 2,
16 which is Amendment 1 to the Consolidated FMP,
17 and I have outlined below the steps we are
18 going through in terms of our review.

19 They include data mapping and
20 analysis phase, which we are in right now. We
21 are using a geographic information system to
22 map all the data that we have for each species

1 and life stage.

2 The second stage will be to update
3 essential fish habitat as necessary, based on
4 a review and analysis of that data.

5 Finally, we may be proposing new
6 HAPCs, and we may be proposing measures to
7 minimize fishing impacts, as appropriate, or
8 if we make a determination that some of our
9 gears are having an impact on EFH.

10 Now I am going to go through two
11 approaches. This one, I discussed with you
12 all last time, and we have a second approach
13 that I am going to go over today and, if I
14 could, just ask you all to, as I am going
15 through this, keep a few things in mind.

16 One is that we -- the caveat in
17 looking at this data is that it is largely
18 based on distribution data, presence, absence
19 or what is referred to in the EFH regulations
20 as level 1 data, and there are a series of
21 levels of data, depending on types of
22 information you may collect.

1 This is actually the lowest level
2 of data. There are four data levels. So you
3 can go up through the final one, being
4 production rates for your species in a given
5 volume of water.

6 So we have the lowest level of
7 data that is available. That has both its
8 pluses and minuses. The plus is that we have
9 a very long time series on our data sources,
10 some of them dating back to the mid-1950s.
11 When I show you the maps with some of the data
12 points plotted, you will be seeing the
13 comprehensive dataset for that species and
14 life stage on the map.

15 So we are not shortchanging
16 anything. We are including all the data we
17 can, comprehensively, that we have ever
18 collected that we have available to us. Now
19 those data sources have to list the species
20 and life stage, and we have to have latitude
21 and longitude coordinate where that species
22 was collected.

1 It may have been tagged, may have
2 been caught and released or may have been
3 observed caught by the observer program and
4 retained on board, but we did have to have a
5 species ID, a link so that we could categorize
6 it as a particular life stage, be it adult, a
7 juvenile or sub-adult and, in the case of
8 sharks, potentially neonates or young of the
9 year.

10 The other thing to keep in mind as
11 we are looking at the data is that this really
12 is -- we are using the data as our guiding
13 principle. It is the one source that we have
14 to begin to make our initial modifications to
15 the boundaries.

16 In other words, there is nothing
17 else. We want to use that data, look at it
18 comprehensively, and begin to modify the
19 boundaries based on that data. So I hope you
20 keep those thoughts in mind as I am going
21 through these approaches.

22 In the first approach, we took all

1 the points and merged them with a 10-minute by
2 10-minute grid, which is 100 square nautical
3 miles, and then we created a scale to reflect
4 the number of points or observations that fell
5 within each of those grids.

6 Then we used thresholds to
7 establish high count cells, and those high
8 count cells were then used as the basis to
9 delineate potential new EFH boundaries.

10 For coastal species, I mentioned
11 in the past we used a buffer. That is because
12 when we create these 10-nautical mile cells,
13 we don't know exactly where within that cell
14 the points fell. So we wanted to create some
15 wiggle room on where those points actually
16 occurred.

17 For pelagic species, we included a
18 20-nautical mile buffer. We heard comments
19 from several of you at the last AP meeting
20 expressing some discontent with that approach.
21 It got us to thinking about some alternative
22 approaches, and this would be a second one

1 that we are considering at this point.

2 That is to map individual points
3 and create what we are calling a probability
4 boundary that includes a certain percentage of
5 all observed points. So what it would do is
6 require establishing thresholds similar to
7 approach number one, but using probabilities
8 instead of natural breaks in the data.

9 So in other words, if we said, for
10 instance, that we wanted a 95 percent
11 probability boundary, this program that we are
12 using, which is an extension, an arc view,
13 would create a boundary around approximately
14 95 percent of those points, removing the
15 outliers and giving you a resulting boundary
16 on the main points that are in the
17 distribution.

18 So to walk you through what the
19 resulting maps look like, using the different
20 approaches -- and by the way, this approach
21 number two -- the examples we have run
22 through, we have used a probability boundary

1 of 95 percent, which is pretty conservative.
2 What we would be doing in the draft EIS is
3 providing maps and potential boundaries based
4 on different thresholds.

5 We haven't yet established what
6 those are. That is something that we are
7 interested in getting some comment on. We are
8 thinking of a range of somewhere from 50 to
9 70, perhaps 80, and then 90 or 95 percent
10 probability boundaries. All of those could
11 potentially result in either smaller or more
12 broadly defined EFH boundaries.

13 So using approach number one,
14 which uses the high count cells, if you look
15 at -- Excuse me. This is a juvenile
16 swordfish, juvenile/sub-adult swordfish with
17 lower jaw forklings, left fin or equal to 180
18 centimeters.

19 This is the comprehensive
20 distribution data that I was talking about,
21 and if you look at the scale over here, if my
22 pointer will work, this scale on the left --

1 I don't think my pointer is working anymore.
2 There we go. If you look at the scale over
3 here, it is a little difficult to see, but
4 using this approach we would take the three
5 highest count breaks and use those high count
6 cells as the basis for creating a boundary.

7 So any cell that had greater than
8 30 observed juvenile/sub-adult swordfish in it
9 -- that's 30 to 106. Anything with greater
10 than 30 observations within 100 square
11 nautical mile area was used as the basis for
12 delineating the new boundary.

13 Here you see all the data points.
14 It's a little difficult to see where the
15 resulting boundaries are. So if I remove the
16 data points, the hashed marks are the 1999,
17 our existing EFH boundaries. The purple areas
18 that you see would potentially be the new
19 boundaries based on this approach of using
20 high count cells with a natural break.

21 The natural break also is a
22 computer generated break that analyzes the

1 data and looks for natural distributions and
2 breaks in the data. It is nothing that we
3 manipulate manually, although we could.

4 That is part of our reservation
5 about this approach, is that it does enter
6 into the subjective realm in terms of figuring
7 out what you want your thresholds to be.

8 What you see, though, if you use
9 this approach mapping the data, is that there
10 are some areas that clearly weren't included
11 in the 1999 boundaries, and there are some
12 areas of the '99 boundaries that today don't
13 appear to have many data points in them,
14 particularly up in the Mid-Atlantic coast off
15 of Delaware and New Jersey, for instance.

16 Now does that mean that that area
17 isn't essential fish habitat? I don't know,
18 not being a swordfish biologist, but what we
19 would be doing is talking to our swordfish
20 scientists and finding out whether that is an
21 area that we might potentially want to remove
22 and reshape to the purple boundaries. I'm

1 sorry, they are a little difficult to see on
2 that dark screen, but you have them in your
3 PowerPoint as well.

4 Using approach number two, the 95
5 percent probability boundary, the areas, at
6 least for this juvenile/sub-adult swordfish
7 life stage, is very similar to the first
8 approach. You will notice, as we get into
9 some of the other species, though, that the
10 changes are quite dramatic, and I think a lot
11 of it hinges on the amount of data you have
12 available.

13 For juvenile and sub-adult
14 swordfish, we have a lot of information. I
15 think we have over 40-50,000 records in this
16 dataset, again dating back to the mid-1950s.

17 On the righthand side of this map,
18 even though you can't see it very well on the
19 screen, but you should be able to see it on
20 your PowerPoint presentation, is the breakdown
21 in terms of female/male percentage, the ones
22 that were not recorded listed as NR.

1 Then we also have the major data
2 sources that contributed to the points and
3 then the resulting boundaries. They are
4 abbreviated. However, those abbreviations are
5 in the back of the pre-draft.

6 Moving on to adult swordfish,
7 using approach number one here is sort of what
8 I was alluding to in terms of, if you have a
9 scarcity of data points or data poor species
10 or life stage, this approach number one of
11 using high count cells -- and in this case, we
12 are obviously looking at far fewer numbers --
13 the high count cells are from two up to eight.

14 These are swordfish greater than
15 180 centimeters lower jaw, fork length. Our
16 dataset in terms of overall numbers drops
17 considerably, down to only slightly over 1600
18 fish, and using approach number one, if you
19 compare the 1999 boundaries with the potential
20 new revised boundaries, there is a
21 considerable difference, especially in the
22 Gulf, South Atlantic Coast. You will notice

1 that, if we were to use this approach, our EFH
2 areas would be very dramatically reduced in
3 size.

4 Taking the same dataset for adult
5 swordfish using approach number two of the
6 probability boundaries, again it encompasses
7 95 percent of the points. It is based on the
8 location of the points to one another and the
9 distance between points. This process tends
10 to remove outliers. You can see that the
11 areas, the resulting areas, would be much
12 larger than they were under approach number
13 one of just using high count cells.

14 One of the reasons we like
15 approach number two is again that we can
16 establish different thresholds from 50 up to
17 100 percent, provide those in the DEIS as
18 examples, and potentially different
19 alternatives, see which ones most closely
20 match the existing 1999 boundaries, and go
21 from there.

22 So to me, this whole process of

1 updating our EFH boundaries is an iterative
2 one. We are looking at the data, mapping it
3 in different ways, creating potential
4 boundaries in different ways, and seeing what
5 the resulting boundary looks like, both in
6 comparison to the 1999 boundaries and in
7 comparison to the existing data.

8 What we are trying to accomplish
9 essentially is standardizing our approach so
10 that it is reproducible and consistent across
11 the board. I think it is especially
12 important, given that we are looking at so
13 many different species and life stages.

14 The thresholds may be different
15 for different species and life stages,
16 depending on the status of that stock, what
17 species we are looking at, but nonetheless,
18 the approach would be the same. So I am
19 asking you to think about the underlying
20 approach and whether it makes sense, and to
21 provide your comments on that underlying
22 approach and whether we might be thinking of

1 other approaches as well.

2 Moving on to adult Atlantic

3 bluefin tuna --

4 PARTICIPANT: May I ask a

5 question?

6 MR. RILLING: Sure.

7 PARTICIPANT: Did you say that

8 approach number two on the adult swordfish--

9 PARTICIPANT: Could you use your
10 mic, please?

11 PARTICIPANT: I'm sorry. Did you
12 say that approach number two on the adult
13 swordfish greatly reduces the EFP area?

14 MR. RILLING: No. If I said that,
15 I didn't mean to say that. If you look at the
16 map that I am looking at right now, which is
17 adult swordfish, approach number two, and then
18 right below there it says based on the 95
19 percent volume contour or probability
20 boundary, the resulting areas are purple.

21 The 1999 boundaries are the hashed
22 areas. So to be -- although we haven't

1 generated an area estimate on these two, we
2 can, and we can provide that, and we have it
3 on this one. But to me, they either look
4 similar or the new one looks slightly larger.

5 PARTICIPANT: A quick question.

6 MR. RILLING: Okay.

7 PARTICIPANT: What was the '99
8 based on?

9 MR. RILLING: Well, our
10 distribution data, the same dataset going up
11 to 1999.

12 PARTICIPANT: And what was the
13 methodology?

14 MR. RILLING: Well, again I think
15 part of it was looking at the data, getting
16 together with the scientists and trying their
17 best to delineate those areas based on their
18 knowledge of the species, the habitat
19 requirements and a whole host of other things.

20 PARTICIPANT: But it wasn't the
21 type of analyses that --

22 MR. RILLING: It wasn't this type

1 of approach, right, and that has been part of
2 what has been a little confounding for us,
3 was, yes, we are trying to use a more
4 quantitative approach that we can reproduce,
5 apply over and over to different species so
6 that other people -- and transparency, too, so
7 that people will understand how we came up
8 with it.

9 PARTICIPANT: Great approach. Did
10 you ever try to look at CPUE as opposed to
11 just absolute numbers of catch?

12 MR. RILLING: It is one of the
13 things that the team has been looking at.
14 Doug actually wrote a brief paper recently.
15 We have looked at that at length. We analyzed
16 blacktip sharks, and we don't have CPUE data,
17 but we were looking at the data based on
18 different gears that were used to collect the
19 data.

20 Obviously, different gears are
21 going to have different catch rates. So even
22 though we don't have quote/unquote CPUE data,

1 we were trying to experiment with weighting
2 certain datasets that might be
3 underrepresented, rod and reel, for instance.
4 If you compare the catches of the sharks on
5 rod and reel, they are minimal compared to,
6 for instance, bottom longline catches.

7 So it is something that we will
8 provide in the DEIS in terms of an analysis
9 and looking at that. We don't have the CPUE
10 data, I don't think, to actually make those
11 types of determinations, though.

12 PARTICIPANT: A shame, because it
13 actually could be a better indicator of
14 abundance than just --

15 MR. RILLING: I agree.

16 Moving on to adult Atlantic
17 bluefin tuna, here is approach number one
18 based on our high count cells in this case.
19 If you look at the scale on the right, it
20 would be all cells that had greater than 116
21 bluefin tuna located in that 100-square-
22 nautical mile area.

1 If I remember the data points,
2 you can see that, based on that threshold that
3 we established there, the areas would be very
4 minimal. And when we looked at that, that was
5 not satisfactory to us. This was actually --
6 looking at bluefin tuna was what got us
7 thinking about an alternate approach.

8 A second approach -- well, this is
9 approach number one, but using a lower
10 threshold, so that we include lower numbers of
11 observations in our high count cells. So here
12 we dropped it down to three adult bluefin tuna
13 in each cell and mapped resulting boundaries
14 based on those cells, and the areas do
15 increase substantially over what they did when
16 we used only four natural breaks. Yes?

17 PARTICIPANT: At the very tip of
18 southwest Florida, basically Florida Bay, the
19 east cape area, you've documented bluefin tuna
20 there?

21 MR. RILLING: Apparently.

22 PARTICIPANT: Where are these

1 catch information coming from?

2 MR. RILLING: If you look on the
3 legend on the right, we've got a lot of data
4 sources. The major one is the Cooperative
5 Tagging System run out of Miami, 10,000
6 observations. Do I have 100 percent certainty
7 on that data point? No.

8 What we would be doing is sitting
9 down with our scientists and going through
10 that very point that you just raised. What is
11 that right there? Is that really a bluefin
12 tuna? Should we be excluding that point?
13 Should we even be thinking about including
14 these potential new boundaries that we have
15 down here? But you can also see that in the
16 hashed areas of the '99 boundaries, they
17 encompass all the Florida Keys and all up and
18 down the Florida east coast.

19 So when we look at the data, no
20 matter which data we look at, we don't really
21 see a lot of bluefin tuna occurring in this
22 area. So that would be an area where we would

1 be sitting down with our scientists and saying
2 is this an area that we should potentially
3 exclude, not to say that that would be the
4 result.

5 This is what I'm talking about,
6 the process that we have to go through, and
7 you don't get through these thought processes
8 without first plotting the data and seeing
9 what some of the resulting boundaries might
10 look like.

11 So there it is with the data
12 points removed, and then if I go on -- I'm
13 sorry. Yes?

14 PARTICIPANT: I hate to belabor
15 that point, but that is almost impossible to
16 have bluefin tuna. That is grass flats, and
17 none of our flats fishermen ever encounter
18 bluefin tuna. You need to look at that data
19 point, because it doesn't make sense from an
20 environmental or water depth or any other kind
21 of standpoint.

22 MR. RILLING: We will definitely

1 make note of that. Thanks.

2 MODERATOR: Okay. Rich.

3 PARTICIPANT: Whether it is off by
4 50 or 60 miles, the tagging data shows the
5 Florida Straits is an entranceway for bluefin
6 into the spawning grounds. Plenty of tagging
7 data shows that.

8 MR. RILLING: So moving on to the,
9 again, adult bluefin tuna using our 95 percent
10 probability boundary, again Florida east coast
11 and Straits areas wouldn't necessarily be
12 included. There are areas along the south
13 Atlantic coast, other areas in the Gulf of
14 Mexico that would.

15 There are some areas up in the
16 northeast that we might have some questions
17 about up there based on the data, not seeing
18 any or at least not in the abundance that we
19 do on some of the other areas.

20 Again, a comprehensive dataset
21 here -- we are not just looking at the last
22 year or two. So we are not just getting a

1 snapshot of when things haven't been going so
2 well with the bluefin tuna stock.

3 Again to reiterate, this is an
4 iterative process of us looking at the data,
5 looking at the maps. Once we create the maps,
6 they will be reviewed by our NMFS Science
7 Center staff. Of course, we will be working
8 with them through this process of actually
9 coming up with the boundaries.

10 I guess one other point I forgot
11 to mention is that, as we develop these
12 initial cuts at the probability boundaries,
13 whatever approach we end up using, you will
14 notice that the edges are very rough. That is
15 because the computer -- even though they have
16 been smoothed, the edges are rounded. They
17 curve in. They curve out based on where the
18 data are.

19 One of the requirements we have
20 through the EFH regulations is to be able to
21 describe our boundaries in text, using
22 geographic coordinates to actually describe

1 the physical location of our EFH areas. You
2 can imagine that would be a pretty challenging
3 task with the boundaries as they are there in
4 purple.

5 So one of the things that we will
6 be doing is modifying those boundaries to
7 create more or less straight lines based on
8 that 95 or some other probability boundary.
9 So this isn't really the final boundary that
10 you will be seeing. This is sort of a step
11 along the way.

12 One of the things we are trying to
13 work through now are some ground rules in
14 terms of which areas, for instance, out here
15 to include or exclude. Do we include or
16 exclude these and the larger area that is
17 created up here? Do we follow the EEZ or do
18 we follow some other contour line?

19 Doug has been doing a lot of work
20 pulling together some of the different
21 bathymetric lines that we might use from 20
22 meters all the way out to 2,000, so that we

1 can use those as reference points if we find
2 out that the species are locating along some
3 of those natural boundary areas or dropoffs,
4 which they do in many cases.

5 So we would be using those
6 reference points to establish the final
7 boundaries.

8 PARTICIPANT: Just a quick
9 question. (Inaudible.)

10 MR. RILLING: What is the
11 significance? Well, that is what we have
12 established as our adult bluefin tuna. It is
13 based on the literature, scientific review,
14 that sort of thing. That has been in place
15 since 1999. If you have some comments on
16 that, we would be happy to hear those. We
17 haven't to this point.

18 We have made some adjustments to
19 some of our shark size ranges based on some
20 recent work that has been done. John Carlson
21 has provided a lot of input on some size range
22 adjustments that we should make, as well as

1 our NMFS scientist up in the northeast, who
2 studies sharks a lot.

3 So there are, obviously,
4 adjustments to size ranges that may take
5 place. I would say, in most cases they are
6 pretty minimal, but anyway --

7 PARTICIPANT: Anyway, your purpose
8 as a --

9 MR. RILLING: Is to identify --

10 PARTICIPANT: (Inaudible.)

11 MR. RILLING: Exactly. Adult
12 Atlantic bluefin.

13 I think I went through this slide.
14 Moving on to habitat areas of particular
15 concern.

16 Here are the criteria or
17 considerations for whether to consider an area
18 as a HAPC. Number one would the importance of
19 the ecological function provided by the
20 habitat.

21 These are key, because these are
22 the things that we really have to think about

1 if we go forward with any proposed habitat
2 areas of particular concern.

3 Two would be the extent to which
4 the habitat is sensitive to human induced
5 environmental degradation. That might be the
6 case for some of our coastal species. For
7 some of the pelagics that are far offshore, I
8 don't know the degree to which this would
9 actually come into play.

10 Three would be whether and to what
11 extent development activities are or will be
12 stressing that habitat type. Again, coastal
13 species, I could definitely see that, not so
14 much for our pelagics.

15 The rarity of the habitat type:
16 Here again, I don't really see this coming
17 into play for most of our HMS, because the
18 habitat types that they are dependent on are
19 pelagic environments, salinity, temperature,
20 chlorophyll, that sort of thing.

21 So looking again at bluefin tuna
22 -- I wish we could see the Gulf a little bit

1 better, because we have gotten comments,
2 received comments both in writing and at the
3 last AP meeting that we should be considering
4 a habitat area of particular concern for
5 spawning bluefin tuna in the Gulf of Mexico.

6 What we would be doing there is --
7 This would actually be a subset of our EFH
8 areas that meet one or more of those
9 considerations that I just went through. So
10 we would be looking, in the case of bluefin
11 tuna and potentially some other species, more
12 refined data that might be out there and
13 available.

14 I was reading through some papers
15 that were published recently by one of our AP
16 members, Dr. Boustany, and his colleagues, Dr.
17 Steven Teo and Dr. Block, and they are really
18 interesting papers that go into some of the
19 correlations that they are finding with
20 spawning bluefin tuna in the Gulf of Mexico,
21 and positive correlations with temperature,
22 for instance, 24 to 27 degrees from April to

1 June.

2 Dr. Boustany could tell us more
3 about chlorophyll concentrations, some
4 negative correlations there. In other words,
5 where there are high chlorophyll, there
6 aren't going to be those spawning bluefin
7 tuna. Some of the warm core eddies that break
8 off, the countercurrent eddies that break off
9 at the loop current -- some of those they
10 found some correlations with spawning bluefin
11 tuna.

12 Those are the types of things, and
13 we would definitely need to follow up with Dr.
14 Boustany and Dr. Block. We have tried to. WE
15 have gotten some of their data, actually, and
16 you see some of that data in these maps.

17 We would need some of that more
18 refined data to actually pin down where those
19 habitat areas of particular concern could
20 potentially be.

21 I would wager, looking at Dr.
22 Boustany's paper that published recently, June

1 of this year, looking at the area that they
2 thought was the key spawning area in the Gulf
3 of Mexico, I am pretty sure it would fall
4 right within this essential fish habitat
5 foundry, probably around this concentration of
6 data we have here. But we haven't mapped that
7 out. That is one of the things we will
8 probably be doing, just to see what areas they
9 are finding as well as what we are seeing,
10 looking at our datasets.

11 So again, that is kind of the
12 thinking we are going to be going through on
13 some of the habitat areas of particular
14 concern analysis. Bluefin tuna is definitely
15 at the top of our list.

16 Fishing impacts: The process that
17 we use is, number one, to evaluate the
18 potential adverse effect of fishing activities
19 on HMS and non-HMS EFH, and then two, to
20 minimize or at least propose measures to
21 minimize adverse effects from fishing on EFH,
22 if we determine that those effects are

1 occurring, and we would do that to the extent
2 practicable.

3 To give you an example of what we
4 will be looking at here, because I mentioned
5 that bottom longline was one of our -- (END
6 OF TAPE 11)

7 (BEGIN TAPE 12) -- concern would
8 obviously be the South Atlantic, Gulf of
9 Mexico. What you're seeing here is some of
10 the coral reef EFH areas in blue. It's a
11 little hard to see. Land is in brown. The
12 coral reef areas are in blue.

13 And what we've done here is
14 plotted out our shark bottom longline observer
15 data set from 1994 through 2006 or '07,
16 connected the beginning and endpoints of those
17 sets with the lines so that you can see where,
18 more or less, not 100 percent, but at least
19 more or less where that set occurred.

20 Granted, they are not always
21 straight lines. I understand that. There are
22 currents. There are fishermen that fish hook

1 sets and that sort of thing, but at least this
2 gives us some indication of where that set
3 originated and ended in relation to essential
4 fish habitat for South Atlantic Fishery
5 Management Council.

6 And if I zoom in a little bit
7 more, this is in the Western Keys. Looking at
8 some of the sets, you may see some, at least
9 from this cursory glance, some potential
10 overlap of sets with some coral reef areas,
11 but not much. And generally you see that they
12 are fishing off the coral reef in mud flat and
13 sand areas to the south, some fishing right in
14 between coral reef areas. You might
15 occasionally see a point that intersects. To
16 me, I don't know if this is an outlier or not.
17 That's one we would want to look at a little
18 more closely, because it doesn't seem to fit
19 the pattern.

20 This is just an example of the
21 type of information we will be looking at to
22 see if there could potentially be some impacts

1 with bottom longline gear on EFH for other
2 managed species.

3 If we make a determination that
4 that -- our gear is having an impact, then
5 we're required to propose measures to minimize
6 that impact. So we haven't made that
7 determination yet. This is something that
8 we'll be examining in more detail in the DEIS.

9 To summarize some of the -- or
10 actually, to ask you all some questions and
11 things that we are thinking about and that
12 we'd like you to comment on now or in writing
13 or send us an e-mail or call us: Are there
14 other approaches for delineating EFH or HAPCs
15 that we should be considering?

16 Now is the time, because we're
17 moving forward with the DEIS. If we're going
18 to put something out there, we've got to get
19 it out there now as an alternative. Whether
20 it's a different mapping approach, a complete
21 different data set, CPUE information, whatever
22 it is, we should have that on the table now,

1 and at least do some sort of review of whether
2 that is feasible to do that type of analysis
3 or not, and that would need to be included in
4 the DEIS.

5 Again, what is the appropriate
6 threshold for establishing those boundaries in
7 terms of our 50, 70, 80 or 90 percent, or
8 should we just look at a range of those?
9 That's sort of the approach that I would lean
10 towards, but I'm interested to hear from you
11 all.

12 Are there any other issues or
13 concern that we at NMFS should be aware of
14 when we're modifying our EFH boundaries?
15 We've heard some of those in the past, but we
16 want to make sure we have those all on the
17 table.

18 You may also notice in the pre-
19 draft that we did include a summary of
20 comments that we've received from you all and
21 others to date, and we would be adding to that
22 list, as I'm sure there are other concerns

1 that you all have.

2 And again, any specific
3 recommendations on HAPCs, and are there any
4 considerations that NMFS needs to be aware of
5 for evaluating fishing impacts?

6 So I'll move back to that slide,
7 but first I want to say that you could send
8 comments to me or Sari Kirali (phonetic), or
9 obviously Margo, or contact any of us at the
10 Division. Send us your comments on the pre-
11 draft, or provide us with any comments you
12 have on the above questions.

13 And with that, thank you very
14 much.

15 MODERATOR: Margo, there's no one
16 in the back from the public that wants to
17 address this issue. So we do have a little
18 bit of time between now and 5:00 where we can
19 address some questions to Chris. Is that fair
20 enough, or comments?

21 I know Pat's on the agenda.

22 MR. RILLING: Can I show one more

1 thing, Paul, that I forgot?

2 MODERATOR: Yes, I'm sorry. I
3 didn't mean to interrupt.

4 MR. RILLING: I'm sorry. I just
5 forgot I was going to do this.

6 One of the things, when we put out
7 the DEIS, that we'd like to do is provide it
8 in PDF format. And one of the things I really
9 like about these maps that Doug's been
10 creating is that you as a reader have the
11 ability to interact with this.

12 Here you see a very cluttered map.
13 It has all the data points. It has the 99
14 boundaries. It has the potential 95 percent
15 probability boundary. You can go in here
16 without adding any - this is just Adobe - and
17 load or remove layers of data to look at the
18 data more interactively.

19 So I just turned off the data
20 points. The DEIS that we'll be making
21 available in PDF format will have this sort of
22 interactive ability for you all to go in and

1 actually look at maps, zoom in, see where the
2 99 boundaries were, zoom back out, load data
3 points, load contour lines, whatever you want
4 to do, turn things on and off, to see what
5 makes most sense to you, and really be able to
6 provide us some substantive comment.

7 So Ipm really excited about that,
8 and look forward to seeing that. There's
9 nothing you need to download or anything else.
10 It will be viewable in Adobe.

11 Thanks, Paul.

12 MODERATOR: Okay, thanks. I've
13 got Pat, Bill, Ken, and Glenn.

14 MR. AUGUSTINE: Yes. Pat
15 Augustine. Good presentation, Chris. Thank
16 you very much.

17 I have three questions that come
18 up. Ipm wondering whether the HAPCs that are
19 identified are NMFS's list of approaching the
20 problem. And you can answer them any way you
21 want.

22 The second would be, are the HAPC

1 criteria common to what they've established in
2 the New England Fishery Management Council,
3 because they have a set profile of criteria
4 that's required for an HAPC to be considered,
5 scientific criteria, research and hard copy
6 data.

7 And the third is, after all this
8 is done and assuming over a period of time,
9 two, three, five years, whatever it is going
10 to be, will the net result of this eventually
11 be that vessels fishing in that area, whatever
12 they are, whether bottom longline or
13 otherwise, end up being required to have VMS?

14 MR. RILLING: The first question
15 on which areas we would consider as HAPCs,
16 although we have received written comments, we
17 certainly agree with the principle of looking
18 at an HAPC for bluefin tuna in the Gulf. So
19 that's something we would be doing anyway.

20 What we'll be doing is taking it
21 on a case by case basis, looking at the stock,
22 status of the stock, which ones do we think

1 really warrant some additional designations in
2 terms of habitat areas of particular concern.

3 I'm not familiar with the New
4 England Council's HAPC approach. I'd be
5 interested in looking into that. I know they
6 used a similar approach that we are proposing
7 for their EFH boundaries. So I am curious to
8 see what they are doing with HAPCs.

9 And then your final question was -
10 - I forget.

11 MR. AUGUSTINE: Will VMS
12 eventually be required?

13 MR. RILLING: No. VMS -- really,
14 that's regulatory in terms of fishing
15 regulations. The EFH are simply designations
16 of where habitat areas are located. So there
17 isn't any connection between VMS requirements
18 and EFH.

19 MR. AUGUSTINE: A follow-on would
20 be, well, similarly to North East, we do have
21 GRAs, which are gear restricted areas, and it
22 just seemed to me that the way this is

1 unfolding, there are specific areas,
2 particularly along the Florida Keys, that
3 might end up with specific areas that really
4 are a no-no, and my friends at that one
5 outlier where that longline went straight
6 across the reef, if you will, that one
7 immediately said to me, boy, that person
8 caught everything, including lobster.

9 So Ipm just wondering if, on the
10 outer bounds of this, that we could not end up
11 going in that direction. And I thought that
12 might be another issue that some other folks
13 might want to talk about. Thank you.

14 MODERATOR: Thank you, Pat. Bill,
15 Ken, and then Glenn.

16 MR. GERENCER: Bill Gerencer.
17 Chris, just a couple of technical questions.
18 On approach number one for the mapping
19 process, if I understand it correctly,
20 basically what you're doing is you're
21 identifying a 10-minute square based on the
22 abundance in that square, and then you're

1 turning that into a -- in the case of
2 pelagics, a 50-minute square? Or is it more
3 circular?

4 MR. RILLING: No. What we would
5 do is use that as -- the high count cells, use
6 that as the basis for potentially delineating
7 a boundary. So if the boundary came on the
8 perimeter of one of those 10-minute cells, we
9 would add a 10-minute buffer.

10 MR. GERENCER: Well, in the case
11 of HMS, a 20 minute buffer. You would add it
12 all the way around the cell.

13 MR. RILLING: No. We would add it
14 around the entire boundary that we're
15 creating.

16 MR. GERENCER: Okay. And then I
17 think one of the first -- I think it was the
18 third slide, one of the bullets said identify
19 fishing and non-fishing activities that may
20 adversely affect EFH.

21 And assuming that you've already
22 defined some essential habitat for sword and

1 tuna, can you give me an example of a fishing
2 activity and a non-fishing activity that
3 you've identified that may adversely affect
4 essential fish habitat? And you can pick the
5 species that you've already defined.

6 MR. RILLING: A fishing activity
7 that might affect EFH would, for instance,
8 potentially be trawling in coastal waters
9 where we have shark pupping areas.

10 MR. GERENCER: What about --

11 MR. RILLING: Where we have made a
12 definitive connection between that habitat
13 type and defined it as essential fish habitat
14 for a particular shark species. So if we said
15 we have determined that mud bottom near
16 Apalachicola Bay is EFH for sharpnose or
17 blacknose, and we have determined that shrimp
18 trawling in that area is disrupting that
19 habitat in a way that is more than minimal and
20 it is not temporary -- in other words, it
21 occurs over a duration of time, repeatedly,
22 with repeated negative effects -- then we

1 would work with that council to potentially
2 try and minimize those impacts. That is one
3 fishing impact.

4 A non-fishing impact is a little
5 tougher, because we may not -- do not have
6 direct regulatory authority on coastal
7 development, LNG facilities, oil and gas, all
8 these sorts of things that could potentially
9 affect EFH.

10 MR. GERENCER: Have you identified
11 any non-fishing activities yet?

12 MR. RILLING: Yes. Yes, we did a
13 comprehensive review --

14 MR. GERENCER: Just one example.

15 MR. RILLING: Well, coastal
16 runoff, nonpoint source pollution into coastal
17 bays and estuaries, shark pupping areas.

18 MR. GERENCER: Okay, thanks.

19 MODERATOR: Thanks, Bill. Ken,
20 Glenn and Shana.

21 MR. HINMAN: Okay. Ken Hinman,
22 National Coalition for Marine Conservation.

1 Thank you, Chris. That is a good
2 job. As you know, my organization and
3 Shana's, the Tag-A-Giant Foundation, requested
4 that the bluefin tuna's discreet and well
5 defined spawning ground in the Gulf of Mexico
6 be designated a habitat area of particular
7 concern.

8 We definitely feel that it
9 satisfies at least two of the criteria set out
10 for designating HAPCs, that this area is of
11 utmost ecological importance, given it is the
12 only known spawning ground for the western
13 Atlantic bluefin tuna, and that also makes it
14 a rare habitat type.

15 We believe that establishing the
16 bluefin's Gulf of Mexico spawning grounds as
17 an HAPC is necessary to identify this area as
18 of critical importance to this species, which
19 is in need of additional levels of protection.

20 The Western Atlantic stock spawns
21 in the Gulf of Mexico and only in the Gulf of
22 Mexico. All adult bluefin that are in the

1 Gulf of Mexico during spawning time are
2 western breeders. As everyone knows, the
3 western population, the spawning population,
4 is seriously depleted, has been for decades,
5 and rebuilding measures have been ineffective.

6 I wanted to use all that to lead
7 into -- not just to reinforce our support for
8 that designation and hope others will support
9 it as well, but also the two criteria that I
10 didn't mention up there and that when you went
11 through them kind of suggested that they
12 probably in most cases don't apply to pelagic
13 species, but I would suggest that they may,
14 and they may in the near future.

15 One thing that is occurring in the
16 Gulf of Mexico is that the Gulf Council has --
17 on its own is aggressively pursuing an
18 offshore aquaculture program to develop
19 culturing, farming of a number of different
20 species in the Gulf of Mexico.

21 This is in advance of any national
22 legislation or national standards, and they

1 have -- In their draft, they say they have
2 asked NMFS to concurrently do the same for HMS
3 species. Now I don't know if they have
4 contacted you directly, but to me that can
5 only mean that somebody is thinking of tuna
6 farming in the Gulf of Mexico.

7 Those who have any familiarity
8 with this industry could certainly see that,
9 at a number of levels, offshore aquaculture
10 especially done without proper environmental
11 standards can create environmental problems,
12 everything from water quality to taking away -
13 - actually taking away physical habitat.

14 There can be a lot of structures.
15 They can have buffer areas around them where
16 people cannot fish nor travel, as well as
17 leakage of (inaudible), as well as demand for
18 locally caught forage fish, which are
19 necessary to the wild population.

20 So anyway, there is something on
21 the horizon there that could fit these other
22 categories as well that would not be fishing

1 impacts directly, but could be developmental
2 things that would make an HAPC even more
3 necessary.

4 So I just wanted to bring that to
5 your attention. Margo kind of nodded that you
6 have been contacted by the Gulf Council.

7 MS. SCHULZE-HAUGEN: Yes, we have,
8 and we have provided some language to them for
9 their EIS. The authority for HMS remains with
10 the Secretary, is what we have provided to
11 them. We would need to look at all
12 requirements, including international
13 obligations and recommendations for,
14 particularly, bluefin in the Gulf of Mexico.

15 They then followed up with the
16 request for concurrent rulemaking, and I think
17 that is about as far as it has gone.

18 MR. DELANEY: Thank you. Glenn
19 Delaney. I would like to, Chris, reemphasize
20 and stress to you to please -- the more I
21 think about it, to please explore what
22 possibilities there are for analyzing the data

1 from a CPUE standpoint, whenever possible.

2 I understand there may be some
3 datasets where we don't have that possibility,
4 but I am thinking in the case of pelagic
5 longlining and sword and bluefin, there ought
6 to be a dataset there.

7 One way you could -- You might
8 want to look to see if it is something worth
9 doing is when you do have a dataset, to plot
10 the effort as another overlay on your maps.
11 If that plot of effort is very similar to your
12 plot of catch, then you may be just simply
13 reflecting high effort instead of high
14 abundance.

15 We are looking for true
16 representations of high abundance, not just
17 the fact that a lot of fish were caught
18 somewhere because of a lot of effort. If
19 effort and catch look very similar, then that
20 would raise the question.

21 It still may not change, if you
22 looked at CPUE, but it would certainly

1 trigger you to suggest that you might want to
2 look further under the covers there and say,
3 okay, am I really just looking at a reflection
4 of effort as opposed to true abundance.

5 So I would encourage you guys. I
6 don't mean to give you more work to do, but
7 that would be a much higher resolution of true
8 abundance than just simply absolute numbers of
9 individuals that were caught over a long, long
10 period of time, which brings up another couple
11 of points, sort of the temporal consideration
12 here.

13 There's two points there to look
14 at, both within a year -- or seasonal
15 consideration you may want to look at, whereas
16 there may be -- well, bluefin tuna spawning,
17 for example, we know, is concentrated at a
18 certain time of the year.

19 There is a seasonal dimension to
20 this. So when is that area that you are
21 considering as either EFH or an HAPC truly
22 that, because the fish are there and doing

1 something. You know, if they are not
2 spawning there nine of the year but they are
3 three, that may be something you want to
4 consider in designating and drawing lines,
5 because that may not be habitat area of
6 particular concern all year around. It is a
7 habitat of particular concern for three months
8 of the year or something.

9 That may apply to other species as
10 well, such as sharks who are pupping in a
11 certain area at a certain time or something
12 like that.

13 Then, of course, there is the
14 longer term. You know, we are seeing -- how
15 you quantify this, I don't know. Scientists
16 a lot smarter than me, obviously, -- it
17 doesn't take much -- are looking at what seems
18 to be a fundamental change in the distribution
19 of bluefin tuna. Fish seem to be in different
20 places than they were, and may be less
21 accessible or more accessible to different
22 fisheries, historically over time.

1 So if you use a very long dataset,
2 it is wonderful because you have a lot of
3 data, but at the same time there may have been
4 some really fundamental changes over time as
5 to where abundance is occurring.

6 That would affect how you would
7 want to designate. So I don't want to take
8 away from a long dataset, because that's the
9 Holy Grail a lot of times, but at the same
10 time you might want to break it out a little
11 bit and say, well, if we look at the first
12 half of the dataset timewise as compared to,
13 say, the second half, are we seeing anything
14 really different or has it been a pretty
15 consistent pattern of abundance or
16 distribution early as compared to late.

17 If there is no change, then it
18 seems it is just, well, maybe you've got a
19 pretty uniform situation. If you do see a
20 change, then you might want to, again, start
21 to look further under the covers and say,
22 well, what is going on here; because you may

1 be masking some things -- that's all -- by
2 just having a giant dataset over a really long
3 period of time.

4 Eventually, it is going to cover
5 the whole ocean. Sorry? Right, right. You
6 can fill in enough dots with enough time and
7 enough data, and it really doesn't show you
8 much. So you really need to try to hone in on
9 where things are really happening, both within
10 a year and in a more recent time period.

11 Just some suggestions to think
12 about. It is a complex issue, and a great
13 approach so far. Good job.

14 MODERATOR: Glenn, thanks. We
15 have Shana, Jay and Rich, and I think we have
16 to cut it off there, and we could always pick
17 up tomorrow. If there is still sustained need
18 to hit these topics, we will carve out some
19 time tomorrow to continue this conversation.
20 But let's go ahead and wind it up today,
21 because you need to have time to get dinner
22 and then get back here for the seven o'clock

1 public hearing on bluefin tuna.

2 So Shana, Jay and Rich.

3 MS. MILLER: Shana Miller, Tag-A-
4 Giant Foundation.

5 I would first like to echo what
6 Ken said. I certainly -- We submitted
7 comments together, and I agree with everything
8 he said today. Chris, I just wanted to
9 commend you.

10 This new quantitative approach
11 makes a lot of sense, but I agree with Glenn,
12 which I'm real pleased, that you need to take
13 a qualitative approach, too, and based on the
14 thresholds you pick and the data that are
15 included, you need to take a step back and see
16 whether the designations really make sense.

17 You know, you have different
18 catchability in different areas. You have the
19 seasonal issues. You have -- You know, now we
20 have closed areas, but those areas are still
21 potentially important, obviously, for species.
22 So you need to be aware of that.

1 As Rich mentioned, the east coast
2 of Florida and Florida Straits are a critical
3 migratory corridor into the Gulf of Mexico for
4 adult bluefin tuna, but several of your maps
5 don't accurately reflect that.

6 So you might need to take a
7 quantitative approach with a little
8 qualitative wiggle room when you are doing
9 your straight lines. Maybe that could bring
10 in a little wiggle room.

11 Also for the Gulf of Mexico
12 specifically, electronic tagging data,
13 observer coverage, logbooks have shown that
14 the entire area west of 86 degrees is
15 important for spawning bluefin tuna.

16 So if you had that as your
17 essential fish habitat and then narrowed it
18 down based on the Teo, et al., studies that
19 you mentioned to designate your habitat area
20 of particular concern within that greater EFH
21 area, I think that could be an approach that
22 would make a lot of sense.

1 Supporting Ken's points on these
2 four points, another potentially human induced
3 environmental degradation is expansion of
4 offshore oil platforms in the Gulf of Mexico
5 on the continental shelf where there are
6 bluefin.

7 So I think, even though they are a
8 highly migratory species, we are not talking
9 about coral reefs. We are not talking about
10 inshore area structures. There are human
11 impacts potentially in the offshore areas from
12 offshore aquaculture and oil platforms.

13 Good job. I agree with everyone.
14 It is really impressive.

15 MODERATOR: Shana, thank you.
16 Jay, go ahead, and -- Yes, Jay?

17 MR. KAVANAUGH: Jay Kavanaugh,
18 Hatteras, North Carolina.

19 Again, good methodology. I think
20 it is a valid approach.

21 My only comment was I'm not sure a
22 57-inch total length bluefin is an adult. I

1 don't know. I don't know how you can call
2 that an adult bluefin tuna.

3 MR. RILLING: Well, one of the
4 things we are doing, too, as I mentioned, is
5 a comprehensive review of all the literature
6 that has been published -- well, actually, now
7 post-consolidated FMP. We did that review up
8 through 2006. We've got some additional
9 publications coming out now.

10 That is something we will be
11 looking at, are size ranges, and now that you
12 have put that on our radar screen, that is
13 definitely one we will keep an eye out for.

14 MODERATOR: Thanks, Jay. Rich, go
15 ahead. You are winding it up.

16 PARTICIPANT: Yes. Actually, I
17 don't think that is anything new. For the
18 longest time, the definition of an adult in
19 the western Atlantic is an 81-inch fish at
20 about 310 pounds. That is nothing new.

21 There has been some debate about
22 whether that fish, you know, based on the

1 historical work that was done by Parrott
2 matches the tagging information that Block
3 has, which now suggests that it is 11 and 12-
4 year-old fish as opposed to eight-year-old
5 fish, but that is old news.

6 The point I wanted to make was the
7 obvious one here that I am sure everybody
8 grasped, but I want to make it anyway. EFH
9 and HAPC in the highly migratory context is
10 not the same -- doesn't pack the same punch,
11 if you will, in the highly migratory arena.

12 Does anyone see -- and correct me
13 if I am wrong. I mean, is Mexico currently
14 looking at this issue now for the Gulf of
15 Mexico? Is Canada? Is even a progressive
16 state like Canada doing this right now? Can
17 we expect it of Spain, of France? Are they
18 doing these things?

19 At some point, from an industry
20 perspective, you have to wonder how far can
21 you take this when it conflicts with other
22 mandates in acts like Atlantic Tuna Convention

1 Act and the Magnuson Act that also say, hey,
2 at some point we have to have a reasonable
3 opportunity to catch our quota.

4 I mean, we are finding every
5 bloody reason in the world to close off major
6 areas of fishing grounds to fishermen, while
7 the rest of the country is just saying thanks
8 very much, keep up the great work, and we've
9 got pretty efficient fisheries going on.

10 The other point I wanted to make
11 is, you know, Ken, I think, is just -- and
12 Shana -- is just taking a little bit too far
13 when they just simply categorically try to
14 state that the Gulf of Mexico is the only area
15 where western Atlantic bluefin tuna spawn.

16 That issue is still an open
17 scientific issue. Whether you prefer the
18 conclusions of one scientist or another
19 scientists, there are other opinions on that.

20 There have been larvae found off
21 of North Carolina. There has been larvae in
22 the Gulf of Guinea. Nobody knows whether

1 there was a spawning ground supporting that
2 Brazilian fishery in the 1960s. All those
3 things remain open questions.

4 The other point I wanted to make
5 was that in terms of habitat areas of
6 particular concern, it may also not be where
7 do they spawn. What we know -- and this again
8 is one of the limitations of it's only the
9 United States that is focusing in on this
10 right now.

11 Some of us happen to think that
12 areas of pre-aggregating proven spawners is
13 also an area that we might want to be looking
14 at, and we've got a couple of them that are
15 very well historically established.

16 Prince Edward Island just last
17 week landed somewhere around under 300 fish,
18 but the average dressed weight was 650 pounds,
19 and most of the fish were 800 to 900 pound
20 fish, and those fish typically from tagging
21 data make their way down into the Gulf of
22 Mexico.

1 We ought to consider maybe that's
2 the type of area, not just when they are on
3 the spawning grounds, but where they pre-
4 aggregate in the western Atlantic.

5 Another one is Cape Cod Bay. We
6 see historically in Cape Cod Bay the fish are
7 very large, at least from a size and age,
8 proven spawners, whether they have been in the
9 Gulf of Mexico or not. We've got tagging data
10 that suggests some of them go to North
11 Carolina and then they go into the Gulf of
12 Mexico.

13 So it is not just the
14 concentration on the spawning grounds. In our
15 eyes, you ought to also be looking at where
16 are they pre-aggregating, and don't they
17 deserve some protection in those areas as
18 well.

19 MODERATOR: Thanks, Rich.

20 MR. RILLING: Rich, that is a good
21 point, and I've thought that when I have
22 looked at the bluefin tuna data. The highest

1 concentrations clearly are off North Carolina.
2 So that thought has crossed my mind at times,
3 and again we are going to look at it
4 comprehensively. We are not just completely
5 zeroed in on the Gulf. We are looking
6 elsewhere as well, but we definitely -- Prince
7 Edward Island is Canadian waters or -- Yes.

8 PARTICIPANT: It is Canadian
9 waters, but I mean, that's the thing. I mean,
10 you are going to -- Ken and Shana are going to
11 say let's just close the Gulf of Mexico.
12 Well, that's a fine extra sacrifice, one more
13 that U.S. fishermen alone can make to this
14 process.

15 What if there is an equally
16 effective or closely equally effective that
17 can be shared by somebody who happens to be
18 benefitting uniquely from the bluefin fishery
19 for the last four years, while we stand by and
20 watch it, and they are catching all the
21 western spawners right now.

22 In a five-day fishery, they landed

1 154 fish with a 650 pound average -- five
2 days. We stand by and watch it.

3 MR. RILLING: Rich, Margo reminded
4 me that EFH does not mean closures. EFH are
5 habitat designations. What they do is give us
6 a tool to do consultations on Federally funded
7 or Federally permitted projects that occur
8 within essential fish habitat areas. That is
9 the main stick that exists with EFH.

10 There is also the stick of fishing
11 impacts, but like I said, that really applies
12 to us to a lesser degree.

13 PARTICIPANT: Right. Just to
14 follow up on that, a lot of these LNG
15 proposals -- they have to consult with us.
16 They have to come to us and ask for our input.
17 Now I don't know how much they take of that,
18 because they are required to consult, because
19 we have identified it as EFH.

20 This is a mechanism that we get an
21 opportunity to comment on some of the
22 activities of other Federal agencies by doing

1 this. So just so folks know, there is some
2 merit. It helps us get our voice out into the
3 process for some of these other actions.

4 MODERATOR: Of course, I notice
5 Shana and Ken's hands flying up immediately.

6 PARTICIPANT: They're wrong. They
7 are wrong.

8 MODERATOR: Okay. It just shows
9 there might be more than one view on this, and
10 you go ahead.

11 PARTICIPANT: Well, I am just
12 thinking, why don't we start tomorrow morning
13 with this, 8:30. We can touch back on any
14 other issues. I do want to try and break.
15 Shana, you can always talk to Rich on the
16 break here, but we do want to give people time
17 to go have some dinner and come back for the
18 public hearing. Start at seven o'clock in
19 this room, and 8:30 tomorrow morning, please.

20 All right. Thank you.

21 (ADJOURN FOR THE DAY.)

22 We are handing out the travel

1 voucher form. So if you could get those in to
2 us by the 12th, that would be great. The
3 quicker you get your receipts in to us, the
4 quicker you get your money. So it behooves
5 you to get it in soon as well.

6 I also wanted to remind folks, in
7 the folders is the evaluation form for the AP
8 meeting. So if you could take some time this
9 morning. I think after lunch, we will
10 actually give you some time to fill it out.
11 Hand it to any staffperson that you see.

12 We are always very interested to
13 get your feedback on the meetings, content as
14 well as location. It has been a while since
15 we were at the Science Center. So is this
16 something that was okay for you, vans, food,
17 the whole deal? Just what did you think? We
18 are always looking for that kind of feedback.
19 So if you could try and get those to us today,
20 that would be great as well.

21 I think we are going to take a few
22 more minutes on essential fish habitat. Chris

1 has a little bit more he wants to show you,
2 and then we will have a presentation by Ron
3 Sauls from the Office of Science and
4 Technology on the Marine Recreational
5 Information Program, and there is an HMS
6 subgroup component in that. So it is pretty
7 relevant for you guys, followed by a
8 presentation on upcoming rule on greenstick
9 gear, harpoons for charter headboat on bluefin
10 and sea turtle tethers.

11 I think we are going to wrap it up
12 with an outreach presentation. If you
13 remember, about a year ago we had a detailed
14 discussion on outreach, and we have been
15 working hard on a draft plan that we want to
16 get your input on.

17 There are copies of that up on the
18 table, if you haven't seen it. So you could
19 get that, and possibly, depending on you all,
20 we could wrap up a little early.

21 So with that, Chris, do you want
22 top

1 MR. RILLING: Thanks, Margo.

2 One of the things I wasn't able to
3 show you yesterday, because we didn't have an
4 Internet connection, is the new online mapping
5 tool that we have for EFH. So I wanted to
6 give you the address, show you the site. If
7 you get a chance, please go visit the site.

8 This is it. I've got it loaded
9 right here. This was actually put together by
10 the Office of Habitat Conservation. We have
11 been coordinating with them on our EFH
12 boundaries in terms of which shoreline areas
13 to use.

14 As many of you know, there are a
15 lot of different shorelines that could
16 potentially be applied along the coast that we
17 would be using for the inland or shoreline
18 boundary for some of our EFH boundaries.

19 Also, you will notice the look
20 through the background. The template is the
21 same one that we have been using, and that is
22 because eventually we want to post all of our

1 new EFH boundaries up on this site as well.

2 What you will see here now on this
3 live Beta site are the 1999 EFH boundaries.
4 We have not yet posted any of our proposed
5 revisions to the EFH boundaries on this site,
6 but we plan to at some point.

7 We plan to use this as an
8 interactive tool with the public, with you
9 all, with our reviewers, to be able to go in,
10 select a particular HMS species that you are
11 interested in, pull up the EFH boundary, and
12 then also be able to look at the text
13 description of that boundary.

14 So what you would do, if I can
15 take you through this just briefly, is you
16 will notice there is a link here called the
17 EFH report tool. You would click on that, and
18 then you could select HMS species underneath
19 here. They have the species grouped by
20 regions for Northeast, Gulf of Mexico,
21 Caribbean, Northwest and Southwest, and then
22 HMS species.

1 You would select HMS species, and
2 then on the second dropdown list all of the
3 HMS species that we have EFH boundaries for
4 are available for you to click on.

5 So for instance, if we wanted to
6 look at bluefin tuna EFH, we would click on
7 that, and the boundaries would load on the
8 map, which I am already on.

9 The second thing you can do then,
10 if you want, is to generate a report of the
11 actual text description by simply clicking in
12 that boundary file, and a table will pop up
13 that lists the various species for which EFH
14 is found in the area that you just clicked on.

15 You can either click on the link
16 to the EFH text description here on the left -
17 - So if I do that, the PDF document will pop
18 up. What you will see here is the
19 consolidated HMS FMP, because that has the
20 most recent information that we have posted,
21 and it popped up here.

22 It is supposed to be linked

1 directly to where that species description is.
2 It is not right now. You will have to scroll
3 down and find it. Nonetheless, the
4 information is right there at your fingertips
5 with just a click or so.

6 You can also look at different
7 life stages for species. So for instance, if
8 I select another species here -- let me try
9 yellowfin tuna. You will notice down at the
10 bottom there is a legend that I can select the
11 adult EFH boundaries for, click on the
12 juvenile, and it will show me the juvenile EFH
13 boundaries, and then eggs and larvae, if we
14 have that information for that particular
15 species. If you would like, you can look at
16 all the boundaries combined for this
17 particular species.

18 So I think it is very useful. You
19 can zoom into areas on the coast and see if
20 there is EFH for whatever species you are
21 interested in. It is very interactive. I
22 think it is a great tool and one that we plan

1 to use a lot in the future.

2 You can look for other species,
3 too. It is not just HMS.

4 PARTICIPANT: Can you show the
5 address.

6 MR. RILLING: Yes. I actually put
7 that on a second page here, and right now
8 since it is a beta site -- and I've talked to
9 the folks up at Habitat Conservation that put
10 it together. They are okay with us
11 distributing this to the AP, but it does have
12 a user name that you will have to type in as
13 well as a password, which is "reviewer!" The
14 user name is "EFH" and there is the address
15 for you.

16 One thing I have found that I have
17 told them about is, when you first go to load
18 the site, sometimes it gets -- I'm sorry. I'm
19 sorry. I'll just talk while I leave that up.
20 sometimes when you go to load the site, it
21 doesn't load immediately. Just click the
22 refresh button, and it will load.

1 I have told them about this. It
2 is a slight glitch in there, but if you know
3 that, I think it is easy to just click the
4 reload button, and almost without fail it will
5 load the second time around.

6 There is an underscore between the
7 EFH and Map. Correct.

8 MODERATOR: Is the password case
9 sensitive?

10 MR. RILLING: I believe so.

11 MODERATOR: So you need a capital
12 R?

13 MR. RILLING: EFH mapper. It's a
14 little hard to see, because it is underlined.
15 Yes, we can send this out as well. We can
16 send this link out to you all.

17 So I just wanted to let you know
18 about that, and I guess now we are back open
19 to questions on EFH, or comments.

20 MODERATOR: So we ended up
21 yesterday kind of at the end of the day. We
22 had several questions on EFH for Chris, but we

1 are opening it up again just in case there is
2 anything -- any stragglng issues or
3 questions. Ken?

4 MR. HINMAN: Yes. I had my hand
5 up, as did Shana, I think, just to clarify
6 something. The issue was getting a little bit
7 confused about why we thought the Gulf of
8 Mexico is a critical area for western bluefin
9 tuna, and why we are asking that it be made a
10 habitat area of particular concern.

11 We recognize that there are other
12 areas in the western Atlantic where big fish
13 aggregate and we need better conservation.
14 Nobody is denying that, but what is special
15 about the gulf of Mexico is it is the one
16 place in the Atlantic, in the entire Atlantic,
17 the Gulf of Mexico, and there is one time,
18 which is March through June of each year,
19 where the fish are all western spawners,
20 nothing but western spawners, and they are
21 there to spawn.

22 That is not true of anywhere else.

1 That is not true off Prince Edward Island or
2 North Carolina. There may be spawners there,
3 but there is a mix of eastern and western fish
4 in all those other coastal areas at different
5 times of the year. But in the Gulf of Mexico,
6 in the spring during spawning season, every
7 fish there, according to the most recent
8 tagging studies, is a western spawning fish,
9 and there aren't very many of those left, and
10 they need more protection.

11 The point that Shana wanted to --
12 had her hand up about was that -- and she
13 couldn't be here today -- was, I think, about
14 the HAPC designation itself. I don't think --
15 I am not going to deny that we have
16 recommended closing the Gulf of Mexico to
17 longlining during that period, but I think
18 that is a separate issue.

19 The HAP designation is intended to
20 deal with impacts that the National Marine
21 Fisheries Service does not direct control
22 over, and we mentioned a couple of those

1 during our comments: Oil development,
2 offshore aquaculture, and things like that,
3 and that we want to give the National Marine
4 Fisheries Service as much consultative
5 authority as possible to be able to protect
6 that critical area from those kind of threats,
7 which I would not downplay.

8 So that is just -- I wanted to
9 clarify that.

10 MODERATOR: Thank you, Ken.
11 Ellen?

12 MS. PEEL: Well, just following up
13 on what Ken was saying, you know, not at the
14 exact same time but just maybe a month or two
15 later, the Gulf of Mexico in almost that same
16 area has the highest bycatch of blue and white
17 marlin over any other area within U.S. waters,
18 and has been.

19 So if bluefin get identified
20 through habitat, I would like to look at the
21 habitat -- the area of bycatch of the marlin
22 to see if it overlays, how much it overlays,

1 and there may be a need to include the marlin
2 for protections, too. What? Yes, and then if
3 you place blue marlin and then you look at
4 bluefin tuna, there certainly is some overlap,
5 and we are certainly interested in seeing some
6 protection for those species as well.

7 MODERATOR: Thank you, Ellen.

8 Anyone else this morning on EFH? Yes, Terri?

9 MS. BEIDEMAN: Terri Beideman,
10 Nelson R. Beideman Charitable Foundation, one
11 more time.

12 Yesterday I raised a question
13 about the 145 centimeters and exactly what the
14 genesis of that is, and I got an answer last
15 night at the hearing regarding the size, which
16 is now apparently two answers, which was one
17 more than I was expecting to get.

18 It appears that the 145
19 centimeters is anything that isn't juvenile.

20 Less than 145 is considered juvenile. North
21 of that is considered not juvenile, however,
22 not spawning.

1 So there's two sizes. You have
2 them in your pre-draft. One is 185, and one
3 is 190-something, two different sizes, two
4 different ages. I guess you need to figure
5 out which size, age it is that you consider to
6 be spawners or what the deal is.

7 I spoke with you, Chris, before.
8 I guess that means you have to redo the maps
9 that you have for those so called spawners,
10 because they are not. They are post-
11 juveniles, whatever you analyzed.

12 So I just wanted to put that on
13 the record, that it looks like those maps
14 might be different, maybe, potentially, after
15 you do your analysis. So that's all that I
16 had on EFH. Just wanted to raise that.

17 MODERATOR: Thank you, Terri.
18 Anybody else while we still have Chris at the
19 front? Yes, Andre?

20 MR. BOUSTANY: Andre Boustany,
21 Duke University. I just wanted to address
22 that last point. I think it has been an area

1 of confusion for the last several decades. I
2 think the original confusion came from a
3 series of papers that were done a while back
4 that actually had looked at spawning condition
5 in fish, but we actually did not have
6 incredibly representative samples.

7 So there was a lack of data in
8 some of those central years. What happened
9 was in those papers they said spawning might
10 be as early as -- and that kind of got into
11 the literature as spawning begins at this
12 stage.

13 Since then, a series of further
14 analyses have been done, both our tagging data
15 as well as further reproductive studies. I
16 think the latest one was actually done by NMFS
17 scientists Diaz and Turner looking at the
18 catch distribution, the size distribution in
19 the Gulf of Mexico.

20 One of the other areas of
21 confusion is that not all bluefin spawn at the
22 same size -- begin spawning at the same size.

1 So you may get fish as small as -- very rarely
2 as small as 180 centimeters, but as far as 50
3 percent maturity it is probably upwards around
4 like 240 centimeters or so.

5 So that is, I think, where a lot
6 of the confusion originally came in and how
7 that confusion has persisted throughout the
8 literature, but you should really be using the
9 50 percent age to first spawning.

10 MODERATOR: Thanks, Andre. Yes,
11 Rich?

12 PARTICIPANT: Just a quick point
13 to say that I agree. It is clear that the
14 Gulf of -- (END OF TAPE 12)

15
16
17
18
19
20
21
22

| A | | | | |
|----------------------------|----------------------------|----------------------------|---------------------------|----------------------------|
| abbreviated 322:4 | 303:13 | 127:20 308:4 | 307:5 345:17,19 | 125:11 126:3 |
| abbreviations 322:4 | acceptable 118:11 | 373:3 | 376:6 380:5,14 | 128:4 236:4 |
| abide 114:3 | 144:1 | active 42:5,12 94:4 | 386:21 | 304:19 |
| ability 24:3 48:19 | access 41:12 94:2 | 173:13 | addressed 70:1 | affect 10:13 11:14 |
| 116:20 195:14 | 128:8 198:9 | actively 42:6 | 162:10,11 210:5 | 12:1 124:4 177:17 |
| 197:14 346:11,22 | 217:13 218:16 | activist 139:9 | 240:3 253:12 | 309:1 311:22 |
| able 11:18 12:10 | 245:8 263:22 | activities 298:12 | addressing 57:18 | 351:20 352:3,7 |
| 22:16 23:1 24:5 | 268:5 296:3 298:5 | 308:4,22 337:11 | adds 289:8 | 353:9 361:6 |
| 40:10 41:15,18 | 298:8 299:12 | 340:18 351:19 | adequate 121:16 | afforded 22:18 |
| 84:18,21 85:20 | accessible 360:21 | 353:11 372:22 | 150:17 218:7 | 263:19 |
| 87:9 89:4,19 90:20 | 360:21 | activity 150:15 | 232:8 | afraid 294:22 |
| 92:14 99:11 106:7 | accommodate 24:9 | 352:2,2,6 | adequately 165:15 | age 370:7 386:5 |
| 116:1 120:7 179:3 | 24:18 81:22 248:5 | acts 270:6 367:22 | 168:17 | 388:9 |
| 182:21 184:3 | accomplish 205:22 | actual 64:20 68:2 | ADJOURN 373:21 | agencies 372:22 |
| 188:2,3 193:2,14 | 216:16 324:8 | 129:5,10 257:10 | adjustments 335:18 | agency 18:20 23:17 |
| 195:11 196:6 | account 28:16 53:22 | 262:16 263:9 | 335:22 336:4 | 58:3 67:19 119:2,4 |
| 198:7,8 201:3,4,17 | 55:16 141:8 | 378:11 | Administration 1:4 | 121:15 125:22 |
| 201:19,22 239:15 | 206:11 | adamant 132:7 | 1:21 | 126:11 127:12 |
| 245:8,9 248:2 | accounted 16:8 | 149:5 | administrative | 138:4,5 145:15 |
| 258:12 263:7 | 196:13 215:2 | adapt 168:20 | 258:19 270:2 | 253:13 |
| 273:6 290:10 | 291:3 | adapting 168:20 | Adobe 346:16 | agenda 2:2 117:16 |
| 295:7 296:1,4,14 | accurate 135:2 | adapts 168:7 | 347:10 | 166:7,12 168:1,4 |
| 321:19 333:20 | 158:11 | add 110:12 113:3 | adopt 253:9 293:10 | 168:12,13 169:21 |
| 347:5 376:2 377:9 | accurately 190:17 | 132:18 155:22 | adopted 118:19 | 178:7 252:17 |
| 377:12 384:5 | 364:5 | 164:13 178:2 | 119:3 | 305:14 345:21 |
| aboard 148:16 | achieving 171:5 | 209:11 222:16,20 | adoption 146:2 | agent 72:22 |
| 149:6 | acknowledge | 291:8,22 293:5 | adult 95:22 135:7 | ages 386:4 |
| above-entitled | 139:16 | 351:9,11,13 | 138:22 188:21 | aggregate 370:4 |
| 305:20 | acknowledged | added 35:10 140:15 | 315:6 322:6 323:4 | 382:13 |
| abroad 249:8,12 | 223:19 | 149:10 223:11 | 325:2,8,12,17 | aggressive 228:8 |
| absence 313:18 | acquired 311:14 | 289:11 300:3 | 328:16 329:12 | aggressively 174:17 |
| absent 253:14 | acronym 13:1 | adding 161:3 226:1 | 332:9 335:12 | 175:22 355:17 |
| absolute 327:11 | act 11:3 69:17 71:3 | 344:21 346:16 | 336:11 354:22 | ago 89:21 156:2 |
| 359:8 | 71:7,11,13 77:16 | addition 15:12 21:1 | 364:4 365:22 | 236:14 237:5 |
| absolutely 108:13 | 78:1 94:22 100:1 | 25:22 28:9 34:12 | 366:2,18 379:11 | 242:1,12 275:19 |
| 157:21 | 100:13 145:19 | 42:21 57:1 131:7 | adults 135:7 | 300:17 375:13 |
| abundance 134:18 | 161:9 178:17 | 135:8 151:2 | advance 232:16 | agree 55:10 72:10 |
| 328:14 332:18 | 202:1,13 246:5,7 | additional 164:10 | 355:21 | 109:7 132:3 138:1 |
| 350:22 358:14,16 | 251:15 257:6 | 285:17 311:17 | advantage 265:7 | 148:21 177:11 |
| 359:4,8 361:5,15 | 258:7,8 259:1 | 349:1 354:19 | adverse 120:10 | 216:7 218:8 227:1 |
| abundances 150:11 | 261:4 262:18 | 366:8 | 308:3 340:18,21 | 227:4 233:3,18 |
| abundancies 5:14 | 269:10,16,16,18 | address 45:10,11 | adversely 309:1 | 237:21 278:9 |
| abundant 138:21 | 270:9 307:22 | 63:6,12 64:4 73:6 | 351:20 352:3 | 294:1 328:15 |
| accede 279:3 | 308:12 368:1,1 | 100:1 128:6 132:9 | advice 173:3 | 348:17 363:7,11 |
| accent 183:5 | action 14:4 74:18 | 148:2 171:13,18 | advise 187:12 | 365:13 388:13 |
| accept 212:3 215:11 | 98:16 113:6 | 179:6 230:12 | advised 120:3 | agreed 126:10 |
| | 226:11,12 288:9 | 250:8 272:18 | Advisory 1:9 118:5 | 279:17 293:19 |
| | actions 38:2 113:3 | 290:11 301:3 | 119:16 122:22 | 294:8 298:18 |

| | | | | |
|---|--|---|---|--|
| agreement 86:14,15 271:17 295:9 | 46:8 47:22 48:13 54:2 79:16 109:20 109:21,22 111:3 125:3 132:5 142:17,21 164:20 202:5,15 224:15 233:11 234:19,21 254:12 258:7,9,18 260:17,19,20 264:19 269:17 270:1,3,4 287:4 | alternatives 3:18 9:16 59:5 60:20 100:6 119:20 161:4 174:11 209:4 225:17 233:4,6 323:19 | 54:5 56:4 156:19 191:19 327:15 386:11 | anti-finning 103:11 |
| ahead 61:4 67:10 95:19 141:12 183:16 205:6 221:22 222:3 242:7 244:5 254:5 273:21 285:12 305:22 362:20 365:16 366:15 373:10 | allowing 44:7 55:1 146:10 217:13 | amendment 2:4,7,9 2:12,17,22 3:4 63:12 92:2 95:15 95:16 99:16 109:6 140:4 161:8 168:19 196:20,22 236:2,3 306:10 310:9,10,15,18,20 312:16 | analyzes 319:22 analyzing 231:6 232:9,12 357:22 | anybody 97:18 98:1 108:17 111:11 128:17 129:13 162:16 170:8 178:1,5 181:1 183:4 214:8 228:15 235:20 236:6 241:10 257:2 276:2 285:11 300:21 386:18 |
| aimed 61:16 | allows 197:1 | amendments 163:17 309:7 | anatomical 99:2 | anybody's 154:12 |
| ain't 262:12 264:14 264:19 | alluding 322:8 | America 1:1 265:15 265:17 | Andre 386:19,20 388:10 | anymore 25:5 197:5 299:17 319:1 |
| al 150:22 364:18 | all's 69:17 74:14 75:13 76:2,6 78:2 | American 112:21 259:7 | Andy 87:5,14 | anyone's 304:6 |
| Alan 127:11,17 | alternate 329:7 | ammoniating 193:22 | and/or 58:17 203:7 | anyway 92:19 177:22 178:21 179:5,8 182:11 293:7 336:6,7 348:19 356:20 367:8 |
| Alex 86:9 | alternative 3:18,22 9:6,8,9,11,20 10:1 10:5,16,18,21 11:4 11:4,9,13,16,20,22 12:4,5,12,21 13:8 13:13,21 14:14 15:19 17:15,20 19:10,12,18 20:8 20:10 21:5,10,14 22:9,12,13,14 25:6 25:12,16,20 26:9 26:15 27:11,19,21 28:21 29:3,22 30:17 31:17 32:20 32:22 33:3,10 34:3 34:5,15 35:12,20 37:18 38:18 46:21 48:10 54:8,10,11 54:11,12,19,22 55:6 56:7 59:12 62:1 100:4 106:5 113:15 130:21 147:3 161:12 162:11,13 163:10 165:12 174:12 180:11,19 205:12 221:10,12,13 228:20 233:7,14 233:19,20 234:17 316:21 343:19 | Ammoniation 193:18 | angler 107:7 242:2 | anymore 25:5 197:5 299:17 319:1 |
| align 125:9 | alternating 322:8 | amount 32:12 77:12 93:12 94:18 109:3 135:4 136:21 147:10 164:9 168:17 217:17 224:15 246:9 321:11 | anglers 11:16 12:3 37:14 107:10 | anyway 92:19 177:22 178:21 179:5,8 182:11 293:7 336:6,7 348:19 356:20 367:8 |
| alive 39:18 155:19 | all's 69:17 74:14 75:13 76:2,6 78:2 | ammoniating 193:22 | animals 39:18 73:20 90:21 96:4 156:20 179:14 182:8 195:4 198:6 201:11 202:10 210:9,11 241:5,5 | AP 44:22 57:10 166:3,20 174:20 316:19 338:3,15 374:7 380:11 |
| alleviate 209:20 | alleviate 209:20 | Ammoniation 193:18 | announce 295:2 | Apalachicola 352:16 |
| allocate 18:5 247:22 | allocate 18:5 247:22 | amount 32:12 77:12 93:12 94:18 109:3 135:4 136:21 147:10 164:9 168:17 217:17 224:15 246:9 321:11 | annual 52:6 141:3 | apart 99:7 194:9 |
| allocated 173:12 | allocated 173:12 | ammoniating 193:22 | answer 76:16 77:3 102:17 127:17 138:15 159:7 202:21 203:2 204:20,21 205:3,4 211:11 213:2 214:5 220:1,3 227:8 238:17,18 266:8 268:21 290:19 347:20 385:14 | apparent 207:1 |
| allocating 173:18 177:14 | allocating 173:18 177:14 | Ammoniation 193:18 | answered 79:3 92:10 108:20 236:18 252:8 | apparently 238:20 296:1,11 329:21 385:16 |
| allocation 99:19,21 100:2,7,12 173:9 211:6 233:21 303:6 | allocation 99:19,21 100:2,7,12 173:9 211:6 233:21 303:6 | amount 32:12 77:12 93:12 94:18 109:3 135:4 136:21 147:10 164:9 168:17 217:17 224:15 246:9 321:11 | annual 52:6 141:3 | appear 105:10 320:13 |
| allow 10:10 16:10 18:1,17 19:4,8 20:11 21:11 24:11 26:7 29:8 34:16 47:12 50:2 53:17 53:19,20 55:4 58:8 61:8 62:3 142:18 162:5 164:8 179:17 182:6 187:22 201:13 221:20 277:21 299:12 301:7 | allow 10:10 16:10 18:1,17 19:4,8 20:11 21:11 24:11 26:7 29:8 34:16 47:12 50:2 53:17 53:19,20 55:4 58:8 61:8 62:3 142:18 162:5 164:8 179:17 182:6 187:22 201:13 221:20 277:21 299:12 301:7 | ammoniating 193:22 | answers 172:5 385:16 | appeared 230:9 |
| allowable 6:4 79:11 124:17 164:16 221:19 | allowable 6:4 79:11 124:17 164:16 221:19 | anal 21:5 | anticipate 38:15 42:15 | appears 77:1 254:17 260:5 385:18 |
| allowance 221:22 | allowance 221:22 | analyses 100:3 326:21 387:14 | anticipated 40:2 | applied 46:14 115:6 376:16 |
| allowed 10:3 12:8 18:12,14 20:2,6,22 21:6 22:2,22 34:9 34:13 36:10 44:4 | allowed 10:3 12:8 18:12,14 20:2,6,22 21:6 22:2,22 34:9 34:13 36:10 44:4 | analysis 11:12 93:1 100:10 111:11 187:9 195:20 205:17 207:1,2 235:4,5,10,11 312:20 313:4 328:8 340:14 344:2 386:15 | anticipating 38:1 | applies 372:11 |

| | | | | |
|--|---|--|--|---|
| 23:14,14 73:17 256:3 295:1 327:5 355:12 360:9 appreciate 109:10 127:17,22 appreciated 254:1 appreciation 140:4 approach 9:6 55:19 142:22 166:17 204:14 224:17,19 225:7,14 226:16 233:19 313:12 315:22 316:20 317:7,20 318:13 319:4,19 320:5,9 321:4,8 322:7,10 322:18 323:1,5,12 323:15 324:9,18 324:20,22 325:8 325:12,17 327:1,4 327:9 328:17 329:7,8,9 333:13 343:20 344:9 349:4,6 350:18 362:13 363:10,13 364:7,21 365:20 approaches 313:11 315:21 316:22 317:20 325:1 343:14 approaching 347:19 appropriate 5:15 8:3 23:21 32:9,12 35:9 52:12 59:6 60:11,13,22 140:10,13 147:10 147:19,19 159:11 209:5,7 210:7 221:10 230:19 231:3,8 232:3,11 234:18 313:7 344:5 approvable 122:5 122:15 approximately 7:16 8:7 171:2 317:13 April 31:16 50:11 | 338:22 aquaculture 355:18 356:9 365:12 384:2 aquariums 139:10 arbitrary 115:4,14 215:5 217:10 222:9 262:20 arc 317:12 area 25:15,19,21 26:11 35:7 48:7 112:3,6 119:5 131:6,18 132:1 148:14 154:7 175:12 185:1 190:12 198:2 211:4 215:16 221:8 240:12 251:8,18 265:14 274:15,16 275:2 283:12,14 286:2 287:17 290:13 299:8 300:17 319:11 320:16,21 325:13 326:1 328:22 329:19 330:22,22 331:2 334:16 336:17 338:4 340:1,2 348:11 352:18 354:6,10,17 359:20 360:5,11 364:14,19,21 365:10 368:14 369:13 370:2 378:14 382:8,10 384:6,16,17,21 386:22 areas 26:2,5,8,12 27:4,7 36:16 50:17 79:3 137:6 157:10 188:7 211:5 245:21 275:22 280:16,20 281:2 282:18 283:16 290:4 291:2,16 292:18,19,21 293:18,20 294:1 | 301:4,5 308:19 319:17 320:10,12 321:5 323:2,11,11 325:20,22 326:17 329:3,14 330:16 332:11,12,13,15 332:19 334:1,14 335:3 336:14 337:2 338:8 339:19 340:8,13 341:10,12 342:10 342:13,14 348:15 349:2,16,21 350:1 350:3 352:9 353:17 356:15 363:18,20,20 365:11 368:6 369:5,12 370:17 372:8 376:12 379:19 382:12 383:4 387:20 arena 367:11 argue 177:20 argument 189:19 arranged 10:22 arrangement 189:10 arrive 185:22 ASC 130:12 aside 15:10 18:9 119:2 168:21,22 asked 32:8 91:11,19 150:20 165:22 207:7 214:16 215:11,19 236:16 241:9 266:4,6 311:15 356:2 asking 78:12 99:9 129:1 226:3 260:4 272:15 306:13 309:13 324:19 382:9 asks 142:4 ASMFC 177:5 209:15 ASMSC 133:4 assemblage 222:14 assess 5:15 61:13 | assessed 4:12 6:1,13 6:17,19 7:9 158:22 159:1 assessment 4:12,19 4:21 5:1,4,7,9,11 5:21 6:2,3,7,20 7:1 7:8,14,20,22 8:2,6 16:4 17:2,18 28:11 43:12,15 52:12 54:14 55:11,13 61:15 62:2,8,9,15 62:18 67:15,22 68:8,10,15,16 81:1 86:8,21 87:15 88:9 88:22 91:3,9 92:1 106:13 143:5,13 143:20 150:20,22 152:10 153:20 154:5 158:14,17 159:5,10,21 160:4 194:9,19 210:6,11 210:14 223:21 224:7 241:8 263:2 264:17 268:15 assessments 4:7 8:10 43:7,9 50:1 55:18 61:12 62:1 68:6 89:5 147:12 154:20 158:19 161:21 assignment 307:8 309:20 assistance 309:18 associated 20:17 47:16 158:6 Association 83:15 118:14 assume 107:15 assuming 29:7 59:12 225:18 228:19 240:15 348:8 351:21 assumption 84:6 assured 173:4 Atlantic 4:15 6:18 7:2,4 17:5 26:1,14 26:16 27:4 33:6,7 33:20,22 34:13 | 35:3 36:17 88:2,7 88:10 90:7 91:16 95:11 115:10,11 130:8 131:4 144:6 144:9 145:1 146:1 162:22 163:2 198:5,19 199:5,15 209:21 222:2 223:3 224:5,8 225:1 233:15 237:7,16 243:4,10 252:1,2 291:2 298:13 299:7 306:11 310:19 322:22 325:2 328:16 332:13 336:12 341:8 342:4 354:13,20 366:19 367:22 368:15 370:4 382:12,16,16 Atmospheric 1:3,21 attached 21:9 25:11 36:19 51:2,17 58:2 72:7 145:17 146:4 187:12 188:6,6,7 188:12 192:13,17 203:4 226:16 227:13 228:9 247:6 250:5,13 attempt 103:5 130:13 attempted 158:22 Attendance 2:14 attention 228:5 253:1,3 357:5 attorneys 270:19 at-vessel 155:16 156:3 audience 63:11 audio 1:20 August 31:16 Augustine 347:14 347:15 349:11,19 authority 253:14 281:18 353:6 357:9 384:5 authorization 174:3 |
|--|---|--|--|---|

| | | | | |
|--|--|--|---|--|
| authorized 105:18 148:2 162:8 174:4 174:8 222:7 | 114:21 141:4 151:17 153:16 154:10,10 169:14 169:21 170:22 | banned 142:9 | 274:11 278:6 | bell 245:18 |
| authors 151:4 | 172:18 193:12,13 | bans 146:7 227:18 227:20 228:1 | 284:18 293:12 | belly 93:14 188:6 190:11 |
| automatic 187:1 218:12 | 196:6 203:1 | base 19:4 30:8 108:8 249:13 | 297:4 329:18 350:20 | belong 148:19 149:1 |
| automatically 125:20 224:14 | 204:19 206:9,11 | based 4:16 5:17 6:14 8:9 17:17 | basing 291:7 | beneficiary 87:4 |
| availability 159:22 | 206:22 208:17 | 37:3 40:22 47:20 | basis 49:13 123:11 183:18 205:16 | benefit 54:19 56:21 175:18 300:19 |
| available 5:10 8:3 20:18 55:14 68:21 | 209:11 229:4 | 48:18 74:18 85:9 | 268:6 269:15 | benefits 56:20 146:12 280:20 |
| 74:13 75:14 76:5 | 230:20 233:22 | 120:22 124:18 | 316:8 319:6,11 | benefitting 371:18 |
| 101:6 118:21 | 237:14 240:20,22 | 138:6 141:19 | 348:21 351:6 | best 5:10 8:2 68:21 74:12 75:13 76:5 |
| 123:20 154:5 | 241:1 242:6 | 151:10 156:9 | bathymetric 334:21 | 82:4 116:12 |
| 158:15,16,21 | 246:12 250:8 | 164:17 174:6 | Bay 131:14,15 | 118:20,20 133:6 |
| 191:16 198:9 | 256:20 258:6 | 195:20 215:2 | 310:12,12,13 | 145:17 158:14 |
| 244:13 255:16 | 264:9 266:9 | 217:22 229:22 | 329:18 352:16 | 171:3 191:16 |
| 257:9 259:14 | 270:15 274:3 | 231:4 232:16 | 370:5,6 | 221:7 233:20 |
| 309:12 310:4 | 275:18,21 276:13 | 259:22 296:8 | bays 353:17 | 250:15 255:16 |
| 314:7,18 321:12 | 276:14 282:17 | 313:3,18 315:19 | beaches 155:7 | 257:9 259:14 |
| 338:13 346:21 | 286:11 290:22 | 318:3 319:19 | beat 154:14 | 293:11 300:4 |
| 378:4 | 292:5,5 293:20 | 323:7 325:18 | becoming 142:1 | |
| avenue 68:20 | 294:9 295:13,15 | 326:8,17 327:17 | began 155:2 | |
| average 39:16 42:8 94:8 157:5,6,11 | 302:9,10 305:11 | 328:18 329:2,14 | beginning 14:8 133:6 229:4 | bet 133:6 |
| 164:17 246:15 | 314:10 321:16 | 332:17 333:17 | 279:21 341:16 | beta 377:3 380:8 |
| 369:18 372:1 | 322:5 345:6,16 | 334:7 335:13,19 | begins 131:3 387:11 | better 10:12 31:7 59:20 71:6 83:19 |
| avert 241:16 | 347:2 362:22 | 350:21 363:13 | behalf 119:10 | 122:2,16 125:13 |
| avoid 28:2,6 32:10 60:12,16 73:16 | 363:15 373:13,17 | 364:18 366:22 | behaved 199:20 | 126:16 131:2,20 |
| 95:8 202:10 217:9 | 381:18 387:3 | baselines 141:19 | behavior 190:16 | 161:20 175:21 |
| 280:4,7 288:10 | background 376:20 | basic 125:15 211:14 | behooves 374:4 | 176:5 200:12 |
| 289:16 | backs 282:16 289:19 | basically 3:6,15 5:8 10:2 11:1,6,12,22 | Beideman 81:11,11 183:7,7 246:6,6 | 212:12 230:20 |
| avoidance 275:3 | backwards 81:19 | 13:19 14:1,15 16:8 | 385:9,9,10 | 231:7 239:8 |
| avoided 224:10 | back-stopping 26:6 27:5 | 16:22 17:6,10,22 | beings 251:10 | 248:15,16 256:18 |
| aware 136:21 286:21 344:13 | Back/Group 2:12 | 19:14,19 21:19 | belabor 331:14 | 328:13 338:1 382:13 |
| 345:4 363:22 | bad 55:1 80:18 81:5 150:18 153:5 | 24:12 25:1,17 26:5 | BELCHER 61:5 | beyond 71:22 279:9 |
| awareness 139:11 | 176:12 220:18 | 26:16,19,22 27:22 | belief 243:18 | big 13:19 79:22 97:17 138:2 |
| awful 272:12 280:1 | 237:16 247:15 | 30:18 31:20 32:1 | believe 68:1,13 72:5 107:3 111:17 | 152:10 153:14 |
| axis 12:22 | 269:1 | 42:15 43:7,17,19 | 127:12 134:10 | 201:12,20 217:6 |
| | bag 34:18 37:12 116:17 193:10 | 43:21 45:20 47:5 | 139:18 152:22 | 220:20 237:20 |
| | bait 256:3 | 48:7 53:18 54:19 | 163:11 165:1,11 | 241:5 243:17 |
| | balance 98:14 141:7 183:15 184:10 | 57:19 60:6 65:1 | 165:16 201:6 | 245:14,22 246:2 |
| | ban 55:3,21 142:4 253:9 | 73:17 86:2,19 | 251:9,11,22 263:5 | 260:15 289:19 |
| | banker 301:19 | 153:10,12 159:22 | 263:20 264:4,16 | 303:10 382:12 |
| | bankrupt 197:6 | 172:6 180:5 | 267:4 284:21 | bigger 188:6 189:3 200:22 242:18 |
| | | 181:16 183:8 | 285:20 287:7 | biggest 137:10 176:20 200:14 |
| | | 189:15 199:21 | 354:15 381:10 | |
| | | 202:1 212:10 | believing 174:7 | |
| | | 256:4 261:16 | Belize 285:3 304:1 | |

| | | | | |
|---|--|--|--|--|
| 263:6,20 265:20 280:3,9 Bill 85:16 86:13 113:11 117:4 122:21 123:1 128:7 266:1 273:20,22 278:6 281:21 292:9 305:9 347:13 350:14,16 353:19 billfish 277:17 291:18 297:12 310:11 bind 118:22 Biological 44:3 biologist 320:18 biology 150:9 224:18 birds 263:10 277:16 bit 15:21 100:22 105:7 118:3 154:7 170:11 173:7 178:3,7 179:4 182:13 188:4 206:4,14 217:4 221:21 228:8 240:17 247:17 248:12,13 272:9 292:11 300:19 302:19 312:13 337:22 342:6 345:18 361:11 368:12 375:1 382:6 bite 291:2 bivalves 163:7 bi-monthly 27:17 29:16 black 4:13,14 6:12 6:16,18,20 7:2,4 107:15 264:13,15 blacknose 352:17 blacktip 17:4 47:16 53:3 80:15 88:2,3 88:14 89:11 96:1 99:3 101:9 106:3 107:16,16 123:7 132:4,18 143:6,20 | 148:22 167:2 174:7 201:11 209:11 221:22 223:3 237:2 238:14 310:17 327:16 blacktips 50:20 74:6 76:4 80:10 82:21 88:7 101:20 102:1,4,12 105:9 115:1 136:15 137:3 138:14 149:17 197:16 222:1 224:6,8 blacktip/spinner 105:6 blame 155:13 blank 295:12 BLL 104:2 block 288:6 338:17 339:14 367:2 bloody 368:5 blue 17:17 35:6 112:2,4 297:20 341:10,12 384:16 385:3 bluefin 220:16 268:10,18 279:18 279:22 280:5,6 305:4 325:3 328:17,21 329:6 329:12,19 330:11 330:21 331:16,18 332:5,9 333:2 335:12 336:12 337:21 338:5,10 338:20 339:6,10 340:14 348:18 354:4,13,22 357:14 358:5 359:16 360:19 363:1 364:4,15 365:6,22 366:2 368:15 370:22 371:18 375:9 378:6 382:8 384:19 385:4 387:21 | bluefin's 354:16 blues 14:21 Bluewater 118:13 board 21:13 47:21 73:13,18,22 84:8 120:20 139:7 145:9 188:14 189:1 287:20 315:4 324:11 boards 73:1 boatps 212:16 boat 48:1 65:9 73:1 78:17 81:22 93:5 152:15 187:18 193:7 212:3 213:15 219:20,22 236:16 237:3 244:2 295:14 boats 24:8,16 42:3 47:11,12 49:6 94:12 104:19,20 157:9 184:22 211:10 218:4 244:20 255:1,10 261:10 274:19 277:9 281:7 284:10 296:12 Bob 67:6 83:12 98:5 102:22 103:2 107:3 109:13 132:11 214:12 223:17 224:13 body 203:14 bona 290:16 Bonfil 88:22 bonnethead 34:14 bonnetheads 35:3 bonus 61:19 booklet 262:1 bore 276:12 boss 87:15,16 bottom 25:18 26:7 27:6 104:21 215:22 312:4,8 328:6 341:5,14 343:1 348:12 352:15 379:10 bought 199:14 | bound 223:21 boundaries 283:15 307:15 311:12 315:15,19 316:9 318:3,10,12 319:15,17,19 320:11,12,22 322:3,19,20 323:6 323:20 324:1,4,6 325:21 329:13 330:14,16 331:9 333:9,12,21 334:3 334:6 335:7 344:6 344:14 346:14 347:2 349:7 376:12,18 377:1,3 377:5 378:3,7 379:11,13,16 boundary 317:4,11 317:13,15,22 319:6,12 321:5 324:5 325:20 332:10 334:8,9 335:3 346:15 351:7,7,14 376:18 377:11,13 378:12 bounds 262:10 350:10 Boustany 338:16 339:2,14 386:20 386:20 Boustany's 339:22 box 299:9 boy 350:7 Bransteader 85:3 Brazilian 369:2 break 64:1,2 82:15 83:8 84:4 166:11 169:5,20 170:14 170:18,20,22 172:8,9,17 202:20 208:18 252:20 305:17,19 319:20 319:21,22 339:7,8 361:10 373:14,16 breakdown 136:22 138:6 321:20 breaking 64:3 | 170:15 208:10 246:20 247:1 249:18 breakout 2:9 64:4 94:13 109:17 166:4,5,13 167:1 169:7,9,12,16,22 170:3,5 171:10 172:22 breakouts 169:1,22 170:2,7,19 171:6 172:19 272:8 breaks 317:8 319:5 320:2 329:16 breath 197:9 breeders 355:2 Brent 85:2 brief 271:7 306:4 307:19 327:14 briefly 305:21 307:16 377:15 bring 5:3 85:21 89:2 159:9 197:18 219:10 247:13 252:22 276:12 302:11 357:4 364:9 bringing 116:22 240:20,22 241:1 276:14 294:9 brings 359:10 broad 141:6 broadly 318:12 broke 88:10 252:8 305:17,18 311:1 broken 45:21 brokered 86:14 Brooks 150:21 brought 85:2 87:3 89:21 94:21 114:22 115:2 179:15 209:18 213:5 247:11 253:2 brown 341:11 brownie 217:1 brunt 276:12 Bs 66:19 |
|---|--|--|--|--|

| | | | | |
|-----------------------------|-----------------------------|----------------------------|----------------------------|----------------------------|
| bucks 255:21 | bycatch 31:8,11 | captain 236:15,20 | 121:12 219:6 | 137:12 152:12 |
| buffer 316:11,18 | 48:2,3 92:13,18 | captains 107:12 | 227:20 232:2,7 | 155:7 182:11 |
| 351:9,11 356:15 | 97:18 98:1 134:1 | carcass 51:12 84:1 | 244:11 279:22 | 194:22 196:16 |
| built 86:4 92:11 | 143:16 158:11 | 84:7 85:19 92:22 | 335:4 336:5 | 204:11 207:9 |
| 93:21 252:17 | 161:13 164:4,9,20 | 93:13,14 95:4 | 355:12 | 222:13 237:7 |
| bulk 196:14 212:6 | 221:4 223:12,12 | 122:8 153:17,18 | catch 5:13 6:4 17:5 | 247:4 293:3 315:2 |
| bull 53:3 96:2 | 224:9,10 274:16 | 173:5 188:8,11 | 17:7,10 35:13 | 315:3 350:8 |
| 105:16 106:22 | 275:3 287:10 | 191:4,11,21 192:5 | 47:14 50:15 77:11 | 356:18 358:17 |
| 108:11 132:4,18 | 288:10 290:16 | 203:3 205:14 | 92:17 96:10 106:9 | 359:9 |
| 174:7 201:12 | 291:17 292:18 | 206:15 207:11 | 111:22 112:4,9 | causative 156:21 |
| 209:11 | 298:11,14,20 | carcasses 93:15 | 133:19,22 142:14 | cause 46:12 56:8 |
| bullet 94:7 186:20 | 299:3 301:5 | 158:1 207:13 | 149:12 150:14 | caused 135:15 |
| 192:9 197:9 | 303:20 384:16,21 | 255:17 | 164:16 165:3 | 140:1 308:3 |
| bullets 197:8 351:18 | | care 255:5 261:9 | 167:3 177:16 | cautious 224:19 |
| bulls 107:1 | C | 279:4 281:1 | 193:9 195:8 | caveat 203:21 |
| bump 28:3 | C 3:1 | careful 165:10 | 196:14 201:20 | 294:21 313:16 |
| bunch 126:9 | calculated 16:15 | 291:14 303:19 | 221:20 240:16 | caveats 221:17 |
| buoy 287:5 295:10 | 82:7 141:22 | Caribbean 26:17 | 245:6 264:3 | 228:12 |
| 298:17,22 | call 86:9 92:11 | 50:22 115:7,9,11 | 266:11 274:20 | CDs 45:16 |
| burden 125:21 | 183:10 185:9 | 377:21 | 275:17 276:1,17 | CEFAS 87:6 |
| 224:3 | 253:11 254:9 | Carlson 103:19 | 277:3,5 279:13 | cell 219:8 316:13 |
| burgeon 134:11 | 343:13 366:1 | 335:20 | 281:7 284:8 | 319:7 329:13 |
| Burgess 146:18,18 | called 16:21 99:20 | Carmichael 91:6 | 287:11 289:9 | 351:12 |
| 151:21 152:3,6 | 137:1,1 221:5 | Carolina 26:22 43:1 | 290:9 291:4,15 | cells 316:7,8,12 |
| 154:4 156:12,18 | 377:16 386:9 | 43:3 83:15 85:8,17 | 292:16,16 294:5 | 318:14 319:6,20 |
| 157:19 158:13 | calling 231:17 317:3 | 96:15 129:20 | 294:19 295:8 | 322:11,13 323:13 |
| 159:19 160:7 | cameras 148:16 | 135:21 136:1,14 | 299:15 327:11,21 | 328:18,20 329:11 |
| 216:18 | Campaign 97:11 | 189:20 198:3 | 330:1 358:12,19 | 329:14 351:5,8 |
| business 88:16 97:8 | Campana 68:12 | 206:9 241:21 | 368:3 387:18 | Center 67:21 68:1 |
| 97:13 121:12 | 87:4 | 243:22 271:12 | catchability 363:18 | 87:7 88:3 111:16 |
| 175:3 196:4 | Canada 55:18 68:9 | 365:18 368:21 | catches 173:15 | 267:22 268:4,9 |
| 199:21 300:5 | 112:12,14 113:3 | 370:11 371:1 | 216:13 328:4,6 | 333:7 374:15 |
| businesses 88:5 | 367:15,16 | 383:2 | catching 25:3 73:16 | centered 297:15 |
| businessman | Canadian 52:11,12 | carry 185:5,5 | 77:9 112:1 137:20 | centimeters 318:18 |
| 301:14 | 68:16 281:7 371:7 | carrying 225:20 | 188:17 239:21 | 322:15 385:13,19 |
| busy 67:8 | 371:8 | 241:6 | 277:3 283:17 | 388:2,4 |
| button 380:22 381:4 | Canadians 4:18 | carryover 19:4,8 | 287:15 289:18 | central 298:13 |
| buy 50:5 56:15 | 7:19 | carve 169:2 362:18 | 303:14 371:20 | 387:8 |
| 65:21 207:22 | capacity 127:9 | case 120:14 126:16 | categorically | cents 188:20 |
| buyer 64:20 | 286:18 295:5 | 147:14 213:19 | 368:13 | century 190:16 |
| buying 56:16 65:8 | cape 111:21 133:21 | 219:21 224:4 | categories 356:22 | 192:7 219:11 |
| 65:17 | 136:2,4,11,14 | 244:9 258:11 | categorize 315:5 | 226:8 |
| buyout 56:9,11 | 329:19 370:5,6 | 315:7 322:11 | category 194:15 | certain 77:10 86:16 |
| 126:16 127:7 | capital 300:22 | 328:18 337:6 | 215:21 293:6 | 97:12 164:8 |
| 174:20 | 381:11 | 338:10 348:21,21 | 294:16 | 169:15 197:4 |
| buys 66:2 | capitalization 284:4 | 351:1,10 358:4 | caudal 191:9 | 215:3 222:11 |
| buy-back 195:20 | 295:4 | 381:8 382:1 | caught 33:19 88:8 | 224:7 229:1 |
| 197:3 | capricious 262:20 | cases 70:9 85:4 | 111:12 112:13 | 230:22 240:14 |

| | | | | |
|---|---|---|--|--|
| 256:10 317:4 328:2 359:18 360:11,11 certainly 105:12 106:20 118:14 133:21 135:5 176:11,13 227:4 227:11 242:16 253:11,20 290:16 298:6 302:15 348:17 356:8 358:22 363:6 385:4,5 certainty 301:15,16 330:6 certification 297:17 certified 110:22 297:21 cetera 5:10 96:7 217:20,20 218:8 219:9 CFR 199:16 Chair 130:8 Chairman 87:5,14 challenging 334:2 chance 73:12 79:1 178:11 235:22 242:5,22,22 252:12 272:10 306:12 376:7 chances 275:13 change 15:20 18:5 19:2 34:18 51:19 70:4,5,7 114:6 124:7 149:4 190:13 191:15 246:5 262:15 270:6 358:21 360:18 361:17,20 changed 115:18 199:20 266:16 changes 165:14 306:17 311:12 321:10 361:4 changing 5:17 14:3 14:5 channels 261:6 Chapter 13:12 41:3 | 90:1,2 character 132:12,13 characteristics 195:7 charge 169:11 206:9 258:13 charged 257:4,6 258:8,17,22 259:21 Charitable 385:10 Charleston 129:20 chart 171:19 172:3 285:17 charter 54:4 107:12 202:10 236:14 274:19 281:6 375:9 charter/headboats 215:20 charts 172:5 check 71:6 72:14 Chesapeake 131:14 310:12 Chicken 271:9 child 262:6 265:12 chlorophyll 337:20 339:3,5 choice 188:10 205:15 222:7 choose 68:20 77:21 247:7 262:21 263:13 chose 75:21 197:17 257:14 chosen 77:18 98:21 Chris 95:11 306:3 345:19 347:15 350:17 354:1 357:19 363:8 374:22 375:21 381:22 386:7,18 chunks 152:14 CIE 87:6,10 circle 275:3 280:17 287:8,18 288:8 297:11 298:22 304:3 circular 351:3 | CITES 144:8 City 97:1 147:15 236:13 clarification 63:5 109:16 216:1 clarify 23:6 28:12 102:11 123:13 178:2 183:5 207:6 382:5 384:9 clarifying 44:10,14 classification 137:16 classifications 137:21 Clay 119:10 clean 21:7 34:1 78:12 84:17 214:9 259:17,19 cleaned 25:10 75:1 132:16 267:15 cleaning 81:20 84:16 clear 75:11 76:8 78:7 99:1 109:2,5 109:8 126:6 162:3 162:7 223:5 298:21 388:13 clearly 105:14 126:14 220:8 269:2 320:10 371:1 click 377:17 378:4,6 378:15 379:5,11 380:21 381:3 clicked 378:14 clicking 378:11 close 11:9 32:1,14 32:16 33:14 37:5 46:15 100:11 112:6 113:8 220:10 231:13,13 232:18 368:5 371:11 closed 26:17 32:3 33:14 46:13 131:10 150:15 175:11 183:12 198:2 220:9 227:2 | 245:21 265:19 274:15,16 275:2 280:16,20 282:18 290:4,13 291:16 292:18 293:18,20 299:8 363:20 closely 130:16 323:19 342:18 371:16 closer 248:13 closest 178:15 closing 12:14 33:1 50:11 60:9 185:3 230:17 235:7 383:16 closure 48:7 60:15 81:15 174:20 182:17,18 220:11 231:22 232:13 closures 25:15,19 25:22 26:11,20 129:8 175:12 233:13,16 372:4 cluttered 346:12 Coalition 353:22 coast 134:9 199:9 199:11 209:22 283:10 291:2 320:14 322:22 330:18 332:10,13 364:1 376:16 379:19 coastal 4:8,20 5:16 5:18 14:2 15:17,18 15:22 16:19,20 20:3 22:7 28:14 30:20 31:1,5 68:11 131:15 134:21 142:19 143:4,8,22 155:6 161:19 163:19 165:7 193:9 194:11 222:14 223:10 224:5 225:5 282:22 302:6 316:10 337:6,12 352:8 353:6,15,16 383:4 | coastals 14:4,18,19 16:22 17:17 20:4,7 20:15 22:5 23:2 32:15 36:12 39:4 82:12 83:5 225:19 246:18,18 cobia 242:3 244:2 Cod 111:21 370:5,6 coincide 131:22 171:20 cold 198:5 Colin 87:2 collapse 163:3,6 collapsed 134:22 colleagues 338:16 collect 15:7 49:4 121:11 313:22 327:18 collected 18:18 311:5 314:18,22 collection 111:16 175:21 177:3 200:11 226:20 287:20 295:10 311:5 Collier 199:11 color 306:19 column 312:5 combination 82:7 156:5 302:6 combine 9:19 123:4 combined 20:7 123:5 302:8 379:16 combining 123:10 come 5:3 20:19 23:8 28:13 48:1 69:11 71:1 77:7 78:13,16 84:19,21 88:22 89:8,10,11 95:20 97:19 99:9 112:7 117:15,21 128:6 128:11 131:18 152:21 153:7 155:19 169:21 170:22 172:3 174:19 176:21 182:1 188:1 |
|---|---|---|--|--|

| | | | | |
|---|--|---|--|---|
| 193:13 196:6 218:19 219:4 226:14 227:7 231:7 247:3 257:9 261:5,14,17,22 263:3 264:9 266:9 279:12 284:22 288:22 289:4,20 303:1,17 307:13 337:9 347:17 372:16 373:17 comes 66:1,1 75:5 90:12 133:5 147:11 172:21 191:5 192:1 206:3 219:22 246:4 255:12 275:10 312:12 coming 16:3 44:13 69:19 71:20 106:12 114:11 136:19 137:11 160:22 194:3 212:7 268:7 274:3 288:4,6 330:1 333:9 337:16 366:9 commas 197:10 commend 163:8 363:9 comment 2:7,21 4:3 32:8 35:8 45:5,11 45:15 47:4 50:14 53:1 63:9,20 64:7 64:12,14,16 81:3 88:1 96:22 99:11 102:8,21 109:14 109:17 117:10,13 117:14 118:1,10 126:1 127:18 129:12 133:16,17 135:20 150:19 160:22 162:17 165:20,22 166:1 166:18 168:2,19 209:19 224:21 226:10 236:8 300:11 310:2 | 318:7 343:12 347:6 365:21 372:21 commented 46:5 48:15 comments 2:5 4:2 45:14,17,22 46:18 47:2,5 48:6 49:5 49:12,17 50:8,10 51:4,8 52:1,13 53:3 54:21 55:9 56:4 57:20 66:17 85:14 98:7,20 108:18 109:12 117:8,18 122:18 125:12 128:4 129:2 130:18 134:3 147:3 160:20 166:5,9,20 166:22 167:1,4,10 167:12,18 178:8,9 194:4 214:1,10 221:17 222:21 240:5,12 241:22 254:2 268:22 269:7 285:17 291:21 302:19 304:16 306:13 309:13 316:18 324:21 335:15 338:1,2 344:20 345:8,10,11,20 348:16 363:7 381:19 384:1 Commerce 1:2 282:8 285:1 commercial 11:10 13:4 14:9,17 16:10 19:19,21 26:18 30:18 33:4 34:6 35:15 38:6 46:20 49:4 53:15,16,17 53:19,22 55:3 56:5 56:9,11 66:12 88:8 88:16 95:21 99:18 100:8 116:16 123:10,15 134:19 139:14 141:13 | 143:22 150:1,13 151:19 153:7,9,22 155:13,20 157:12 158:6 159:16 164:17 179:1,9 181:3,13 182:8,12 200:4 201:8,9 221:2 234:19 235:8 239:12 242:11 274:18 287:7 292:15 297:20 299:21 Commission 113:13 130:9 131:9 144:6 252:1 commitment 126:2 126:11,18 127:4 committee 68:17 119:16 130:9,20 132:7 304:20 committees 266:14 common 35:5 240:16 241:11 348:1 community 119:8 121:21,22 151:7 253:19 257:22 263:22 278:20,21 301:19 company 66:11 compare 322:19 328:4 compared 328:5 361:12,16 compares 13:12 comparison 13:15 27:21 324:6,7 compel 91:13 204:5 compelling 243:18 competitiveness 297:3 complementary 130:14 complete 343:20 completed 311:2,21 completely 138:2 371:4 complex 4:9 5:15,16 | 5:18 15:22 16:18 16:19,20,21 80:21 143:5,19 161:19 163:19 165:7 362:12 complexes 13:18 15:16 19:13 233:8 complexity 296:9 compliance 114:14 185:16,21 186:6 288:5,7 complied 186:1 comply 120:8,13 122:6,10,14 182:21 187:5,13 193:9 250:10 component 96:6 135:1 138:15 153:6 375:6 composition 138:19 comprehensive 109:6 290:11 314:13 318:19 332:20 353:13 366:5 comprehensively 314:17 315:18 371:4 comprised 10:1,18 compromised 93:18 116:22 computer 212:18 319:22 333:15 concentrate 234:2 concentrated 359:17 concentration 286:1 340:5 370:14 concentrations 339:3 371:1 concept 141:11 224:12 concern 94:14 97:2 105:16 106:11,18 108:4 142:15 143:14 163:16 179:1 213:4 221:3 | 221:8 223:1,11,22 225:8 238:22 281:20 308:20 336:15 337:2 338:4 339:19 340:14 341:7 344:13 349:2 354:7 360:6,7 364:20 369:6 382:10 concerned 115:20 133:4 161:13,22 162:2 239:17 249:2 253:21 concerning 179:6 concerns 143:7 146:10 161:11 162:9 187:11 221:17 249:17 297:20 344:22 concession 283:8 conclude 228:17 concludes 128:3 conclusion 227:8,11 conclusions 368:18 concurrent 357:16 concurrently 356:2 condition 275:19 387:4 conditions 30:6 conduct 15:8 48:20 61:14 211:1 conducted 44:5 55:18 67:21 87:19 confirmed 223:15 conflict 86:20 87:13 87:18 conflicts 367:21 confounding 327:2 confuse 106:1 confused 105:11 106:4 108:12 382:7 confusion 105:11,12 107:4 387:1,2,21 388:6,7 conglomerate 82:8 Congress 70:3,7 |
|---|--|---|--|---|

| | | | | |
|--|---|--|---|---|
| 118:18 119:3,4 120:2,3 121:17 191:15 195:3 205:9 246:5,7,13 250:8 256:21 258:5 260:17,17 262:18 266:19 267:3 270:4,6,8 connected 341:16 connection 123:12 349:17 352:12 376:4 cons 58:14,18 98:15 100:17,21 180:16 consensus 178:22 182:1 221:11 227:6 consequences 56:8 112:22 144:16 Conservancy 108:22 139:9 222:19 conservation 56:20 113:13 139:12 144:6 175:22 176:8,19 223:10 276:14,16 280:20 282:12,13 293:2 293:11 307:22 308:5 353:22 376:10 380:9 382:13 conservative 318:1 conserving 304:2 consider 13:19 23:22 50:11 51:13 55:21 56:21 60:19 122:12 123:5 211:4 336:17 348:15 360:4 370:1 386:5 considerable 322:21 considerably 123:17 322:17 consideration 115:21 145:12 217:4 229:11 | 359:11,15 considerations 336:17 338:9 345:4 considered 46:2,3 48:2,10 56:10,12 141:3 198:18 217:18 284:3 299:19 348:4 385:20,21 considering 23:19 27:20 34:19 51:9 143:18 147:22 184:16 310:18 317:1 338:3 343:15 359:21 considers 126:19 consistency 73:19 116:21 consistent 116:12 133:11 177:2 254:3 324:10 361:15 consistently 249:1 consists 5:1 consolidated 3:4 311:3,11 312:1,16 378:19 conspiracy 263:15 constrained 110:8 consult 372:15,18 consultation 173:3 consultations 372:6 consultative 384:4 contact 345:9 contacted 356:4 357:6 content 374:13 CONTENTS 2:1 context 367:9 continental 365:5 continue 18:21 50:2 55:2 110:13,14,17 111:3 168:20 201:14 305:13 362:19 continued 142:18 161:22 249:9 | continues 125:10 163:22 continuing 125:15 223:2,2,6 contour 325:19 334:18 347:3 contrast 148:21 contributed 322:2 control 93:2 187:10 193:15 249:19 250:2 251:13 277:19 279:1,2 288:3,5 383:21 Convention 367:22 conversation 171:21 362:19 conversion 189:12 189:12,16 190:7 190:13 conversions 191:20 cool 188:1 214:6 cooperate 89:15 cooperation 175:21 Cooperative 330:4 coordinate 314:21 coordinated 67:22 coordinates 333:22 coordinating 376:11 coordination 172:1 coordinator 91:4 copies 375:17 copy 79:15 89:22 157:2 306:9 307:1 348:5 coral 341:10,12 342:10,12,14 365:9 core 93:2 339:7 corner 208:17 292:5 corollary 104:8 correct 65:20 79:19 79:22 84:1,3 89:4 93:5 157:22 159:15 178:3 180:22 243:13 367:12 381:7 correctly 350:19 | correlations 338:19 338:21 339:4,10 corridor 364:3 Cortes 150:21 costs 215:10 cost/benefit 217:14 council 26:14 27:4 36:17 95:11 98:14 123:2 162:20 251:21 297:17 342:5 348:2 353:1 355:16 357:6 councils 31:12 Council's 26:2 198:19 233:15 349:4 Counsel 122:11 count 191:7 274:12 316:7,8 318:14 319:5,5,20 322:11 322:13 323:13 328:18 329:11 351:5 counted 28:14,22 29:20 33:21 37:9 255:10 countercurrent 339:8 counting 205:12 259:2 countries 56:19 112:20 144:10 227:22 250:1,4 276:15 277:2,19 279:4 282:11 285:2,2 288:4,7 289:2,7,12,13 290:1 291:12 293:10 295:6 303:2 country 276:12 277:14,21 284:1 368:7 county 199:9,9,11 County-Monroe 199:11 couple 61:6 66:21 67:14 70:1 79:10 | 79:17 80:3 130:18 137:17 166:14 181:20 183:15 184:14 199:3 204:18 211:3 241:22 242:5 254:7,11 256:5 260:5 266:3 274:9 278:4 283:19 300:12 301:10 302:18 350:17 359:10 369:14 383:22 course 125:12 149:8 150:10 159:3 179:1 243:9 283:22 300:13 333:7 360:13 373:4 court 78:3 87:11 courts 71:9 cover 100:18 101:2 104:10,13,21 208:18 362:4 coverage 30:8 69:4 103:15,16,19,21 104:6 147:9,21 215:12 364:13 covered 65:16 217:9 217:21 covers 359:2 361:21 CPUE 327:10,16,22 328:9 343:21 358:1,22 CR 7:10 210:11 crack 267:21 cracking 234:7 create 102:3 219:8 249:5 269:6 286:10 316:12,14 317:3,13 333:5 334:7 356:11 created 87:7,8 102:6 275:14 316:3 334:17 creating 220:21 294:15 319:6 324:3 346:10 |
|--|---|--|---|---|

| | | | | |
|--------------------------|---------------------------|----------------------------|-----------------------------|----------------------------|
| 351:15 | 35:2,19,21 36:16 | 247:11 254:15,18 | dates 185:15 232:14 | dealers 27:18 28:4 |
| creative 249:22 | 38:4,7,16 39:5,13 | 254:20 256:21 | dating 314:10 | 28:19 29:17 43:2 |
| 250:10 | 41:13,21 44:12 | 257:7 259:14 | 321:16 | 49:12,16,19 50:3,5 |
| crediting 287:21 | 71:9 79:19 80:20 | 261:15,20 264:19 | Daughdrill 123:1,1 | 53:11 56:16 59:21 |
| criminalize 86:3 | 81:6 104:20 105:2 | 267:12,13,15 | day 32:7 82:19 | 65:21 114:2 126:9 |
| criteria 23:18,21 | 110:6 111:6 114:8 | 268:13,14,14 | 85:11 146:12 | 187:12 188:11 |
| 59:14,18 100:12 | 124:5 130:7 200:5 | 269:3 271:8,15,16 | 216:12 251:2 | 192:13 196:12 |
| 124:21 210:16 | 253:7 281:17 | 287:19 295:10 | 373:21 381:21 | 207:21 218:22 |
| 214:20 215:3,7 | 301:18 367:13 | 307:13 310:21 | days 27:16 29:14 | 230:6 231:15 |
| 216:5 218:1 230:1 | currents 341:22 | 311:5,6,7,8,9,10 | 30:15 36:22 49:14 | 234:7 |
| 303:6 336:16 | cursor 195:6 342:9 | 311:15,16,18,19 | 81:14 113:17 | dealing 70:11 97:13 |
| 348:1,3,5 354:9 | curve 333:17,17 | 312:19,22 313:4 | 114:9 182:20 | 183:17 201:11 |
| 355:9 | cut 72:14 117:9 | 313:17,18,20,21 | 212:22 213:6 | dealt 268:18 |
| critical 280:11 | 152:14 153:14 | 314:2,2,7,9,11,16 | 214:3 232:7 264:3 | Dean 271:19 |
| 354:18 364:2 | 154:1 158:1 192:2 | 314:19 315:11,12 | 372:2 | death 154:14 |
| 382:8 384:6 | 192:4,6,18 207:10 | 315:17,19 317:8 | de 44:4 | debate 289:16 |
| criticism 205:1 | 260:12 271:4 | 318:20 319:13,16 | dead 47:22 132:15 | 366:21 |
| crossed 371:2 | 362:16 | 320:1,2,9,13 | 146:14 155:20 | decade 107:8 |
| crowd 236:17 | cutbacks 57:1 | 321:11 322:1,9,9 | 164:18 247:20 | 240:16 |
| cruel 145:18 | cuts 129:7 142:13 | 324:2,7 326:10,15 | 248:1 291:6 | decades 142:2 165:9 |
| cruise 257:12 | 207:15 333:12 | 327:16,17,19,22 | deadline 195:10 | 244:1 355:4 387:1 |
| crux 77:14 258:16 | cutting 69:20 | 328:10 329:1 | deadlines 195:14 | December 31:17 |
| cryptic 96:13 | | 330:3,7,19,20 | deal 43:6 83:20 87:5 | 134:6 150:8 |
| crystal 76:8 | D | 331:8,11,18 332:4 | 87:6 93:1 96:17 | 194:11 199:19 |
| cull 94:2 | D 3:1 | 332:7,17 333:4,18 | 121:7 148:15 | decide 69:1 |
| culturing 355:19 | Dade 199:8 | 338:12 339:15,16 | 197:14 198:12 | decided 181:2 183:8 |
| cumulative 10:4 | daily 268:6 | 339:18 340:6 | 201:12 241:18 | decision 194:13 |
| 41:4 | damage 112:11 | 341:15 343:21 | 250:1 281:18 | 199:2 209:8 |
| curb 17:22 | 279:22 | 346:13,17,18,19 | 374:17 383:20 | 251:20 |
| curious 349:7 | damn 263:6 265:21 | 347:2 348:6 | 386:6 | decisions 100:2 |
| current 3:16,21 | dangerously 141:18 | 357:22 361:3 | dealer 27:13,22 | declaration 196:8 |
| 11:7 14:20,22 | dark 321:2 | 362:7 363:14 | 29:11 30:14 36:21 | declarations 127:14 |
| 18:16 25:17,21 | darn 206:13 | 364:12 369:21 | 44:10,15,18 49:18 | declare 57:3 |
| 26:11 27:3,12,13 | dart 193:11 | 370:9,22 387:7,14 | 49:22 50:4 59:19 | decline 134:18 |
| 37:16 43:8 50:4 | data 4:22 5:3 49:4 | database 88:8 | 60:2,4,7 65:2,5,14 | 135:15 |
| 58:15,18 60:8 | 52:18 55:12,14,15 | dataset 135:13 | 65:16,17,18,22 | declined 135:4,12 |
| 62:10,14 66:18 | 77:9 89:2,3 91:7 | 154:6 314:13 | 66:1,6,18 113:16 | 135:14 |
| 110:5 140:8,19 | 91:20 111:16 | 321:16 322:16 | 113:22 114:8 | declines 141:20 |
| 150:12 164:21 | 137:12 138:7 | 323:4 326:10 | 121:2 144:13 | 165:9 223:20 |
| 165:14 180:17 | 145:21 152:7,11 | 332:20 358:6,9 | 152:17 153:13 | declining 139:19 |
| 193:3 235:5,10 | 152:21 153:3 | 361:1,8,12 362:2 | 192:17,21,21 | decrease 301:6 |
| 237:15 249:18 | 154:16 157:8,13 | datasets 154:4,15 | 203:4,5,7,12,20 | deduct 90:17 |
| 309:6 339:9 | 158:15,20 159:8 | 159:3 160:1 328:2 | 207:14,14,16 | deducted 90:12 |
| currently 12:5 | 159:16,18,19,20 | 340:10 358:3 | 208:9 212:10,12 | 196:17 |
| 14:16 20:1 23:7,16 | 159:22 175:21 | date 2:5 7:21 45:15 | 213:10,11,14,18 | deemed 8:2 182:16 |
| 26:13 27:10,18 | 177:2 194:5 | 143:22 185:17,22 | 218:6 219:16,22 | deep 144:19 |
| 28:9,19 29:12 31:2 | 197:18 200:11 | 186:3 209:19 | 220:5,6 230:3 | deeper 145:1 |
| 31:14 33:6 34:8 | 226:19 232:17 | 232:19,20 344:21 | 244:11,12 277:10 | Defense 162:20 |

| | | | | |
|----------------------------|---------------------------|----------------------------|---------------------------|-----------------------------|
| definable 217:22 | deliverer 214:17 | designating 354:10 | Dewey 67:5,10,13 | 323:16,18 324:3,4 |
| defined 66:15 286:8 | demand 297:22 | 360:4 | 73:5 75:7 82:5 | 324:13,14,15 |
| 318:12 351:22 | 356:17 | designation 355:8 | 83:6 94:21 125:10 | 327:5,18,20,21 |
| 352:5,13 354:5 | demonstration | 383:14,19 | 138:1 139:4 | 334:20 343:20,21 |
| definitely 87:16 | 224:9 | designations 349:1 | 157:21 171:8 | 355:19 360:19,21 |
| 162:9 201:13 | denied 144:7 | 349:15 363:16 | 180:22 210:17 | 361:14 363:17,18 |
| 215:14 250:7 | dense 298:15 | 372:5 | 252:6,19 254:5,6 | 376:15 379:6 |
| 269:11 331:22 | deny 383:15 | designed 52:17 | 266:6 267:8 | 383:4 386:3,4,14 |
| 337:13 339:13 | denying 382:14 | 162:6 | 270:11 276:19 | differentiate 81:4 |
| 340:14 354:8 | Department 1:2 | desire 24:4 | 279:18 293:6 | difficult 82:3 148:9 |
| 366:13 371:6 | 124:13 282:6,7 | desk 306:8 | de-hook 44:9 | 149:7,18 209:8 |
| definition 44:14 | 285:1,1 | despite 7:14 | de-hooking 44:2 | 248:22 249:10,11 |
| 50:4 60:2 66:18 | dependent 36:12 | destroy 193:19 | diagram 51:18 | 319:3,14 321:1 |
| 83:21 219:15 | 110:3 154:17 | detail 9:11 11:20 | 57:22 58:4,6 78:15 | difficulty 99:6 |
| 222:4 230:8,9,12 | 234:3,10 337:18 | 109:3 194:4 343:8 | 84:17 179:6,11 | 148:20 |
| 366:18 | depending 23:3 | detailed 149:13 | 187:2,4 | dignify 96:22 |
| definitions 66:22 | 40:15 57:14 | 160:21 375:13 | Diana 139:5,7 | dimension 359:19 |
| definitive 352:12 | 313:21 324:16 | detailing 90:2 | 146:16 | dinner 362:21 |
| degradation 337:5 | 375:19 | details 20:20 | Diaz 387:17 | 373:17 |
| 365:3 | depends 110:21 | determination 5:18 | die 287:13 | dire 225:5 |
| degraded 141:19 | 232:4 275:11 | 6:9 312:2 313:8 | difference 99:3 | direct 141:8 157:16 |
| degree 78:18 187:15 | 288:14 | 343:3,7 | 101:12 108:15 | 180:7 353:6 |
| 337:8 372:12 | DePERSIA 111:10 | determinations | 149:16 153:20 | 383:21 |
| degrees 93:3 188:2 | 111:10,20 112:19 | 328:11 | 177:20 181:5,9 | directed 10:11 |
| 292:8 338:22 | 113:7 | determine 49:8 | 322:21 | 11:14 12:1 13:2 |
| 364:14 | depleted 53:18,19 | 58:20 231:2 | differences 130:19 | 16:7 20:1,9,11 |
| DEIS 3:12,20 9:2 | 55:2 143:17 | 232:10 340:22 | 262:17 | 21:15 22:1,4 23:4 |
| 13:12 310:1 | 144:21 163:13 | determined 7:3 | different 5:13 9:3 | 29:5 36:13 39:10 |
| 323:17 328:8 | 223:12,15 224:10 | 140:16 173:16,20 | 10:2,9,16,18 13:7 | 39:14 41:5,22 42:9 |
| 343:8,17 344:4 | 275:19 355:4 | 284:11 309:2 | 13:14 22:13 24:5,6 | 42:18,21 55:1 |
| 346:7,20 | depletion 249:8 | 352:15,17 | 30:2 35:4 45:21 | 58:11,12 83:14 |
| deja 272:10 | depth 331:20 | determining 114:14 | 51:13 57:7,16 60:9 | 86:4 92:8,15,16 |
| Delaney 117:5,6 | derby 216:11 | develop 98:18 145:2 | 67:2 109:17 | 93:20 94:3,9,13 |
| 118:13 226:21 | derby-style 46:12 | 165:5 207:12 | 123:19,20 138:8 | 97:15 104:17,18 |
| 252:21,22 357:18 | describe 127:19 | 215:4 217:5,22 | 138:20 153:1,15 | 110:5 112:17,17 |
| 357:19 | 308:1 333:21,22 | 267:2 333:11 | 156:10,11 181:7 | 126:7 133:22 |
| Delaware 131:15,16 | described 205:13 | 355:18 | 187:8 190:15 | 157:18 164:6 |
| 136:12 209:22 | 308:11,18 | developed 216:6 | 194:8 205:4 | 180:14 186:18,21 |
| 240:13 310:12 | description 377:13 | developing 130:10 | 206:16 207:7 | 193:6 229:15 |
| 320:15 | 378:11,16 379:1 | development 145:6 | 225:7 254:11 | 243:3,4 256:2 |
| delegation 282:5 | descriptions 310:7 | 274:22 337:11 | 256:4,9 257:18 | 260:6 284:14 |
| 284:20 | deserve 165:10 | 353:7 384:1 | 258:14 259:12,15 | directing 25:4 110:7 |
| delineate 316:9 | 226:8 370:17 | developmental | 260:19 263:12 | direction 81:18 |
| 326:17 | design 126:15 | 357:1 | 264:17 265:5 | 241:16 274:10 |
| delineating 319:12 | designate 361:7 | develops 260:11 | 269:11 270:10 | 301:13,15 350:11 |
| 343:14 351:6 | 364:19 | devices 299:2 | 274:10 282:20 | directly 356:4 357:1 |
| delivered 185:21 | designated 80:22 | devo 81:17 | 296:10 304:13 | 379:1 |
| 218:15 | 354:6 | devote 235:21 | 317:19 318:4 | Director 86:9 130:3 |

| | | | | |
|---|--|---|---|--|
| disadvantage 50:17 54:20 | displace 92:8 | doing 61:8 62:11,16 62:21 68:15 73:15 81:6 84:15 93:7 99:15,22 106:21 121:4 123:14 129:6 135:19 151:5 155:14 177:5 201:14 206:3 210:20 219:12 239:20,21 249:2 257:7 264:6 265:3 281:8 294:18 297:12 318:2 320:19 330:8 334:6,19 338:6 340:8 348:19,20 349:8 350:20 358:9 359:22 364:8 366:4 367:16,18 372:22 | 272:1,4,11,18 274:3 276:10 292:9 300:10,14 301:9 338:16,16 338:17 339:2,13 339:14,21 | 136:13 149:8 155:10 159:17,18 202:11 210:1,2 |
| disagree 291:22 | 18:13,19 46:6,9 55:8 | dollars 121:6 147:13 259:7 264:22 265:3 | 301:9 338:16,16 338:17 339:2,13 339:14,21 | dusky 4:17 7:7,9,12 8:13 18:6,17,18 39:6 46:8 47:15 67:15 86:7 89:10 108:12 133:19 135:4 137:4 138:13 143:16 149:7 150:20 152:9,13 153:7,11 153:14 155:5,16 157:21 160:3 161:13,16 163:9 163:20 164:4,9,12 194:20 202:2 223:15 236:19 237:17 238:21 239:3,22 243:5,12 310:17 |
| disagreement 293:18 | disposal 269:9 | dolphins 291:19 | draconian 126:14 | |
| disappeared 89:3 | disposition 157:22 | domestic 8:4 121:22 249:14 | draft 3:4,8,11 45:1 309:15 318:2 344:19 345:11 356:1 375:15 | |
| disaster 57:4 127:13 196:8,20 276:8 277:7 278:18 | disrupting 352:18 | domestically 119:9 | draw 118:8 199:8 199:10 | |
| disasters 127:9 | distance 323:9 | dominated 50:15 | dramatic 321:10 | |
| discard 30:20 48:4 92:18 161:15 | distant 287:2 298:8 302:7 | dorsal 21:5 101:14 101:15 191:8 | dramatically 323:2 | |
| discarded 158:12 288:1 291:5 | distinct 99:2 | dots 362:6 | drastic 141:20 | |
| discards 31:4,8 38:16 39:3,20 164:18 | distinguish 80:15 115:9,19 116:1,8 | double 295:3 | draw 118:8 199:8 199:10 | |
| discipline 169:14 | distinguished 179:2 245:11 | double 295:3 | drawing 360:4 | |
| discontent 316:20 | distinguishes 297:7 | doubt 136:15 155:1 | dress 51:16 58:1,5 85:9,18 95:3 187:3 188:3,19 189:21 189:22 192:2 | |
| discovered 96:14 114:10 | distributed 49:7 180:13 | Douglas 346:9 | dress 51:16 58:1,5 85:9,18 95:3 187:3 188:3,19 189:21 189:22 192:2 | |
| discreet 354:4 | distributing 380:11 | Doug 307:7 309:18 327:14 334:19 | dressed 6:5 16:2,12 18:9,13 20:2 24:17 38:21 39:17 51:5 179:14 189:13 369:18 | |
| discrepancies 261:3 | distribution 219:21 234:15 285:22 313:18 317:17 318:20 326:10 360:18 361:16 387:18,18 | domestically 119:9 | drill 172:4 | |
| discretion 18:20 190:22 204:4 | distributions 150:10 320:1 | dominated 50:15 | drink 197:8 | |
| discriminate 54:6 | divide 180:19 | dorsal 21:5 101:14 101:15 191:8 | drive 140:14 | |
| discuss 66:19 167:17 | divided 58:11 | dots 362:6 | driven 114:6 | |
| discussed 175:1 179:20 209:7 220:13 246:11 247:2,17 297:1 313:11 | Division 307:10 345:10 | double 295:3 | drop 179:19 189:4 | |
| discussing 66:16 | DNR 241:21 | double 295:3 | dropdown 378:2 | |
| discussion 2:12,21 119:15 126:12,20 148:3 166:7 167:10 174:6 176:2 177:22 186:20 192:15 215:13 236:2 248:6 256:21 274:8 297:4,15 375:14 | doable 195:9 | double 295:3 | dropoffs 335:3 | |
| discussions 71:18 272:19 304:12 | dock 64:21 69:19 71:2,20 77:7 78:18 78:20 90:12 93:5 152:16 176:21 193:12 207:10 217:16 236:15 237:3 260:12 | double 295:3 | dropped 329:12 | |
| disgusting 145:18 | document 151:1 153:1 378:17 | download 347:9 | drops 322:16 | |
| disingenuity 98:10 | documentation 297:19 | downplay 384:7 | DS 195:16 | |
| | documented 329:19 | downtown 272:6 | due 5:12 37:21 38:12,18 40:2 41:11 55:11 57:8 161:15 | |
| | Dodge 190:6 | dozen 196:13 | Duke 386:21 | |
| | dogfish 251:5,9,13 266:7,10 | Dr 2:14 68:11 91:4 91:18,21,21 134:5 147:5 206:8 252:6 252:13,16 266:2 267:13 270:11 271:7,7,11,21 | duration 309:21 352:21 | |
| | | | duskies 80:12 101:21 105:13 134:2 135:8 | |
| | | | | east 27:2 134:9 198:18 199:9 283:10 291:2 329:19 330:18 332:10 349:20 364:1 |
| | | | | eastern 209:21,22 383:3 |

| | | | | |
|---|--|--|--|---|
| easy 73:19 75:2 96:12 191:11 200:20 212:17 213:13 238:12 239:11 305:11 381:3 | effects 163:5 308:3 340:21,22 352:22 | 98:19 100:20 310:3 318:2 357:9 | encompasses 323:6 | 51:20 104:13 |
| eat 201:20 | efficiency 81:20 240:19 | either 15:7 19:6 32:2 37:6 78:4 82:2 111:7 127:18 151:9 172:2 180:19 187:21 199:4 208:8 215:17 234:12 252:13 258:14 264:12 288:4 292:15 318:11 326:3 359:21 378:15 | encounter 182:8 331:17 | 142:6 224:4 283:7 351:14 364:14 382:16 |
| echo 209:10 241:21 363:5 | effort 5:14 41:8,16 164:11 173:14 187:22 290:6 298:10,20 301:4 358:10,11,13,18 358:19 359:4 | elaborate 222:22 | encourage 72:2 161:8 308:5 359:5 | entirely 304:12 |
| echoed 211:2 | efforts 163:8 180:7 239:18 | elaborated 100:21 | encouraged 161:2 | entity 60:3 65:1 66:3,9,11 |
| ecological 38:1 163:14 336:19 354:11 | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | elective 199:1 | endangered 144:10 165:16 201:22 202:13 | entranceway 332:5 |
| economic 39:22 40:1,7 56:3,8,22 61:19 100:3 126:6 140:10 195:15,18 196:5 220:7 235:4 235:10 297:3 | efforts 163:8 180:7 239:18 | electronic 212:15 214:1 218:9 219:8 233:1 299:2 364:12 | ended 229:4 267:14 294:13 342:3 381:20 | entry 76:17 |
| economically 47:9 217:15 | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | elaborate 222:22 | endeavoring 133:10 | environment 188:2 |
| economics 147:9 290:7 | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | elaborated 100:21 | end-all/be-all 168:4 | environmental 3:8 3:11 9:4 11:3 45:2 278:21 309:15 331:20 337:5 356:10,11 365:3 |
| ecosystem 141:7,15 146:13 | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | elective 199:1 | enforce 73:19 184:8 204:5 249:4,10 262:21 | environmentalists 56:10 |
| ecosystem-wide 163:5 | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | electronic 212:15 214:1 218:9 219:8 233:1 299:2 364:12 | enforced 228:1,2 | environmentally 297:11 |
| eddies 339:7,8 | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | Electronically 219:7 | enforcement 71:18 71:19 72:1 76:17 77:19 78:10 79:8 82:17 83:10 95:1 103:8 133:4,8,14 177:3 190:22 191:2 193:5 200:13,16 203:13 203:16,18 204:13 247:2 248:21 249:5 260:22 261:17 262:21 269:12,15 270:19 | environments 187:9 337:19 |
| edge 135:9 | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | elements 109:18 225:15 311:4 | engaged 295:5 296:4 | ephemeral 132:13 |
| edges 333:14,16 | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | eleventh 258:12 | England 111:21 112:10 251:22 300:17 348:2 349:4 | equal 148:11 164:21 213:18 244:10 303:15 318:17 |
| edible 112:3 | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | eligible 229:22 | engaged 312:15 | equally 49:7 149:5 371:15,16 |
| editorial 291:20 | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | eliminate 46:20 97:11 123:6 | England 111:21 112:10 251:22 300:17 348:2 349:4 | equates 213:11 |
| educate 108:14 239:18 | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | eliminating 167:2 | entails 11:21 | equitably 59:15 211:6 234:15 |
| education 116:3 176:15 235:16 239:9 261:7 | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | elimination 260:6 | enters 52:11 320:5 304:6 | Eric 206:21 |
| educational 53:7 | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | Elizabeth 160:18 162:15 253:2 | entire 26:16 42:1 | err 225:2 |
| Edward 369:16 371:7 383:1 | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | Ellen 242:6,19 384:11 385:7 | | ESA 226:13 |
| EEZ 334:17 | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | email 218:16 | | especially 103:22 105:8 144:20 161:15 287:16 322:21 324:11 356:10 |
| effect 69:18 133:5 140:19 141:9 175:5 195:13 216:11 340:18 | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | embedded 71:11 77:17 | | essential 2:17 306:6 306:10 308:1 313:3 320:17 340:4 342:3 351:22 352:4,13 364:17 372:8 374:22 |
| effective 45:9 119:20 299:1 371:16,16 | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | embrace 95:9 119:18 | | essentially 38:7 150:4 180:12 |
| | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | emotion 168:8 | | |
| | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | emphasis 235:3 | | |
| | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | emphasize 61:6,22 | | |
| | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | emphasized 232:22 | | |
| | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 379:11,12,20 380:14 381:7,13 381:19,22 385:8 386:16 | employ 164:10 | | |
| | EFH 306:6 307:13 307:17 308:3,6,10 308:13,17 309:1,4 310:6,7,16 311:1 311:22 312:4,11 313:9,19 316:9 318:12 319:17 323:1 324:1 333:20 334:1 338:7 340:19,21 341:10 343:1,14 344:14 349:7,15 349:18 351:20 352:7,16 353:9 359:21 364:20 367:8 372:4,4,9,19 376:5,11,18 377:1 377:3,5,11,17 378:3,6,13,16 | | | |

| | | | | |
|--|--|---|---|---|
| 311:14 312:1 324:9 establish 12:6 16:1 16:17 22:15 36:1,3 36:5 50:13 59:13 195:15,18 229:1 229:10,21 316:7 323:16 335:6 established 16:9 17:8 21:18 164:15 210:19 318:5 329:3 335:12 348:1 369:15 establishing 34:4 210:16 317:6 344:6 354:15 estimate 40:17 104:11 164:1 231:7 274:12 326:1 estimated 40:4,21 232:13,19 estimates 7:2 38:10 48:4 53:12 141:17 231:21 estuaries 353:17 et 5:10 96:7 150:21 217:19,20 218:7 219:9 364:18 ethic 282:12 Europe 95:13 119:15 European 227:11 259:5 261:22 evaluate 340:17 evaluating 165:6 345:5 evaluation 151:11 160:10,12 374:7 Evaluations 43:16 event 29:16 72:22 94:18 eventually 348:10 349:12 362:4 376:22 everybody 67:1 73:21 90:18 132:20 207:13 | 208:4 209:2 216:12 219:9 238:8 242:21 244:3 253:18 262:8 263:22 273:22 288:13 304:11 305:17 367:7 everyday 79:8 everyone's 252:22 evidence 141:21 203:15 evident 142:1 eviscerated 193:12 evolving 81:18 exact 384:14 exactly 10:12 57:17 84:17,19,20 85:13 121:6 200:6 204:9 247:14 316:13 336:11 385:13 examination 165:10 examine 212:5 examining 343:8 example 106:17 163:20 188:15 189:9 196:10 228:7 284:11 341:3 342:20 352:1 353:14 359:17 examples 317:21 323:18 exceeded 231:14 exceeding 164:21 excellent 119:9,15 exceptionally 143:17 exceptions 312:6 excess 70:11 excited 347:7 exclude 331:3 334:15,16 excluded 216:5 excluding 235:14 330:12 exclusion 124:17 excuse 200:14 209:3 | 310:10 318:15 exempted 15:5,9 18:15 23:15 exemption 48:11 exercise 204:3 exist 88:15 200:9 existed 87:2 134:12 192:6 existence 231:5 existing 142:12 319:17 323:20 324:7 exists 372:9 exit 245:2 expanded 283:5 expanding 287:6 expansion 365:3 expect 109:11 367:17 expected 40:8 expecting 45:6 385:17 experience 79:1 155:8 experienced 29:10 41:17 294:7,17 experiment 328:1 experimental 90:9 expert 250:3 expertise 213:1 214:4 Experts 87:7 explain 3:19 18:22 explained 32:22 120:17 explains 17:14 exploded 134:15 exploitation 164:3 explore 357:21 explored 175:17 exploring 174:17,18 express 143:7 162:21 expressed 221:3 expressing 316:20 extend 4:5 26:21 126:7 309:20 extended 45:6,12 | 198:16 extension 317:12 extent 140:21 164:6 297:22 308:2 337:3,11 341:1 extinguished 245:12 extra 190:11,12 193:1 217:1,4 371:12 extraordinary 187:22 extremely 96:5 eye 121:13 275:5 366:13 eyes 125:22 370:15 e-mail 4:2 45:10 218:11 237:5 343:13 | 151:15 349:3 familiarity 356:7 far 84:14 85:5 86:19 90:11 114:15 115:13 133:3 142:12 158:15 174:3 181:18 183:22 234:16 244:7 255:5,6 256:12 262:16,21 263:9 267:6 277:8 322:12 337:7 357:17 362:13 367:20 368:12 388:2 farming 355:19 356:6 fashion 28:6 39:11 297:11 303:7 fast 118:8 faster 18:2 19:9 221:21 favor 173:22 182:5 fax 4:2 45:11 faxing 218:16 feasible 344:2 feather 263:11 feathers 202:8 feature 99:2 101:11 February 43:18,21 89:1 91:3 federal 32:4,19 37:8 98:20 116:13,21 125:18,21 130:17 177:4 190:21 212:9 229:7,8 249:18 250:6 256:11 311:6 372:22 federally 50:5 312:11 372:6,7 feedback 23:20 57:9 57:20 59:7,17 60:5 102:20 167:15 374:13,18 feeding 163:7 feel 35:8 62:18 81:17 98:7 115:16 |
| F | | | | |
| F 173:1 facilities 353:7 facing 74:21 301:18 fact 82:14 85:18 95:2 100:5 123:21 132:19 133:12 148:9 154:14 155:15 175:7 191:3 206:12 222:3 237:21 275:10 358:17 factor 189:12 factors 141:6 156:21 184:16 fail 381:4 failed 144:19 253:8 283:22 failure 185:19 fair 59:15 184:5 198:9 345:19 fairly 80:11 125:1 281:3 fall 43:21 45:7 125:21 140:21 310:4 311:3 340:3 Fallon 162:18,19 familiar 31:1 | | | | |

| | | | | |
|-----------------------------|----------------------------|------------------------------|--------------------------|----------------------------|
| 161:18 166:3 | 292:2 310:3,3 | 262:18 266:15 | 214:20 220:4 | 369:20,20 370:6 |
| 167:20 255:11 | 314:3 334:9 335:6 | 269:10,10,16,16 | 244:9,10 248:5 | 372:1,8 374:22 |
| 272:9 275:2 276:8 | 349:9 | 269:18 270:9,13 | 266:3 274:2 | 382:12,19 383:3,7 |
| 354:8 | finalized 203:10 | fins 21:2,9 22:11 | 282:17 284:2 | 383:8 387:5 388:1 |
| feeling 215:21 | finally 7:19 25:12 | 25:8,11 36:19 51:1 | 286:6 292:8 | fished 312:5,7 |
| 290:12 | 48:1 49:5 57:15 | 51:3,5,9,12,17,19 | 293:17 294:9 | fisheries 1:6 11:10 |
| feet 200:21 | 99:15 125:6 162:2 | 58:1 68:19 69:2,7 | 297:1 311:2 | 12:14 16:7,9 31:1 |
| fell 316:4,14 | 165:5 185:13 | 69:19 70:8 71:1,21 | 315:22 321:7 | 31:5,10,13 32:16 |
| fellow 243:22 | 221:9 226:4 | 72:7,16 73:1,20 | 331:8 345:7 | 39:1 41:7,10,13,14 |
| fellows 84:15 | 288:11 296:11 | 75:4 76:16 77:6 | 348:14 351:17 | 41:16,19 52:16 |
| felt 87:17 123:19 | 299:18 309:4 | 78:9 79:3,5 82:2 | 361:11 363:5 | 55:22 57:1,3 60:10 |
| 220:11 235:2 | 313:5 | 82:13 83:22 84:8 | 380:17 388:9 | 67:16 68:20 71:4 |
| 285:18 286:5 | finance 91:14 | 85:10,21 92:22 | fish 2:17 24:5,12 | 83:15 93:21 130:8 |
| female 131:18 241:4 | financially 277:8 | 93:13 95:4,13 | 49:9 66:13,13,13 | 130:14 133:18 |
| females 138:22 | find 121:9 122:2,15 | 120:7,9,11,20 | 72:14 82:3,21 | 136:11 137:9 |
| female/male 321:21 | 125:18 171:8 | 121:1 122:8 | 93:10 99:7 107:8 | 145:5,6 147:15 |
| fewer 104:20 | 245:16 249:22 | 139:22 145:16 | 107:14 112:8 | 155:1 163:15 |
| 322:12 | 257:9 261:14 | 146:4 179:15 | 113:13 124:17 | 164:7 165:14 |
| fide 290:16 | 273:1,7 274:18,21 | 184:6 186:22 | 145:1 173:5 180:6 | 175:6,10 200:4 |
| field 97:6 303:16 | 278:12 279:7,7 | 187:3,5,12 188:12 | 180:10 181:8 | 206:10 211:14 |
| figure 62:13,20 92:3 | 287:3 290:10 | 188:13,22 190:10 | 184:4 185:10 | 215:14 225:12 |
| 108:17 164:17 | 301:19 307:5 | 190:12,20 191:4,7 | 187:21 188:1 | 229:17 232:3 |
| 189:13 199:7 | 335:1 379:3 | 191:10,12 192:13 | 189:5 190:20 | 235:7 248:3 255:8 |
| 205:21 214:19 | finding 85:9 206:18 | 192:17,18 203:4,5 | 193:7 203:4 | 256:2 257:8 258:3 |
| 247:22 260:14 | 294:3,4 295:22 | 205:12,13 206:13 | 204:11 207:9 | 259:11 269:21 |
| 386:4 | 320:20 338:19 | 207:10,11,14,15 | 211:18,20 212:18 | 297:7,18 298:9 |
| figured 82:21 | 340:9 368:4 | 226:15 227:9,13 | 213:15,17 216:13 | 360:22 368:9 |
| 206:14 | findings 55:10 | 228:9 246:10 | 217:17 221:3 | 383:21 384:4 |
| figures 188:13 | fine 128:14 233:16 | 250:5,13 253:8 | 240:20 241:4,8 | fisherman 120:6,13 |
| figuring 320:6 | 273:14 291:22 | 255:21 259:2,3,12 | 244:12 247:20 | 122:8 125:20 |
| file 219:9 378:12 | 310:17 371:12 | 259:20 260:12 | 256:5,6 274:12,20 | 129:5,11 152:20 |
| filing 32:4,19 37:8 | fined 121:5 | 261:21 262:15 | 275:4,5,6,17 276:1 | 189:6,7 192:12,16 |
| fill 179:3 288:21 | fines 121:11 | 266:20 | 276:9,14,15,17 | 192:18,20 193:1 |
| 303:14 362:6 | fingertips 379:4 | fins-on 103:7 | 277:1,1,3,4,5,20 | 200:12 203:3,7 |
| 374:10 | finished 77:2 | 203:10,19 | 277:22 278:14 | 207:9 208:9 |
| filled 31:21 46:16 | 255:20 | fin-on 260:11 | 279:1 286:14 | 242:11,13 245:11 |
| 60:11 111:2,5,7 | finning 69:17 70:13 | fin-to-carcass 85:5 | 287:18 291:5,15 | 245:13 |
| 131:5 290:22 | 70:14,16 71:3,5,7 | fire 226:16 | 293:3 295:13,21 | fishermen 12:7,9 |
| filter 163:7 | 71:10 77:16 78:1 | first 7:8 13:16 44:16 | 296:1 299:6,11,11 | 21:4,6 22:15,19,21 |
| fin 21:5 35:5 55:14 | 81:16 83:2,21 84:3 | 63:3 64:19,22 65:4 | 306:6,10 308:2 | 23:11,18,22 24:18 |
| 84:18 101:14,15 | 84:5 118:15,17 | 66:3,9,10,22 84:11 | 313:3 320:17 | 25:1 31:3 32:13 |
| 191:21 192:2,3,4 | 121:9 122:1 | 87:11 93:6 123:9 | 322:18 340:4 | 34:9 35:1,16 36:10 |
| 256:21 261:11,20 | 145:19 146:7 | 128:18 130:10 | 341:22 342:4 | 40:8 41:13 44:8 |
| 318:17 | 161:9 226:17 | 161:12 163:12 | 352:4,13 356:16 | 47:17,21 48:16,18 |
| final 8:21 45:7,8 | 227:17,20 248:20 | 179:5 186:19,19 | 356:18 358:17 | 49:9 52:7,21 53:5 |
| 59:10,12 69:10 | 249:7,9 253:9 | 194:22 205:10 | 359:22 360:19 | 53:8,10,14,20 54:1 |
| 218:5 228:20 | 257:4,6 258:7,8,10 | 208:17 210:9,18 | 364:17 366:19,22 | 54:20,21 55:12 |
| 243:21 246:3 | 258:15,22 259:22 | 212:11 213:11,18 | 367:4,5 369:17,19 | 56:5,6,12 58:4,8 |

| | | | | |
|--|--|--|--|--|
| 58:22 59:16 60:15 72:11 73:6,8 81:13 106:7 108:15 112:21 113:9 116:7,16 118:14 120:11,17,18 121:10 122:5 124:4 125:4 135:6 139:15,15 145:1,7 146:12 173:4 176:12,13 179:18 180:3,10 187:13 190:20 206:13 208:1 214:21 215:2,3 221:2 228:21 232:1,5 238:1,7 239:1,10 239:16,19 240:19 246:19 249:20 250:9 254:12 262:10 274:19 282:16 331:17 341:22 368:6 371:13 | 92:11,16 96:9 99:18 104:17 105:4 107:2 108:9 109:19 110:5,22 111:3,4 112:17,18 113:5,16,19 116:6 116:15,19 122:2 123:2,7,12,15 127:9 131:4 132:5 134:19 135:9 137:18 138:3,11 138:12,17 140:20 141:16 144:1 145:8 148:12 149:22 150:1,2,3,6 150:13 154:16,17 155:20 157:7,12 162:4,8 164:5 174:5,21 175:5,8,9 175:11 179:1 180:2,12,18 181:3 181:13 182:13 183:10,12 185:4 198:8,19 200:8 207:12 210:19,22 211:9 214:22 215:9,17 216:9,10 221:22 222:3,6 223:3,6,14 224:5 224:13 229:14,15 229:16 230:17 232:18 244:1 245:3,5 246:22 254:9 255:13 256:5 260:7,11 262:1 265:19 266:16 275:1,14 275:16 276:4 279:12 280:12 282:10,11,20 283:4,5,11 284:14 285:22 286:3 287:5,7,9,14 288:13 290:6,7 292:15 297:4,6,10 297:21 298:1,3,4 298:17 299:17 300:1,5,18 301:16 | 302:8 307:22 308:14 310:8 342:4 348:2 369:2 371:18,22 fishery's 30:21 Fishery-wide 40:3 fishing 15:5,9 18:15 23:12,15 25:1 26:7 26:18 42:7 46:12 50:14 55:3,4 70:9 78:16 110:13 112:6 131:1 134:14,15 140:11 140:14 142:5,9,19 152:12 155:9 156:4 162:1,5 164:11 180:4,5 200:13 211:10 213:6 225:3 249:16 251:2 254:13,14 255:14 263:5 264:2,11 280:10,12,15 287:2 289:13,14 294:6 297:10 299:14,21 302:13 308:4,22 309:2 313:7 340:16,18 340:21 342:12,13 345:5 348:11 349:14 351:19 352:1,6 353:3 356:22 368:6 372:10 fit 93:19 154:2 302:2 342:18 356:21 five 9:9 10:16 20:6 24:8,15 32:6 40:13 42:16 43:13 51:11 51:15 62:2,12 69:13,16,17 70:2,5 70:11 71:4,8,12,13 74:4,5,7,17 75:9 75:10,15 76:7,10 77:8,17,22 78:2,5 81:14 82:9,22 83:3 83:7 84:4,20,21,22 | 87:17 94:17 99:10 104:14,19 118:19 119:12,19 120:14 126:4 129:3 169:10 172:17 173:9 178:18 187:6 190:21 191:5 192:19 203:6 204:2,7 207:17 208:11,22 210:7,13 212:22 213:6 214:3 232:7 246:14 247:5,10 248:22 250:11 253:4 255:9 258:13,16,17 261:12 262:19 264:17 269:10,22 270:8,11,13,17,22 303:2 305:16,19 309:5 310:16,19 348:9 372:1 five-day 32:4,11,18 33:2 37:7 46:16 60:14 81:12 182:18 220:14 231:22 244:18 371:22 fix 120:3 125:18,22 230:5 247:15 264:20 281:10 fixed 125:16 222:10 fixing 79:5 flag 240:9 241:13 flagged 174:15 flaps 93:14 188:6 190:11 flat 342:12 flats 331:16,17 flawed 48:5 141:18 fleet 49:4 86:4 93:19 97:21 103:14,17,21 104:13,15,18 110:13,15 180:2 181:6 185:7 188:16 193:6 210:17 218:5 | 283:1,2 286:19 302:7,7 fleets 255:14 flexibility 24:5 184:3 225:3 284:8 flexible 168:10 169:18 284:10 flip 171:19 172:3,5 192:7 197:7 floated 295:11 flock 263:11 florida 27:1 43:1,2 96:5 113:12 115:13 116:11,15 116:18 132:7 146:19,20 193:7 198:10 199:4 206:20 231:12 283:7,10 287:17 291:2 329:18,18 330:17,18 332:5 332:10 350:2 364:2,2 flying 247:3 373:5 FMP 111:19 310:11 310:15 311:3,11 312:1,2,16 366:7 378:19 focus 14:1 93:22 219:3 focused 155:5 focusing 14:9 369:9 folders 374:7 folks 63:14 80:9 118:2,12 128:11 170:13 178:9 204:13 235:22 272:2 350:12 373:1 374:6 380:9 follow 63:8 102:14 106:21 149:22 159:12 160:5,8 172:22 178:17 218:21 334:17,18 339:13 372:14 followed 117:13 279:19 357:15 375:7 |
|--|--|--|--|--|

| | | | | |
|--|--|---------------------------------------|--|-----------------------------|
| following 15:15 82:17 134:8 147:4 148:4 176:17 181:8 311:4 384:12 | 161:6 162:12 185:6 228:11 284:5 294:2 306:5 337:1 343:17 347:8 | fundamental 360:18 361:4 | 221:11 222:21 229:16,17 236:1 238:15 293:5 294:15 | gill-netters 47:13 |
| follow-on 349:19 | for-hire 95:20 96:7 | fundamentally 90:19 91:5,22 | generally 257:20 | girdle 190:12 |
| follow-up 159:14 | 97:22 201:16 | funded 372:6 | 298:2 299:12 | girl's 87:15 |
| food 81:21 294:17 | 202:11 | funding 104:10 | 342:11 | give 3:10,15 5:8 7:1 |
| 374:16 | found 8:11 41:11 | 147:18 175:2 | generate 378:10 | 13:5 57:16 64:13 |
| foot 200:18 243:6 | 109:1 250:9 | further 95:19 163:6 | generated 319:22 | 64:15 93:18 94:12 |
| 243:19 | 281:16 284:6 | 190:19 200:10 | 326:1 | 122:5 152:3 |
| forage 356:18 | 339:10 368:20 | 205:7 240:15 | genesis 385:14 | 160:20 169:6,9 |
| force 120:17 247:20 | 378:14 380:16 | 308:11 310:13 | genetically 96:16 | 170:19 188:14 |
| forcing 82:15 83:8 | Foundation 354:3 | 359:2 361:21 | gentleman 89:20 | 189:8 195:13 |
| Fordham 108:21,21 | 363:4 385:10 | 387:13,15 | 307:3 | 217:1 226:9 252:7 |
| 110:10,19 222:18 | foundry 340:5 | Furthermore 88:21 | geographic 151:22 | 257:22 276:15 |
| 222:19 | four 22:2 57:14,14 | future 10:14 17:22 | 285:21 312:21 | 277:15 278:9,16 |
| foreign 112:20 | 57:14 59:1 60:17 | 49:2 97:20 163:15 | 333:22 | 279:8,10 291:16 |
| 275:5 | 111:22 118:5 | 221:1 241:17 | geographically 49:8 | 292:22 299:10 |
| forever 121:18 | 153:1 191:10,12 | 275:10 282:19 | 184:18 | 302:8 304:7 306:4 |
| 267:13 | 200:21 213:20 | 288:12,15 299:22 | George 146:17,18 | 311:17 341:3 |
| forget 139:18,21 | 241:6 243:6,19 | 300:5 302:3,15 | 157:15,18 160:15 | 352:1 359:6 372:5 |
| 349:10 | 303:2 305:15,15 | 355:14 380:1 | 160:16 216:18 | 373:16 374:10 |
| forgot 333:10 346:1 | 314:2 329:16 | G | Gerencer 274:2 | 376:6 384:3 |
| 346:5 | 365:2 371:19 | G 3:1 | 281:22 350:16,16 | given 55:22 60:8 |
| fork 34:11 200:19 | fourth 177:1 | Gail 64:17 66:7 | 351:10,16 352:10 | 105:9 119:12 |
| 243:7 322:15 | frame 8:20 52:5 | 243:1 244:4,6 | 353:10,14,18 | 143:5 153:21 |
| forklinks 318:17 | 56:1 229:1 | Gail's 197:11,12 | Geronimo 206:21 | 155:21 220:12 |
| form 194:19 195:15 | France 367:17 | gain 142:6 146:15 | getting 44:13 59:17 | 223:4,8 229:13,18 |
| 195:18 374:1,7 | freak 263:15 | gained 41:18 | 67:12 92:5 102:19 | 258:1,2 265:1 |
| formal 151:4 | Freedom 261:4 | gains 282:15 291:16 | 107:19 117:12 | 279:11 286:13,15 |
| 305:19 | freeze 193:21 | gaps 177:4 | 150:16 158:1 | 295:19 299:19 |
| formality 183:13 | freezer 193:22 | gas 353:7 | 198:12 206:14 | 301:20 314:4 |
| formally 240:5 | 300:18,20 301:8 | gasping 142:10 | 211:19 245:4 | 324:12 354:11 |
| format 83:19 160:6 | frequent 59:21 | gather 52:18 | 254:18 256:16,20 | gives 13:11 80:4 |
| 346:8,21 | 218:7 | gathered 159:20 | 287:15 292:9 | 120:12 190:2 |
| formatted 219:8 | frequently 212:16 | gathering 147:10 | 302:10 318:7 | 197:13 268:20 |
| Fort 129:13 | fresh 193:20 | gear 21:12 27:6 | 326:15 332:22 | 342:2 |
| forth 111:1 154:10 | friendly 297:11 | 287:5 295:10 | 382:6 | giving 3:6 89:13 |
| 154:18,21 155:7 | friends 350:4 | 296:8 298:22 | giant 362:2 363:4 | 176:12 276:18 |
| 308:6 | frightens 89:18 | 299:4 311:21 | gill 25:19 31:10,13 | 277:8,18 288:19 |
| fortunate 307:11 | front 128:11 171:11 | 312:3,4,12,13 | 47:17 | 303:21,22 317:15 |
| forum 251:12 | 307:2 386:19 | 343:1,4 349:21 | gills 188:7 | glad 208:15 |
| forums 147:12 | fuel 256:3 | 375:9 | gill-net 133:18,22 | glance 342:9 |
| 252:2 | full 210:14 | gears 312:5 313:9 | 136:10 138:3 | Glenn 113:11 117:4 |
| forward 59:10 | fully 209:6 | 327:18,20 | 193:8 256:8 | 117:5 122:17,20 |
| 109:16 126:22 | function 336:19 | general 122:11 | gill-nets 135:20 | 226:21 227:12 |
| 154:10 159:9 | fund 56:10 | 130:12 163:15 | 136:8 137:15,15 | 252:5,19,21 254:4 |
| | | 179:11,12 220:11 | 137:19 256:10 | 266:5 278:4 |
| | | | | 347:13 350:15 |
| | | | | 353:20 357:18 |
| | | | | 362:14 363:11 |

| | | | | |
|--------------------------|---------------------------|-------------------------|-----------------------------|----------------------------|
| Glenn's 125:12 | 373:10,17 376:7 | 199:12 201:2,16 | 135:19 137:7 | 141:19 143:3 |
| glitch 381:2 | 377:9 380:17,20 | 202:7,9,12 206:2 | 149:19 153:5 | 146:9,11 325:13 |
| globally 228:5 | goal 249:6 | 206:11 208:9,10 | 193:14 207:4 | Greek 87:15 |
| go 3:3 9:10 12:15 | goals 162:7 173:17 | 208:12,16,18,22 | 210:10,22 216:22 | green 26:4 306:1 |
| 13:20 14:7 31:21 | goes 16:14 26:22 | 209:10 210:21 | 228:12 237:14 | greenstick 74:10 |
| 32:13 33:11 35:18 | 33:20 59:12 107:7 | 211:10 212:2,17 | 238:21 240:7 | 375:8 |
| 36:20 38:9 45:13 | 107:14 127:8,9 | 213:3,7,10,12 | 244:12 246:7,9 | Gregg 113:12,12 |
| 57:2 58:16 59:9 | 186:2 209:14 | 214:12 215:17 | 249:3 251:11 | 114:20 228:19 |
| 61:4 62:5 65:3 | 228:20 265:10 | 216:9,15 218:19 | 254:20 263:17 | Gregory 208:21,21 |
| 67:10 69:2 74:14 | 268:14 270:16 | 220:14 221:22 | 278:6 347:15 | 292:7 |
| 78:3,16,18 81:3,8 | going 3:3,6,15,17 | 222:16 226:14 | 354:1 362:13 | grid 316:2 |
| 82:5 84:14 89:12 | 4:5 10:15 11:19,19 | 229:4,6,8 230:12 | 365:13,19 370:20 | grids 316:5 |
| 90:16 92:14 95:13 | 12:15,16,19,19 | 231:9,21 233:4 | goose 158:7 | Griffin 160:17,18 |
| 95:18,19 97:8 | 13:5,16,20 14:2,5 | 234:4,6,17 235:6 | gotten 166:12 | 253:2 |
| 107:10 111:3 | 14:9,10,11 21:15 | 239:15 246:20 | 196:16 338:1 | gross 40:4,12,19 |
| 114:20 118:9 | 26:3 27:8 29:8 | 247:14 252:5,7 | 339:15 | ground 100:18 |
| 128:17 129:22 | 31:7 37:19 39:5 | 254:1,16 255:3,14 | government 295:16 | 101:1 147:14 |
| 151:5,17 155:13 | 41:15 42:6 57:6 | 256:13 259:13,21 | go-around 284:7 | 334:13 354:5,12 |
| 158:14,15 168:20 | 59:3 61:11 62:13 | 260:13 262:12,15 | grab 171:19 172:3 | 369:1 |
| 169:17 171:3,19 | 63:1,3,7,8 64:1 | 264:7 268:8 272:3 | 273:13 | grounds 131:13,13 |
| 173:9 195:12 | 69:13 72:11,22 | 272:17 273:22 | grading 221:6 | 280:13,15 287:2 |
| 196:22 202:7,15 | 73:2,3,21 77:8 | 276:7,8 277:18 | Graham 307:7 | 332:6 354:16 |
| 202:22 205:6,8,15 | 78:10 79:8 81:17 | 278:9,10,15,16,18 | 309:19 | 368:6 370:3,14 |
| 213:15 214:19 | 82:13,14 83:6,7,18 | 279:3 280:1 | Graile 361:9 | group 2:15,21 57:10 |
| 216:20 217:7 | 85:17 86:3 87:22 | 281:22 282:6,7,10 | grandfathered | 57:11,21 59:2,11 |
| 218:4,17 221:5,16 | 89:16,20 90:5,10 | 285:6,7 287:13 | 81:14 | 59:11 60:18 66:19 |
| 230:20 233:2,22 | 90:17 92:7,18,21 | 288:14,22 289:4 | grandson 251:3 | 105:17,19 106:14 |
| 239:13 242:6,9 | 92:22 93:9,10,17 | 289:20,22 290:8,9 | Granted 341:20 | 106:15 145:3 |
| 244:5 245:9 246:4 | 94:16,18 95:12,18 | 292:1,4,6,22 | GRAs 349:21 | 165:8 166:7,8 |
| 246:12 247:12 | 96:8,17,18 97:6,8 | 293:15,17,20 | grasped 367:8 | 171:12,13,16,17 |
| 250:8,14 254:5,12 | 97:17,19 99:12 | 294:5 296:18,20 | grass 331:16 | 171:18 172:4,14 |
| 254:17,18 256:1 | 103:5,14,20 104:5 | 300:1 301:16 | gratification 146:14 | 172:16 179:3,22 |
| 258:6,9,18 261:19 | 114:20 116:10,13 | 302:17,21 303:3,9 | Graves 304:18 | 186:11,20 197:4 |
| 261:20 262:4,11 | 126:6 128:2,5 | 303:11 305:13,14 | gravid 241:4 | 201:21 204:4 |
| 263:12 264:2 | 154:2,11 160:19 | 305:16 312:18 | great 107:22 143:10 | 213:20 218:8 |
| 267:3 270:2,15 | 169:4 170:3,14 | 313:10,13,14 | 146:12 148:6,11 | 219:18 220:11 |
| 271:5 272:22 | 171:7,8 173:15 | 315:20 326:10 | 148:15 156:3 | 221:3,11 272:22 |
| 273:20,21,21 | 175:14,15 177:7 | 327:21 330:9 | 196:10 265:9 | 272:22 280:8 |
| 275:21 278:7 | 179:15,19 181:4,8 | 333:1 339:6 | 269:19 287:6 | 284:18 291:21 |
| 285:12 286:11 | 181:9 183:22 | 340:12,12 343:17 | 310:13 327:9 | 292:3 293:12,15 |
| 291:11 304:8 | 184:8 185:1,15,22 | 346:5 348:9 | 362:12 368:8 | grouped 377:19 |
| 305:2,22 313:10 | 186:12 187:14,16 | 350:11 361:22 | 374:2,20 379:22 | grouper 104:1 |
| 313:13 314:3 | 187:17 188:4,18 | 362:4 368:9 371:3 | greater 34:10 | grouping 222:13 |
| 319:2 323:20 | 188:19 189:2,22 | 371:10,10 374:21 | 105:15 106:18 | groups 54:7 57:17 |
| 331:6,12 337:1 | 190:8,9,13,15,19 | 375:11 383:15 | 319:7,9 322:14 | 59:4 64:4 97:10 |
| 338:18 346:15,22 | 192:14,21 193:17 | good 63:17 75:18 | 328:20 364:20 | 109:17 265:4 |
| 362:20 365:16 | 193:18,19 196:7 | 82:1,2 109:1 113:8 | greatest 269:19 | growing 144:20 |
| 366:14 370:10,11 | 198:15 199:7,10 | 117:14 134:5 | greatly 116:22 | 226:7 |

| | | | | |
|----------------------------|---------------------------|---------------------------|----------------------------|----------------------------|
| guarantee 120:18 | 182:7,8 185:10 | handed 295:15 | 304:20 341:11 | 142:10 270:5,7 |
| guess 74:10,14 94:5 | 193:11 199:13 | handgear 285:19,22 | 348:5 375:15 | 363:1 373:18 |
| 110:21 115:16 | 201:19 202:11 | 286:3 | 381:14 | 385:15 |
| 124:1 134:20 | 205:22 213:7 | handing 172:14,15 | harder 249:4 | heartbeat 276:1 |
| 159:7 166:2 175:2 | 214:6 256:7,8 | 373:22 | hardheaded 257:1 | heat 187:17 |
| 192:9 204:12 | 276:20 295:3 | handle 214:12 | hardships 56:22 | heavy 144:15 |
| 217:17 218:18 | 299:10 359:5 | 241:10 | Harold 129:5 | heck 261:7 265:2 |
| 247:13 275:15 | 375:7 | handling 187:8 | harpoon 283:3 | held 309:9 |
| 288:5 289:11 | | 280:18 294:17 | harpoons 375:9 | hell 257:11 |
| 299:18 300:16 | H | 304:4 | harvest 18:22 32:14 | hello 124:15 160:17 |
| 333:10 381:18 | habitat 2:17 306:6 | handout 16:13 | 131:10 141:3,12 | 306:3 |
| 386:4,8 | 306:10 308:2,19 | 17:13 20:18 | 195:21 233:10,11 | help 19:9 33:16 |
| guessed 37:21 | 312:8 313:3 | handouts 13:10 | 234:19,20 235:8 | 66:7 70:16 127:12 |
| guesses 141:22 | 320:17 326:18 | 57:16 | 235:14 | 139:11 145:20 |
| guidelines 127:13 | 336:14,20 337:1,4 | hands 63:14 67:4 | harvested 140:12 | 146:5 163:13 |
| guiding 315:12 | 337:12,15,18 | 76:6 119:3 289:5,6 | hashed 319:16 | 172:10 206:5 |
| guinea 180:1 184:17 | 338:4 339:19 | 373:5 | 325:21 330:16 | 210:1 211:7 |
| 210:17 254:9 | 340:4,13 342:4 | hands-on 129:5 | hate 278:7 331:14 | 215:17 226:18 |
| 368:22 | 349:2,16 351:22 | Hang 61:3 273:8 | Hatteras 133:22 | 262:2 278:14 |
| gulf 4:15 6:16 17:4 | 352:4,12,13,19 | hanging 83:9 | 136:3,5,11,14 | 281:11 297:18 |
| 26:17 33:7,19 | 354:6,14 356:13 | HAP 383:19 | 365:18 | helpful 208:20 |
| 50:19,21 88:10 | 360:5,7 364:17,19 | HAPC 336:18 | haunt 75:6 | 228:10 |
| 105:9 123:2,7 | 369:5 372:5,8 | 347:22 348:4,18 | Hazard 93:1 187:9 | helping 23:13 |
| 124:4 177:8 | 374:22 376:10 | 349:4 354:17 | head 21:7 112:16 | 227:15 307:12 |
| 198:22 199:5,15 | 380:9 382:10 | 357:2 359:21 | 151:15 152:4,22 | helps 103:7,11 |
| 209:16 224:6 | 384:20,21 | 367:9 383:14 | 157:5 300:6 | 304:15 373:2 |
| 225:1 322:22 | HACCP 93:1 95:8 | HAPCs 308:20 | headboat 54:4 | Hemilright 67:12 |
| 332:13 337:22 | 187:9 | 310:11 313:6 | 244:1 375:9 | 67:13 68:4,18 |
| 338:5,20 340:2 | half 200:21 243:6 | 343:14 345:3 | Headquarters | 70:19 74:1 75:13 |
| 341:8 348:18 | 243:19 361:12,13 | 347:18 348:15 | 268:2 | 135:18 136:2,6,17 |
| 354:5,16,21,21 | half-day 168:12 | 349:8 354:10 | heads 25:9 103:19 | 254:6,6 269:8 |
| 355:1,16,16,20 | half-dozen 290:14 | happen 38:11 | 148:17 272:5 | hemmed 246:14 |
| 356:6 357:6,14 | hammer 108:1 | 110:20 187:20 | healthy 6:21 19:5 | hey 107:3 368:1 |
| 364:3,11 365:4 | 140:20 | 221:21 369:11 | 50:20 80:11 | Hi 157:18 162:18 |
| 367:14 368:14,22 | hammerhead 85:21 | happened 124:20 | 105:10 123:6 | hide 120:2 |
| 369:21 370:9,11 | 96:15 105:17 | 387:8 | hear 2:14 127:21 | high 75:19 161:14 |
| 371:5,11 377:20 | 107:20,21 143:10 | happening 175:4 | 168:18 209:2 | 161:15 221:5 |
| 382:7,15,17 383:5 | 148:7,7 156:1,3,4 | 185:2 226:18 | 241:9 254:1 | 227:22 241:3 |
| 383:16 384:15 | 223:18,22 225:9 | 362:9 | 300:20 335:16 | 257:13 283:2 |
| 387:19 388:14 | hammerheads 35:5 | happens 53:15 | 344:10 | 295:6 302:13 |
| gut 287:13 | 96:12 106:19 | 74:16 175:11 | heard 72:1 204:17 | 316:7,7 318:14 |
| guy 68:9 | 148:11,12 156:6 | 259:5,8 260:10 | 211:2 241:8 | 319:5,20 322:11 |
| guys 84:2 92:7 | 157:4 222:12 | 371:17 | 264:14 265:11 | 322:13 323:13 |
| 93:22 94:3,14,16 | 238:3 | happy 226:4 304:10 | 268:22 269:7 | 328:18 329:11 |
| 96:7,7 97:22 98:1 | hand 166:19 171:16 | 305:7 335:16 | 300:16 304:14 | 339:5 351:5 |
| 109:6 124:8 | 196:22,22 242:20 | hard 79:15 80:15 | 307:18 316:18 | 358:13,13,16 |
| 155:14 170:8 | 265:10,10 374:11 | 89:22 92:4 190:15 | 344:15 | higher 22:18 32:11 |
| 179:9 181:11 | 382:4 383:12 | 264:18 291:8 | hearing 71:17 | 76:13 82:13 85:22 |

| | | | | |
|--|---|---|--|---|
| 143:2 250:11 359:7 highest 283:9,9 284:22 302:16 319:5 370:22 384:16 highlights 272:7,19 highly 1:9 3:4 142:14 197:15 306:11 365:8 367:9,11 Hill 161:8 266:14 270:17 hinge 309:18 hinges 321:11 Hinman 285:15 353:21,21 382:4 hire 65:2 200:3 213:14 hired 268:1 historic 211:4 historical 17:6,10 229:13 232:17 285:4 289:10 367:1 historically 29:10 360:22 369:15 370:6 histories 195:8 history 5:13 24:3 145:3 195:1,7 220:18 228:22 231:2 307:17 310:6 hit 47:4 168:11 201:17 209:1 362:18 HMS 25:17,21 43:15 140:4 244:9 251:8,18 268:2 307:17 310:7,9,19 311:3,20 312:5,9 337:17 340:19 351:11 356:2 357:9 375:5 377:10,18,22 378:1,3,19 380:3 Hogarth 2:14 85:16 | 86:14 206:8 252:6 252:13,16 266:2 270:11 271:7,11 272:1,4,11,18 274:3 276:11 300:10,14 301:9 hold 41:7,13 65:22 93:16 95:8 271:18 holders 10:9,11 11:15,17 12:2 13:3 13:4 20:1,5,10,12 20:21 21:16,17,20 22:2,4,8 29:4,6 41:5,6,21 42:1,2 42:19,22 47:19 58:10,12 92:12 94:7 180:14 holding 97:3 157:21 237:17 241:13 242:13 304:9 hole 82:3 264:13,15 holes 159:2 Holy 361:9 home 13:15 171:9 hone 362:8 honest 171:4 184:5 honestly 251:9 309:17 hook 256:7 299:7 299:11 341:22 hooked 44:5 287:13 hooking 155:17 hooks 138:8 275:3 275:21 280:17 287:8,18 288:9 297:12 298:22 304:3 hoops 262:10 hope 159:4 227:1 242:15,16 255:7 306:11 315:19 355:8 hopefully 209:15 hopes 102:19 hoping 10:5,10 61:17 156:15 241:14 309:14,20 310:3 | hopped 237:3 horizon 356:21 horn 154:12 horrendous 219:6 horsepower 287:1 host 326:19 hour 109:14 168:21 169:3 170:4,21 172:6 258:12 hours 28:1 49:20 305:11 hour's 172:8 house 93:10 187:21 188:1 189:5 212:18 278:7 housekeeping 90:3 Hudson 83:13,13 84:9 157:17,17,20 159:14 186:13,17 186:17 205:7 243:2,2,12,16 Hueter 67:6 147:5 huge 90:16 220:12 human 251:10 337:4 365:2,10 Humane 248:10 Hump 27:2,2 humps 93:13 hundreds 121:5 196:15 hurts 206:6 hypothetical 121:3 198:21 hypothetically 189:17 198:16 202:3 | 279:9 282:1 284:19 286:19,20 289:2,12,16 291:1 303:1 304:19 ice 81:22 95:8 187:18,19 ID 103:8 107:12 115:1 116:2 149:7 234:2 235:13,13 241:22 315:5 idea 13:5 24:10 41:7 78:14 81:5 87:8 94:22 97:5 99:9 113:8 150:5,18 173:18 196:8 209:13 217:21 232:21 295:11 ideas 292:13 identical 134:11 identifiable 34:22 37:15 58:21 105:22 106:20 115:3,5,17 124:18 174:9 238:2 identification 51:10 53:9 60:3 80:12 108:4 132:10 133:1 148:15,20 149:2,13 174:5 235:3 239:14 242:9,17 identifications 148:10 308:8 identified 28:18 64:5 100:18 102:10 148:8 242:3 287:11 347:19 352:3 353:10 372:19 384:19 identifies 50:1 identify 106:8 107:9 128:20 132:20 133:15 213:17 235:15 236:11 308:1,4,13,19,22 336:9 351:18 354:17 | identifying 350:21 IFQ 41:12 ignore 99:13 125:15 ignored 141:15 II 206:21 illegal 72:16 imagine 138:19 249:10 277:7 334:2 immediate 66:12 immediately 274:17 350:7 373:5 380:21 impact 3:8,12,21 9:4,19 10:4 45:2 52:19 56:3 126:15 126:21 165:2 176:8 224:11 245:14 309:15 312:4,8,12,13 313:9 343:4,6 353:3,4 impacts 10:6 37:20 38:1 39:22 40:1,7 41:4 52:14 54:5 56:4 100:4 126:6 141:14 309:2 311:22 313:7 340:16 342:22 345:5 353:2 357:1 365:11 372:11 383:20 impassioned 278:3 impediments 298:7 299:14,15 imperative 228:1 implement 11:7 25:22 26:12 36:15 145:22 implementation 127:1 264:4 implemented 11:6 48:8 implementing 250:4 implication 302:20 import 288:3,6 importance 336:18 |
| I | | | | |
| | | Ipd 349:4 Ipll 345:6 Ipm 344:10,22 347:7,18 349:3 350:9 Ipve 205:13 ICCAT 52:4 119:10 119:16 144:5,9 227:2,3 258:1 276:4 278:11 | | |

| | | | | |
|----------------------------|----------------------------|-----------------------------|-----------------------------|----------------------------|
| 354:11,18 | 284:8 296:13,15 | indicating 119:11 | Inouye 305:6 | 141:13 |
| important 96:6 | 299:15 | indication 342:2 | input 225:11 335:21 | intermediary |
| 119:1 131:1 | incidentally 239:1 | indications 268:22 | 372:16 375:16 | 244:14 |
| 136:16 211:3 | include 132:8 | indicator 328:13 | insert 176:19 | internally 98:18 |
| 227:15,19 229:9 | 221:18 224:6 | indirected 284:14 | inshore 365:10 | 160:14 |
| 260:8,9 279:6,15 | 312:19 329:10 | individual 46:2 68:2 | inside 40:14 188:1 | international 76:12 |
| 280:21 281:5 | 334:15,15 344:19 | 156:22 311:9 | instance 15:21 24:2 | 121:20 144:5 |
| 324:12 363:21 | 385:1 | 317:2 | 33:18 65:14 99:1 | 175:20 183:18 |
| 364:15 | included 53:4 | individuals 24:11 | 317:10 320:15 | 227:16 228:9 |
| importantly 291:9 | 126:21 175:1 | 359:9 | 328:3,6 334:14 | 248:11 249:14 |
| importation 253:7 | 215:20 246:16 | induced 337:4 | 338:22 352:7 | 260:9 265:14 |
| imports 56:19 293:1 | 306:20 308:12 | 365:2 | 378:5 379:7 | 357:12 |
| impossible 331:15 | 310:11 311:3 | industry 118:16,18 | instant 146:14 | internationally |
| impression 266:21 | 316:17 320:10 | 153:7,10 173:4 | instantaneous | 146:7 |
| impressive 365:14 | 332:12 344:3 | 175:18 186:21,21 | 218:11 | Internet 307:5 |
| improve 30:19 31:6 | 363:15 | 275:9 276:11 | instate 21:1 | 376:4 |
| 60:1 122:19 | includes 38:22 | 278:19 299:21 | institute 70:15 | interpret 260:18 |
| 145:20 200:10 | 90:21,22 317:4 | 356:8 367:19 | 130:4 139:8 142:3 | interrelated 13:18 |
| 295:9 297:2 | including 11:10 | ineffective 355:5 | 146:8 271:19 | interrupt 346:3 |
| Improved 287:19 | 25:18 55:14 | ineffectiveness | institutions 311:10 | intersects 342:15 |
| improving 140:5 | 154:16 310:19 | 143:21 | instructions 64:3 | interview 134:7 |
| 227:17 | 314:16 330:13 | infested 129:19 | 169:7,9 170:19 | invalid 184:19 |
| inability 288:20 | 350:8 357:12 | inform 32:13 | 187:4 | invasive 115:9 |
| inactive 281:13 | inclusion 124:16 | information 48:16 | insufficient 235:11 | 235:15 |
| 286:7 | income 24:12,13 | 61:18 72:5 76:2 | intact 72:12 73:1 | invest 145:7 |
| inappropriately | inconsistent 222:8 | 80:18 98:11 101:2 | intended 228:3 | investigations 73:4 |
| 271:8 | incorporate 62:4 | 101:5 104:3 | 383:19 | investment 274:22 |
| inaudible 171:14 | 231:15 | 107:19 108:2,8 | intends 142:18 | 301:1,19 |
| 203:1 204:16 | incorporated | 150:17 161:17,20 | intent 272:22 309:8 | invited 159:17 |
| 208:4,14 262:22 | 225:17 | 205:10 218:13 | intention 295:2 | invoked 156:2 |
| 335:9 336:10 | increase 17:5 38:15 | 219:3,14 231:5,6 | intents 181:12 | involved 133:8 |
| 356:17 | 39:19 43:11 59:19 | 232:12 246:3 | 183:9 | 147:9 151:22 |
| incentive 286:10 | 212:12 230:3,7 | 258:20 261:4 | interact 346:11 | 154:9 155:14 |
| incentivize 274:22 | 297:22 298:10,11 | 309:5 311:17 | interactive 346:22 | 158:18 173:10,19 |
| inches 34:10 | 300:2 329:15 | 312:21 313:22 | 377:8 379:21 | 175:9 251:7 298:5 |
| incident 257:3 | increased 27:20 | 321:14 330:1 | interactively 346:18 | in-house 67:16 86:8 |
| incidental 10:11 | 104:9 162:21 | 342:21 343:21 | interest 86:20 87:14 | in-shore 138:10 |
| 11:17 12:1 13:3 | 213:22 240:17 | 367:2 375:5 | 87:18 117:10 | Island 369:16 371:7 |
| 20:5,21 21:15 22:1 | increases 298:19 | 378:20 379:4,14 | 168:7 215:8 284:1 | 383:1 |
| 22:8 23:4 25:3 | increasing 219:13 | infrequently 107:11 | interested 16:16 | isolated 6:15 |
| 29:6 36:14 41:6,22 | 275:5 298:7,17,20 | initial 229:22 284:7 | 23:11,13 56:16 | issue 51:11 74:10 |
| 42:10,19,22 47:19 | 301:4 | 308:8 309:9 | 63:15 147:14 | 96:11,21 99:12 |
| 54:17 58:12 92:12 | incredibly 387:6 | 315:14 333:12 | 253:19 318:7 | 114:21 115:12,14 |
| 92:17 94:10,16 | independency | initiated 160:4 | 344:10 349:5 | 116:3 125:15,22 |
| 126:8 180:4,12,14 | 263:9,10 | 274:17 | 374:12 377:11 | 167:2 174:5,18 |
| 180:18 181:6 | independent 5:7 | initiatives 227:16 | 379:21 385:5 | 184:7 198:10,11 |
| 221:4 248:4 | 87:7 154:17 | inland 376:17 | interesting 338:18 | 203:9 234:1 |
| 255:13 256:5,13 | indicated 203:15,16 | innovative 249:21 | interests 120:11 | 235:14 246:10 |

| | | | | |
|---|---|--|---|---|
| 248:20 249:19 250:2,6,12 253:1 253:17 261:19 281:19 288:22 290:13 345:17 350:12 362:12 367:14 368:16,17 382:6 383:18 issues 33:17 44:20 55:12 76:12 92:20 93:1 95:8 115:1 116:3 117:1 166:16 167:16 174:15 178:22 220:7 286:18 344:12 363:19 373:14 382:2 itbs 203:21 210:21 215:4,5 217:16 218:10 224:2 341:10 343:20 item 2:2 155:11 items 43:4 168:12 iterative 324:1 333:4 IUCN 143:11 225:11 i.e 120:11 191:17 | 365:17 366:14 Jeff 72:2,8 jeopardy 207:18 Jersey 43:1 131:10 131:16 139:10,13 240:14 320:15 Jim 166:18 167:5 job 200:16 304:2 354:2 362:13 365:13 jobs 56:13 Joe 107:14 John 91:5 103:18 304:18 335:20 Johnson 64:19 65:7 65:11 244:6,7 joint 251:22 Josh 241:19,20 judge 78:3 258:19 270:2 Julie 91:4 July 50:15 131:1,11 131:21 195:10 198:1,3 209:19 jump 72:2,8 160:2 262:10 jumped 224:14 jumping 246:7 jumps 93:3 June 50:12 88:5 95:10 144:8 194:6 339:1,22 382:18 jurisdiction 198:20 jurisdictional 198:14 justification 105:8 justified 220:12 justifies 223:5 juvenile 287:12 291:18 315:7 318:15 321:13 379:12,12 385:19 385:20,21 juveniles 84:12 386:11 juvenile/sub-adult 318:16 319:8 321:6 | J-hooks 275:22 <hr/> K <hr/> kaput 131:4 Karyl 160:3 Kavanaugh 365:17 365:17 keep 47:22 51:14 61:11 67:8 74:9 103:20 110:12 117:11 121:8,13 155:18 158:19 171:4 193:2 197:12 199:3 201:1 234:12 238:19 239:20 243:15 291:12 298:19 303:19 313:15 315:10,20 366:13 368:8 keeping 43:8 51:9 58:15 70:8 173:22 180:17 238:19 keeps 277:13 Ken 97:9 178:17 285:12,13,14 292:1 302:18 347:13 350:15 353:19,21 363:6 368:11 371:10 382:3 384:10,13 Ken's 365:1 373:5 kept 84:7 174:8 206:18 key 9:15,17,21 10:3 10:19 12:18,20 13:6,7 202:6 275:3 336:21 340:2 Keys 27:1 198:10 198:16 199:4 330:17 342:7 350:2 kick 167:9 kicker 90:6 kill 92:15,16 killing 96:9 kind 12:12 59:2 81:17,18 83:3 | 89:14,19 132:13 137:7 166:6,15 167:10 169:8 176:3,14 178:9 180:8 181:12 188:13 195:5,14 201:7 202:17 205:11 209:14 216:17 219:8,10 219:16 238:10 245:2,10 254:15 274:5,9 275:7 277:7 288:2 293:21 299:4 331:20 340:11 355:11 357:5 374:18 381:21 384:6 387:10 King 198:11 256:7 Kirali 345:8 knew 293:17 knocks 141:3 know 4:3 7:13 13:9 35:17 47:2 57:17 62:10,16 67:19 68:17 71:17 72:11 72:15 74:8 77:20 78:4,9,15,22 87:22 88:15 89:11 91:2 95:4 106:10 107:12,20,21,22 112:13,15 117:8 117:14,20 118:13 118:18 122:4 124:1,7 126:17 127:3 129:10 130:2 137:21 142:10 146:20 147:8,10 148:3 149:8 152:6 153:22 155:8,13 158:13,18 160:11 167:10 168:14 169:11 172:4 177:17 183:9 184:6,18 185:1,9 185:14,16,17,19 185:20 188:17 | 189:18 190:1 192:1 195:8 196:4 197:2,4 199:6 200:6,7,21 201:10 203:1 204:11,18 205:4,11,17 206:5 206:12 207:8 211:17 212:20 213:17 222:5 229:14 230:19,22 231:16 232:15,17 238:10,13,17 239:2,9 240:12,21 241:3,7 242:10 243:9 247:9 248:4 250:22 251:1,12 251:16 253:19 254:19 255:13,18 259:3,14 262:5,12 264:21 265:3,14 267:12 268:12 270:13,14 279:22 281:6,20 289:21 294:4 295:13 298:3 300:9,11,11 300:22 304:5 305:10,17 307:17 311:19 316:13 320:17 337:8 342:16 345:21 349:5 354:2 356:3 359:17 360:1,14 360:15 363:17,19 366:1,1,22 368:11 369:7 372:17 373:1 376:14 381:2,17 384:13 knowing 172:11 220:19 knowledge 68:7 139:19 326:18 known 30:21 110:6 166:22 354:12 knows 83:6 218:13 355:2 368:22 knuckles 78:20 79:2 <hr/> L <hr/> |
|---|---|--|---|---|

| | | | | |
|----------------------------|-----------------------------|--------------------------|-----------------------------|-----------------------------|
| lab 103:3 242:1 | 113:19 136:7 | 76:10 77:17,18,22 | led 144:14 282:9 | 265:21 |
| labeled 242:14 | 153:7,22 158:6 | 78:3,14 82:15 83:8 | left 85:16 95:5 | life 5:13 95:21,22 |
| Laboratory 147:16 | 164:18,19 200:11 | 84:5 95:1 119:3 | 105:18 191:8 | 193:19 195:7 |
| lack 139:18 143:12 | 211:5 212:5,7 | 120:8,14,19 | 206:13 222:15 | 265:21 308:14,16 |
| 144:13 158:5 | 218:20 298:17 | 121:17 122:6,9,10 | 275:7,11 277:14 | 313:1 314:14,20 |
| 161:16 162:3 | landmark 154:13 | 122:14 125:18,21 | 293:22 295:12 | 315:6 321:7 |
| 176:4 268:14 | 157:20 158:4 | 142:17,21 187:6 | 318:17,22 378:16 | 322:10 324:13,15 |
| 387:7 | 202:4 | 187:11 190:21 | 383:9 | 379:7 |
| lag 60:8 218:19 | lands 192:12,16 | 191:1 193:5 | legal 201:8,9 208:1 | light 306:1 |
| 230:16 | language 357:8 | 200:15 204:1,2,5 | 208:2 230:11 | limit 20:3,4,14 |
| lagoons 131:15 | lapsed 283:20 | 208:10 246:21 | 243:21 | 21:22 22:5 29:7,8 |
| land 12:8 21:4,8 | 286:13 294:11 | 247:1 249:19 | legally 299:11 | 34:21 37:13,13 |
| 22:2,17,22 23:1 | large 4:8,20 5:16,18 | 250:6 258:6,19,21 | legend 330:3 379:10 | 47:17 116:17 |
| 34:13,20 36:6,10 | 14:2,18 15:17,22 | 262:19 270:1,2,3,8 | legislation 82:10 | 129:2 193:3,10 |
| 37:14 40:10 51:3 | 16:19,20,22 20:2 | 270:13 | 83:2 118:19 | 221:19 243:10 |
| 53:5 54:2 56:14 | 39:4 52:15 68:11 | laws 256:9 | 355:22 | 254:14 264:5 |
| 58:8,22 73:20,22 | 82:12 83:5 114:7 | lay 100:19 | legislative 253:15 | limitation 298:5 |
| 74:16 109:20,21 | 121:11 135:7,14 | layers 346:17 | lemon 35:4 | limitations 369:8 |
| 120:19 122:8 | 142:19 143:4,8,22 | laying 93:11 | length 34:11 243:7 | limited 41:12 77:12 |
| 161:3 179:18 | 148:10,18 155:4,5 | LCS 4:9,12,20 | 322:15 327:15 | 94:1 116:17 |
| 180:10 190:20 | 161:18 165:7 | 16:21 17:9 19:16 | 365:22 | 167:16,20 247:21 |
| 201:18 207:10 | 193:9 194:11 | 19:16 20:6,13 22:3 | lesser 372:12 | 256:16 264:10 |
| 208:3 244:16 | 222:14 223:9 | 23:2 31:22 36:3,11 | letter 160:22 247:1 | 295:18 296:3 |
| 262:15 341:11 | 224:4 225:5,19 | 37:6 38:6 40:6 | letting 193:16 | limiting 34:19 |
| landed 21:2 22:10 | 246:18,18,18 | 41:1 46:10 47:7 | let's 121:13 122:15 | limits 19:22 20:17 |
| 25:8,11 36:18 38:8 | 287:16 370:7 | 80:21 106:13,15 | 160:14 168:19,20 | 21:18 22:19 27:21 |
| 39:17 50:6 77:7 | largely 282:15 | 111:9 194:5,14 | 191:14 201:21 | 34:18 37:12,22 |
| 90:7 125:2,3 | 313:17 | 197:20 | 217:19 238:19 | 38:13 40:3,22 47:2 |
| 134:16 145:16 | larger 21:16,20 | LCS-NSCS 91:5 | 262:6 264:20,20 | 47:6,19,20 233:17 |
| 153:11 158:9 | 28:14 29:4 72:4,20 | lead 146:6 227:16 | 305:16,22 362:20 | 285:18 286:17 |
| 161:10 188:9 | 74:5 82:13 84:13 | 228:6 276:13 | 371:11 | line 21:12 25:18,19 |
| 211:18,20 212:16 | 152:13 154:1 | 355:6 | level 28:18,20 38:20 | 26:7 27:6 31:10,13 |
| 213:12 227:9 | 163:19 166:8 | leader 249:15 | 53:13 86:22 87:1 | 118:8 184:10 |
| 287:22 369:17 | 203:14 231:15 | leads 219:5 | 89:16 97:6 104:6 | 198:14,21 199:8 |
| 371:22 | 237:15 287:1 | leakage 356:17 | 126:21 140:16,19 | 199:12 256:7 |
| landing 21:3 42:3 | 323:12 326:4 | lean 344:9 | 141:5 147:19 | 299:7,11 334:18 |
| 51:1,9 53:21 72:7 | 334:16 | learn 216:15 | 149:13 159:16 | lines 216:6 334:7,21 |
| 72:12,16 73:8 75:4 | largest 137:11 | learned 199:22 | 168:7,8 190:17 | 341:17,21 347:3 |
| 93:7 121:1 149:14 | 257:21 | 219:18,18 | 191:17 200:15 | 360:4 364:9 |
| 154:16 187:11 | larvae 368:20,21 | lease 281:13 | 209:7 221:20 | Lingo 124:11,12,12 |
| 190:19 199:22 | 379:13 | leave 69:7 70:22 | 313:20 314:1,6 | 125:5 |
| 201:1 203:18,19 | late 45:7 109:14 | 92:22 192:3 | levels 164:22 191:20 | link 200:19 315:5 |
| 261:10,12,21 | 137:7 361:16 | 260:12 295:14 | 284:22 313:21 | 377:16 378:15 |
| 266:20 277:6 | latest 263:1 387:16 | 380:19 | 314:2 354:19 | 381:16 |
| landings 38:3 39:12 | latitude 314:20 | leaves 252:13 | 356:9 | linked 378:22 |
| 40:6 41:1 42:11 | laugh 263:3 | leaving 69:2,19 | liability 203:6 | links 91:7 |
| 52:7,8 55:17,22 | law 69:14,17 70:2,3 | 76:16 78:8 79:1,5 | liable 204:10,10 | Lisa 67:8 113:10,12 |
| 88:11,17 94:11 | 70:5 71:5,8 75:15 | 217:16 259:3 | lie 142:15 263:6,20 | 117:3 228:18 |

| | | | | |
|---|--|---|--|--|
| 235:19 | live 121:17 139:13 146:13 189:21 190:4 287:18 377:3 | 150:7 186:16 210:8 213:8 214:3 232:6,18 239:7 242:12 250:14 267:20 274:21 280:1 297:1 298:1 314:9 359:9,9 361:1,8 362:2 | 299:22 306:12 312:10 315:17 317:19 318:14,21 319:2 325:15 326:3 327:10 328:19 330:2,19 330:20 331:10,18 342:17 344:8 346:17 347:1,8 357:11 358:8,19 359:2,13,15 361:11,21 371:3 376:19 377:12 378:6 379:6,15 380:2 384:20 385:3 | 367:14 369:13 370:15 371:5 374:18 387:17 looks 96:15 320:1 324:5 326:4 386:13 loop 339:9 loophole 220:8 253:10 loopholes 230:13 loosen 220:22 293:4 293:7 lose 184:20 189:7 275:13 276:21 286:9 302:21 303:4 loses 185:7 losing 301:21 loss 105:14 163:4 189:9 299:4 losses 40:4 41:17 lost 284:1 lot 35:17 61:16 83:17 88:4 89:11 93:8 94:19,20 98:10 100:18 106:14 109:7,9,12 117:12 119:7,11 137:20 167:12 175:12,13 178:22 201:16,18 209:1 225:15 228:5 240:11,20 241:1 244:1 245:16 251:8 272:12 276:17 277:2,14 282:20 290:5,7 291:11,16 296:8 296:22 298:12 300:22 301:20 305:18 308:17 309:17 311:19 321:10,14 330:3 330:21 334:19 335:21 336:2 356:14 358:17,18 360:16 361:2,9 363:11 364:22 |
| list 17:22 35:2,8 45:16 53:4 57:10 57:11 80:5,5,7 101:19 102:3,6,8 105:20,21 106:16 118:6 124:17,22 132:17,21 143:11 148:20 149:1,10 161:4 164:14 174:9,10 182:3 201:7 202:1 208:22 209:12 226:3 314:19 340:15 344:22 347:19 378:2 | livelihood 263:4 livelihoods 265:20 living 24:13,19 LNG 353:7 372:14 load 307:6 346:17 347:2,3 378:7 380:17,20,21,22 381:5 loaded 376:8 loan 196:7 lobster 350:8 local 139:14 locally 356:18 located 328:21 349:16 locating 335:2 location 323:8 334:1 374:14 locked 245:4 Loefer 241:20,20 log 84:17 85:9 188:8 188:19 189:2 192:2 logbook 27:12 29:19 30:20,21,22 31:5 51:14 69:15 69:21 74:17,19 75:5 76:20 77:5 79:7 192:14 260:14 261:10 logbooks 28:8 72:3 74:21 88:4,6,16,16 90:14 95:1 121:2 191:2 203:11 247:4 261:15 364:13 logic 106:21 140:8 logs 95:7 132:15 188:4 long 21:12 25:18,19 26:7 27:6 31:10,13 56:1 73:4 85:11 115:16,18 117:20 131:5 141:14 | longboats 213:5 longer 29:9 62:20 142:2 144:11 360:14 longest 366:18 longitude 314:21 longline 81:12 104:21 138:8 155:20 182:19 193:8 215:22 264:6 281:16 283:1,2 284:13 286:4 297:6,10 299:8 312:4 328:6 341:5,14 343:1 348:12 350:5 longliners 283:16 longlines 294:8 longlining 283:11 358:5 383:17 long-lived 210:8 look 24:2 41:3 58:6 71:12 74:12,14 78:11 80:4 82:6 92:4 96:18 101:11 101:13,17 109:16 122:12 137:5 150:9,9 152:7,21 153:12,13 156:13 157:3 195:6 203:16 230:21 231:1 237:11 238:10,13 244:22 247:9,12 248:3 251:2,14 254:20 259:15 261:18 265:15,17 268:11 269:2,4 270:18 271:1 275:9 290:17,18 292:10 | 317:19 318:14,21 319:2 325:15 326:3 327:10 328:19 330:2,19 330:20 331:10,18 342:17 344:8 346:17 347:1,8 357:11 358:8,19 359:2,13,15 361:11,21 371:3 376:19 377:12 378:6 379:6,15 380:2 384:20 385:3 looked 11:12 16:6 41:2,4 42:4 43:7 43:14 75:16 111:14 119:21 153:10 154:9 210:5 234:13 237:1,13 247:4 259:11 266:5 270:20,22 275:8 290:15 327:15 329:4 358:22 370:22 387:4 looking 15:20 37:18 40:4 43:19 44:1 57:19 70:22 101:8 116:2 142:6 153:8 167:14 168:3 225:13 260:3 266:7 267:21 268:3,10,13 298:3 313:17 315:11 322:12 324:2,12 324:17 325:16 326:15 327:13,17 328:9 329:6 332:21 333:4,5 337:21 338:10 339:21 340:1,10 341:4 342:7,21 348:17,21 349:5 358:15 359:3 360:17 366:11 | |

| | | | | |
|--|---|--|---|---|
| 372:14 376:15 380:1 388:5 lottery 217:7,19 218:4 230:1 louder 248:12 Louisiana 90:17,22 love 23:20 low 46:11 75:20 257:13 lower 29:7,8 32:11 145:10 191:9 221:20 301:5 318:17 322:15 329:9,10 lowest 314:1,6 LPS 52:15 lunch 166:11 169:1 169:3,5,16,20 170:8,11,22 171:2 172:9,11 374:9 | major 112:11 153:6 216:4 229:8 245:20,21 285:5 322:1 330:4 368:5 majority 42:18 54:20 77:9,11 153:21 making 123:13 140:10,12 162:16 166:9 230:11 262:14 308:8 346:20 mako 35:5 52:2 makos 112:1 238:3 mammals 277:17 man 247:12 manage 90:20 managed 50:21 124:5 140:20 159:1 251:21 312:11 343:2 management 3:5 8:4,11,17,21 10:13 11:1,14 13:14 14:3 14:10,12 26:2 35:21 37:17,20 41:9 42:20 52:13 58:18 62:4,7,10,14 62:21 70:16 123:2 140:5 158:3 159:12 165:15 166:15 174:1 194:13 198:19 245:3 308:14 310:8 342:5 348:2 managing 255:2 mandated 247:10 262:18 mandates 367:22 mandatory 280:17 304:3 manipulate 320:3 manner 25:4 174:18 234:6,8 manpower 76:18 manually 320:3 manufacture 264:20 | map 312:22 314:14 317:2 321:17 325:16 346:12 378:8 381:7 mapped 311:10 329:13 340:6 mapper 381:13 mapping 307:11,13 307:14 312:19 320:9 324:2 343:20 350:18 376:4 maps 306:18,19 308:17 314:11 317:19 318:3 333:5,5 339:16 346:9 347:1 358:10 364:4 386:8,13 March 44:7,22 309:10 382:18 Margo 101:7 169:7 174:21 207:5 268:5 306:2 345:9 345:15 357:5 372:3 376:1 marine 1:6 26:2,8 26:12 27:3 36:16 52:16 67:16 68:19 71:4 103:3 130:4,8 130:14 133:7 147:15 160:18 225:12 255:8 257:8 258:3 259:11 262:1 266:16 269:21 277:17 297:16,18 353:22 375:4 383:20 384:3 Mark 117:4 122:21 124:11,11,12 167:6 178:14 183:3 236:9,10,13 243:3 market 86:1,5 92:13,17 179:15 188:8 192:6 193:20 297:5,6 | marketing 275:4 293:9 297:14 300:3 markets 145:2 278:1 marks 319:16 Mark's 241:21 marlin 242:13 384:17,21 385:1,3 Maryland 1:16 131:16 136:12 210:1 236:13 240:13 masking 362:1 match 323:20 matches 367:2 mate 237:3 matter 74:15 76:14 78:6 154:15 155:15 171:19 175:2 180:13 181:14 238:8 286:5 305:21 330:20 mature 210:9 maturity 388:3 maximum 140:17 142:16,20 221:19 224:15,16 McAllister's 87:16 McCURIE 139:6,7 mean 62:17 64:20 64:21 68:5 73:10 84:4 96:18 98:9 103:15 104:8 113:21 122:7 126:14 137:16,17 158:7 192:3 204:3 206:22 220:2 238:10 256:15 274:16 276:19 277:18 289:12 298:10,11 304:15 320:16 325:15 346:3 356:5 359:6 367:13 368:4 371:9,9 372:4 meaning 152:11 | 260:11 means 62:19 66:10 66:10 140:19 185:6 189:4 195:5 202:10 288:2 299:1 386:8 meant 211:8 222:5 303:6 measure 115:2 145:22 190:16 201:4 measurement 243:7 243:10 measures 8:4,12,17 8:21 10:13 11:1,14 13:14 14:3,10,12 26:6 27:5 34:7 35:21 37:17,21 41:9 42:20 52:3,22 56:22 59:8 70:16 99:22 100:19 131:8 144:4,14 159:12 163:11 164:8,10 234:18 293:3,11 313:6 340:20 343:5 355:5 meat 84:19 85:16 85:22 188:14,21 192:4 193:20 206:13 259:20 mechanism 372:20 mechanisms 147:20 medium 257:16 meet 24:4 195:14 211:22 293:2 338:8 meeting 1:10 44:22 91:17 95:11 97:1 119:16 124:15 125:11 126:3 129:13 130:21 166:15 309:10,11 316:19 338:3 374:8 meetings 70:1 174:20 227:3 374:13 |
| M | | | | |
| mackerel 198:11,12 256:7 magazine 242:12 magic 168:15 231:1 magnitude 265:18 Magnuson 71:11,13 100:13 122:15 195:11 308:11 368:1 Magnuson-Stevens 100:1 307:21 mail 4:2 main 14:1 249:17 294:8 317:16 372:9 Maine 90:18 maintain 14:15,20 14:22 15:3 17:16 18:3 25:17,21 26:10 27:12 28:7 29:18 37:11 116:20 140:22 169:4 194:1 282:12 maintaining 15:16 173:5 | | | | |

| | | | | |
|--|---|--|---|---|
| mega-business 97:14 | 36:2,4 38:4,5,8,9 38:17,21 39:6,8,16 | mid-90s 291:1 | miscalculation 82:18 | 285:10 292:1 293:14 296:17 |
| member 139:7 | 46:5 52:6 61:9 | migratory 1:9 3:5 197:15 306:11 | misidentification 53:13 237:19 | 300:8 305:8 332:2 345:15 346:2 |
| members 117:15 118:6 122:22 128:5 129:1 168:18 172:2,2 179:2 236:4,5 338:16 | 110:8 123:17 143:1,3 164:16 177:16 276:21 277:16 | mile 316:12,18 319:11 328:22 | misidentified 101:20,22 102:2,4 102:13 | 347:12 350:14 353:19 362:14 365:15 366:14 370:19 373:4,8 381:8,11,20 384:10 385:7 386:17 388:10 |
| memory 75:18 151:17 | Mexican 55:16 89:2 89:3 | miles 316:3 332:4 | misidentifying 52:1 | |
| men 219:19 | Mexicans 89:17 | Miller 363:3,3 | missed 219:2 283:21 311:18 | |
| mention 30:5 184:2 288:18 333:11 355:10 | Mexico 4:15 6:16 17:4 26:17 33:7,19 50:20,21 88:11 89:6,8,10,12 90:22 105:9 123:2,8 124:5 176:1,2 197:17 198:22 199:5 285:2 303:22 332:14 338:5,20 340:3 341:9 354:5,16,21 354:22 355:1,16 355:20 356:6 357:14 364:3,11 365:4 367:13,15 368:14 369:22 370:9,12 371:11 377:20 382:8,15 382:17 383:5,16 384:15 387:19 | million 40:6,21 195:21,22 196:2 196:17 276:22 277:9,10,10,11 | missing 71:15 127:2 159:9 219:4 274:13 | modification 44:6 |
| mentioned 5:22 6:13 10:17 61:7 99:4 165:11 223:17 224:13 226:18 227:12 267:5 296:12 300:15 316:10 341:4 364:1,19 366:4 383:22 | | millions 264:22 | mistake 185:7 245:17 | modifications 174:13 315:14 |
| mentioning 106:22 281:22 | | millionth 304:2 | mistaken 112:12 | modify 159:11 198:2 315:18 |
| merged 316:1 | | mimics 110:5 | misunderstood 146:11 | modifying 334:6 344:14 |
| merit 373:2 | | mind 110:12 121:8 121:13 263:14,18 313:15 315:10,20 371:2 | mis-communicati... 214:18 | moment 9:11 11:21 14:7,12 228:16 275:12 |
| merits 151:10 | | minds 240:7 | mix 127:14 383:3 | monetary 142:6 146:15 |
| mess 90:16 | | minimal 224:11 287:10 309:3 328:5 329:4 336:6 352:19 | mixed 99:17 | money 87:4 97:13 120:12 147:11 184:7 206:15 229:16 263:12 301:20 374:4 |
| message 265:9 | Miami 198:15 330:5 | minimize 48:3 308:2 309:2 313:7 340:20,21 343:5 353:2 | mix-up 242:15 | models 5:6 |
| messaging 252:16 | mic 128:8 178:14 186:16 208:19 214:14 248:13 285:14 292:6 325:10 | minimum 85:15 141:4 200:17 201:5 243:19 292:15 | MODERATOR 61:3 62:22 63:16 63:22 64:10,15 67:3 83:11 98:4 102:22 113:10 117:3 118:5 122:20 124:10 125:6 128:1,12,14 129:21 139:4 146:16 157:14 160:15 162:15 165:21 166:14 167:5,22 170:17 171:15 178:5 184:12 186:9,15 202:19 205:6 208:12,15 214:7 228:14 235:19 241:19 242:4,19 244:4 248:7,12,16 250:17 251:19 252:4 254:4 266:1 271:3 272:2,21 273:4,8,12,19 | MODERATOR 61:3 62:22 63:16 63:22 64:10,15 67:3 83:11 98:4 102:22 113:10 117:3 118:5 122:20 124:10 125:6 128:1,12,14 129:21 139:4 146:16 157:14 160:15 162:15 165:21 166:14 167:5,22 170:17 171:15 178:5 184:12 186:9,15 202:19 205:6 208:12,15 214:7 228:14 235:19 241:19 242:4,19 244:4 248:7,12,16 250:17 251:19 252:4 254:4 266:1 271:3 272:2,21 273:4,8,12,19 |
| messed 258:21 264:7 | | mining 95:1 191:2 | | monitor 28:5 31:11 113:18 192:22 295:4 |
| met 71:21 209:6 231:14 249:21 | | minor 133:16 138:15 229:9 | | monitoring 27:10 28:10 30:2,9,13 33:17 34:2 37:2 48:8 59:20 176:15 212:13 255:6 256:14 |
| meters 334:22 | micro-managed 196:3 | minus 16:22 233:21 | | Monroe 199:9 |
| method 114:14 115:9,19 116:1 145:17 233:2 | Mid 131:3 251:22 | minuses 314:8 | | monster 176:4,21 |
| methodology 326:13 365:19 | middle 75:21 82:9 219:19 | minute 3:19 19:1 89:21 307:4 351:11 | | month 232:16 236:14 309:14 384:14 |
| methods 235:15 307:14 | Mid-Atlantic 241:11 284:15 320:14 | minutes 63:2 129:3 156:2 168:22 169:11 170:2 172:18 235:21 272:5 374:22 | | months 194:9 261:6 360:7 |
| metric 6:4,5 14:18 14:19 15:3 16:2,5 16:12 17:9 18:4,9 18:11,11,13 24:17 | mid-1950s 314:10 321:16 | mirrored 233:21 | | moot 133:2 180:9 180:15 184:7 213:6 |
| | mid-1970s 155:2 | mirrors 80:5 | | moratorium 224:4 |
| | mid-1980s 155:3 | | | |

| | | | | |
|---|--|--|--|---|
| morning 63:10 174:22 177:6 216:19 236:1,8 242:22 373:12,19 374:9 385:8 | 176:12 306:3 307:7 380:12,14 names 68:2 86:10 86:12 Nancy 86:11 narrow 83:18 195:1 narrowed 364:17 narrower 102:18 nation 113:1 national 1:3,6,20 11:2 48:3 54:6 67:16 68:19 71:4 130:14 147:15 225:12 242:11 255:8 257:7 258:3 259:10 262:1 266:15 269:20 297:18 307:9 353:22 355:21,22 383:20 384:3 | 120:1 121:7,18 122:2 126:13 150:7 159:9 170:2 170:16,17 179:11 182:10 183:4 184:3 187:12 192:7 193:4 195:5 198:7 200:12 202:20,22 205:21 209:11 211:14 213:16 216:1 217:3 219:10 228:15 230:4 234:1 240:9 244:22 245:2 247:22 248:3,4 250:8,14 253:5,16 267:1 271:3 279:8 280:11,15,16 281:19 283:13,14 284:21 287:17 290:10 292:10 294:5 301:15 302:14 304:16,20 305:1 308:7 331:18 339:13,17 344:3 347:9 354:19 357:11 362:8,17,21 363:12,15,22 364:6 381:11 382:13 383:10 385:1 386:4 | 213:14,15 216:10 216:20 217:18 220:8,20 222:9 234:7 235:2,9 240:2 265:6 293:21 295:14 308:17 345:4 Neer 91:4,21 negative 40:7 339:4 352:22 negotiate 305:2 Nelson 67:6 98:4,6 101:7,15 271:6 385:10 neonates 138:22 315:8 NEPA 11:3 100:11 net 25:19 31:10,13 47:17 348:10 never 62:9 84:16 91:19 96:11 153:11 154:8 188:8 263:7 265:18 277:21 new 8:11,17 43:1 54:11 99:22 100:12 109:22 111:20 112:10 124:14,20 125:1 131:10,16 139:10 139:13 145:2 165:1 179:21 206:2 234:13,13 237:7 240:14 246:3 251:22 275:14 300:17 302:12,22 303:16 306:19 310:21 313:5 316:9 319:12,18 320:15 322:20 326:4 330:14 348:2 349:3 363:10 366:17,20 376:4 377:1 | NGOs 260:9 265:7 nice 142:7 251:11 261:22 night 276:20 278:4 385:15 nightmare 171:22 249:5 nilly 248:2 nine 85:4 360:2 Nineties 89:17 282:21 NMFS 7:22 23:8 29:12,13 30:15 36:22 46:19,19 48:4,18,22 49:1,3 49:6,8 50:2 51:11 51:12,14,17 52:3 52:19 53:6 55:3,16 55:17,18,20 56:1 56:12,17,21 57:2,3 57:22 58:7,9,20 59:12,14,19,22 70:4,15 86:5 87:4 87:8 88:3,18 91:11 91:19 92:10 105:15 113:17,21 114:3 134:12 142:15 143:13,21 144:4,18 145:5,9 145:21 160:11 161:5,7 162:12 163:8,22 164:5,10 164:13,15 165:5 174:17 179:13,17 187:2 189:15 191:14,18 199:1 206:19 218:21 219:7 221:12 223:5,9,15,19 224:14 227:16 228:20 230:2 234:6 243:18 246:12 271:9 333:6 336:1 344:13 345:4 356:2 387:16 NMFS's 347:19 NOAA 87:8 |
| Mote 103:3 motivated 170:8 mouth 119:18 226:22 263:16 move 71:19 120:16 160:14 161:6 162:12 178:13 208:13,16 252:19 271:4 284:5 299:9 301:13,14 345:6 moved 114:15 294:1 movie 134:10 moving 65:8 120:5 126:22 177:6 218:10 222:3 298:13 306:5 322:6 325:2 328:16 332:8 336:14 343:17 MPAs 48:9,10,12 MRFSS 52:17 mud 342:12 352:15 multiple 154:4 246:16 Murdoch 87:16 Musick 91:18,21 130:1,1 134:5 135:3,22 136:4,9 138:1 139:3 151:3 muster 284:20 | nations 253:8 302:22 natural 162:19 317:8 319:20,21 320:1 329:16 335:3 nautical 316:2 319:11 328:22 near 163:3 229:4 352:15 355:14 nearing 300:9 nearly 42:2 necessarily 41:18 47:3 124:7 148:8 149:19 160:8 231:19 233:18 237:21 259:8 298:11 302:1 312:9 332:11 necessary 162:7 163:12 182:16,20 233:1 313:3 354:17 356:19 357:3 need 8:12,17 44:11 47:3 49:2 58:3 62:19 69:7 92:3 93:22 94:1 95:3 | 210:22 211:11 226:19 229:11 234:14 284:11,13 287:2 needs 44:15 48:22 49:1 119:6 120:2 121:15 138:17 173:21 175:22 176:16 185:11 186:22 187:2,4 196:22 199:1 | 308:17 345:4 Neer 91:4,21 negative 40:7 339:4 352:22 negotiate 305:2 Nelson 67:6 98:4,6 101:7,15 271:6 385:10 neonates 138:22 315:8 NEPA 11:3 100:11 net 25:19 31:10,13 47:17 348:10 never 62:9 84:16 91:19 96:11 153:11 154:8 188:8 263:7 265:18 277:21 new 8:11,17 43:1 54:11 99:22 100:12 109:22 111:20 112:10 124:14,20 125:1 131:10,16 139:10 139:13 145:2 165:1 179:21 206:2 234:13,13 237:7 240:14 246:3 251:22 275:14 300:17 302:12,22 303:16 306:19 310:21 313:5 316:9 319:12,18 320:15 322:20 326:4 330:14 348:2 349:3 363:10 366:17,20 376:4 377:1 newly 283:4 news 237:15,16 367:5 | |
| <hr/> N <hr/> N 3:1 173:1,1,1 name 67:11 129:4 139:6 162:18 | | | | |

| | | | | |
|---------------------------|----------------------------|----------------------------|-----------------------------|---------------------------|
| nodded 357:5 | 112:9 | 295:13,15,18,20 | 31:10 49:3 70:20 | official 223:4 |
| nominal 39:19 | Northwest 377:21 | 295:21 301:12 | 104:12 105:2 | 240:11 |
| non 36:10 40:5 | note 332:1 | 303:12 316:4 | 148:13,16,22 | offloaded 66:14 |
| 104:14 111:8 | notes 184:14 185:3 | 317:7,21 318:13 | 149:14,14,16 | offshore 244:19 |
| 115:8 132:11 | notice 23:10 32:4,7 | 321:4 322:7,10,18 | 154:18 175:14 | 337:7 355:18 |
| nongovernmental | 32:11,18 33:2 37:7 | 323:5,12,15 325:8 | 255:1 | 356:9 365:4,11,12 |
| 311:7 | 46:17 60:14 81:12 | 325:12,17 328:17 | observing 69:9 | 384:2 |
| noninvasive 115:19 | 98:20 167:11 | 329:9 336:18 | 147:6 191:4 | Off-mic 166:1 |
| 115:22 | 231:22 244:18 | 340:17 350:18 | obvious 76:22 89:22 | oftentimes 155:5 |
| nonpoint 353:16 | 290:3 306:8,16 | 355:19 356:9 | 137:5 197:2 205:1 | oh 128:12 136:6 |
| non-fishing 308:22 | 309:7 321:8 | numbers 136:19 | 367:7 | 177:1 181:21 |
| 351:19 352:2 | 322:22 333:14 | 139:19 140:1 | obviously 170:18 | 182:17 183:20 |
| 353:4,11 | 344:18 373:4 | 153:8 156:16 | 191:13 196:5 | 186:4 192:13 |
| non-HMS 340:19 | 376:19 377:16 | 164:21 266:11 | 215:8 217:15 | 222:16,17 |
| non-kind 104:1 | 379:9 | 287:16 322:12,16 | 239:11 289:17 | oil 353:7 365:4,12 |
| non-research | noticed 9:2 79:13 | 327:11 329:10 | 322:12 327:20 | 384:1 |
| 103:16 147:6 | notify 60:15 232:1 | 359:8 | 336:3 341:8 345:9 | okay 9:1 19:21 |
| non-ridgeback | notion 119:19 | nurse 35:4 310:17 | 360:16 363:21 | 35:17 41:20 49:11 |
| 108:16 238:12 | 120:21 140:15 | nursery 131:13 | occasionally 342:15 | 50:8 51:1 57:5 |
| non-ridgebacks | 301:21 303:18 | | occasions 77:19 | 62:22 63:16,22 |
| 132:22 | Nova 271:10 | O | occur 26:7 32:18 | 64:16,17 65:17 |
| non-sandbar 16:21 | November 4:5 45:6 | O 3:1 173:1,1,1 | 42:22 138:10 | 66:8 67:3,7,7 |
| 17:8 19:16,16 | 45:12 90:4 309:8 | objective 98:14 | 189:9 194:5 372:7 | 75:11 80:8,17 84:9 |
| 20:13 22:3 23:2 | no-fishery 265:8 | 302:2 | occurred 4:7 44:6 | 105:5 108:6 |
| 31:22 32:2 36:3 | no-no 350:4 | objectives 23:9,14 | 86:20,21 316:16 | 110:10,19 113:7 |
| 37:6 38:6 39:4 | NR 321:22 | 24:4 110:4 | 341:19 | 124:10 128:14 |
| 41:1 46:10 47:7 | NRC 87:12 | obligations 357:13 | occurring 6:8,11,22 | 129:4,21 136:6 |
| 111:1,5 150:1 | NRDC 226:11 | observations 316:4 | 7:6,18 8:8,15 19:7 | 157:16 166:14 |
| normal 188:18 | number 4:6 8:9,11 | 319:10 329:11 | 70:13 91:1 330:21 | 167:5,22 168:5 |
| normally 189:22 | 23:18 36:11 37:13 | 330:6 | 341:1 355:15 | 169:2,16 170:9,13 |
| north 26:22 33:6 | 38:15,19 39:9 | observe 69:12 | 361:5 | 171:2,12 178:16 |
| 43:1,3 83:14 85:8 | 40:16 41:20 42:5 | observed 138:18 | occurs 352:21 | 181:17,21 183:6 |
| 85:17 131:6 | 42:13 45:11,22 | 151:14,17,19 | ocean 97:10 108:22 | 183:12 186:10 |
| 133:21 135:21 | 47:1 55:8 57:8 | 158:5 315:3 317:5 | 139:9 193:13 | 192:8,14 195:17 |
| 136:1,4,11,14 | 63:14 64:16 70:9 | 319:8 | 222:19 223:3 | 197:8 202:18 |
| 144:9 189:20 | 83:21 94:6 103:6 | observer 27:12 28:8 | 236:13 307:9 | 208:12 210:3 |
| 198:3,4,20 206:8 | 103:13 112:16 | 29:19 30:8 37:3 | 362:5 | 214:9 222:17 |
| 240:15 271:12 | 113:4 130:22 | 47:21 69:3 73:11 | Oceana 160:19 | 228:16 230:9 |
| 298:13 310:13 | 140:17 147:4 | 73:13,18,21 76:15 | 253:2 | 231:11 232:16 |
| 349:20 365:18 | 165:7 173:10,20 | 77:12 103:15,16 | oceanic 1:3,20 35:6 | 233:9 235:20 |
| 368:21 370:10 | 174:13 179:17 | 103:19,20 104:6,9 | oceans 139:22 163:5 | 243:1 266:1 |
| 371:1 383:2 | 186:10 208:22 | 104:22 147:7,9,20 | 163:14 | 272:21 273:2,8,19 |
| 385:20 | 213:20,21 215:8 | 151:19 157:8 | October 1:14 4:4 | 273:20 274:2 |
| northeast 68:1 | 230:22 231:1 | 215:12 217:2 | 306:14 | 305:15 326:6 |
| 86:11 176:7 | 246:15 247:13,16 | 229:19 247:6 | offer 140:3 142:7 | 332:2 347:12 |
| 332:16 336:1 | 256:17 263:1 | 311:8 315:3 | office 185:19 218:15 | 351:16 353:18,21 |
| 377:20 | 267:9 279:19,20 | 341:14 364:13 | 375:3 376:10 | 359:3 373:8 |
| northern 111:20 | 285:18 292:16 | observers 30:10 | officers 133:7 146:9 | 374:16 380:10 |

| | | | | |
|---|--|--|--|---|
| old 146:22 219:12 292:9 367:5 | 122:14 182:9 228:6 236:6,7 252:15 263:19 272:4 286:15 302:18 368:3 372:21 | outreach 53:7 235:3 375:12,14 | 28:2,6 32:10 | 244:16 248:5 270:5,7 271:18 289:4 290:14 301:22 320:4 326:15 327:1 |
| Olsen 129:4,5,19 | oppose 143:3 | outs 171:1 | owe 274:5 | PARTICIPANT |
| omitted 79:15 | opposed 87:1 118:15,17 169:17 203:20 207:11 219:11 303:21 327:10 359:4 367:4 | outside 12:9 16:7 22:19,21 25:2 30:3 30:12 36:8 38:13 40:9,20 47:8 73:8 103:21 105:4 113:19 279:9 299:9 | owing 256:22 | 63:13,18,20 64:8 64:13 66:7 68:13 71:10,14,16 75:7 102:14 107:3 108:10 110:11 113:2 114:5 117:9 118:11 122:17 123:9 129:18 134:5 151:13 152:2,5,8 156:9,14 166:21 170:13 173:2 178:16 181:16,17,19,21 183:3 202:21 203:8 204:1,6,9,12 204:15,17,20 205:2 207:5,19 208:3,5,7,14 214:15 251:20 271:21 272:17 273:2,6,11,17 279:17 296:19 301:2,12 304:7 325:4,7,9,11 326:5 326:7,12,20 327:9 328:12 329:17,22 331:14 332:3 335:8 336:7,10 366:16 371:8 372:13 373:6,11 380:4 388:12 |
| omitting 80:10 | opted 142:15 | outside 12:9 16:7 22:19,21 25:2 30:3 30:12 36:8 38:13 40:9,20 47:8 73:8 103:21 105:4 113:19 279:9 299:9 | owners 216:4 | participate 23:22 42:17 126:5 |
| once 43:12 62:12 95:6 97:5 107:7,8 112:19 113:22 114:4 133:4 144:18 193:15 309:5 333:5 | opted 142:15 | overall 38:18 159:8 165:3 224:20 322:16 | o'clock 270:18 305:15,15 362:22 373:18 | participated 217:2 participating 12:9 215:9 |
| onerous 247:7 | option 98:22 252:7 272:14 | over 38:18 159:8 165:3 224:20 322:16 | <hr/> P <hr/> | participation 229:14,19 |
| ones 54:13 59:9 92:10 94:14 99:12 102:7 201:1 205:9 264:17 321:21 323:19 348:22 | options 67:2 98:13 98:19 | over 38:18 159:8 165:3 224:20 322:16 | P 3:1 | particular 14:4 86:4 87:1 94:13 98:15 128:17 157:4 168:8 189:10 |
| one-day 193:7 | oral 96:22 | over 38:18 159:8 165:3 224:20 322:16 | Pacific 146:2 | |
| one-hour 169:1,5 | order 23:22 24:18 27:10 70:7 87:12 104:10 128:17 162:4 176:16 179:8 197:19 235:11 282:4 288:9 298:19 301:5,13,14 | over 38:18 159:8 165:3 224:20 322:16 | pack 81:21 95:7 367:10 | |
| one-year 195:12 | orderly 303:7 | over 38:18 159:8 165:3 224:20 322:16 | package 152:16 | |
| ongoing 74:18 | organization 128:21 354:2 | over 38:18 159:8 165:3 224:20 322:16 | page 2:2 94:5 127:5 192:7,10,11 197:7 306:15 380:7 | |
| online 376:4 | organizations 265:1 | over 38:18 159:8 165:3 224:20 322:16 | paid 88:21 259:6 271:15 | |
| on/off 184:7 | original 4:3 166:20 310:7 387:2 | over 38:18 159:8 165:3 224:20 322:16 | pain 276:12 | |
| Oops 202:22 | originally 388:6 | over 38:18 159:8 165:3 224:20 322:16 | palatable 85:22 | |
| open 5:2 29:9 33:12 50:14 75:1 102:8 129:15 181:6 215:5 229:3 254:15,20 275:22 292:19 299:5 368:16 369:3 381:18 | originated 342:3 | over 38:18 159:8 165:3 224:20 322:16 | Panama 97:1 147:15 | |
| opened 128:7 181:4 | ought 67:8 78:14 115:17 168:13 253:11 283:8 284:2,2 296:14 358:5 370:1,15 | over 38:18 159:8 165:3 224:20 322:16 | Panel 1:9 118:6 122:22 125:11 126:3 128:4 236:4 | |
| opening 131:22 197:20 198:1,1 216:12 235:8 382:1 | outer 350:10 | over 38:18 159:8 165:3 224:20 322:16 | paper 120:22 156:7 156:13 157:2 257:21 259:22 260:4 271:13 327:14 339:22 | |
| operate 31:12 301:8 | outlier 342:16 350:5 | over 38:18 159:8 165:3 224:20 322:16 | papers 98:13 338:14,18 387:3,9 | |
| operating 22:19,21 39:10 40:9,13,16 40:20 | outliers 317:15 323:10 | over 38:18 159:8 165:3 224:20 322:16 | paperwork 73:3 | |
| operation 256:2 | outline 3:17,20 | over 38:18 159:8 165:3 224:20 322:16 | parameter 7:2 | |
| opinion 44:3 87:21 158:9 266:20 268:16 288:21 | outlined 19:12 312:17 | over 38:18 159:8 165:3 224:20 322:16 | parameters 5:13 76:1 | |
| opinions 368:19 | | over 38:18 159:8 165:3 224:20 322:16 | Parks 124:13 | |
| opportunity 120:7 120:13 122:6,10 | | over 38:18 159:8 165:3 224:20 322:16 | Parrott 367:1 | |
| | | over 38:18 159:8 165:3 224:20 322:16 | part 14:5 66:13 70:18 72:4,19 80:21 87:11,22 91:14 94:4 97:10 98:11 106:13 110:12,15 114:7 123:15 135:14 159:5 180:3 188:8 214:5 215:10 | |

| | | | | |
|---|---|---|---|---|
| 195:4 223:18 224:22 227:15 258:11 286:2 288:10 308:20 315:6 336:14 337:2 338:4 339:19 340:13 349:2 352:14 354:6 360:6,7 364:20 369:6 377:10 379:14,17 382:10 particularly 83:5 96:4 132:6 133:9 135:6,7 143:9,16 148:10 176:1 179:22 182:10 187:6 191:1 197:15 201:10 224:3 298:9,12 320:14 350:2 357:14 parties 147:14 parts 24:13 139:21 144:21 240:14 passed 121:17 131:21 237:2 passion 276:16 password 380:13 381:8 Patps 345:21 Pat 347:13,14 350:14 path 247:7 patient 222:20 patrol 133:7 pattern 342:19 361:15 Paul 346:1 347:11 pause 117:18 pay 188:12 189:6 196:6 payback 302:4 Payne 87:5,15 PDF 346:8,21 378:17 pectoral 191:8 PEEL 242:8 384:12 | peer 5:7,11 151:10 160:10 210:10 pelagic 14:21 20:15 21:12 25:18 52:15 81:12 135:9 182:19 213:5 282:22 286:4 316:17 337:19 355:12 358:4 pelagics 14:6 15:18 17:17 20:4,6 22:6 22:7 23:3 32:15 36:12 337:7,14 351:2 pelvic 190:12 penalize 50:19 penalized 47:14 133:18 people 15:6 16:15 30:22 32:8 35:8 46:5 48:15 52:1 56:14 57:16 60:18 63:10 68:14 82:15 92:13 99:7 112:7 117:8,19 121:5 129:9 132:3,5 133:14 148:4 161:8 166:9 168:3 168:9,14,18 170:15 177:19 187:22 197:5 201:14,16 206:19 206:20 211:22 213:16 229:13,18 232:15,20 239:12 240:7 242:5 247:15,20 248:1 249:21 256:1 257:18 262:14 263:14 265:13 267:2,18,22 268:6 268:9,13 278:5,16 281:14 283:20 286:10 288:18 290:8,18 294:6,7,9 294:11,16 295:1 295:22 296:1 300:12 301:1 | 302:4 305:18 327:6,7 356:16 373:16 people's 265:19 percent 19:4 30:8 31:3 32:3,6,9,17 33:1 37:7 46:13,16 51:11,15 60:11,13 69:3,14,16,17 70:2 70:5,12 71:5,8,12 71:13 74:4,5,7,17 75:9,11,15,19 76:8 76:10 77:8,17,22 78:2,5 82:9,22 83:3,7 84:4,20,21 84:22 85:4,11,15 85:17 89:7,9 99:18 100:7 103:15 104:14 118:20 119:12,19 120:14 134:18,22 135:12 135:14 138:9 155:16 156:3,5,6 175:14 183:21 185:4 187:6 188:18 190:21 191:5,6,22 192:19 203:6 204:2,7,11 206:7,8 207:17 208:11 215:11 220:11 230:18 231:3 232:10 246:15 247:5,10 248:22 250:12 253:4 256:19 258:13,16,17 259:21 261:12 262:19 269:11 270:1,8,12,14,22 276:10 283:18 289:6 291:3,4 292:16 303:3 317:10,14 318:1,9 321:5 323:7,17 325:19 330:6 332:9 341:18 344:7 346:14 388:3,9 | percentage 137:2 151:22 206:17 231:8 241:4 246:13 266:11 317:4 321:21 percentages 192:22 205:20 perception 176:11 perfect 142:8 172:7 perimeter 351:8 period 4:3 27:17 28:4 29:15,15 30:16 37:1 45:5,12 49:15 63:9 113:18 118:10 155:10 157:9 166:18 168:12 169:1 224:16 229:1 271:1 310:2 348:8 359:10 362:3,10 383:17 periods 64:1 197:10 232:6,6 permit 10:9,10,12 11:15,17 12:2 13:2 13:4 20:1,5,9,11 20:21 21:16,17,20 22:1,4,8 23:4 29:4 29:6 36:13 41:5,6 41:21 42:1,2,19,22 44:15,18 47:19 58:10,12 60:5,7 65:6,16 66:5,6 92:12 94:2,7 180:14 234:3,9 284:13,13,14,15 286:15 293:5,6,7 294:13 296:15 299:13 permits 15:9,11 18:15 36:14 41:5 41:14 42:9,10,13 94:9,10 180:4 281:14,15 283:20 284:3,12,16 285:19 286:4,5,8 286:13 294:11 296:2,3,6,10,13 | 299:6,10 permitted 50:5 220:5 239:12 372:7 permitting 296:8 perpetrated 263:8 263:21 persisted 388:7 persistent 238:16 person 34:14 65:4 66:11 83:22 215:19 218:12 241:14 257:3 267:16 268:6 271:13 350:7 personal 290:12 personally 88:13 177:18 personnel 145:9 perspective 299:20 302:1 367:20 Peter 103:2,2,10 104:7 105:5 106:10 108:6,13 250:19 251:19 252:4 Petersburg 281:17 petition 70:6 phase 312:15,20 phases 311:2 phone 231:16,17 phonetic 85:3 87:3 139:6 206:21 268:7 345:8 photo 242:11,16 physical 334:1 356:13 physically 65:8 pick 65:3,15,18 69:5 107:6 219:19 241:15 263:13 352:4 362:16 363:14 picked 82:9 picking 184:17 231:16 picture 31:7 179:12 237:11,13 259:16 |
|---|---|---|---|---|

| | | | | |
|--|--|---|--|---|
| pictures 148:17 176:22 | platforms 365:4,12 | 317:1 330:7,10,12 | populations 6:14,16 140:21 141:20 194:21 | 375:19 |
| piece 158:20 259:22 260:4 | play 226:14 286:22 337:9,17 | 331:15,19 333:10 | post 185:19 218:15 376:22 386:10 | Postal 114:12 |
| pieces 153:15 | played 154:7 285:5 | 335:17 342:15 | porbeagle 4:19 7:20 7:21 8:1,6,15 14:6 17:18,21 39:13,15 39:19,21 46:21 51:21 52:2,5,7,9 68:8 111:18 112:2 113:4,8 144:3 161:3 163:9 164:14,19 165:3 177:9,12,14 202:2 226:2 227:14 228:4 233:9,12 | posted 377:4 378:20 |
| Pierce 129:13 | player 285:4 | 367:6,19 368:2,10 | poster 262:6 265:12 | posting 306:14 |
| pig 180:1 210:17 254:9 | players 303:11,16 | 369:4 370:21 | postmark 114:11 186:1 | postmarked 27:16 29:13 114:9 |
| pigs 184:17 | playing 97:6 169:8 303:15 | 377:6 383:11 | postmarking 114:13 185:18 | post-consolidated 366:7 |
| Pilot 134:7 | pleading 284:19 | 386:22 388:12 | post- consolidated 366:7 | potential 41:20 94:6 298:16 316:9 318:3 322:19 324:3 330:14 340:18 342:9 346:14 |
| pin 339:18 | please 67:10,11 167:20 171:4 325:10 357:20,21 373:19 376:7 | pointed 58:13 125:10 160:3 183:20 216:19 222:6 253:6 | porbeagles 14:22 17:19 52:11,15,18 52:20 111:12 112:1,6,8,13 144:7 181:22,22 200:2 202:11 245:15 | potentially 83:8 106:2,3 110:2,7 277:20 312:3,8,9 315:8 318:11 319:18 320:21 323:18 331:2 338:11 339:20 342:22 351:6 352:8 353:1,8 363:21 365:2,11 376:16 386:14 |
| pingers 299:2 | pleased 226:20 227:10 363:12 | pointer 318:22 319:1 | Porch 119:10 | portion 24:19 |
| pity 97:21 | plenty 97:12 155:12 295:18 332:6 | pointing 121:21,22 | port 149:13 | portions 18:5 115:13 |
| place 4:18 5:14 6:15 7:11 8:12,18,21 14:16 17:20 23:16 30:18 31:9 33:8 34:6,17 49:3 62:7 73:11 127:20 138:12 149:14 178:20 181:15 199:18 200:5 205:10 230:5 293:19 335:14 336:5 382:16 385:3 | plot 358:9,11,12 | points 61:6 76:17 97:12 187:10 209:1 217:1 219:21 272:11 285:16 314:12 316:1,4,14,15 317:2,5,14,16 319:13,16 320:13 322:2,9 323:7,8,9 329:1 331:12 335:1,6 346:13,20 347:3 359:11,13 365:1,2 | posing 58:3 | position 227:14 246:20 |
| places 24:6 77:10 86:21 112:9 245:8 256:17 360:20 | plotted 314:12 341:14 | policy 146:5 249:14 | positive 38:1 221:15 221:16 304:16 338:21 | positive 38:1 221:15 221:16 304:16 338:21 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plotting 331:8 | political 279:7 284:20 | positively 34:22 102:9 105:21 106:8 115:3,5,17 | possibilities 357:22 |
| places 24:6 77:10 86:21 112:9 245:8 256:17 360:20 | plummet 140:1 | polling 231:15 | possibility 217:12 220:14 302:14 358:3 | possibility 217:12 220:14 302:14 358:3 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plus 189:5 233:15 277:14 314:8 | pond 259:6 260:10 262:4,6 265:10 | possession 66:4,12 | possibly 106:18 179:13 210:12 211:4 215:20 232:13 278:11 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | pluses 314:8 | ponder 240:8 | possibilities 357:22 | possibility 217:12 220:14 302:14 358:3 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | podium 128:12,19 285:13 | pool 215:1,4 217:6,6 217:22 229:22 | possibilities 357:22 | possibility 217:12 220:14 302:14 358:3 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | point 21:3 71:15 72:6,18 75:8,12 81:16 82:5 91:10 93:2,6 122:18 125:10 127:18 133:2 142:11 148:5 149:21 165:13 166:4,6,9 180:9,15 182:15 183:5 184:19 202:12 203:18,19 213:7 215:12 216:8 218:2 246:7 275:15 280:9 288:17 293:17 294:8,10,14 296:21 304:6 | poor 143:18 161:19 222:4 322:9 | possibilities 357:22 | possibility 217:12 220:14 302:14 358:3 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,12 130:15 133:4 173:17,20 175:3,3 177:7,18 195:12 196:21 209:15 210:19,22 216:10 216:14 223:2 224:21 226:8 228:11 245:22 252:1,10 300:5 304:21 305:2 310:8 375:15 377:6,7 379:22 | plunged 314:12 341:14 | pop 230:15 378:12 378:17 | possession 66:4,12 | possibilities 357:22 |
| plan 3:5 53:6 109:18 125:19 126:12,15,22 127:2,7 130:10,1 | | | | |

| | | | | |
|----------------------------|----------------------------|----------------------------|---------------------------|----------------------------|
| pounds-plus 241:5 | premise 103:3 | primary 71:19 72:6 | 119:22 121:21 | 280:19 |
| PowerPoint 306:17 | prepared 1:18 | 116:18 131:13 | 122:1 125:9,14 | produced 88:19 |
| 306:21 307:2 | preparing 98:13 | 191:7,10,12 | 132:9 133:2 134:8 | product 56:17 65:4 |
| 321:3,20 | presence 313:18 | 203:12 205:13 | 138:2,18 152:11 | 65:5,15,21,22 66:2 |
| practicable 44:8 | present 50:18 98:11 | 289:18 | 176:11 187:7 | 66:4 93:18 |
| 308:3 341:2 | 104:12 186:12 | prime 192:6 | 193:4,17 198:4 | production 314:4 |
| practical 212:20 | 215:3 | Prince 369:16 371:6 | 213:14 215:6 | products 11:18 |
| practice 283:22 | presentation 2:4,18 | 383:1 | 219:17,19 220:2,3 | 19:20 24:14,20 |
| practices 280:18,19 | 3:13,14 4:11 13:6 | principle 142:4 | 220:17 235:16 | 28:2 44:16,17 60:4 |
| 282:13 304:4 | 61:2 63:7,12,21 | 156:2 303:13 | 237:20 238:5,15 | 81:21 |
| pre 344:18 345:10 | 64:9 79:13,19 80:6 | 315:13 348:17 | 238:16 241:7 | professor 271:11,19 |
| 370:3 | 100:17 101:1,4 | prior 160:4 229:20 | 242:18 245:5 | profile 348:3 |
| preaching 265:9 | 109:2 306:4,18,22 | 264:2 | 255:2 256:12 | program 23:15 |
| precautionary | 307:2 312:14 | priorities 302:9 | 262:9 269:6 | 77:12 104:9,13,22 |
| 55:19 142:4,21 | 321:20 347:15 | priority 229:12,17 | 279:19 280:3 | 126:5 130:2,3 |
| 156:1 220:21 | 375:2,8,12 | 283:9 302:16 | 284:16 347:20 | 146:19 147:8 |
| 225:14,16 | presently 132:21 | private 88:4 | problematic 161:15 | 151:15,19 173:11 |
| precedent 55:1 | pressing 227:17 | privy 76:2 | 250:7 | 229:19 254:8,21 |
| 124:16 | pressure 56:18 | prize 121:14 172:12 | problems 80:12 | 269:4 298:5 311:8 |
| precise 194:4 | presumably 80:10 | proactively 145:5 | 87:10 90:1,2 92:1 | 315:3 317:11 |
| precision 219:13 | pretty 77:2 132:7 | probabilities 317:7 | 92:2 107:19 | 355:18 375:5 |
| 220:18 | 133:12 135:19 | probability 317:3 | 137:10 149:2 | programs 15:5 |
| predates 251:21 | 154:13 179:9,20 | 317:11,22 318:10 | 209:20 226:22 | 127:10 217:3 |
| predators 163:4 | 180:15,21 181:2 | 321:5 323:6 | 227:5 268:13,20 | 311:8 |
| predicated 92:3 | 182:1 212:17 | 325:19 332:10 | 287:11 303:21 | progress 306:5 |
| predict 39:19 | 225:5 249:9 255:4 | 333:12 334:8 | 356:11 | progressive 367:15 |
| predominant | 318:1 334:2 336:6 | 346:15 | proceed 84:10 98:8 | prohibit 144:3 |
| 137:18 | 340:3 361:14,19 | probably 9:1 74:3 | 178:13 204:14 | 253:7 |
| preempt 46:19 | 368:9 375:6 | 81:16 95:12 | proceeding 236:22 | prohibited 7:13 |
| prefer 174:11 | prevail 141:13 | 110:15 133:5 | process 4:22 5:1 | 15:1,2,18 17:21 |
| 221:12 368:17 | prevent 8:19 70:9 | 137:9 148:19 | 7:11 91:6 92:7 | 19:20 34:12 36:7 |
| preference 296:7 | 144:16 145:6 | 153:21 168:13 | 93:17 98:12,17 | 107:2 115:7 |
| preferred 3:21 9:20 | 249:6,7 | 176:14 179:10 | 151:6 158:14,17 | 124:22 143:15 |
| 12:5 22:13 26:1,13 | preventing 170:10 | 189:4,6 209:10 | 159:6 160:5,9 | 149:9 161:4 |
| 27:3 35:20 36:17 | previous 10:20 | 231:14 240:11,18 | 192:13 215:5 | 163:21 164:14,20 |
| 37:17,20 38:17 | 61:14 | 246:12 250:19 | 217:10 231:16 | 182:3 194:14 |
| 46:21 47:6 54:9,18 | previously 5:19 | 255:15 256:6,22 | 267:19 272:16 | 200:3 226:2 |
| 54:22 62:1 73:7 | pre-aggregating | 259:6 260:8 263:2 | 297:2,17 323:9,22 | 237:18 243:17,20 |
| 98:18,22 113:15 | 369:12 370:16 | 263:5,6,7 264:6,12 | 331:6 333:4,8 | 245:20 |
| 147:3 155:10 | pre-draft 44:21 | 265:20 266:18 | 340:16 350:19 | prohibiting 27:6 |
| 161:12 162:11 | 306:9,20 309:12 | 267:9 268:17 | 371:14 373:3 | 39:20 52:8,20 |
| 163:10 165:12 | 322:5 386:2 | 289:11 292:10 | processes 127:11 | 245:15 |
| 174:12,12 180:11 | price 188:12 189:4 | 294:11 300:4 | 192:17 331:7 | prohibition 7:15 |
| 180:19 225:17 | pricing 51:20 | 340:5,8 355:12 | processing 113:20 | 51:21,22 78:1 |
| preferring 35:22 | primarily 116:14,19 | 388:3 | 113:21 114:3 | 161:9 |
| prefers 221:13 | 134:1 136:13 | problem 53:15 75:3 | processor 277:11 | project 309:22 |
| pregnant 131:17 | 138:7,14 176:1 | 79:5 95:17 99:8 | procured 271:8 | projected 232:20 |
| 138:22 | 229:15 240:18 | 108:4 116:7,11,14 | produce 159:10 | projections 164:1 |

| | | | | |
|----------------------------|----------------------------|----------------------------|---------------------------|--------------------------|
| projects 372:7 | 197:21 285:8 | 165:20,21 166:18 | 33:19 45:1,18 | 126:1 138:16 |
| promise 287:6 | 304:22 384:5 | 168:18 176:11,15 | 49:16 56:18 59:8 | 147:5 151:20,21 |
| promote 139:11 | protected 26:2,5,8 | 209:18 236:5 | 78:17 105:21 | 152:9 157:15 |
| 286:2 | 26:12 27:3 36:16 | 238:15 239:9 | 106:5 109:7 | 159:8 173:8 |
| promoted 95:14 | protection 11:3 | 240:12 311:15 | 118:21 119:17 | 174:10 181:22 |
| promulgated | 144:8 226:9 | 345:16 363:1 | 121:9,11 124:22 | 191:5 202:22 |
| 195:17 | 227:21 283:6 | 373:18 377:8 | 125:19 149:6 | 204:21 207:6 |
| proof 224:3 | 354:19 370:17 | publication 151:2,5 | 153:16 166:6 | 209:3 210:6 |
| proper 51:16 173:5 | 383:10 385:6 | 151:8 160:10 | 182:2 194:13 | 212:11 213:2,9 |
| 185:22 261:6 | protections 162:21 | publications 366:9 | 199:4 224:4 | 214:2,20 215:19 |
| 356:10 | 163:18 165:13,17 | publicized 90:9 | 226:21 228:11 | 217:10 218:6,14 |
| properly 51:5 173:5 | 385:2 | publish 271:13 | 232:13 240:10 | 230:2,11 236:9 |
| proposal 142:12 | protocol 173:16 | 310:1 | 244:15 247:15 | 243:3 250:20,22 |
| 145:15 162:3,6 | proud 237:6 242:12 | published 68:22 | 258:3,7 261:20 | 251:16 260:5,7 |
| 164:13 266:17 | prove 284:9 | 76:12 154:3 | 284:9 285:16 | 266:4,10 269:1 |
| 267:3 | proven 141:17 | 267:14,18 309:8 | 295:20 301:20 | 271:7 272:13,16 |
| proposals 144:2 | 369:12 370:8 | 310:8 311:11 | 343:18 346:6 | 272:16 277:15 |
| 161:6 234:13 | provide 86:10,12 | 338:15 339:22 | 366:12 376:9 | 288:11 300:14 |
| 372:15 | 91:13 102:18 | 366:6 | 380:6,9 386:12 | 303:5 325:5 326:5 |
| propose 19:1 52:3 | 147:20 163:17 | pull 15:21 275:20 | puts 125:20 141:11 | 335:9 348:14 |
| 144:4 311:12 | 187:2,4 323:17 | 305:12 377:11 | putting 158:19 | 349:9 358:20 |
| 340:20 343:5 | 324:21 326:2 | pulled 251:3 | 175:6 199:16 | 385:12 |
| proposed 3:7,14 | 328:8 345:11 | pulling 334:20 | 246:19 262:14 | questions 48:21 |
| 23:7 40:22 45:3 | 346:7 347:6 | pumping 131:13 | 264:16 | 49:21 52:2,4,10 |
| 46:10 54:2 59:4,8 | provided 1:20 67:20 | punch 367:10 | puzzled 173:7 | 57:9,10,12,17,21 |
| 60:1,20 66:8,9,19 | 68:3 88:3,18 91:8 | pup 131:19 | | 57:22 58:2,13 59:1 |
| 79:20 80:4 142:22 | 91:12 92:13 | pupping 50:12 | Q | 59:11 60:17 63:4,4 |
| 143:11 163:17 | 147:18 167:8 | 197:22 210:1 | qualifies 218:3 | 63:5 67:14 79:10 |
| 164:7 209:4 230:9 | 235:5 311:16 | 352:9 353:17 | qualitative 363:13 | 83:17,20 99:10 |
| 233:4,6 309:14 | 335:21 336:19 | 360:10 | 364:8 | 102:15,17,18 |
| 337:1 377:4 | 357:8,10 | pups 241:6 | quality 193:15 | 103:5 108:20 |
| proposing 17:20 | providing 51:18 | purchase 188:11 | 249:19 250:2 | 109:15 117:12,13 |
| 18:17 19:11 21:11 | 90:4 297:19 318:3 | purple 319:17 | 294:18 356:12 | 118:4 119:7,12 |
| 22:10,14 24:21 | provision 103:7,11 | 320:22 325:20 | quandary 260:15 | 128:3 167:9,11 |
| 25:7 31:19 33:11 | provisions 253:15 | 334:4 | quantify 360:15 | 171:13,16,18 |
| 58:16 120:16 | 284:8 | purpose 3:10 121:8 | quantitative 327:4 | 172:14,16 178:9 |
| 123:14,22 125:2 | proxy 83:14 | 212:3 219:12 | 363:10 364:7 | 209:1 211:11 |
| 164:6 313:5,6 | psyche 304:6 | 286:9 336:7 | quantities 238:22 | 215:10 252:9 |
| 349:6 | public 2:5,7 5:3,3 | purposes 66:12 | quarter 190:16 | 268:16 301:10 |
| pros 58:14,17 98:15 | 10:7 15:8 18:10,12 | 171:9 181:13 | 192:7 | 332:16 343:10 |
| 100:16,21 180:16 | 18:18 23:10 32:8 | 183:9 189:14 | question 58:7 59:3 | 345:12,19 347:17 |
| prosecute 121:10 | 35:8 46:8 55:8 | pursue 253:16 | 60:20 63:19 64:6,8 | 350:17 369:3 |
| prosecuted 70:10 | 63:9,11 64:7,11,14 | pursued 175:22 | 64:11,17 70:17,19 | 381:19,22 382:3 |
| 71:9 120:22 204:3 | 64:16 68:6 76:3 | pursuing 355:17 | 77:4 79:4 101:8 | quick 62:22 64:17 |
| prosecution 260:10 | 81:9 102:8 109:14 | push 140:14 | 103:6,13 104:8 | 125:8 135:18 |
| protect 50:12 107:5 | 117:10,15 118:9 | pushing 85:15 | 105:6,7 110:20 | 157:15 159:14 |
| 131:17 144:19 | 127:18 128:6 | 228:8 | 113:14 117:22 | 160:20 168:2 |
| 163:9 165:15 | 129:2 156:17 | put 8:12 23:10 | 123:3 124:2,9,14 | 210:5 252:11 |

| | | | | |
|---------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| 272:6 281:10 | 220:19 221:18 | 191:21 257:19 | 210:5 223:22 | 388:8 |
| 301:12 307:20 | 231:13 245:6 | 318:8 335:21 | 232:22 234:1 | realm 320:6 |
| 310:6 326:5 335:8 | 247:21 255:2,5 | 344:8 | 255:6 271:6 328:3 | reason 24:15 61:10 |
| 388:12 | 256:19 275:11 | ranged 46:1 85:4 | 363:12 | 97:4 131:12 |
| quicker 374:3,4 | 276:7,10,18 | ranges 11:4 335:19 | realistic 299:22 | 173:13 182:2 |
| quickly 37:19 43:5 | 277:16 279:13 | 336:4 366:11 | 305:1 | 214:17 218:9 |
| 45:13 108:17 | 281:7 283:18 | ranked 140:6 | realistically 239:15 | 238:22 257:2 |
| 114:18 145:12 | 285:8 288:20,21 | ranking 218:1 | reality 184:6 | 258:10,21 283:21 |
| 151:12 285:15 | 289:5,6,18 290:19 | rant 95:19 | realization 263:4 | 286:16 291:10 |
| 299:18 304:17 | 291:1,9,11 293:9 | rape 139:21 | realize 82:20 118:2 | 294:12,20 299:16 |
| quit 195:2 | 294:5 295:8 | rapid 249:8 | 177:3 265:6 | 368:5 |
| quite 75:11 106:21 | 301:17,21 302:22 | rapidly 144:21 | reallocate 105:3 | reasonable 122:6,10 |
| 123:11 124:1 | 303:3,4,9,20 368:3 | rare 96:17 354:14 | reallocating 99:16 | 122:13 169:17 |
| 137:5 173:7 179:4 | quotas 13:21 14:3 | rarely 388:1 | reallocation 235:4 | 368:2 |
| 200:6 223:7 | 14:21 16:15 19:13 | rarity 337:15 | 235:12 | reasons 86:17 194:3 |
| 224:17 227:17 | 19:19 20:17 28:3 | ratcheted 195:22 | really 26:21 81:15 | 199:4 245:7 290:8 |
| 240:17 247:17 | 31:21 32:17 37:22 | rate 17:7,10 18:2 | 90:8 99:8 105:1 | 290:21 323:14 |
| 251:6 300:19 | 40:2 45:22 46:2,4 | 19:9 161:16 | 117:11 118:1 | Rebecca 248:8,10 |
| 321:10 | 46:11,12,15 60:10 | 189:12,16 245:13 | 123:10 129:10 | 248:13 250:17 |
| quo 11:5 14:15 | 123:16 142:22 | rates 314:4 327:21 | 130:22 157:15 | Rebecca's 254:2 |
| 17:16 19:22 21:3 | 161:22 233:7 | ratio 51:12,13 82:14 | 175:6 177:10,17 | rebuild 8:18 18:2 |
| 22:6 25:16 27:11 | 254:22 256:12,14 | 85:6 173:6 191:11 | 180:6 183:13 | 19:9 52:9 56:2 |
| 28:9,13 31:15 34:8 | 264:6 | 227:1 248:22 | 185:13 190:6 | 145:11 164:2 |
| 34:17 37:11 54:15 | quote 134:8 197:11 | 249:2 250:10,11 | 205:20 206:3 | 278:14 282:9 |
| 56:7 57:3 100:6 | 197:12 | rational 301:14 | 210:22 216:16,20 | 289:3 302:5 |
| 161:5 193:3 194:1 | quote/unquote | rationale 70:8 123:4 | 220:1 224:2,20 | rebuilding 7:17 8:7 |
| 233:15 234:12,19 | 327:22 | 140:9 | 225:21 226:8,17 | 52:5 55:20 56:1 |
| quota 13:17 14:17 | Q&A 103:4 109:13 | ratios 82:6 227:5 | 227:19 228:2 | 142:16 163:12 |
| 15:10 16:2,3,10 | | reach 23:13 32:3,17 | 230:19 235:16 | 177:17 221:21 |
| 17:9,12 19:5,16,17 | R | 60:10 178:21 | 238:9 241:10 | 224:16 285:6 |
| 21:19 24:17 27:10 | R 3:1 173:1 381:12 | 305:11 | 245:14 246:8 | 355:5 |
| 28:5,10,15 29:2,5 | 385:10 | reached 37:7 | 250:14 254:1 | rebuilt 202:14 |
| 29:21 30:1,9,13 | radar 366:12 | 220:19 | 256:8 270:20,21 | rebuilt 282:15 |
| 33:17,18,22 34:2 | RADONSKI 72:10 | reaching 200:6 | 271:3 275:16 | rebut 78:2 258:9,19 |
| 36:2,4 37:3,6,10 | 72:21 | read 47:3 66:8 | 279:6 284:9,21 | 260:20 269:17,20 |
| 38:19 46:7,10,21 | raise 358:20 386:16 | 100:20 150:13 | 286:16,21 290:13 | 270:2 |
| 47:10,16 54:1 58:9 | raised 119:8 147:5 | 186:14 258:6 | 291:8 292:9 294:1 | rebuttable 78:1,4 |
| 58:11 59:20 90:13 | 149:21 303:18 | reader 346:10 | 294:21 299:15 | 94:21 |
| 93:20,20 109:22 | 330:10 385:12 | readily 58:21 | 300:19 301:9 | rec 96:7 124:8 |
| 110:9 111:2,5 | raising 217:11 | reading 76:1 153:1 | 304:8,14,16,20 | 132:5 |
| 123:20 131:4 | Ramon 88:22 | 260:18 338:14 | 315:11 330:11,20 | recall 252:8 281:12 |
| 143:4,9,14 144:15 | ran 147:7 155:2 | ready 67:13 92:5 | 334:9 336:22 | recap 272:6 305:10 |
| 145:11 149:22 | random 107:14 | 127:7 198:12 | 337:16 338:17 | 307:20 |
| 150:1,2,3 179:18 | Randy 171:8 208:18 | 273:20,20 281:16 | 346:8 347:5,7 | recaptures 89:8,9 |
| 180:13 182:6 | 208:21 214:7,11 | 283:7 | 349:1,13 350:3 | receipts 88:17 374:3 |
| 184:9 196:6 198:9 | 292:4,4 293:14 | real 90:5 92:4 | 359:3 361:4,14 | receive 44:15 114:4 |
| 200:5 212:13 | range 10:22 11:11 | 116:11 166:15 | 362:2,7,8,9 363:16 | 186:4 |
| 216:18 217:14 | 12:13 47:5 90:21 | 169:8 191:11 | 365:14 372:11 | received 27:15 |

| | | | | |
|---------------------------|----------------------------|-----------------------------|-----------------------------|----------------------------|
| 29:12,13 30:15 | 280:2 | 46:20 113:4 164:6 | region 33:11,22 | relative 130:19 |
| 36:22 45:15,17,20 | recovery 143:21 | 164:11 | 34:4 36:20 50:10 | 149:12 150:16 |
| 45:22 47:1,5 48:6 | 226:7 | reduced 24:16 28:3 | 50:13,16,19 58:16 | 155:22 |
| 49:14 55:9 56:3 | recreation 263:21 | 37:22 38:19 39:7 | 90:16 123:14,15 | relatively 222:9 |
| 57:20 113:17 | recreational 11:11 | 40:5 41:8 46:7,18 | 123:22 152:1 | 297:10 |
| 114:1,15 185:17 | 11:15 12:2 14:12 | 104:19 183:19,20 | 180:21 217:8 | release 35:13 43:15 |
| 186:3 218:14 | 34:7,9 35:1,15 | 183:22 323:2 | 241:12 | 43:17,20,20 96:10 |
| 338:2 344:20 | 37:12,14 38:22 | reduces 325:13 | regional 141:15 | 280:18 304:4 |
| 348:16 | 52:16,20,22 53:2,5 | reducing 46:11 | regionally 47:20 | released 39:18 |
| received-by 185:15 | 53:7,9,13,14,20,21 | 291:17 | regions 33:5,8,13,15 | 287:14 315:2 |
| receiver 44:16 | 54:1,4 55:4 56:6 | reduction 21:21 | 34:6 50:9 58:15,19 | releasing 297:12 |
| 64:20,22 65:12 | 58:21 79:12 81:7,9 | 40:2 55:7 127:10 | 77:10 123:4,10,19 | relevant 72:5 375:7 |
| 66:10,22 213:11 | 96:3,6 97:22 | 183:21 290:17 | 123:21 124:6,6 | reliable 7:1 52:18 |
| 213:18 220:4 | 106:15 107:2 | reductions 292:19 | 174:1 180:17,20 | 107:19 108:7 |
| 244:10,10 | 108:8,14 111:17 | reef 341:10,12 | 184:21 199:2,3 | relief 92:6 175:7 |
| receives 65:3,4 | 113:9 116:5,7,15 | 342:10,12,14 | 209:13 215:15 | 195:16,18 196:5 |
| 283:6 | 116:17 123:6,12 | 350:6 | 217:9 234:15,16 | 197:1 |
| receiving 28:1 | 124:3,4 125:2,4 | reefs 365:9 | 234:17 377:20 | reload 381:4 |
| 167:13 | 132:2 134:15 | reel 328:5 | Register 32:5,19 | relook 51:11 |
| recognize 96:12 | 135:1,15 148:2 | reemphasize 357:19 | 37:8 98:20 | rely 190:22 |
| 109:13 120:1 | 149:12 155:11 | reexamined 100:14 | Regnery 248:9,10 | remain 161:14 |
| 273:4 285:11 | 167:3 174:4 | reference 68:18 | 248:14,18 | 369:3 |
| 286:18 382:11 | 176:13 177:15 | 230:17 231:10 | regret 144:18 | remainder 163:19 |
| recommend 118:7 | 182:7,12 193:10 | 306:18 335:1,6 | regs 44:12 | 283:14 |
| 164:10 228:21 | 200:3,12,13,17 | referencing 235:1 | regulate 31:12 | remaining 16:20 |
| recommendation | 201:7,10,19 | referred 313:19 | regulation 131:21 | 165:6 303:10 |
| 16:4 177:11 | 209:12 222:7 | referring 3:13 | regulations 11:7 | remains 357:9 |
| 191:15 | 233:10,11 234:18 | 308:21 | 28:19 54:3 114:7 | remarkable 253:9 |
| recommendations | 234:20 235:7 | refine 283:15 | 116:13,21 130:15 | remedy 126:13 |
| 17:3 119:4 130:20 | 237:20 238:1,7 | refined 338:12 | 133:9,10,11 165:2 | 159:4 |
| 147:11 274:11 | 239:1,10,16,19 | 339:18 | 175:13 177:2,4 | remember 86:13 |
| 345:3 357:13 | 242:2 243:21 | reflect 191:16 316:3 | 179:21 207:21 | 133:7 204:7 |
| recommended 6:3 | 274:19 278:20 | 364:5 | 224:22 244:8 | 227:20 257:11 |
| 16:5 17:3 38:21 | 283:5,11 294:15 | reflecting 358:13 | 249:14 288:8 | 293:6 329:1 |
| 61:15 383:16 | 295:10 302:8 | reflection 118:20 | 308:10 313:19 | 375:13 |
| recommending | 375:4 | 359:3 | 333:20 349:15 | remind 172:20 |
| 131:8 | recreationally | refresh 380:22 | regulatory 114:16 | 374:6 |
| reconvene 170:20 | 111:12 | refreshing 304:14 | 138:5 307:17 | reminded 372:3 |
| 172:17 | recreationals 34:20 | regard 61:22 83:16 | 349:14 353:6 | reminder 67:11 |
| record 81:8 118:15 | recreational/com... | 86:7 124:3 183:17 | reinforce 355:7 | remisses 255:9 |
| 166:5 167:19 | 99:17 | 186:19 200:17 | reinstate 294:10 | remnant 175:18 |
| 172:4 206:7 223:9 | recs 200:7 201:1 | 246:10 | reinvent 275:17 | Remote 307:9 |
| 237:7,9,16 305:21 | red 143:11 240:9 | regarding 23:9 | 276:4,5 279:11 | removal 234:21 |
| 386:13 | 241:13 | 53:12 79:11 147:6 | reissued 286:15 | remove 15:12 18:21 |
| recorded 321:22 | redevelop 303:20 | 385:15 | reissuing 284:3 | 21:7 120:7 187:5 |
| records 72:13 | redlisted 225:11 | regardless 288:22 | reiterate 132:10 | 292:14 319:15 |
| 321:15 | redo 386:8 | regime 58:18 62:11 | 225:8 246:8 333:3 | 320:21 323:10 |
| recover 177:21 | reduce 38:3 39:3,12 | 62:15 | relation 342:3 | 346:17 |

| | | | | |
|---|---|--|--|---|
| removed 25:9 35:11 106:20 121:2 140:18 285:19 331:12 | 121:2 report-out 166:8 report-outs 178:6 252:12 | 15:4,8 18:15,19 22:15,16,20,22 23:6,8,12,13,15 24:1,4,9,10,22 25:2 30:1,3,4,7,11 30:12 36:6,8 37:2 38:14 40:9,14,20 42:17 44:5 46:6 47:8 48:14,17,20 48:22 49:1,7,10 51:7 54:18 59:13 59:16 61:7,11,14 61:16,18 69:5 70:20 73:9 76:5,9 76:10 90:11 103:14,21 104:13 104:15,17,18 105:4 109:19 110:3,22 111:2,4 113:16,19 126:5 130:3 138:4 139:8 140:5 142:3 145:9 146:8,19 149:22 150:3,15 162:3,4,6 162:8 163:3 173:11,14,16,17 173:19,19,21 175:8,14 179:22 183:10 184:22 188:16 210:19,21 211:9,15 212:4 214:22 215:18 216:6,9,10,14,20 222:3,5 224:13 233:18,19,21 245:21 246:22 254:8,21 257:12 260:2 265:2 269:4 270:15 274:16 280:10 290:17 292:18 348:5 | reshape 320:22 resolution 359:7 resolved 250:12 resource 211:6 249:7 264:1 279:14 282:15 285:6 302:5 Resources 162:20 respect 233:9 respective 32:16 respond 98:19 100:15 101:7 266:2 response 127:22 responsibility 207:15 responsible 60:3 249:15 275:1 279:13 rest 4:10 68:5 74:5 84:13 132:20 143:4 146:6 180:3 194:20 217:20 221:8 368:7 restaurant 277:12 restore 163:14 restrict 81:5 293:1 restricted 292:20 349:21 restrictions 49:18 144:13 221:1 281:8 285:21 286:20 294:21 301:7 result 38:2 51:6 141:12 159:12 164:4 187:19 190:17 225:4 318:11 331:4 348:10 resulted 21:21 resulting 317:15,19 319:15 322:3 323:11 324:5 325:20 329:13 331:9 results 8:10 192:19 272:7 | resume 283:17 resumed 283:12 resurgence 176:6 retain 11:18 12:11 20:12 34:9 182:9 retained 238:1 315:4 retaining 290:19 retention 19:22 20:22 21:12 25:13 27:21 29:7,8 36:9 37:22 38:12 39:20 40:3,22 47:2,6 53:2 200:2 233:17 retooling 92:6 197:1 retrain 56:12 retraining 92:6 197:1 return 117:19 242:1 302:3 returns 297:3 revenue 48:19 revenues 40:5,12,19 review 5:1,6 63:1 67:22 72:3,20 86:8 86:22 87:9,11,20 121:15 151:6,7 160:9 194:10 272:22 275:2 309:4 311:1,16,21 312:18 313:4 335:13 344:1 353:13 366:5,7 reviewed 5:7 8:1 119:13 160:13 174:22 210:10 333:6 reviewer 380:13 reviewers 5:8,12 67:17 68:2,10 263:10 377:9 revised 310:16 322:20 revising 307:14 revisions 377:5 revisit 292:17 revisited 119:6 194:2 |
| removes 203:5 removing 317:14 renewal 234:3,9 renewing 283:21 reopen 280:12,15 reopened 281:2 repeated 352:22 repeatedly 352:21 repercussions 74:22 82:16 repertoire 74:14 repetitive 296:20 reply 218:12 report 2:12,15 28:20 31:4 43:16 43:18 49:19 50:3,6 51:14 59:21 74:19 106:9 119:9,14 170:22 200:1 218:22 227:12 289:14 377:17 378:10 reported 49:12 94:10 111:15,18 218:21 219:5 reporting 27:8,9,14 27:17 28:1,4 29:14 29:15 30:1,16,20 37:1 42:10 49:11 49:15 59:20 60:4,9 113:15,18 144:13 176:18 182:18 212:10,12,15 213:22 214:2 218:6,9,12 230:3,7 230:16 231:2,20 233:1,22 234:1,4,5 234:8 287:19 reports 27:13,14,15 29:11 30:10,14 36:21 37:4 44:11 49:14,16,19,22 69:1 113:16,21,22 114:4,8,10,17 | represent 128:22 215:15 293:15 representations 358:16 representative 387:6 representatives 132:6 reproduce 327:4 reproducible 324:10 reproductive 141:1 150:9 387:15 request 357:16 requested 354:3 require 100:2 145:16 161:9 192:21 227:9 317:6 required 11:2 148:16 168:17 234:5 235:15 286:7 287:8,17 308:1 309:4 343:5 348:4,13 349:12 372:18 requirement 51:3 114:16 186:22 200:18 203:10 207:17 229:20 231:20 253:4 requirements 28:8 29:19 44:2 73:11 161:2 293:5,7 298:21 299:14 307:22 308:12,13 326:19 333:19 349:17 357:12 requires 71:11 83:22 requiring 51:19 122:7 250:13 298:21 299:1 research 12:6,7,10 | 15:4,8 18:15,19 22:15,16,20,22 23:6,8,12,13,15 24:1,4,9,10,22 25:2 30:1,3,4,7,11 30:12 36:6,8 37:2 38:14 40:9,14,20 42:17 44:5 46:6 47:8 48:14,17,20 48:22 49:1,7,10 51:7 54:18 59:13 59:16 61:7,11,14 61:16,18 69:5 70:20 73:9 76:5,9 76:10 90:11 103:14,21 104:13 104:15,17,18 105:4 109:19 110:3,22 111:2,4 113:16,19 126:5 130:3 138:4 139:8 140:5 142:3 145:9 146:8,19 149:22 150:3,15 162:3,4,6 162:8 163:3 173:11,14,16,17 173:19,19,21 175:8,14 179:22 183:10 184:22 188:16 210:19,21 211:9,15 212:4 214:22 215:18 216:6,9,10,14,20 222:3,5 224:13 233:18,19,21 245:21 246:22 254:8,21 257:12 260:2 265:2 269:4 270:15 274:16 280:10 290:17 292:18 348:5 researched 69:6 211:12 256:22 researchers 311:9 research-wise 216:17 reservation 320:4 reserve 108:18 | | |

| | | | | |
|----------------------------|---------------------------|----------------------------|-----------------------------|---------------------------|
| revisiting 310:22 | 259:19 262:3 | rotational 307:8 | S | 175:5,11 179:18 |
| revitalization 2:15 | 264:21 265:17 | 309:19 | S 3:1 173:1,1,1 | 180:2 187:6 |
| 281:21 | 266:21 272:14,20 | rough 231:21 | sacrifice 371:12 | 188:17,21 191:17 |
| revitalize 275:16 | 279:21 280:4 | 333:14 | sacrificing 302:4 | 191:18 208:4 |
| 280:14 282:17 | 281:14 285:12 | roughly 188:20 | safe 43:16,18 44:8 | 221:18 225:19 |
| 284:7 | 288:16 292:4 | 189:22 191:18 | 255:11 280:17 | 236:21 239:4 |
| re-clean 78:20 | 296:18 301:18 | 308:15 | 283:22 304:4 | 240:1 242:2 255:3 |
| Rich 122:21 125:6 | 304:3 305:8 | round 283:17 | safety 81:22 187:10 | 257:20 259:16 |
| 128:1 272:15,15 | 312:20 325:16,18 | rounded 333:16 | sales 277:9,10,11,12 | 310:12,14,16 |
| 285:10 304:7 | 327:1 328:19 | routinely 114:11 | salinity 337:19 | sandbars 12:8 |
| 332:2 362:15 | 330:3,11 340:4 | Ruais 125:7,8 127:6 | sample 111:13 | 68:22 75:17 77:9 |
| 363:2 364:1 | 342:13 362:5,5 | 127:16 | 150:7 | 77:11,13 80:13 |
| 366:14 370:19,20 | 367:16 369:10 | rule 3:7,14 23:7 | samples 387:6 | 83:5 84:12,14 85:5 |
| 372:3 373:15 | 371:21 372:13 | 43:6,19 45:3,8 | sampling 150:8 | 91:8 101:21,21 |
| 388:11 | 373:20 376:9 | 51:15 59:10 79:20 | 154:17 | 102:3 105:13 |
| Rick 183:6 184:12 | 379:2,4 380:7 | 80:4 146:4 175:1 | samplings 154:18 | 108:12 110:16 |
| 186:8,9 293:15,16 | righthand 321:17 | 184:9 190:21 | Sampson 236:10,12 | 120:15 135:3,13 |
| 296:17 | rigorous 129:7 | 205:11 206:6 | 236:13 243:3,8,14 | 137:2,17 143:1 |
| ridgeback 105:13 | Rilling 95:12 | 221:4 309:14 | sand 143:16 223:16 | 145:11 154:20 |
| 108:16 132:12,19 | 305:22 306:3 | 310:3 375:8 | 342:13 | 180:9 197:16 |
| 238:12 | 325:6,14 326:6,9 | rulemaking 174:16 | sandbar 4:13 5:21 | 205:18 210:2 |
| ridgebacks 132:12 | 326:14,22 327:12 | 357:16 | 6:1,2,8,10 8:13 | 223:16 255:15 |
| ridiculous 247:8 | 328:15 329:21 | rules 82:18 176:17 | 12:11 15:21 16:1 | Sander 206:21 |
| right 3:8 8:20 11:8 | 330:2 331:22 | 334:13 | 16:11,18 17:1,11 | Sari 345:8 |
| 15:1 24:7 31:2 | 332:8 335:10 | run 5:9 13:6 37:19 | 18:6,8 19:15,15 | satisfactory 329:5 |
| 43:17 63:16 64:21 | 336:9,11 345:22 | 250:14 256:1 | 20:12 21:11 22:2 | satisfies 354:9 |
| 67:4,8,9 72:21 | 346:4 348:14 | 263:15 285:16 | 22:17 23:1 24:16 | Sauls 375:3 |
| 74:18 75:18 77:2 | 349:13 351:4,13 | 301:10 305:6 | 29:1,1,21 31:22 | save 83:22 |
| 79:22 80:7 91:2,20 | 352:6,11 353:12 | 307:16 317:21 | 32:2 36:2,6,9,11 | saw 242:10 294:20 |
| 94:6 95:16 109:3 | 353:15 366:3 | 330:5 | 37:5,10 38:4,14,19 | 294:22 299:19 |
| 110:6 118:6,9 | 370:20 372:3 | running 166:10 | 40:5,6,10 42:11 | sawfish 44:3,4,9 |
| 120:5 128:15 | 376:1 380:6 | runoff 353:16 | 47:15 48:2,5 53:21 | saying 75:10 81:8 |
| 138:17,21 139:1 | 381:10,13 | runs 5:5 | 55:8,11,21 56:15 | 84:10 96:12 |
| 141:11 152:5 | rise 193:16 | run-around 252:11 | 58:8 61:17 73:9 | 134:20 161:1 |
| 156:12 158:2,8 | risk 144:22 | 261:13 | 74:3 75:8 82:12 | 181:12 200:22 |
| 169:10 170:7,9,11 | risky 223:7 224:17 | rush 83:1 | 85:11 89:8 90:10 | 202:4,17 231:17 |
| 171:15 181:14 | road 82:16 230:15 | rushes 216:12 | 90:13 91:20 92:1 | 238:19 239:7,20 |
| 182:12,17 185:8 | 247:2 | Russ 67:6 83:12 | 99:4 101:10 | 240:22 282:8 |
| 186:5,7 187:17,18 | rock 127:7 | 98:4 101:19 300:8 | 102:12 103:14 | 302:20 331:1 |
| 190:6 191:8 196:3 | rod 328:3,5 | Russell 114:21 | 109:20 110:1,9 | 368:7 384:13 |
| 197:10 199:17 | role 285:5 | Russ's 295:12 | 111:4,8,9 131:14 | says 113:16 134:12 |
| 204:9,22 205:4 | roll 127:7 | Rusty 67:5 83:12,13 | 133:19 134:1,11 | 186:1 251:4 |
| 207:2 210:2,4,15 | rollover 185:5 | 117:7 157:17,19 | 134:21 136:13 | 325:18 |
| 210:17 214:10 | Romine 151:3 | 158:13 186:17 | 138:9,14,20 | scale 76:3 236:22 |
| 219:15 228:19 | Ron 375:2 | 202:19 205:6 | 142:14,18 159:21 | 316:3 318:21,22 |
| 234:11 241:14,15 | room 169:14 204:19 | 242:4,6,20 243:1,2 | 161:13,17 163:9 | 319:2 328:19 |
| 243:15 245:5 | 266:18 316:15 | 244:4 271:4 | 164:5,7 173:8 | scallop 96:16,18 |
| 247:14 257:14 | 364:8,10 373:19 | Rusty's 98:7 | | scalloped 107:22 |

| | | | | |
|--|---|--|--|--|
| 143:10 148:7,11 156:4 scallops 163:7 scarcity 268:19 322:9 scenario 207:20 208:8 scenarios 93:2 207:8 schedule 210:6 scheduled 63:9 school 238:9 239:14 Schratwieser 79:9 79:10,21 80:8,17 81:2 SCHULZE-HAU... 100:15 101:13,16 357:7 Schwartz 271:22 292:9 Schwartz's 267:13 271:8 science 5:10 8:3 55:10 68:21 74:13 75:14 86:9 87:9 88:3 89:16,19 94:22 97:20 118:21 130:4 141:16 184:20 189:14 190:17 191:16 194:2,16 200:15 207:3,4 263:8 269:21 293:19 333:6 374:15 375:3 scientific 30:9,10 37:3 119:8 121:20 121:22 151:7 162:3 211:17 227:6 257:22 335:13 348:5 368:17 scientifically 162:6 scientist 160:19 268:1 336:1 368:18 scientists 8:1 86:16 86:18 97:20 150:6 | 227:7 320:20 326:16 330:9 331:1 360:15 368:19 387:17 scoping 44:20 309:9 309:11 Scotia 271:10 scratch 152:22 screen 212:18 321:2 321:19 366:12 scribe 214:16 scroll 379:2 SCRS 119:10 scrutiny 97:19 100:11,12 SDAR 4:22 sea 21:7 25:9 81:13 120:8 288:10 375:10 seafood 81:22 187:10 seas 227:22 283:2 295:6 302:13 season 18:22 31:18 31:19 33:1,12 34:1 36:21 50:12,13,18 58:17 174:2 197:22 216:13 383:6 seasonal 150:8 359:14,19 363:19 seasons 19:2 31:14 33:4 50:8 197:9,11 197:12 216:21 234:11 264:5 season/one 50:10 seat 128:7 second 21:4 26:4 61:3 70:18 86:7 110:20 148:1 152:8 173:8 193:16 198:4 230:2 294:14 301:22 303:18 304:8 309:11 313:2,12 316:22 329:8 347:22 361:13 378:2,9 | 380:7 381:5 Secretary 308:6 357:10 section 41:4 90:3 133:17 195:16 sections 158:2 233:5 sector 53:16 95:20 100:8 237:20 sector-by-sector 100:3 SEDAR 91:6 160:4 160:6 194:7 266:4 see 4:1,9 10:8 13:1 15:16 66:20 67:1 69:22 72:14 73:2 96:1 98:9 107:15 107:20 115:14 127:2 132:14 134:6 136:18 146:12 149:12 153:5 157:1 161:2 162:10 166:19 179:14 182:2,10 191:14 201:21 205:19 206:22 213:21 217:19 225:16 238:13 240:11 244:22 256:8,11 273:10 274:15 276:2 280:17 282:20 283:14 286:16 287:5 297:17 299:16 300:15 302:16 319:3,13 319:14,18 320:8 321:1,18,19 323:10,19 329:2 330:15,21 337:13 337:16,22 339:16 340:8 341:11,17 342:8,11,15,22 346:12 347:1,4 349:8 356:8 358:8 361:19 363:15 367:12 370:6 374:11 377:2 378:18 379:19 | 381:14 384:22 seeing 55:12 73:15 115:4 314:12 324:4 331:8 332:17 334:10 340:9 341:9 347:8 360:14 361:13 385:5 Seeking 288:2 seen 134:17 156:14 375:18 select 23:17 24:7 48:18 214:21 221:7 230:1 377:10,18 378:1 379:8,10 selected 31:3 48:17 49:6 126:4 selection 59:15 sell 203:3 207:11,11 208:1 277:22 299:11 selling 207:13 Senator 304:9 305:6 send 76:20,21 262:7 343:13 345:7,10 381:15,16 sending 238:8 sense 171:1 290:5 296:9,14 324:20 331:19 347:5 363:11,16 364:22 Sensing 307:10 sensitive 337:4 381:9 sent 4:2 65:15 74:20 151:4 260:1 separable 105:14 separate 6:13 16:1 36:1,3 47:16,18 77:19 201:7 269:18 383:18 separated 4:14 separately 4:13 6:1 50:21 September 31:17 194:10 series 12:16 110:15 | 110:18 313:20 314:9 387:3,13 serious 215:6 seriously 122:13 355:4 serve 130:7 serves 212:3 Service 1:6 114:12 147:16 225:12 258:4 266:16 297:19 307:9 383:21 384:4 services 130:15 307:12 session 2:9 103:4 166:13 167:1 227:2 sessions 166:4,6 169:12 170:3 172:22 set 15:10 18:9 38:13 54:22 75:22 125:14 127:6 158:21 168:21,22 169:2 229:22 260:16 274:7 302:12 308:6 341:15,19 342:2 343:21 348:3 354:9 setaside 182:5 sets 151:17 341:17 342:1,8,10 settlement 86:14,15 set-aside 15:4 18:6 seven 9:12,15 10:3 10:19 12:18 84:12 85:10 128:15 163:21 178:19 188:18 236:5 362:22 373:18 seven/eight 259:21 severe 56:8 165:9 severely 140:2 142:17 163:12 sex 156:20 sexes 91:8 shame 328:12 |
|--|---|--|--|--|

| | | | | |
|---------------------------|----------------------------|--------------------|----------------------------|----------------------------|
| Shana 353:20 | 107:14,15,21 | 6:17,18,21 7:9,11 | 149:1,7 153:14 | 274:11 |
| 362:15 363:2,3 | 111:2,5,18 113:16 | 7:12,20 8:6,14,15 | 154:1 155:4,5,16 | shortchanging |
| 365:15 368:12 | 116:15,16,19 | 12:11 14:2,6,21 | 156:1 161:3,3,10 | 314:15 |
| 371:10 373:5,15 | 120:20 123:7 | 15:7,9,22 16:11,18 | 161:14,16,17 | shorten 170:1 |
| 382:5 383:11 | 129:5,10,19 130:3 | 17:1,4,11,17,21 | 162:22 163:10,13 | shortly 268:7 |
| Shana's 354:3 | 130:9 131:10 | 18:6,7,8,17,18 | 165:6,14,16 174:8 | shout 146:21 |
| shape 80:19 161:19 | 132:19 133:9 | 20:13,15,22 21:1,4 | 175:19 188:3 | shouted 236:16 |
| 269:1 | 134:21 135:4 | 22:3,7,10,17 23:1 | 190:19 191:17,18 | show 10:15 26:3 |
| share 89:6 197:16 | 137:4 138:10 | 23:9 24:12 25:3,5 | 201:12 211:12 | 63:14 95:3,5 |
| 276:16 283:18 | 139:8,11,20 140:5 | 25:8,9 28:13,22 | 213:12 219:20 | 169:14 179:13 |
| 289:10 | 140:20 141:20 | 29:1,20 35:6 36:7 | 221:6 223:16,18 | 258:9 260:20 |
| shared 371:17 | 142:3,5,9 143:21 | 36:18 37:9 38:4,14 | 223:22 225:5,9,10 | 261:1,2,9,11 263:7 |
| sharing 289:14 | 143:22 144:14 | 38:19 39:11,13,15 | 225:19 226:2 | 281:21 314:11 |
| shark 3:16 4:8,17 | 145:19 146:8,11 | 39:21 40:11 42:3,7 | 227:9,21 228:4 | 345:22 362:7 |
| 4:20 5:16 6:1 7:7 | 146:15,19 149:6 | 42:11 44:13 46:8 | 238:10,21 239:22 | 375:1 376:3,6 |
| 10:11 11:7,10,15 | 150:20 152:12,13 | 47:15,22 48:2,5,19 | 240:1,17 241:11 | 379:12 380:4 |
| 11:17,18 12:1,6,7 | 152:18 153:11,11 | 48:22 49:2 50:6,7 | 243:20 245:12,13 | showed 6:2,7,15,20 |
| 12:8,10,14 13:2,4 | 157:18 160:3 | 50:18 51:1,3,4,20 | 247:19 248:1 | 7:14 17:18 76:13 |
| 14:16 15:2,22 16:1 | 161:9,19 163:2,19 | 51:21 52:2,6,7,9 | 250:15 251:1,15 | 88:7 |
| 16:7 19:15,15,20 | 163:20 164:4,5,7,9 | 53:4,21 54:17 55:8 | 251:15,17 252:18 | showing 9:12,17 |
| 20:1,3,9,11 21:7,8 | 164:12 173:14 | 55:20 56:15 58:1 | 255:3,14,19,20 | 12:18 263:12 |
| 22:4,17 24:14,20 | 174:1 175:6,10 | 61:17 68:11 71:20 | 256:13,17 257:10 | 306:21 |
| 25:13 26:18 27:18 | 176:4,6,12,21 | 73:8,10,16,22 | 257:17,20 259:17 | shown 95:6 163:1 |
| 28:1,4,14 29:1,9 | 179:7 181:13 | 75:16 76:4,7,10 | 263:9 264:3,10,10 | 265:18 364:13 |
| 29:16,21,22 30:3,4 | 183:11 186:18,21 | 78:9,13,17 79:14 | 264:13,14 266:20 | shows 26:4,20 77:10 |
| 30:6 31:8,11 33:8 | 187:3 189:13,14 | 79:14 82:2,12 | 267:9,11,21 | 77:13 163:3 |
| 34:10 36:2,14 37:1 | 189:21 192:12,16 | 84:11,13,16 85:2 | 268:17,20,22 | 259:15 332:4,7 |
| 37:10 39:6 41:5,6 | 194:12 201:20 | 85:12 90:6 93:11 | 291:19 304:13 | 373:8 |
| 41:22 42:9,10 43:2 | 203:2 206:1,4 | 94:17 97:14,18 | 310:12,14 315:8 | shrimp 97:21 |
| 43:6,9,12 44:16,17 | 208:4 219:16 | 98:1 99:17 102:12 | 327:16 328:4 | 352:17 |
| 46:6,11 48:14,17 | 223:10,13 224:5 | 105:16,18,22 | 336:2 360:10 | shrink 24:20 |
| 49:9 50:4 51:17 | 224:22 226:17 | 106:22 107:8,13 | sharpnose 34:13 | shrunk 123:16 |
| 53:10 54:14 55:1 | 227:20 229:16 | 108:11 109:20 | 35:3 115:7,10,10 | shut 35:14 150:16 |
| 55:11,21 56:11,17 | 230:17 236:15,19 | 110:1 111:4,22 | 237:8,16 239:3 | 182:13 |
| 56:18 58:5,9,10 | 236:21 237:4,17 | 112:2,3,4 113:9 | 243:5,11 352:16 | shuts 56:17 111:8 |
| 59:13,16,21 60:2,4 | 239:3,14 241:22 | 130:6 131:5,14,18 | sheets 255:4 | side 88:7 91:18,19 |
| 60:6,10 61:7 65:3 | 242:2 243:3 244:3 | 132:14,16 133:15 | shelf 135:10 193:19 | 225:3 271:2 |
| 65:5,15 66:4,5 | 244:8 248:20 | 133:20 134:1,15 | 261:16 365:5 | 294:15 321:17 |
| 68:19 69:2,16 | 251:5,7 253:8 | 136:13 137:11,16 | shift 41:15 105:1 | sides 199:15 |
| 70:10 71:1,3,5,7 | 259:19 260:7 | 137:20 138:9,13 | 224:2 | sift 153:4 |
| 71:10 74:16 75:4 | 261:21 262:15 | 138:14,20,21 | shifted 41:9 | sight 302:12 |
| 78:9,16 79:5 83:14 | 263:4 265:2,19 | 139:22 140:6,10 | shifts 104:11 | significance 335:11 |
| 83:16 86:8 89:10 | 284:14 296:2 | 140:12,13,14,17 | shoreline 307:10 | significant 142:13 |
| 90:10 92:8,16,16 | 310:16 335:19 | 140:22 142:14,18 | 376:12,17 | silkies 80:6 101:22 |
| 92:17 93:4,12,21 | 341:14 352:9,14 | 142:19 143:6,8,10 | shorelines 376:15 | 149:9 |
| 94:9,10 95:3 96:2 | 353:17 | 143:12 144:3,19 | short 35:5 141:12 | silky 53:4 79:14 |
| 96:17 97:15 99:4 | sharks 4:7,13,14,19 | 145:4,16 146:13 | 166:10 185:19 | 96:2 132:8 149:6 |
| 101:9 104:1 106:4 | 5:22 6:2,8,10,12 | 147:1,22 148:18 | 210:13 232:5 | SILVER 1:16 |

| | | | | |
|---|---|---|--|---|
| similar 52:3 53:10 144:4 161:17 280:19 317:6 321:7 326:4 349:6 358:11,19 | 387:22 sizes 138:21 206:16 211:13 298:7 386:1,3 SKD 13:1 skew 269:3 skewed 254:19 257:15 SKI 13:3 skimmed 293:21 skinny 69:4 skip 208:22 slated 4:4 slide 10:20 14:11 26:3,19 336:13 345:6 351:18 slides 4:10 12:16 14:8 slight 245:17 306:16 381:2 slightly 9:3 322:17 326:4 slime 206:4 slips 88:4 152:18 sloppy 160:8 slow 144:20 226:7 small 14:3,19 15:17 17:16 20:4,6,14 22:5,7 23:2 32:15 36:5,11 54:18 59:13 93:20 123:20 145:13 175:8 181:5 182:5 185:3 192:5 201:1 217:14,17 222:5 239:13 276:17 388:1,2 smaller 42:12 200:22 300:1 318:11 smalltooth 44:2,4,9 smarter 360:16 smoothed 333:16 snapper 103:22 snapper-grouper 30:22 31:4 snapshot 333:1 soak 156:10,10,19 | 157:7 Society 248:10 soft 248:19 sold 88:14 203:4 299:7 solely 124:18 244:16 solution 249:3 290:14 299:9 somebody 66:1 69:8 69:12 70:21 73:14 150:19 185:15 186:4 193:6 204:10 205:21 236:16,18 237:1,6 259:18 295:3,5 356:5 371:17 Sonja 67:6 97:9 98:5 103:1 108:21 119:18 214:16 222:19 228:14 soon 92:15 97:15 110:22 145:22 281:3 374:5 sooner 146:4,5 sorely 226:19 sorry 27:15 49:1 54:12 66:6,10 70:18 102:15 117:9 124:8 152:7 185:10 236:2 245:3 248:18 305:5 321:1 325:11 331:13 346:2,4 362:5 380:18,19 sort 98:9 175:7 182:6 239:7 274:7 275:12 302:3 322:7 334:10 335:14 337:20 342:1 344:1,9 346:21 359:11 sorts 353:8 sound 293:21 sounds 270:12 source 203:21 299:3 315:13 353:16 | sources 154:15 311:7,18,19 314:9 314:19 322:2 330:4 south 26:1,13 27:4 33:6,20,21 36:17 43:3 95:11 96:14 129:20 132:6 136:14 198:17,18 199:5,15 233:15 241:20 243:22 283:7 291:1 299:7 322:22 332:12 341:8 342:4,13 southeast 4:22 50:16 67:21 111:16 133:20 268:4,9 southern 115:13 139:13 southwest 329:18 377:21 space 62:20 298:19 Spain 289:7 290:1 367:17 spans 226:8 spatial 285:22 spawn 368:15 369:7 382:21 387:21 spawners 369:12 370:8 371:21 382:19,20 383:2 386:6,9 spawning 332:6 338:5,20 339:6,10 340:2 354:5,12,16 355:1,3 359:16 360:2 364:15 369:1 370:3,14 383:6,8 385:22 387:4,9,11,22 388:9 spawns 354:20 speak 168:9 181:15 263:18 speaker 292:8 speaking 63:15 186:18 202:1 | 242:8 special 283:6 382:14 specie 234:3 species 1:9 3:5,16 7:17 8:20 12:9 13:17,20 15:1,2,16 15:18 17:11,21 18:1 19:5,6,9,13 22:18 25:14 28:17 28:18,20 34:12,20 34:21,21 35:9,10 36:7,8 37:14,15 44:11 46:3 49:13 50:2 58:21 74:6 75:8,10 79:11 80:11 81:5,7 82:7 83:4,4 96:13 99:16 100:8 102:9 103:8 105:11,13,19 106:5,8,14,16 107:5,6 108:16 115:7,19 116:2,5,9 119:13 124:22 125:3 132:2,11,17 132:21,22 134:17 134:21 135:11 136:10 137:2 138:10 139:20 141:14 143:12,15 143:19 144:11,20 145:21 146:11 148:2,8,19 149:3,9 149:13 150:17 154:22 158:22 161:21 162:1 163:2,18 165:8,17 165:18 174:4,9 176:9 182:3 183:17 191:17 194:12,14,14 197:15 201:22 202:1,13 205:16 205:16 222:2,7,8 222:12 223:8,13 223:14,17,20,21 224:9,10,11,18 225:4,4,21 226:2,6 |
|---|---|---|--|---|

| | | | | |
|---|--|--|--|--|
| 226:19 233:8 234:22 235:8,14 235:16 237:18,22 238:2,20 240:1 242:9 245:20 246:17 249:2,8 250:11 251:7 264:8 268:17 279:2,20 298:14 306:11 308:13,15 308:16 310:16,19 312:10,11,22 314:4,13,19,21 315:5 316:10,17 321:9 322:9 324:13,15,17 326:18 327:5 335:2 337:6,13 338:11 343:2 352:5,14 354:18 355:13,20 356:3 360:9 363:21 365:8 377:10,18 377:19,22 378:1,3 378:13 379:1,7,8 379:15,17,20 380:2 385:6 | specify 229:5 speed 172:11 spend 170:4 184:8 246:9 spent 148:14 272:12 spill 244:8 spinner 53:3 76:4 79:14 80:16 81:1 96:2 106:4,11 107:17 132:4,18 149:1 174:7 201:12 209:11 237:4 238:13 255:18 spinners 80:6,14,18 102:1 105:16 106:13,19 115:1 149:17 split 10:8 47:10,11 57:13 58:9 123:18 179:19 spoke 139:14 236:5 236:20 386:7 sport 139:15 155:9 spot 247:15 spread 21:19 29:5 184:18 298:18 spring 1:16 309:16 383:6 squander 282:14 square 316:2 319:10 350:21,22 351:2 squid 284:10,12 296:12 St 281:17 stability 163:14 staff 98:12 171:4 172:2 236:9 333:7 staffperson 374:11 stage 228:9 308:14 313:1,2 314:14,20 315:6 321:7 322:10 387:12 staged 274:1 stages 257:19 308:16 324:13,15 379:7 | staggered 216:18 stand 100:11 276:15 371:19 372:2 standard 48:3 54:6 114:2 115:5,15 151:6 standardization 179:12 standardizing 324:9 standards 124:19 211:22 355:22 356:11 standpoint 216:7 267:7 270:21 331:21 358:1 stands 13:2,3 130:13,21 131:3 stark 175:7 start 31:20 76:9 116:2,4,4,22 161:1 168:5 169:22 193:15 209:19 228:12 234:7 235:7 236:9 361:20 373:12,18 started 129:6 167:20 172:18 306:1 starting 137:8 165:12 state 18:16 50:5 67:11 85:8 91:14 96:5 116:11,18,20 130:15 131:9,22 133:7 137:9,12,19 138:11 143:6 177:2 189:19 193:8 206:19 209:16 212:8 229:7 237:7,8,16 282:6 284:22 311:6 367:16 368:14 stated 205:3 statement 3:8,12 45:2 100:16 133:17 309:15 | statements 9:5 states 1:1 7:21 39:15 46:19 66:15 90:7 91:16 94:11 130:8 133:13 177:5 183:16 252:2 259:4 263:18 265:8 303:8 369:9 stating 301:4 stations 91:7 Statistics 52:17 status 3:16 11:5 14:15 17:16 19:22 21:3 22:6 25:16 27:11 28:9,12 31:15 34:8,17 37:11 54:15 56:7 57:3 100:6 108:5 143:6,18 161:5 193:3 194:1 222:1 223:4,6 224:7,18 233:15 234:12,19 324:16 348:22 statute 120:2 191:16 204:7,8 270:12 271:1 statutorily 253:17 statutory 114:16 253:4,15 stay 29:9 38:7 106:15 201:4 269:18 303:11 stays 17:6 steep 223:20 stemming 107:4 108:7 step 16:14,15 119:2 144:10 219:10 334:10 363:15 stepped 307:4 steps 146:2 163:12 252:10 312:17 Steve 68:11,13,16 85:3 87:4 Steven 338:17 Stewardship 297:16 stick 97:17 308:7 | 372:9,10 stickler 69:22 stock 4:6,21 7:7,22 8:1,5,9 16:4 17:2 17:18 28:11 43:7,9 43:12,15 49:22 52:9 53:18,19 54:14 55:11,13,17 61:13,22 62:2,5,7 62:8,11,15,18 67:15 68:8,10 105:10 106:12 152:10 161:21 164:2 223:4 241:7 263:2 264:16 268:15 276:13 278:14 289:3 324:16 333:2 348:21,22 354:20 stocks 8:18 55:2 56:2 89:5 197:14 stop 8:19 69:13 70:14,16 98:2 121:9 195:12 stopped 274:9 stored 51:5 straddling 89:5 197:14 stragglings 382:2 straight 170:15 334:7 341:21 350:5 364:9 straightforward 109:2 Straits 332:5,11 364:2 strategies 245:2 strategy 223:7 227:14 strayed 118:3 stress 13:22 357:20 stressing 337:12 strictly 173:9,18 stringent 49:18 stripe 101:17 strong 113:3 118:14 147:18 225:15 295:9 296:7 |
|---|--|--|--|--|

| | | | | |
|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|
| stronger 146:6 | subsequently 120:21 | 22:14 25:7,12,16 | 266:9 378:22 | 321:6,14 322:6,14 |
| strongest 144:12 | 120:21 | 25:20 26:15 27:11 | sure 45:18 67:4 | 323:5 325:8,13,17 |
| 145:15 226:12 | subset 338:7 | 27:19,22 28:21 | 75:18 86:12 117:7 | swordfishing |
| strongly 142:13 | substantial 40:1 | 29:3,22 30:17 | 118:15 122:11 | 278:19 286:11 |
| 144:2 161:5 226:1 | substantially | 31:18 32:22 33:3 | 123:11 128:13,16 | 292:20 |
| 226:15 | 329:15 | 33:10 34:5 35:12 | 136:20 149:15 | swords 294:19 |
| struck 184:10 | substantive 347:6 | 35:20 37:18 46:22 | 167:6 168:11 | Sylvia 162:16,19 |
| structure 19:14 | subtracting 225:20 | 48:10 54:10,12,12 | 176:17 177:7,13 | system 94:2 150:12 |
| 51:20 | sub-adult 315:7 | 54:19,22 55:6 | 211:7,9,17,19 | 165:6 217:8,19 |
| structured 9:3 | 321:13 | 59:13 72:4 147:3 | 217:8 226:16,17 | 218:1,2,5 230:5 |
| 12:17 207:21 | successful 287:15 | 159:20 163:11 | 230:11 236:10 | 271:15 295:12 |
| structures 356:14 | successfully 95:7 | 180:11 228:20 | 242:21 244:7 | 312:21 330:5 |
| 365:10 | 250:4 | suites 3:18 9:7,8 | 253:13 269:3,5 | systems 41:12 48:8 |
| struggled 100:22 | sudden 69:13 | 10:17,21 11:21 | 284:4 287:20 | S&T 268:7 |
| 267:8 | 152:19 256:15 | 12:21 13:8,13 | 325:6 340:3 | |
| struggling 267:11 | 259:18 | 19:10 26:9 32:20 | 344:16,22 365:21 | T |
| stubbornness 257:1 | suddenly 89:2 | 34:3,15 54:8,11 | 367:7 | T 173:1 |
| stuck 184:1 261:15 | sue 204:4 294:6 | 56:7 | Survey 52:15,17 | table 2:1 12:17 |
| studies 4:16 6:14 | suffered 165:8 | summarize 343:9 | survivability | 13:10,11 16:14 |
| 163:1 336:2 | 196:19 | summarizing 178:8 | 156:22 | 20:18 45:19 89:21 |
| 364:18 383:8 | suffering 112:21 | summary 2:4 35:19 | survive 61:9 | 158:5,7 169:18 |
| 387:15 | 196:21 | 45:14,16 66:17 | sustain 104:5 | 171:9,11,18 |
| study 154:9,13 | suffers 156:3 | 125:13 344:19 | 140:18 145:4 | 177:12 178:1,5,14 |
| 157:20 158:4 | sufficient 81:15 | summer 78:19 | sustainable 140:9 | 179:21 183:4 |
| 202:4 | 163:17 235:6 | 310:4 | 140:16 141:2,18 | 186:10,10,12,18 |
| studying 130:6 | suggest 149:3 169:2 | summertime 198:7 | 141:21 275:1 | 197:18 208:13,19 |
| 147:1 | 169:6 170:4 | sun 270:16 | 279:12 | 209:10 213:2,4 |
| stuff 78:21 79:2 | 172:13,16 208:13 | super 139:8 | sustained 362:17 | 214:8,10,13 |
| 96:3 136:8 153:18 | 355:13 359:1 | supply 57:22 58:4 | swallowing 264:13 | 228:15,17 235:20 |
| 154:9 158:8 | suggested 5:12 | support 49:18 50:9 | swim 244:2 | 246:9 343:22 |
| 201:18 256:11 | 174:14 197:21 | 51:2,22 54:9,10,16 | sword 296:2 351:22 | 344:17 375:18 |
| 257:8 259:2 261:8 | 232:9 355:11 | 55:5 98:21 142:13 | 358:5 | 378:12 |
| 261:13 262:11,13 | suggesting 24:8 | 144:2,12 145:8,15 | swordfish 2:15 57:8 | tables 57:13,15 |
| 262:14 263:13 | 164:18 | 162:21 164:13 | 89:14 97:22 135:9 | 102:16 170:21 |
| 264:7 266:12 | suggestion 145:10 | 177:14,18 186:22 | 140:7 158:10 | 171:7,11,16,17 |
| 273:5,9 285:11 | 212:14,19,21 | 224:12 225:15,22 | 171:21 242:14 | 172:3,18 178:13 |
| style 101:4 | 239:6 | 226:1,15 234:21 | 244:13 245:5 | TAC 6:4 |
| stymied 219:16 | suggestions 101:4 | 278:13 279:8 | 252:9,10,12 271:4 | tactics 275:18 |
| subgroup 375:6 | 362:11 | 284:21 355:7,8 | 272:8,13 273:9,15 | tag 89:7,9 242:1 |
| subject 175:10 | suggests 367:3 | supported 54:14 | 273:15 279:14 | 295:11,14,19 |
| 207:16 | 370:10 | 173:17 290:16 | 280:5,12 286:14 | tagged 315:1 |
| subjective 320:6 | suite 3:22 9:9,11 | supporting 155:4 | 287:3,12,12,16,22 | tagging 4:16 6:14 |
| submit 15:6 148:18 | 10:1,5,18 11:5,9 | 365:1 369:1 | 288:3,6,12 289:3,4 | 311:8 330:5 332:4 |
| 231:19 | 11:13,16,22 12:4,5 | supports 142:3 | 289:14 290:6,9 | 332:6 364:12 |
| submitted 44:21 | 12:12 13:21 14:14 | suppose 220:3 | 291:4,9,18 294:16 | 367:2 369:20 |
| 151:2 156:8 157:3 | 15:19 17:15,20 | supposed 66:5 89:1 | 299:21 304:14,21 | 370:9 383:8 |
| 195:19 363:6 | 19:12,18 20:8,10 | 90:13 93:7 205:22 | 305:3 318:16,16 | 387:14 |
| submitting 160:21 | 21:6,10,14 22:9,12 | 207:22 208:1 | 319:8 320:18,19 | tags 295:18,18 |

| | | | | |
|----------------------------|----------------------------|----------------------------|---------------------------|---------------------------|
| Tag-A 363:3 | 248:19 258:20 | 118:3 119:11 | 39:22 41:3 48:14 | 254:3,4 265:22 |
| Tag-A-Giant 354:3 | 269:2 270:3,18 | 130:9 250:22 | 49:11 52:22 58:19 | 272:2 274:3 |
| tail 190:11 | 281:13 300:21 | 251:16 307:12 | 73:18 105:2 125:1 | 285:10 292:3 |
| tails 82:1 188:5 | 350:13 373:15 | 350:17 | 147:18 160:12 | 293:14 296:17 |
| take 5:8 9:15 13:15 | 380:19 | technically 90:15 | 167:7,22 169:18 | 300:7,8 304:11 |
| 21:18 55:19 63:3 | talked 71:2 203:9 | technology 275:4 | 171:5 282:19 | 305:5,8 345:13 |
| 69:8 71:12 82:6 | 223:1 244:19 | 375:4 | 288:20 290:6 | 347:15 350:13,14 |
| 89:7,9 92:4 94:1 | 245:1,1 266:13 | tell 26:21 68:3 | 298:3 299:13 | 354:1 357:18 |
| 117:18 122:12 | 278:3,4 281:5 | 88:13 99:2,7 | 306:17 307:21 | 365:15 373:20 |
| 142:20 144:3 | 293:8 380:8 | 101:11 149:16 | 308:7 309:6 | 384:10 385:7 |
| 146:1 148:16,17 | talking 13:17 14:11 | 154:6 156:15,17 | 311:17 312:18 | 386:17 |
| 152:14 153:16 | 27:9 74:9 79:4 | 156:19 157:4 | 320:6 321:21 | thanked 274:4 |
| 157:3 164:1,21 | 80:9 82:11 83:4 | 186:3 197:13 | 322:8,16 328:8 | thanks 62:21 128:1 |
| 169:10 170:20 | 103:18 107:11,13 | 200:20 237:6,11 | 334:14 344:7 | 134:3 135:17 |
| 172:9,16 176:22 | 124:19 136:7,9 | 238:11 239:11 | 349:2,14 369:5 | 139:1,4 162:15 |
| 183:14 188:4 | 176:3 196:1 | 246:12 266:13 | 376:12 | 178:15 184:12 |
| 197:5,9 200:7 | 215:22 246:10 | 270:14 278:13 | Terri 81:11 83:11 | 186:8 202:19 |
| 201:17 206:10 | 253:3 264:11 | 285:2 339:2 | 183:6,7 184:12 | 214:11 242:19 |
| 225:6 226:11 | 267:2,22 276:19 | telling 78:15 99:9 | 246:6 248:7 294:7 | 244:4 246:5 |
| 248:3 252:20 | 288:5,19 295:17 | 99:10 156:16 | 385:8,9 386:17 | 250:17 251:19 |
| 266:15,17 267:20 | 297:9 312:13 | 195:2 265:16 | terrible 150:5,5 | 252:21 274:6 |
| 271:20 276:7 | 318:20 320:19 | 269:13 276:4 | terrific 127:16,21 | 279:16 285:9 |
| 278:10 280:1 | 331:5 365:8,9 | tells 145:3 | Terri's 184:19 | 305:9 332:1 |
| 281:1 283:22 | talks 127:10 | temperature 93:3 | 296:7 | 347:11,12 353:18 |
| 285:7 302:17 | tally 255:4 | 337:19 338:21 | Terry 67:5 | 353:19 362:14 |
| 305:16,16 306:12 | tangents 184:11 | temperatures | test 71:22 72:6 | 366:14 368:7 |
| 319:4 336:4 | TAPE 55:6,7 106:6 | 193:16 | tethers 375:10 | 370:19 376:1 |
| 360:17 361:7 | 106:7 154:21,22 | template 376:20 | Texas 90:18 124:13 | 388:10 |
| 363:12,15 364:6 | 202:20 246:1 | temporal 359:11 | text 100:21 333:21 | that's 204:15 |
| 367:21 372:17 | 291:13,14 341:6,7 | temporary 309:3 | 377:12 378:11,16 | 206:18 215:16 |
| 374:8,21 377:15 | 388:14 | 352:20 | thank 81:9 83:11 | 216:14 219:2 |
| taken 9:6 16:19 | tapes 1:20 | ten 255:10 | 98:6 102:22 103:2 | 220:3 221:8 |
| 18:12,14 53:22 | target 109:22 | tend 98:19 | 108:20,22 109:4 | 342:17 344:9 |
| 113:3 115:21 | 110:21 111:3 | tendency 225:2 | 113:10 117:3,5 | 348:4,19 349:14 |
| 135:8 136:10 | 176:9 201:22 | tends 323:9 | 122:16,20 124:10 | theoretical 121:3 |
| 138:12 141:7 | 202:5,6,15 240:19 | tentative 44:19 | 125:5 128:2,22 | theory 264:15 |
| 143:9,15 223:13 | 289:19,19 | tenth 304:2 | 129:17 139:3,4 | there's 214:2 |
| 226:4 229:11 | targeted 104:1 | ten-plus-year 157:9 | 146:9,16 157:14 | 217:14 218:9,14 |
| 238:21 255:5 | 135:5 144:11 | Teo 338:17 364:18 | 157:14 160:15,16 | 219:1,18 221:11 |
| 256:4 265:20 | 155:11 | term 73:4 141:13,14 | 162:13,14,17 | 223:11 224:8 |
| 267:17 299:6 | targeting 110:16 | 180:1 274:12,21 | 165:18,19 167:5 | 345:15 347:8 |
| takers 204:19 | 202:11 | 297:2 298:1 | 183:1,3 186:9 | they've 348:1 |
| takes 62:6 66:4,11 | target's 141:9 | 360:14 | 214:7,10,11 | the-fact 121:1 |
| 138:12 207:15 | task 334:3 | terminology 31:1 | 228:13,14,16 | thing 9:1 13:16 |
| 270:6 295:8 | taxpayers 265:3 | terms 7:5 12:13 | 235:19 236:12 | 19:11 23:5,19 25:6 |
| talk 83:6 129:9,14 | team 281:14 327:13 | 19:13,15 21:21 | 241:18 244:6 | 32:21 41:2 61:21 |
| 129:15 152:9 | technical 63:4,5 | 22:6 28:10,11 31:8 | 248:7,9,16 250:16 | 65:11 69:10 73:6 |
| 161:7 217:12 | 117:12,13,22 | 31:14 33:5 34:2,17 | 251:18 252:4 | 74:1,15 76:14 |

| | | | | |
|---------------------------|-------------------------|---------------------------|----------------------------|--------------------------|
| 77:14 80:9 90:11 | 326:19 327:13 | 238:18 239:5,17 | 205:8 210:10,18 | 231:3 232:11,11 |
| 101:18 104:16 | 333:1 334:5,12 | 240:2 244:22 | 211:2 213:11,17 | 329:2,10 344:6 |
| 133:3 135:19 | 336:22 339:12 | 246:11 249:22 | 216:22 229:12 | thresholds 316:6 |
| 150:14 153:15 | 340:7 343:11 | 250:7,13,15 251:1 | 230:4,8,20 231:4 | 317:6 318:4 320:7 |
| 154:11 155:15 | 346:6,8 347:4 | 251:15 255:7,17 | 232:2 233:6,8,10 | 323:16 324:14 |
| 177:2 194:7 | 353:8 357:2 362:1 | 266:17,19,22 | 233:13,16,20 | 363:14 |
| 199:13 216:22 | 362:9 366:4 | 267:16 268:18 | 234:11,16 243:22 | throes 130:10 |
| 240:4 243:17 | 367:18 369:3 | 269:14 271:3 | 246:11 253:18 | throw 78:19 84:1 |
| 244:21 245:2 | 376:2 384:2 | 274:13 276:2 | 271:14,16 274:17 | 120:11 180:9 |
| 246:3 247:16 | think 23:21 32:8 | 279:6,11,21 280:3 | 278:2 292:14 | 184:4 205:19 |
| 251:3 254:22 | 58:5 59:5,9 60:6 | 280:8 281:9 | 298:6 299:5 312:3 | 221:7 240:6,10,10 |
| 255:16 257:21 | 60:21 65:19 68:4 | 282:22 283:1,3,4 | 331:7 340:2 | 247:20 248:1 |
| 258:16 263:17 | 71:14,19 72:18 | 288:13,14 289:1,5 | 350:11 370:21 | throwing 120:9 |
| 269:10,14,19,22 | 75:16,17 80:11 | 289:8,11,15 290:4 | 371:2 382:7 | thrown 35:17 84:7 |
| 270:7 280:11,22 | 81:3,4,6 86:8 | 290:18 291:1,10 | thoughts 315:20 | 134:2 |
| 289:1 297:1 | 90:19 93:6 98:11 | 296:19,22 299:22 | thousands 94:19 | Thursday 168:6 |
| 300:15 304:18 | 98:17 99:11 | 304:12,13,15,22 | 121:6 134:16 | ticket 259:13 |
| 315:10 335:14 | 100:10,13,17,22 | 305:1 309:17 | 196:16 | tied 119:3 |
| 337:20 342:1 | 101:9,10 102:12 | 319:1 321:10,15 | threatened 143:12 | tiger 35:4 132:19 |
| 346:1 355:15 | 102:16 105:1 | 324:11,19 326:14 | threats 384:6 | tigers 143:16 |
| 371:9 378:9 | 109:5 112:5,11 | 328:10 336:13,22 | three 5:2 33:7 35:4 | 223:16 238:3 |
| 380:16 | 113:8 115:20 | 348:22 351:17,17 | 43:10 57:14 62:6,9 | time 7:8 8:20 9:5 |
| things 13:22 15:20 | 116:6 117:2 | 357:16,21 362:11 | 87:17 103:5 | 25:15,19,21 26:11 |
| 32:7 62:16 66:20 | 118:16,17 119:1,7 | 362:15 364:21 | 122:21 132:11,22 | 32:12 33:13,15 |
| 71:3,6 77:15 94:20 | 119:17 120:1 | 365:7,19 366:17 | 152:14 153:1 | 45:4 48:7 49:15 |
| 96:20,20 97:2,3 | 121:16 125:1,13 | 368:11 369:11 | 158:1 160:5 | 52:5 56:1 60:15 |
| 98:13 100:14 | 128:3 130:22 | 374:9,17,21 | 163:18 171:10 | 61:13 62:20 68:6 |
| 101:17 149:11,18 | 133:1 137:6 148:6 | 375:11 379:18,22 | 174:1 180:20 | 76:18 78:11 91:11 |
| 150:10 153:4 | 150:18 154:13 | 381:3 382:5 | 181:7 191:2 194:8 | 93:12,16,19 98:3 |
| 154:19 169:15 | 160:3 162:12 | 383:13,14,17 | 194:8 199:2,3 | 110:15,18 113:20 |
| 175:3 179:7 180:5 | 170:3,15 174:16 | 386:22 387:2,16 | 230:21,22 250:19 | 114:3 117:16,21 |
| 181:20 183:15 | 174:19 175:4,20 | 388:5 | 256:6 284:12,16 | 118:19 119:5 |
| 187:20 207:22 | 176:12 179:8 | thinking 78:22 | 289:7 299:13 | 120:19 134:19 |
| 208:2 209:9,17 | 180:21 181:11 | 239:22 297:8 | 303:10 308:16 | 139:10 144:1 |
| 211:1,14 219:12 | 182:12 185:18,20 | 298:2 316:21 | 319:4 329:12 | 148:15 155:9 |
| 221:14 230:6 | 192:10,11 195:9 | 318:8 324:22 | 337:10 347:17 | 156:10,20 157:7 |
| 231:13 245:16 | 199:17 203:8 | 329:7 330:13 | 348:9 360:3,7 | 159:11 166:10,15 |
| 254:7,12 256:4 | 204:15,17 205:2 | 340:12 343:11 | three-day 220:15 | 166:19 168:14,17 |
| 258:6,14 259:7,12 | 207:19,20 209:5,6 | 356:5 358:4 | three-quarters | 169:8,15 170:1 |
| 259:16 260:3,16 | 209:9 216:18 | 373:12 | 130:11 155:19 | 172:6 176:10 |
| 263:1,12 265:5 | 217:20 218:22 | thinks 237:7 | 289:8 | 178:4,7 181:4 |
| 266:3 269:9,12,15 | 220:10,17 221:10 | third 186:11 190:9 | three-year 195:20 | 182:20 193:16 |
| 270:10 279:5 | 223:7 224:2,17,20 | 348:7 351:18 | thresher 35:5 225:9 | 206:10 210:8,13 |
| 281:4 283:19 | 225:2,6 226:6,9,13 | thorough 235:9 | 240:16 241:11 | 211:4 212:16 |
| 286:6 290:5,15 | 227:5,6,13,19 | thought 102:3,7,16 | threshers 112:1 | 213:3,8 224:2 |
| 292:12,14 295:7 | 228:6,7,10,10 | 103:4 109:9 126:2 | 238:4 | 225:6 229:1,2,4 |
| 297:13,13 300:3 | 229:9 230:4,10,13 | 126:10,18 131:17 | threshold 32:9 | 230:14,16 232:1,6 |
| 301:3 313:15 | 233:20 237:12 | 153:3 204:22 | 60:12 230:18 | 232:6,22 234:1 |

| | | | | |
|----------------------------|-----------------------------|-----------------------------|----------------------------|---------------------------|
| 239:7 246:9 | 266:8 270:17 | 55:21 164:15 | trim 84:18 85:10 | 379:8 |
| 254:17 255:6,20 | 306:22 313:13 | 268:5 269:17 | trimester 15:14 | trying 65:19 77:1 |
| 256:3 264:18 | 320:12 362:20 | 289:9 291:3 295:4 | 197:12 | 78:7 81:21 93:12 |
| 267:20 272:12 | 363:8 374:19 | 295:4 365:22 | trimesters 31:15 | 100:19 102:18 |
| 279:11,16 280:2 | 383:13 | totally 190:14 199:6 | 58:15,19 180:17 | 107:5,6 153:2 |
| 281:2 285:8 286:8 | token 286:12 | 199:19 267:16 | Trinidad 304:1 | 156:19 168:10 |
| 290:22 298:19 | told 91:11 95:10 | 268:3 282:8 | trip 20:3,3,7,13,14 | 170:11 185:14 |
| 300:9 305:14 | 254:16 270:20 | 285:14 304:21 | 20:17 21:18,21 | 189:13 193:1 |
| 311:13 313:12 | 380:17 381:1 | touch 43:5 254:8 | 22:3,5,19 34:11,14 | 202:9 255:17 |
| 314:9 343:16 | Tom 67:6 103:1 | 266:19 373:13 | 47:7,16,18,20 | 257:8 275:16 |
| 345:18 348:8 | 111:10 113:10 | tough 178:16 305:3 | 81:14 188:22 | 276:3 290:9 300:2 |
| 352:21 355:1 | 177:13,13 | tougher 353:5 | 189:8 193:2,3 | 307:13 324:8 |
| 359:10,18 360:11 | tomorrow 270:16 | tourism 146:13 | 244:12 254:13 | 326:16 327:3 |
| 360:22 361:3,4,10 | 362:17,19 373:12 | tournaments 135:6 | 264:5 | 328:1 334:12 |
| 362:3,6,10,19,21 | 373:19 | tournaments 52:14 | trips 47:13 103:22 | Tuesday 168:5 |
| 366:18 373:16 | ton 15:3 18:4,9,11 | 155:4,9 176:4,7,16 | 104:2,4 | tuna 140:6 220:16 |
| 374:8,10 381:5 | 18:11,13 46:6 | 176:20 | triumvirate 296:5 | 268:10,18 284:15 |
| 382:17 384:14 | 110:9 143:4 | to-fin 173:6 | trouble 199:16 | 291:19 294:18 |
| 385:11 | tons 6:5,5 14:18,19 | track 167:11 223:9 | 202:16 | 296:3 305:4 325:3 |
| timeframe 114:19 | 16:2,5,12 17:9 | tracking 299:1,2 | troubling 302:19 | 328:17,21 329:6 |
| 142:16 | 24:17 36:2,4 38:5 | tradeoff 202:17 | truck 33:20 65:2,14 | 329:12,19 330:12 |
| timeline 44:20 | 38:5,8,9,17,21 | 217:14 | 213:14,16 219:20 | 330:21 331:16,18 |
| 308:7 309:7 | 39:6,8,16 52:6 | traditional 206:1 | 244:13 | 332:9 333:2 |
| timelines 61:11 | 61:9 123:17 | traditionally 199:14 | true 103:7,9 125:17 | 335:12 337:21 |
| timely 28:5 | 134:16 143:1 | trafficking 72:17 | 133:20,21 249:6 | 338:5,11,20 339:7 |
| times 24:6 60:9 | 164:16 177:16 | trail 120:22 | 274:12 358:15 | 339:11 340:14 |
| 78:19 85:20 153:2 | 276:21 277:16 | training 149:19 | 359:4,7 382:22 | 348:18 352:1 |
| 156:10,11 168:4 | 289:15 | 220:6 | 383:1 | 354:13 356:5 |
| 168:15 181:7 | tool 77:19 119:20 | transcript 1:18 | truly 56:1 359:21 | 359:16 360:19 |
| 190:1 204:18 | 179:12 203:13 | transcripts 91:17 | trust 86:16 | 363:1 364:4,15 |
| 211:3,5 218:19 | 372:6 376:5 377:8 | transfer 46:2 | trusting 86:17 | 366:2 367:22 |
| 244:2 256:10 | 377:17 379:22 | 282:11 293:9 | truth 134:14 142:1 | 368:15 370:22 |
| 264:9 265:11 | tools 269:12 280:18 | transit 48:11 | truthful 293:8 | 378:6 379:9 382:9 |
| 361:9 371:2 383:5 | tooth 310:17 | transition 303:15 | try 9:19 31:6 47:4 | 385:4 |
| timetable 158:18 | tooting 154:12 | translate 259:8 | 62:20 66:22 83:18 | tunas 82:1 89:14 |
| timewise 361:12 | top 12:19 112:16 | translated 147:13 | 103:20 104:5 | 144:6 |
| Time/area 233:13 | 152:4 157:5 163:4 | transparency 327:6 | 116:12 117:11,17 | tuna's 354:4 |
| timing 43:6,8,11,14 | 221:18 340:15 | transparent 10:6 | 118:7 158:15 | turn 114:17 163:13 |
| 54:13 | topic 12:20 13:6,7 | transport 244:16 | 170:1 171:22 | 178:14 208:19 |
| tiny 184:8,9 | 13:19 128:7 168:8 | travel 356:16 | 176:19 183:15 | 214:14 275:7 |
| tip 4:13 6:12,16,18 | 186:20 256:20 | 373:22 | 199:8 204:3 | 277:22 278:15 |
| 6:21 7:2,4 26:22 | topics 9:12,16,17,21 | traveling 48:12 | 267:13 268:10 | 292:6 347:4 |
| 195:1 329:17 | 10:3,19 12:18 | trawling 352:8,18 | 272:18 280:7 | turned 274:10 |
| tips 4:14 107:15 | 45:21 64:4 178:18 | tried 267:12 281:6 | 286:10 291:15 | 281:7 346:19 |
| top 375:22 | 274:8 362:18 | 281:12 339:14 | 304:16 307:5 | Turner 387:17 |
| today 83:15 97:2 | Tortugas 198:17 | trigger 167:9,11 | 327:10 353:2 | turning 277:13 |
| 146:9 160:20 | total 6:4 16:11 | 359:1 | 362:8 368:13 | 351:1 |
| 226:10,21 265:11 | 40:12,19 42:13 | triggering 163:6 | 373:14 374:19 | turtle 375:10 |

| | | | | |
|--|--|--|--|--|
| turtles 202:16 277:17 288:10 | typically 9:14 41:6 101:22 241:6 369:20 | 108:11 200:15 215:9 | unring 245:18 | 198:21 199:12 |
| Twenty-first 219:11 | typos 79:18 80:3 89:20 90:1 | understood 187:1 | unseen 302:13 | 228:6 249:13,15 |
| twice 187:8 | <hr/> U <hr/> | underway 156:8 | unusual 126:19 | 253:6 260:11 |
| two 6:13 43:10 | ultimate 172:12 | under-harvest 19:3 46:14 | upcoming 375:8 | 262:3,7 265:12 |
| 47:13 62:6,9,14,18 | unable 200:16 | under-reach 185:6 | update 313:2 | 275:4,5 279:14 |
| 64:1 67:9 71:3,5 | unacceptable 144:14 191:1 282:3,4,9 | unfairly 47:14 | updated 310:20 | 281:7,13 282:5,16 |
| 74:21 77:15,19 | unanimous 174:6 | unfolded 95:18 | updates 210:15 306:6,7 310:9 | 284:19 285:3 |
| 81:4 84:15 86:21 | UNC 267:16 | unfolding 350:1 | updating 44:1 308:9 310:18 324:1 | 288:19 289:7 |
| 100:5 102:2 | uncertain 176:8 275:12 288:16 | unfortunate 112:5 | upgrade 295:1,2 | 290:2,19 293:4 |
| 109:15 116:1,9 | uncertainty 143:20 | unfortunately 82:10 138:4 139:16 141:16 142:5 144:7 149:15 189:2 197:17 238:6 307:3 | upgrades 286:17 | 297:5,9 302:21 371:13 384:17 |
| 139:10 156:5 | unclassified 28:13 28:22 29:20 37:9 44:13 50:3 136:7 136:19 137:11,20 | unidentified 90:8 90:14 225:18 | upgrading 294:20 | <hr/> V <hr/> |
| 158:1 168:12 | unclear 105:7 | uniform 266:17 361:19 | upper 190:10 | valid 162:4 295:19 295:20,20 365:20 |
| 169:15 185:3 | uncovering 257:7 | Union 259:5 261:22 | upwards 388:3 | value 300:2,2 |
| 187:8,20 190:1 | underages 220:22 225:21 | unique 59:1 | urea 85:22 193:17 | valued 283:9 |
| 191:2 207:8 | underestimated 52:19 168:16 | uniquely 371:18 | urge 144:4 145:21 147:17 161:5,7 165:5 | vans 374:16 |
| 209:13 213:21 | underharvest 19:8 | United 1:1 7:21 39:15 66:14 183:16 259:4 263:18 265:8 303:8 369:9 | urgent 144:9 | variation 5:12 |
| 216:13 247:16 | underlined 381:14 | units 308:15 | urging 303:1 | variety 75:16 76:13 246:16 259:16 |
| 250:18 256:6 | underlying 140:8 324:19,21 | universe 21:17,20 24:21 29:4 42:1,5 42:11,12 239:13 | use 8:3 52:12 55:14 55:17 59:14 140:9 140:10,13 199:12 219:9 269:20 281:15 283:9,9 285:7 286:8 287:18 298:21 315:17 319:5 320:8 323:1 325:9 327:3 334:21 335:1 340:17 351:5,5 355:6 361:1 376:13 377:7 380:1 | various 378:13 |
| 258:14,15 260:16 | underneath 377:18 | University 146:19 271:10,12,15,17 271:18 386:21 | useful 379:18 | vary 206:16 |
| 262:17 263:1 | underrepresented 328:3 | unknown 5:20 7:4 19:7 80:22 143:6 222:2 223:5 | using 303:1 | vats 93:15 |
| 269:8,11 270:9 | underscore 381:6 | unload 187:7 193:13 | use 8:3 52:12 55:14 | versa 102:5 |
| 286:5 289:6 | undersized 287:12 291:5 | unloading 93:4 | 55:17 59:14 140:9 140:10,13 199:12 219:9 269:20 281:15 283:9,9 285:7 286:8 287:18 298:21 315:17 319:5 320:8 323:1 325:9 327:3 334:21 335:1 340:17 351:5,5 355:6 361:1 376:13 377:7 380:1 | version 10:2 |
| 290:20 311:1 | understand 10:12 105:15 106:10 107:1 109:12,20 124:2 153:2 201:3 220:15 237:8 248:21 249:16 250:3 251:6 259:10 327:7 341:21 350:19 358:2 | unnamed 27:2 | used 54:7 179:2 | versions 10:19 |
| 313:10 317:21 | understanding | unpublished 69:1 258:2 | 140:10,13 199:12 219:9 269:20 281:15 283:9,9 285:7 286:8 287:18 298:21 315:17 319:5 320:8 323:1 325:9 327:3 334:21 335:1 340:17 351:5,5 355:6 361:1 376:13 377:7 380:1 | versus 30:3 43:21 180:14 270:13 275:5 |
| 321:4 322:13 | | unreasonable 204:16 | use 54:7 179:2 | vertical 12:22 |
| 323:5,15 325:8,12 | | | 201:21 380:12,14 | vessel 34:11 40:18 48:8 66:14 145:10 245:21 286:17 298:7,8 300:18,20 301:7 |
| 325:17 326:1 | | | uses 318:14 | vessels 39:10 40:13 40:16,20 42:6,8,9 42:16 48:12 61:8 61:20 69:4 94:8,9 126:4,8,8 147:6 148:17 173:10,13 173:19 175:9 182:19 214:22 215:1,22 216:3 217:1,13 221:4,5 281:15 287:1 301:8 302:12 |
| 332:22 337:3 | | | usually 62:6 93:16 249:16 | |
| 340:19 348:9 | | | utility 298:8 | |
| 354:9 355:9 | | | utmost 354:11 | |
| 359:13 384:14 | | | U.S 52:7,8,11,13 56:20 89:12 144:22 146:5,5 165:3 198:15,17 | |
| 385:16 386:1,3,3 | | | | |
| Two-thirds 90:6 | | | | |
| type 36:13 39:11 48:21 66:17 67:1 117:1 126:13 136:18 210:11 229:5,10 283:22 326:21,22 337:12 337:15 342:21 344:2 352:13 354:14 370:2 380:12 | | | | |
| types 10:9 15:11 256:9 280:19 313:21 328:11 337:18 339:12 | | | | |

| | | | | |
|----------------------------|-------------------------|---------------------------|---------------------------|----------------------------|
| 348:11 | W | 61:21 102:11,17 | 137:13,19 138:3 | 282:15 341:13 |
| viability 141:1,4,7 | wager 339:21 | 108:19 125:9 | 138:11,11 146:3 | 344:15,20 |
| 141:10 | wait 73:2 166:21 | 129:16 171:5 | 165:4 193:8 | weather 78:18 |
| viable 47:9 72:13 | 231:19 | 204:13 211:8,16 | 209:16 212:6 | 187:15 |
| 114:13 | waiting 117:20 | 241:21 242:21 | 256:11 352:8 | web 306:15 |
| vice 102:4 | 289:2 | 246:8 248:19 | 371:7,9 384:17 | Weber 184:13 |
| view 280:22 317:12 | walk 317:18 | 252:22 253:22 | wave 241:15 | 186:8 293:16,16 |
| 373:9 | want 13:22 23:5 | 261:9 264:4 269:1 | way 11:8 23:6 27:1 | WEDNESDAY |
| viewable 347:10 | 28:12 30:19 31:6,9 | 280:9 288:17 | 28:16 34:2 51:16 | 1:13 |
| VIMS 91:7,13 | 35:18 43:5 45:13 | 295:3 300:11,12 | 70:14,15 76:19 | week 49:20 369:17 |
| violated 48:4 54:7 | 56:15 60:5 63:6,11 | 316:14 317:10 | 77:3 78:10 84:10 | weeks 160:22 |
| violation 24:3 | 64:13,15 72:8 81:3 | 355:6 357:4 363:8 | 85:4,18 87:19 92:2 | 216:13 242:1 |
| 120:19 121:10 | 81:7 97:7 99:13,14 | 367:6 368:10 | 95:17 96:21 98:10 | weigh 188:4 228:16 |
| 122:9 125:20 | 108:22 110:13 | 369:4 374:6 376:5 | 110:14 114:7 | 300:13 |
| 190:20 191:13 | 117:19 119:17 | 378:5 381:17 | 116:8 122:2,16 | weighed 190:10 |
| 192:20 229:5 | 122:1 128:17 | 383:11 384:8 | 125:19 130:5,11 | 237:10 |
| 257:5 | 155:18 161:1 | 386:12,16,21 | 158:2 162:5 167:9 | weighout 88:4 |
| violations 48:20 | 167:17,18 168:9 | wanting 149:6 | 169:17,19 181:9 | weight 6:5,6 15:3 |
| 203:15 212:1,2 | 181:15 183:11 | wants 72:2 74:12 | 188:19 190:9 | 16:2,5,12 18:4,10 |
| 216:4 228:22 | 184:20 186:16 | 129:14 178:1 | 199:20 201:13 | 18:11,14 20:2 |
| 229:3,7,8,9,10 | 194:5 197:19,20 | 259:11 276:2 | 206:1,2,11 207:20 | 24:18 38:22 39:17 |
| virgin 194:21 | 197:22 198:1 | 295:5 345:16 | 218:17 219:12 | 46:6 189:13,14 |
| Virginia 130:4 | 199:3 207:4 | 375:1 | 226:16 231:18 | 369:18 |
| 131:6,9,16 134:7 | 214:15 215:16 | warm 339:7 | 232:15,20 233:2 | weighting 328:1 |
| 136:8,11,20 137:9 | 216:16 217:8 | warning 220:14,15 | 236:22 250:14 | weights 261:11 |
| 137:19 138:3 | 221:16 222:20 | warrant 349:1 | 267:4 274:18,21 | weigh-in 236:1 |
| 151:18 209:22 | 225:14 240:6 | warranted 165:17 | 282:9,16 289:15 | weigh-out 152:17 |
| virtues 287:9 | 241:17 249:17 | warrants 224:19 | 289:21 290:11 | weigh-outs 153:13 |
| visible 141:9 | 253:10 254:7,15 | wasn't 67:19 68:16 | 293:1,3 297:8 | 203:12,20 |
| vision 214:22 | 260:3 261:1,1 | 75:11 88:19 | 300:6 317:20 | WEISS 250:21 |
| 282:19 288:12 | 262:20 266:5,22 | 101:20 179:10 | 334:11,22 347:20 | welcome 13:15 |
| 299:19 302:2 | 268:4 269:3 | 227:1 242:16 | 349:22 351:12 | 101:5 102:20 |
| visit 376:7 | 280:14 282:14 | 258:10 271:21 | 352:19 358:7 | 122:18 167:17 |
| VMS 48:7 348:13 | 285:13,21 286:2 | 305:11 326:20,22 | 369:21 | went 73:7 87:12 |
| 349:11,13,17 | 286:13 291:11,12 | 376:2 | ways 56:12 104:2 | 127:4 254:14 |
| voice 146:10 225:14 | 301:6 302:11 | wasting 51:6 249:7 | 121:9 242:10 | 258:12 261:6 |
| 248:19 373:2 | 304:11 315:17 | watch 371:20 372:2 | 249:22 250:10 | 271:14 274:7 |
| volume 79:22 314:5 | 320:7,21 342:17 | watching 264:9 | 277:20 279:7,13 | 275:18 280:4 |
| 325:19 | 344:16 345:7 | water 52:11 55:13 | 324:3,4 | 293:22 296:3 |
| voluntary 229:18 | 347:3,21 350:13 | 144:19 197:8 | wepd 343:12 346:7 | 305:21 336:13 |
| 229:20 | 358:8 359:1,15 | 198:5 212:9 | wepll 252:18 343:8 | 338:9 350:5 |
| volunteer 139:10 | 360:3 361:7,7,10 | 286:11 287:2 | 346:20 348:20 | 355:10 |
| votes 278:12 | 361:20 367:8 | 297:20 298:8 | wepre 214:9 216:14 | weren't 95:12 155:3 |
| voucher 374:1 | 369:13 373:14,16 | 302:7 312:5 314:5 | 218:19 343:5,16 | 159:17 289:22 |
| vu 272:10 | 375:15,21 376:22 | 331:20 356:12 | 343:17 344:14 | 320:10 |
| vulnerability | 378:10 384:3 | waters 116:18,20 | 351:14 | west 198:20 199:10 |
| 222:11 223:8 | wanted 57:9 61:5 | 129:20 130:16,17 | wepve 204:17 205:3 | 364:14 |
| vulnerable 145:4 | | 131:9 132:1 | 211:2 220:13 | western 342:7 |

| | | | | |
|---|---|--|--|--|
| 354:12,20 355:2,3 366:19 368:15 370:4 371:21 382:8,12,19,20 383:3,8 we'll 67:7 273:2 we're 122:22 206:11 we've 13:9 157:2 170:14 183:19,19 193:3 195:3 224:21 260:4 280:7,10 284:6 289:11 310:20 330:3 343:18 366:8 368:8 369:14 370:9 wheelbarrow 236:19 wheeling 236:15 white 242:13 384:16 whitewash 35:6 Whops 204:10 wide 75:15 254:15 wiggle 316:15 364:8 364:10 wild 356:19 wildlife 97:11 113:13 124:13 160:18 William 2:14 willing 89:15 305:9 willy 248:2 Wilson 3:2,2 64:22 65:10,13 67:18 70:2 72:18 73:5 79:17 80:2,14,20 84:2 101:18 103:9 103:18 104:16 105:20 110:2 111:6,14 112:15 124:21 127:5,8 128:10,13 135:17 139:1 151:12 160:2,13,16 162:14 165:19 166:2 167:8 171:14 wind 93:10 96:8 | 187:14,16 188:20 202:9 250:18 252:5,18 362:20 winding 366:15 winds 193:21 winter 45:8 85:2 309:16 wintertime 135:10 wish 239:5 337:22 witnessed 265:21 witnesses 97:16 wonder 367:20 wonderful 361:2 wondering 68:7 88:19 137:14 153:19 214:13 347:18 350:9 woodwork 247:3 word 176:5 202:6 292:2 words 119:17 140:11 150:2 226:22 315:16 317:9 339:4 352:20 work 31:11 69:18 74:12 85:7 89:4 93:8 109:7 138:4 170:21 172:9,11 182:22 189:5 193:4,5 206:4,20 210:20 228:2 244:19 253:17 272:7 274:20 288:15 290:20 292:6 304:17,17 318:22 334:13,19 335:20 353:1 359:6 367:1 368:8 worked 185:11 205:18 267:19 working 68:14 127:13 209:14 232:21 243:20 265:4,4 304:20 309:19,21 319:1 333:7 375:15 works 76:19 244:17 | 265:9 307:10 workshop 5:5,6 86:22,22 87:20,20 88:20,22 91:9 152:11 153:3 159:18 160:6 194:5,9,10 workshops 5:2 53:9 91:5 133:14 194:8 world 112:7 139:20 139:21 142:6,9 144:21 146:6 227:18 368:5 worldwide 97:14 141:21 worse 87:14 worth 172:8 217:16 358:8 wouldn't 25:4 34:18 73:9,10,12,14 106:1 124:6,7 132:8 138:18 182:20,22 232:4 332:11 wound 85:8,10 271:9 wrap 117:17 375:11 375:20 write 69:14 74:17 75:5 76:19 77:4 78:8 79:6 82:15 168:13 259:13 260:13 writing 69:20 258:5 338:2 343:12 written 88:1 114:8 194:4 231:10 240:5 348:16 wrong 65:20 84:3 89:4,15 90:19 91:3 91:21 93:6 96:4 180:22 246:14 260:21 261:2 262:13 267:17 280:5,6 290:5,18 291:10 367:13 373:6,7 wrote 179:7 237:14 | 327:14 <hr/> X <hr/> X 93:11 <hr/> Y <hr/> year 15:15 23:8 31:20 33:13 38:5 39:6,8,17 40:7,15 40:18,22 43:17,18 43:20,22 46:15 47:13 52:8 62:13 86:20 90:12,13 91:17 94:19 107:8 131:1 134:16 144:5 150:7,14 195:21 196:10,11 196:18,20 197:18 198:13 237:5 239:8 256:10 264:3 265:1 267:11 281:6,10 283:16 300:16 305:3 309:9 310:5 315:9 332:22 340:1 359:14,18 360:2,6,8 362:10 375:13 382:18 383:5 years 7:16 8:7 43:10 43:13 55:20 62:2,7 62:9,12,14,18 74:21 95:2 136:18 138:7 142:17 154:8 163:21 164:2 175:16 177:21 188:9 191:3 199:14 210:7,13 225:1 226:3 230:21,22 260:5 264:12,17 267:9,10 275:18 280:6 290:20 309:5 348:9 371:19 387:8 year-old 367:4 year-round 54:17 yell 244:3 | yellowfin 379:9 yep 247:12 yesterday 252:8 266:4,9 272:8,13 272:19 273:9,21 274:5 285:11 305:10 376:3 381:21 385:12 yesterday's 171:21 yield 141:2 yields 141:18,21 youpre 214:12 341:9 350:20,20 350:22 youpve 351:21 352:3,5 young 315:8 <hr/> Z <hr/> zero 88:11 zeroed 371:5 zoom 342:6 347:1,2 379:19 <hr/> \$ <hr/> \$1.5 40:21 \$1.50 189:7 \$1.8 40:6 \$2,000 189:7 \$2.00 188:22 \$30 188:21 \$600-700 255:22 256:2 \$8,000 188:22 \$9 277:9 <hr/> 0 <hr/> 07 44:7 341:15 09 133:6 <hr/> 1 <hr/> 1 2:17,22 11:4,5 14:14 25:16 27:11 31:20 33:12 50:15 90:2 103:6 171:11 171:16 177:16 178:5 196:2 197:20,20,22 |
|---|---|--|--|--|

| | | | | |
|--|---|--|---|--|
| 198:15,17,21 199:12 236:2 294:10 306:10 310:10,10,15,20 312:16 313:20 1st 131:2,3 1,000 93:16 276:21 277:16 1-10 127:5 1-5 195:16 1.39 189:15,18 190:3,14 207:2 1.5 195:17,17 1.6 39:16 52:6 1/2 177:16 191:21 200:18 1:30 168:5 10 22:3 24:8,15 27:16 29:14 30:15 36:22 40:13 42:16 49:14 61:20 85:17 104:14,19 113:17 114:9 126:4 164:16 172:17 173:9 206:8 291:13 10th 4:4 10,000 330:5 10-day 114:2 10-minute 305:17 305:19 316:1,2 350:21 351:8,9 10-nautical 316:12 100 7:16 8:7 30:7 69:3 99:18 100:7 103:14 152:13 175:13 189:17,21 190:2,4 215:11 221:6 316:2 319:10 323:17 330:6 341:18 100-square 328:21 1017 14:18 106 319:9 11 75:17 194:14,20 257:10 277:9 291:14 341:6 367:3 | 11:22 172:7 116 110:8 123:17 143:1 328:20 116.6 16:2 24:17 36:2 38:5 61:9 117 277:11 12 75:17 195:10 257:12 341:7 367:3 388:14 12th 374:2 12:30 169:21,22 170:1 171:3 172:20 129 2:7 42:8,18 94:8 94:13 13.1 38:17 139 173:12 14 225:1 237:9 264:12 267:9 14,000 289:15 145 385:13,18,20 15 236:3 15th 131:2,11,11,22 198:1,3 209:19 268:10 150 152:19 150-200 157:22 153.3 39:4 154 372:1 158 6:5 16:6,12 38:21 16 20:6 89:9 160,000 277:6 1600 322:17 174 2:12 180 126:7 292:7 318:17 322:15 388:2 185 386:2 19 15:1 277:10 190-something 386:3 1960s 369:2 1961 130:6 1970s 147:1 1975 134:10 1985 129:7 134:17 135:13 | 1990 88:12 1991 289:11 1992 88:5 1993 264:2,11 1994 147:8 187:11 341:15 1999 194:15 310:8 319:16 320:11 322:19 323:20 324:6 325:21 326:11 335:15 377:3 <hr/> 2 <hr/> 2 2: 4,7,9,12 3:4 11:13,16 13:12 15:19 17:15,20 19:12 20:8,10 21:6 21:10 25:20 27:19 28:21 31:18 32:22 33:10 34:15 59:11 63:12 90:1 92:2 94:7 95:16 103:13 168:19 171:11,16 179:17,20 192:9 195:22 196:20,22 218:6 233:7,14 234:17 236:3 276:22 312:15 2nd 4:5 45:6,12 90:4 2,000 193:1 334:22 2.0 189:18 190:14 191:19 207:1 2.1 89:21 2.4 158:5 2.9 257:21 20 31:2 289:11,13 334:21 351:11 20-nautical 316:18 200,000 200:4 200-something 196:12 2000 7:13 86:13 262:18 2002 308:11 2003 42:8 44:3 94:11 199:18 | 2004 195:22 2005 4:7,19 7:19 42:8 94:11 134:6 147:8 151:16 2006 4:8 7:8 89:1 91:3 341:15 366:8 2007 1:14 137:8 264:11 2008 8:22 45:9 194:6,10,11 304:21 305:3 2009 195:10 2010 195:13 21 20:13 22 23:2 36:10 47:7 180:6,10 194:11 221:3,7 255:14,20 256:13 291:3 220 6:4 16:5,12 231 41:22 24 28:1 49:19 305:11 338:22 24th 199:19 24,000 277:5 24,500 277:1 240 388:4 26 280:6 267 2:14 269 41:22 27 257:17 338:22 298 41:22 126:8 <hr/> 3 <hr/> 3 1:14 2:4 11:22 19:10 21:14 22:9 26:9 27:22 29:3 32:20 34:3,15 95:15 171:11,17 186:10,18 191:21 195:21 197:9 233:14,20 3-kilo 277:3 3.2 75:20 257:13 3:30 168:6 30 135:14 138:6 154:8 182:20 191:18 205:17 276:10 283:17 | 319:8,9,10 30-some-odd 85:1 30-year 196:7 300 369:17 300-something 196:12 306 2:17 310 366:20 32 237:10 32-pound 243:4 33.2 39:7 346 2:21 350 177:21 365 264:3 380 177:21 <hr/> 4 <hr/> 4 12:4 19:11 22:12 22:14 25:7 26:9 29:22 32:20 34:3 34:16 35:20 41:3 54:6 59:13 95:15 130:21 147:4 163:10 171:17 174:13 200:18 221:13 228:20 233:14 4,000 20:2 188:17 189:8 193:2 254:13 264:5 40 47:12 93:3 158:7 188:2 191:18 291:4 302:12 40-50,000 321:15 400 7:16 164:2 241:5 454 14:18 48 308:15 49,000 40:18 490,000 40:15 <hr/> 5 <hr/> 5 11:9 12:12 19:18 25:12 26:15 30:17 33:3 34:5 35:12 37:7 48:10 54:10 55:6 162:13 171:17 |
|--|---|--|---|--|

| | | | |
|-----------------------------|----------------------------|--|--|
| 5-point 257:14 | <hr/> 8 <hr/> | | |
| 5:00 345:18 | 8 154:22 202:20 | | |
| 50 19:4 47:12 | 8:30 373:13,19 | | |
| 134:18,22 135:12 | 80 32:3,6,9,17 33:1 | | |
| 152:20 183:21 | 46:15 60:10,13 | | |
| 188:20 190:1,1 | 138:9 185:4 | | |
| 205:18,19 255:16 | 220:11 230:18 | | |
| 318:8 323:16 | 231:3 232:10 | | |
| 332:4 344:7 388:2 | 318:9 344:7 | | |
| 388:9 | 800 369:19 | | |
| 50-minute 351:2 | 81-inch 366:19 | | |
| 50-pound 153:17 | 82 88:12 | | |
| 54 34:10 | 83 88:12 | | |
| 541 143:3 | 84 88:12 | | |
| 541.2 17:9 36:4 38:9 | 85 88:12 135:2 | | |
| 56.6 39:6 | 86 88:12 364:14 | | |
| 57-inch 365:22 | 87 88:12 | | |
| 582 38:8 | 88 88:12 | | |
| <hr/> 6 <hr/> | 89 88:12 156:4 | | |
| 6 54:12,12 55:7 94:5 | <hr/> 9 <hr/> | | |
| 106:6 171:17 | 9 48:3 134:6 246:1 | | |
| 6-7 191:6 | 9.2 39:8 | | |
| 6.6 277:4 | 9.6 38:16 | | |
| 6.9 75:19 257:13 | 9.9 191:22 257:21 | | |
| 60 15:3 18:3,10 46:5 | 90 46:13 78:18 | | |
| 153:11 332:4 | 156:6 168:22 | | |
| 60-day 310:2 | 170:2 187:14 | | |
| 60-pound 153:18 | 256:18 277:1 | | |
| 60-some-odd | 318:9 344:7 | | |
| 175:16 | 90-pound 277:3 | | |
| 600 66:15 | 900 369:19 | | |
| 600-700 255:21 | 91 84:11 206:22 | | |
| 62 42:9,18 94:9 | 92 85:14 206:8 | | |
| 635.28(b)(3) 199:16 | 94 151:16 | | |
| 650 369:18 372:1 | 95 46:13 156:3 | | |
| <hr/> 7 <hr/> | 317:10,14 318:1,9 | | |
| 7 64:17 106:7 | 321:4 323:7 | | |
| 154:21 | 325:18 332:9 | | |
| 7th 309:8 | 334:8 346:14 | | |
| 70 55:20 142:16 | 98,000 40:17 | | |
| 190:5 318:9 344:7 | 99 94:2 320:12 | | |
| 728 38:4 | 326:7 330:16 | | |
| 74 155:16 | 346:13 347:2 | | |
| 75 135:1 303:2 | | | |
| 75-day 45:5 | | | |
| 75-80 289:5 | | | |