



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northeast Fisheries Science Center
166 Water Street
Woods Hole, MA 02543-1026

June 8, 2009

MEMORANDUM FOR: Northeast Fisheries Observer Program Observers

FROM: Amy S. Van Atten
Branch Chief, FSB

SUBJECT: Closed Area II Access Area Opening Reminders
VIMS/Industry Cooperative Survey of Closed Area II
Yellowtail Flounder Bycatch Letter to the NEFMC
Updated Observer Regulations Documents

This memo is to provide information regarding the June 15th Closed Area II Access Area opening and to remind you of important sea scallop sampling protocols. This memo also contains a Virginia Institute of Marine Science (VIMS) Marine Resource Report on their 2008 cooperative survey of Closed Area II Access Area, a yellowtail flounder bycatch letter submitted to the New England Fishery Management Council (NEFMC) and observer regulations summary documents.

The Closed Area II Access Area (CAIIA) will open on **June 15, 2009** with 1 trip per vessel allocated to the Full-Time Limited Access (FTLA) scallop vessels and no trips allocated to the Limited Access General Category (LAGC) scallop vessels. The CAIIA **DOES** have a yellowtail flounder Total Allowable Catch (TAC) and iPAQ SAP data **ARE** required for this area.

iPAQ OBSCON and SAP data **MUST** be received within 24 hours of landing and trip log data **MUST** be received within 4 business days of landing. These deadlines are crucial for the Observer Program to provide real-time monitoring data to both the Northeast Regional Office and industry members regarding yellowtail flounder bycatch.

Actual weights of both kept and discarded yellowtail flounder are imperative on these trips due to the yellowtail TAC. **Actual weights** should be obtained on observed standard hauls and cumulative **actual weights** should be obtained for deckloaded or shoveled hauls.

The SAP data required for these trips are round weights for kept and discarded yellowtail flounder and dressed weights for kept scallops on each observed haul. All scallop Access Area protocols should be followed and the attached checklist for the CAIIA will ensure proper data collection.



Observed trips in the CAIIA are covered by the Industry-Funded Scallop Program. Please refer to both the attached checklist and the information listed below for proper documentation of codes on the Vessel & Trip Log and OBSCON reporting:

Program Code – Closed Area II Access Area (CAIIA) = **203**

Contract Area Code - vessels fishing Limited Access = **046**

Vendor I.D. Code – A.I.S. Industry Funded Trip = **02**

Vendor I.D. Code – E.W.T.S Industry Funded Trip = **04**

Areas of the CAIIA are located below the 41° 9.0' N. latitude line and vessels fishing in these areas are required to use turtle chain mats on their dredges during the time period of May 1, 2009 through November 30, 2009. If a vessel you are deployed on is using turtle chain mats be sure to confirm with the captain and document on the Scallop Dredge Gear Characteristics Log.

Turtle excluder modified dredges are still being used voluntarily by vessels. This modified dredge frame has fewer support bars on the bale and the cutting-bar is moved forward (See Figure 1). Observers should still be recording this information on both their Vessel & Trip Log and Scallop Dredge Gear Characteristics Log. If you are deployed on a vessel towing this modified dredge and using chains, either a standard configuration or a chain-mat configuration depending on the area fished, write “**Turtle Excluder Dredge**” in the appropriate dredge’s COMMENTS section along with the modified dredge number which will be stamped into the frame. This information should also be recorded in the COMMENTS section of your Vessel & Trip Log. This information is used by the Northeast Fisheries Science Center (NEFSC), Protected Species Branch (PSB), so be sure to record the use of these dredges.

For more information on sampling in the scallop fishery, refer to pages 16-18 and 68-72 in the NEFOP Biological Sampling Manual and pages 136-152 in the NEFOP Fisheries Observer Program Manual.

Please review the attached documents. The CAIIA checklist should be reviewed with your data editor before deployment and should also remain with you during your trip to ensure proper data collection.

The VIMS Marine Resource Report contains maps of sea scallop catch, yellowtail flounder catch and expected yellowtail flounder catch per 1000 pounds of scallop meats from their July 2008 survey into CAIIA. This report was submitted to the sea scallop fishing industry to help identify hot spots of yellowtail flounder and the maps are being used voluntarily by industry. The report also contains twine top hanging ratio findings from the survey and VIMS is using observer data to compare similar dredge gear variables to expand their research.

The NEFMC requested a further clarification on how yellowtail flounder weights were monitored and extrapolated and the attached letter is the response to that request to be used for your reference.



The last two documents are summarized observer regulations. There have been no changes to the regulations and the attached documents are for your reference.

If you have additional questions regarding the opening of CAIIA, please contact Erin Kupcha at (508) 495-2031 office, (508) 367-8256 mobile or Erin.Kupcha@noaa.gov or your data editor. Questions regarding the Yellowtail Bycatch Letter and observer regulations should be referred to Amy Van Atten at (508) 495-2266 or Amy.Van.Atten@noaa.gov.

Thank you.

Figure 1.

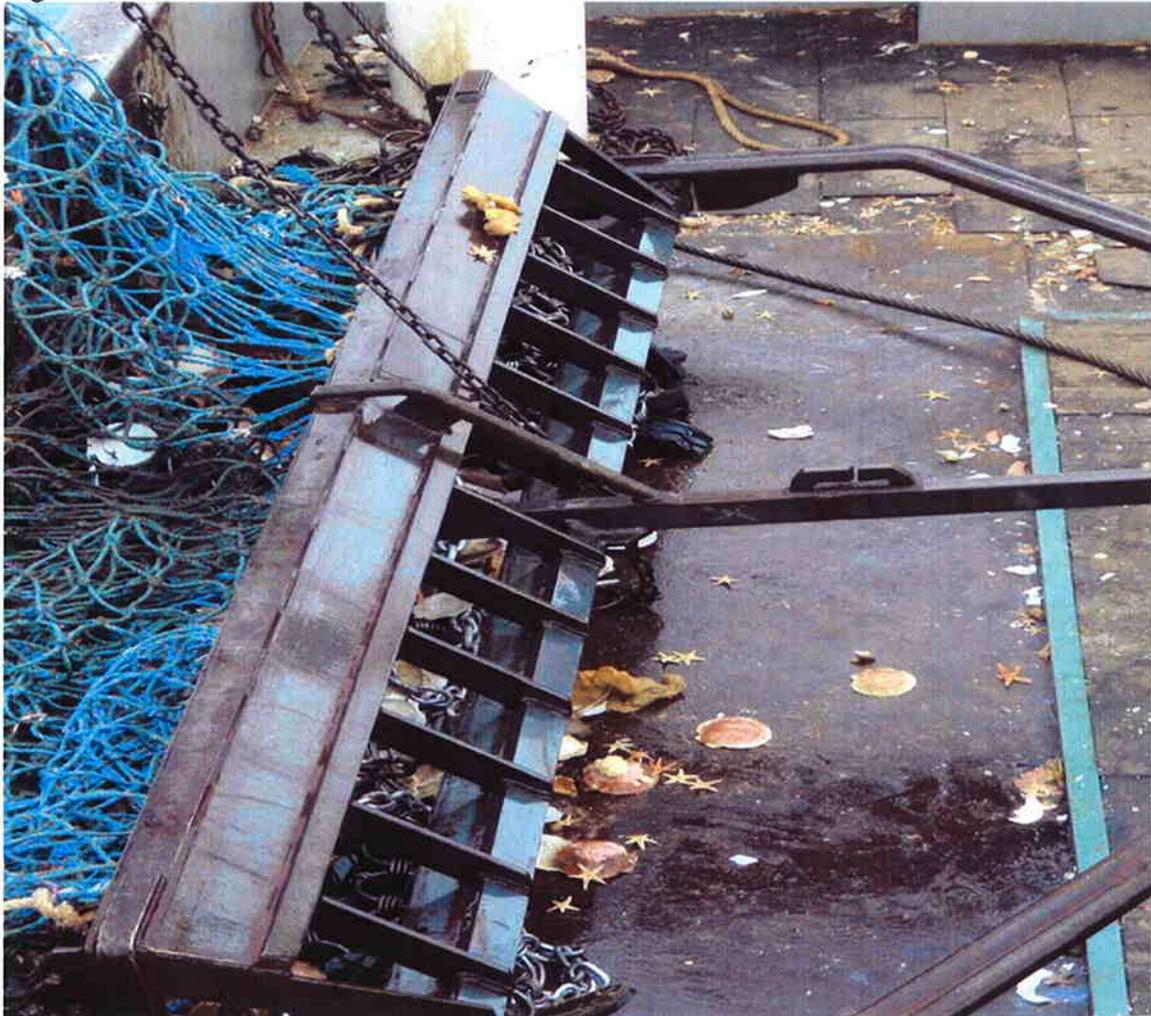


Photo courtesy of the Northeast Fisheries Observer Program

Attachments:

Checklist for sampling the Closed Area II Access Area

2008 VIMS/Industry Cooperative Survey of Georges Bank Closed Area II

Letter to the NEFMC dated April 6, 2009

Code of Federal Regulations, Title 50, Part 648 – Fisheries of the Northeastern US

50 CFR 600.746 Observers



SAMPLING CHECKLIST FOR 06/15/09 OPENING OF CLOSED AREA II ACCESS AREA

****YOU MUST CALL YOUR EDITOR PRIOR TO DEPLOYMENT****

SAMPLING GEAR

Bring all turtle sampling gear (tags, pliers, scanners, etc.), cameras and Sea Turtle Guide Book.

iPAQ (OBSCON)

iPAQ SAP DATA **ARE** REQUIRED FOR THE CLOSED AREA II ACCESS AREA. RECORD KEPT SCALLOP MEAT WEIGHTS AND KEPT / DISCARD YELLOWTAIL FLOUNDER WEIGHTS FOR ALL OBSERVED HAULS USING THE SAP TAB ON THE iPAQ.

SAFETY CHECKLIST

WHEEL WATCHES: Use the most recent version of the safety checklist (March 2009) and to ask the captain if a wheel watch will be maintained while underway. If the answer is **NO**, observers should call their AC immediately.

VESSEL AND TRIP LOG / OBSCON

PROGRAM CODE: Closed Area II Access Area (CAIIA) Program Code = 203

VENDOR ID CODE: 02= AIS Industry Funded 04= EWTS Industry Funded

CONTRACT AREA CODE: 046=vessel fishing Limited Access 999=Unknown. This question should be asked at beginning of trip.

SCALLOP DREDGE GEAR CHARACTERISTICS LOG

TURTLE CHAIN-MAT: DETAILED COMMENTS NECESSARY! Comments should focus on connection of rock and tickler chains at intersection points by shackle or link, confirmation on use of chain-mat with captain, length of each side of opening less than or equal to 14 inches. **Draw a detailed picture or take photo.**

TURTLE EXCLUDER DREDGE: If this modified dredge is used on your trip, record "Turtle Excluder Dredge" in the appropriate dredge's COMMENTS section along with the dredge number stamped into the frame.

ALL INFORMATION ON THIS LOG **MUST** BE MEASURED OR COUNTED BY THE OBSERVER. THE OBSERVER SHOULD NOT OBTAIN ANY INFORMATION (except for chain-mat confirmation) FROM THE CAPTAIN. ALL FIELDS ARE DESCRIBED IN THE PROGRAM MANUAL p.136-139

SAMPLING

ACCESS AREA PROTOCOLS: Kept Scallop weight in the species section of the haul log should be a DRESSED weight. If used, the AVG LB/BUSHEL field should be a DRESSED meat weight to the tenths place. Actual weights of kept and discarded yellowtail flounder and actual basket counts of kept scallops is the priority.

SUB-SAMPLING / DECKLOADING: Complete the Catch Estimation Worksheet and make sure this is filled out for **ALL** hauls. Cumulative actual weights of kept and discarded yellowtail flounder and basket counts of kept scallops must be obtained. That **actual weight** should be spread over all of the hauls during the deckloaded period and recorded as an estimated weight. SEE PAGES 68 - 72 IN THE BIOLOGICAL SAMPLING MANUAL FOR SCALLOP SAMPLING GUIDELINES. Review sections B,C and D for deckloading and/or shoveling scenarios.

LENGTH FREQUENCY LOG

A DRESSED ACTUAL meat weight from the 100 scallops measured and used to obtain a volumetric measurement should be recorded in the SAMPLE WEIGHT (D/A) field. This meat weight should **ONLY** represent the 100 scallops recorded on the length frequency log and should only be used on the length frequency log.

**Abundance and Distribution of Sea Scallops and Yellowtail Flounder during
the 2008 VIMS/Industry Cooperative Survey of Georges Bank Closed Area II**

Submitted to:
Sea Scallop Fishing Industry

William D. DuPaul
Kelli Milleville Wright
David B. Rudders

Virginia Institute of Marine Science
College of William and Mary
Gloucester Point, VA 23062

VIMS Marine Resource Report No. 2009-3

March 25, 2009

VSG-09-03

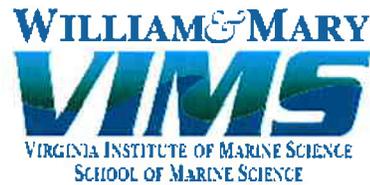
VIMS Marine Resource Report No. 2009-3

Additional copies of this publication are available from Virginia Sea Grant at:

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Virginia Institute of Marine Science
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Gloucester Point, VA 23062
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Yellowtail Bycatch in Georges Bank Closed Area II

The Virginia Institute of Marine Science (VIMS) conducted a sea scallop survey in Georges Bank Closed Area II (GBCAII) during July 2008. The survey was funded by the Sea Scallop Research Set-Aside Program (RSA). The results of the survey indicated a scallop biomass sufficient enough to allow for one access trip of 18,000 pounds in 2009 for a full time limited access vessel. The survey also encountered a large number of yellowtail flounder which presents the possibility that the scallop fishery could prematurely reach the yellowtail flounder total allowable catch (TAC) during the opening. The survey was conducted aboard the *F/V Celtic* towing a NMFS 8 foot survey dredge along with a regulatory compliant 15 foot commercial scallop dredge with a 10 inch diamond mesh twine top with a 1.76 hanging ratio (60 meshes, 34 rings) and 8.5 meshes on the side. The scallop and yellowtail flounder catch data are presented in Table 1. The abundance and distribution of sea scallops, yellowtail flounder and the expected catch of yellowtail flounder per 1000 lbs. of scallop meats are shown in Figures 1-3. This information is based upon catch data obtained during the research cruise from the commercial dredge during a 15 minute tow at 3.8 kts. with a 3:1 scope. This is the standard protocol for the VIMS/Industry cooperative survey. We present this data so that the scallop industry can target fishing effort to areas with less yellowtail flounder bycatch. We recognize that this data is from the 2008 survey, but it may provide guidance as to the spatial distribution of yellowtail flounder for the 2009 opening of GBCAII.

Additional Findings Regarding Scallop Dredge Twine Tops and Yellowtail Flounder Bycatch

VIMS conducted several research trips aboard the *F/V Celtic* within the boundaries of the access area of GBCAII during 2006 and 2007 to test the effects of altering the hanging ratio of the scallop dredge twine top on finfish bycatch. The research was conducted during "compensation" trips as part of the sea scallop RSA program and is part of a Master's Thesis by Kelli Milleville Wright, who is in the process of writing up the results for publication in a peer reviewed journal. The results of the research showed that there was a significant reduction in yellowtail flounder bycatch when a twine top hanging ratio of 1.76 (60 meshes, 34 rings) was used compared to a

2.64 hanging ratio (90 meshes, 34 rings). Both dredges had twine tops with 8.5 meshes on the side and 7 rings to the clubstick. In this configuration, the sweep chain was forward of the bottom of the twine top. The analysis included the consideration of scallop catch variability and results showed that the net effect was fewer yellowtail caught for the same amount of scallops. This is an important consideration for the opening of GBCAII in 2009.

Another experiment was conducted using a short twine top (5.5 meshes on the side) with an apron of 13 rings to the clubstick compared with a "standard" twine top with 8.5 meshes on the side and an apron of 7 rings to the clubstick. Both dredges had a twine top hanging ratio of 1.76 (60 meshes, 34 rings). The results showed that the short twine top configuration caught more yellowtail flounder than the "standard" configuration. It is important to note that in this case, the sweep chain was even with the bottom of the twine top. Thus, dredges rigged with short twine tops and high hanging ratios will not be as useful for the reduction of yellowtail flounder bycatch. This is an important consideration for the opening of GBCAII in June of 2009.

Table1 Catch data for the VIMS/Industry cooperative survey of the access area of Georges Bank Closed Area II during July 2008.

Station	Latitude (degrees)	Latitude (minutes)	Longitude (degrees)	Longitude (minutes)	Scallop (Number)	Scallop (Lbs.)	Count (MPP)	Yellowtail (Number)	Yellowtail (lbs.)	Ratio (YT lbs./1000 lbs. of scallops)
CA2-1	41	28.020	67	18.120	0.0	0.0	0.0	0.0	0.0	0.0
CA2-2	41	28.020	67	13.560	0.0	0.0	0.0	0.0	0.0	0.0
CA2-3	41	28.020	67	8.940	0.0	0.0	0.0	1.0	1.9	0.0
CA2-4	41	28.020	67	4.320	0.0	0.0	0.0	4.0	3.8	0.0
CA2-5	41	28.020	66	59.760	12.0	1.1	11.4	24.0	25.6	24239.0
CA2-6	41	28.020	66	55.140	27.0	2.7	10.1	15.0	15.2	5690.0
CA2-7	41	28.020	66	50.520	193.5	23.2	8.3	18.0	17.7	762.0
CA2-8	41	28.020	66	45.960	328.0	33.8	9.7	6.0	5.3	157.0
CA2-9	41	28.020	66	41.340	141.0	17.0	8.3	1.0	1.5	90.0
CA2-10	41	28.020	66	36.720	227.8	28.0	8.1	1.0	0.7	25.0
CA2-11	41	24.660	67	18.120	0.0	0.0	0.0	0.0	0.0	0.0
CA2-12	41	24.660	67	13.560	0.0	0.0	0.0	2.0	3.6	0.0
CA2-13	41	24.660	67	8.940	0.0	0.0	0.0	1.0	1.4	0.0
CA2-14	41	24.660	67	4.320	1.0	0.1	11.0	3.0	2.3	24980.0
CA2-15	41	24.660	66	59.760	4.0	0.5	7.7	10.0	11.0	21366.0
CA2-16	41	24.660	66	55.140	60.0	7.2	8.4	15.0	18.0	2523.0
CA2-17	41	24.660	66	50.520	344.4	37.7	9.1	10.0	11.4	302.0
CA2-18	41	24.660	66	45.960	329.0	37.7	8.7	0.0	0.0	0.0
CA2-19	41	24.660	66	41.340	252.0	36.0	7.0	0.0	0.0	0.0
CA2-20	41	24.660	66	36.720	296.0	36.7	8.1	0.0	0.0	0.0
CA2-21	41	24.660	66	32.160	0.0	0.0	0.0	0.0	0.0	0.0
CA2-22	41	21.360	67	18.120	1.0	0.1	11.0	0.0	0.0	0.0
CA2-23	41	21.360	67	13.560	0.0	0.0	0.0	0.0	0.0	0.0
CA2-24	41	21.360	67	8.940	1.0	0.2	6.3	4.0	4.1	25472.0
CA2-25	41	21.360	67	4.320	1.0	0.2	6.3	14.0	12.9	81006.0
CA2-26	41	21.360	66	59.760	19.0	2.1	8.9	12.0	12.8	5992.0
CA2-27	41	21.360	66	55.140	171.0	21.1	8.1	7.0	8.9	422.0

CA2-28	41	21,360	66	50,520	86.0	9.6	8.9	2.0	1.4	147.0
CA2-29	41	21,360	66	45,960	245.7	34.1	7.2	2.0	1.4	40.0
CA2-30	41	21,360	66	41,340	35.0	3.2	10.9	3.0	2.2	696.0
CA2-31	41	21,360	66	36,720	1256.3	159.4	7.9	0.0	0.0	0.0
CA2-32	41	21,360	66	32,160	807.8	85.8	9.4	3.0	2.8	32.0
CA2-33	41	21,360	66	27,540	2719.2	281.9	9.6	2.0	2.6	9.0
CA2-34	41	18,000	67	18,120	0.0	0.0	0.0	0.0	0.0	0.0
CA2-35	41	18,000	67	13,560	2.0	0.2	8.2	1.0	1.7	6800.0
CA2-36	41	18,000	67	8,940	0.0	0.0	0.0	0.0	0.0	0.0
CA2-37	41	18,000	67	4,320	19.0	2.5	7.7	13.0	14.8	6001.0
CA2-38	41	18,000	66	59,760	141.0	16.9	8.3	18.0	19.3	1143.0
CA2-39	41	18,000	66	55,140	116.0	14.0	8.3	6.0	6.4	454.0
CA2-40	41	18,000	66	50,520	253.8	32.0	7.9	6.0	4.9	152.0
CA2-41	41	18,000	66	45,960	137.0	18.5	7.4	2.0	1.7	93.0
CA2-42	41	18,000	66	41,340	225.0	28.2	8.0	5.0	4.3	152.0
CA2-43	41	18,000	66	36,720	183.0	16.2	11.3	16.0	15.8	976.0
CA2-44	41	18,000	66	32,160	656.3	72.7	9.0	3.0	3.4	47.0
CA2-45	41	18,000	66	27,540	1532.9	144.9	10.6	0.0	0.0	0.0
CA2-46	41	14,700	67	18,120	2.0	0.2	9.8	1.0	0.6	2830.0
CA2-47	41	14,700	67	13,560	0.0	0.0	0.0	0.0	0.0	0.0
CA2-48	41	14,700	67	8,940	14.0	1.5	9.4	8.0	8.9	5978.0
CA2-49	41	14,700	67	4,320	0.0	0.0	0.0	0.0	0.0	0.0
CA2-50	41	14,700	66	59,760	134.0	16.8	8.0	6.0	7.0	417.0
CA2-51	41	14,700	66	55,140	142.0	18.1	7.9	4.0	4.3	236.0
CA2-52	41	14,700	66	50,520	454.3	56.0	8.1	14.0	13.2	236.0
CA2-53	41	14,700	66	45,960	190.8	21.6	8.8	10.0	10.7	493.0
CA2-54	41	14,700	66	41,340	299.3	34.0	8.8	17.0	15.5	457.0
CA2-55	41	14,700	66	36,720	236.0	22.7	10.4	17.0	15.4	676.0
CA2-56	41	14,700	66	32,160	3360.7	304.7	11.0	5.0	5.2	17.0
CA2-57	41	14,700	66	27,540	567.5	48.1	11.8	2.0	1.7	36.0
CA2-58	41	11,340	67	18,120	3.0	0.3	8.6	5.0	6.0	17355.0
CA2-59	41	11,340	67	13,560	15.0	1.8	8.1	18.0	19.0	10296.0

CA2-60	41	11.340	67	8.940	433.7	55.2	7.9	9.0	10.0	181.0
CA2-61	41	11.340	67	4.320	269.5	31.7	8.5	10.0	11.5	363.0
CA2-62	41	11.340	66	59.760	397.5	32.8	12.1	18.0	18.2	556.0
CA2-63	41	11.340	66	55.140	360.0	40.2	9.0	14.0	14.4	359.0
CA2-64	41	11.340	66	50.520	390.0	32.2	12.1	8.0	7.3	225.0
CA2-65	41	11.340	66	45.960	1162.5	146.3	7.9	19.0	20.5	140.0
CA2-66	41	11.340	66	41.340	120.0	12.8	9.4	33.0	32.0	2501.0
CA2-67	41	11.340	66	36.720	0.0	0.0	0.0	0.0	0.0	0.0
CA2-68	41	11.340	66	32.160	1384.5	109.8	12.6	0.0	0.0	0.0
CA2-69	41	8.040	67	18.120	21.0	2.6	8.1	5.0	5.0	1903.0
CA2-70	41	8.040	67	13.560	0.0	0.0	0.0	0.0	0.0	0.0
CA2-71	41	8.040	67	8.940	298.4	37.4	8.0	4.0	4.4	118.0
CA2-72	41	8.040	67	4.320	276.0	27.8	9.9	13.0	11.4	408.0
CA2-73	41	8.040	66	59.760	490.0	48.5	10.1	7.0	5.1	105.0
CA2-74	41	8.040	66	55.140	700.0	49.7	14.1	8.0	19.8	399.0
CA2-75	41	8.040	66	50.520	630.0	55.9	11.3	9.0	9.1	164.0
CA2-76	41	8.040	66	45.960	490.0	45.3	10.8	15.0	15.6	344.0
CA2-77	41	8.040	66	41.340	979.0	98.7	9.9	6.0	5.8	58.0
CA2-78	41	8.040	66	36.720	524.9	53.2	9.9	2.0	1.6	31.0
CA2-79	41	8.040	66	32.160	53.0	3.8	14.1	36.0	30.8	8176.0
CA2-80	41	4.680	67	18.120	167.0	20.2	8.3	3.0	2.8	141.0
CA2-81	41	4.680	67	13.560	238.7	28.0	8.5	5.0	5.0	180.0
CA2-82	41	4.680	67	8.940	342.0	33.8	10.1	8.0	6.9	204.0
CA2-83	41	4.680	67	4.320	216.0	24.6	8.8	9.0	9.0	365.0
CA2-84	41	4.680	66	59.760	519.2	56.0	9.3	3.0	3.1	55.0
CA2-85	41	4.680	66	55.140	504.4	37.9	13.3	2.0	2.0	54.0
CA2-86	41	4.680	66	50.520	99.0	10.2	9.7	0.0	0.0	0.0
CA2-87	41	4.680	66	45.960	1445.3	152.6	9.5	24.0	24.4	160.0
CA2-88	41	4.680	66	41.340	0.0	0.0	0.0	0.0	0.0	0.0
CA2-89	41	4.680	66	36.720	1704.5	105.6	16.1	0.0	0.0	0.0
CA2-90	41	1.380	67	18.120	368.1	43.2	8.5	1.0	0.9	22.0
CA2-91	41	1.380	67	13.560	174.2	20.9	8.3	3.0	3.0	145.0

CA2-92	41	1,380	67	8,940	390.5	47.6	8.2	8.0	7.3	153.0
CA2-93	41	1,380	67	4,320	348.0	36.1	9.6	7.0	7.0	194.0
CA2-94	41	1,380	66	59,760	279.0	26.7	10.4	2.0	2.2	84.0
CA2-95	41	1,380	66	55,140	676.0	72.5	9.3	19.0	21.9	302.0
CA2-96	41	1,380	66	50,520	227.5	23.1	9.9	2.0	1.4	62.0
CA2-97	41	1,380	66	45,960	565.6	51.5	11.0	4.0	5.3	102.0
CA2-98	41	1,380	66	41,340	157.0	9.7	16.2	0.0	0.0	0.0
CA2-99	41	1,380	66	36,720	54.0	2.8	19.4	0.0	0.0	0.0

Figure 1 Spatial representation of sea scallop catch encountered during the VIMS/Industry survey of Georges Bank Closed Area II during July of 2008.

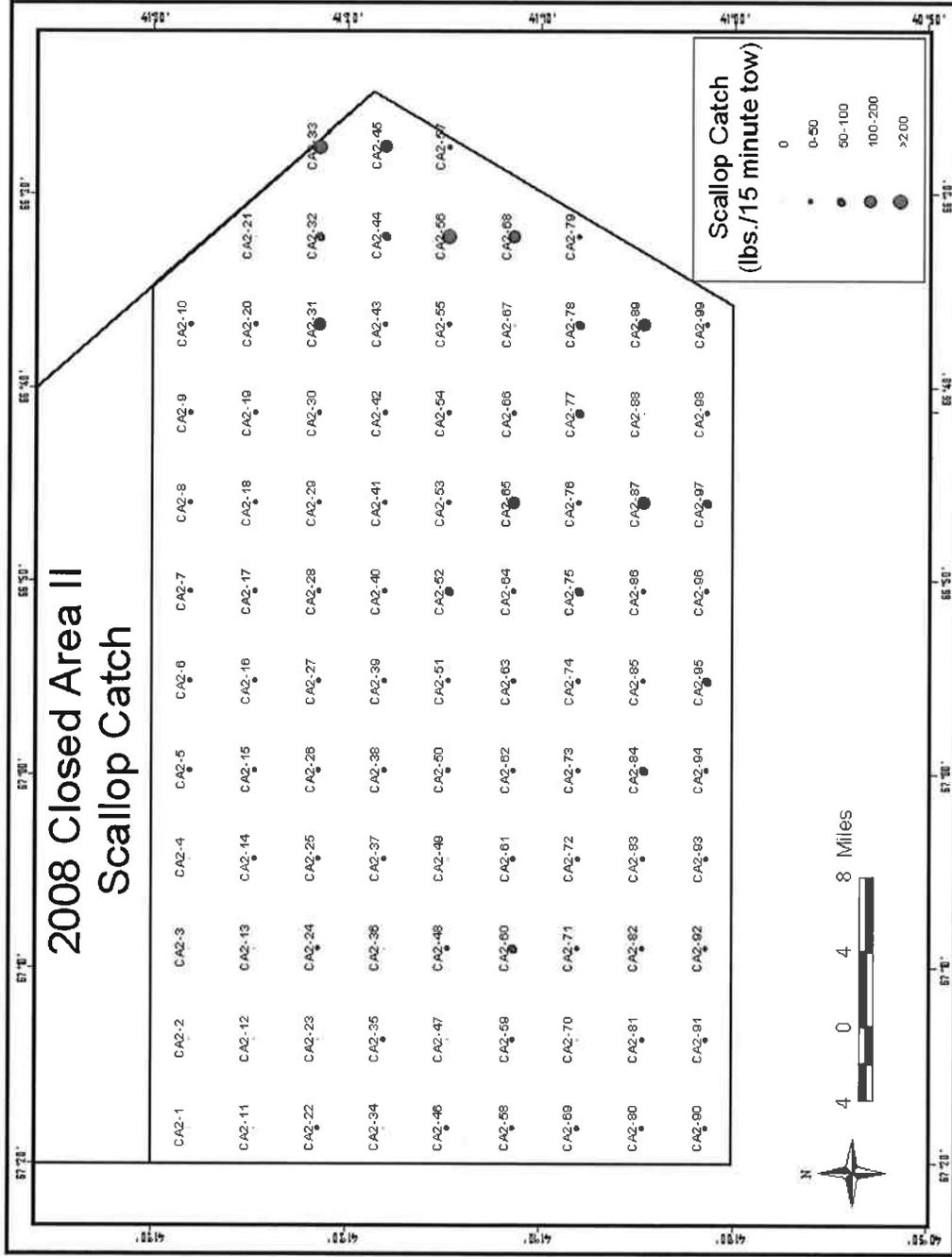


Figure 2 Spatial representation of yellowtail flounder catch encountered during the VIMS/Industry survey of Georges Bank Closed Area II during July of 2008.

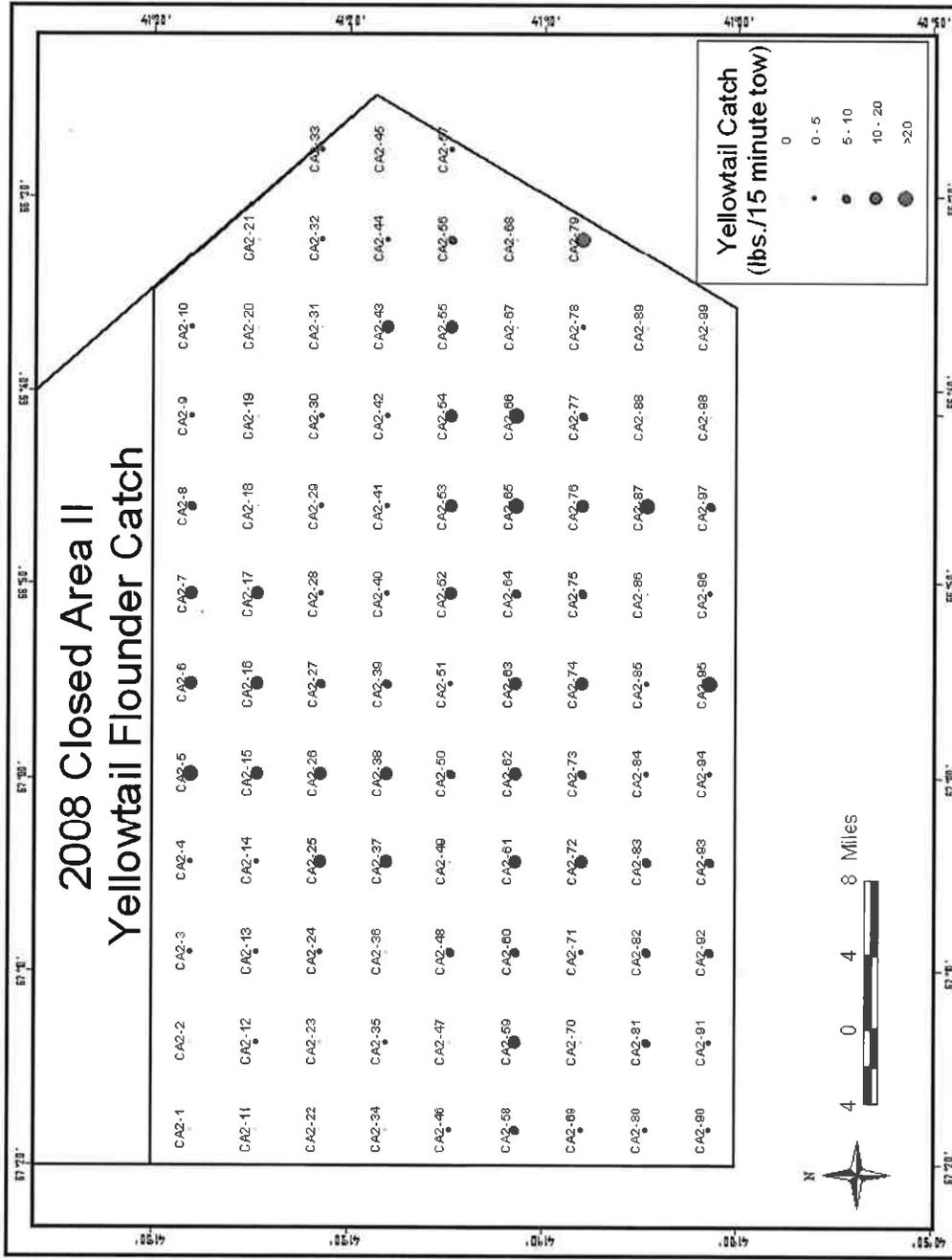
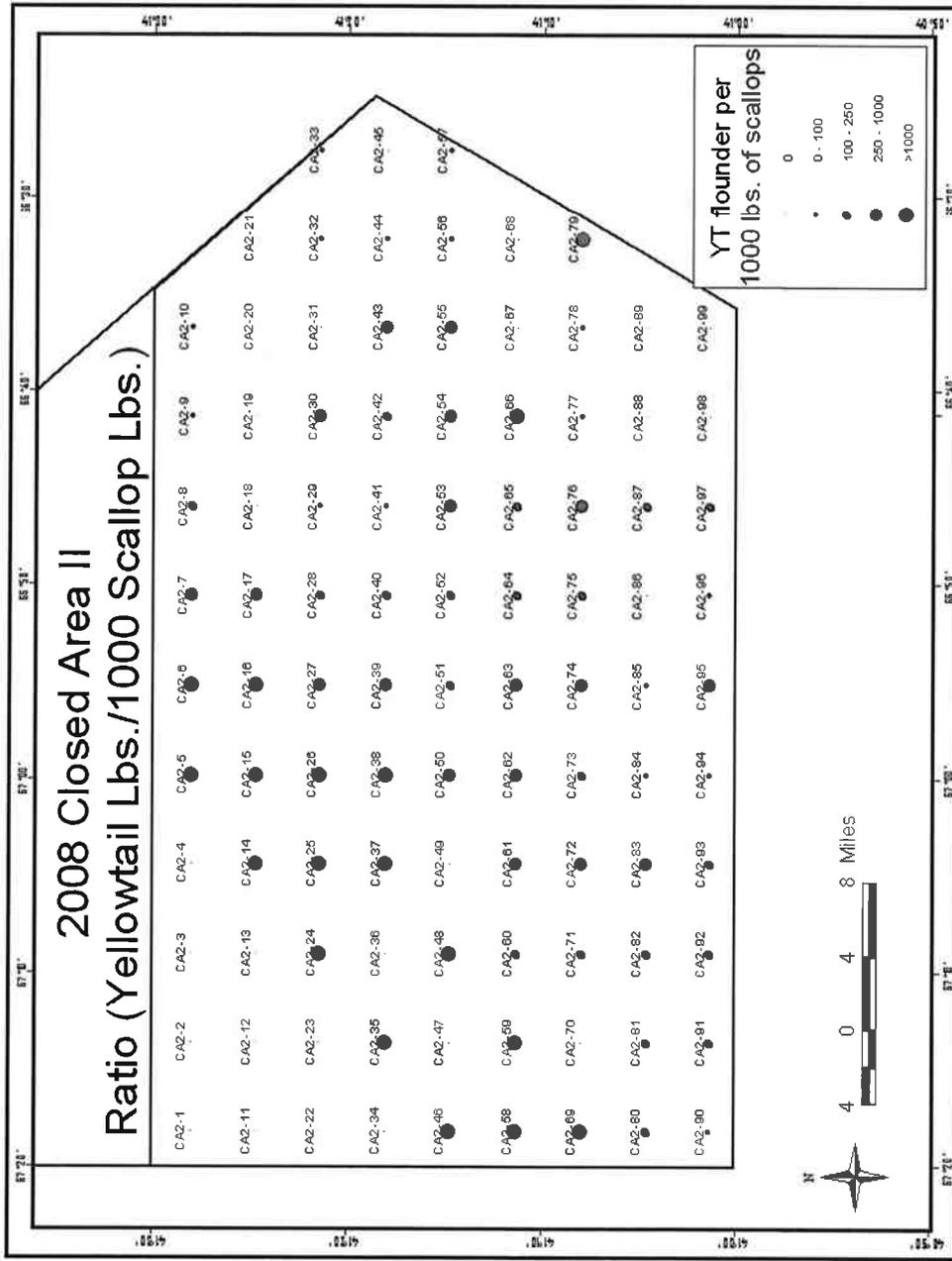


Figure 3 Spatial representation of the expected catch (in lbs.) of yellowtail flounder per 1000 lbs. of scallop meats. Estimated catches are based on the ratio of yellowtail and scallop catches at each station during the VIMS/Industry survey of Georges Bank Closed Area II during July of 2008.





UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northeast Fisheries Science Center
166 Water Street
Woods Hole, MA 02543-1026

April 6, 2009

Capt. Paul J. Howard
Executive Director
New England Fishery Management Council
50 Water Street
Newburyport, MA 01950

Dear Capt. Howard:

This letter is in response to the New England Fishery Management Council's request of October 15, 2008, for a description of the observer program protocols in the scallop fishery and how yellowtail flounder bycatch is estimated. Specifically, the motion supported by the Council was: *that the Council send a letter to NEFSC that requests the NEFSC conduct an analysis comparing 2006 and 2008 observer data and how that data was used for yellowtail flounder monitoring. Specifically, how is volume converted into lbs, was there an improvement from 2006 to 2008 concerning how an observer estimates bycatch (count/measure), fishing behavior impacts, how data is extrapolated, etc.* A letter was also attached from the Fisheries Survival Fund sent to the Scallop Committee on September 9, 2008, with specific questions that they would like addressed.

The Northeast Fisheries Science Center (NEFSC) collaborated with the Northeast Regional Office (NERO), Fisheries Statistics Office (FSO) in this response. As requested, this letter includes: (1) overviews of relevant observer program protocols (NEFSC); (2) history of changes in procedures used by observers to estimate yellowtail flounder bycatch 2006-2008 (NEFSC); (3) description of methodology used to estimate total yellowtail flounder bycatch in scallop access area fisheries (limited access and general category) (NERO); (4) discussion of impact of outliers on the final estimate (NERO); and (5) analysis of some potential effects of observers on fishing behavior (NEFSC).

We hope this information will be informative to help the Council and public better understand how yellowtail bycatch is estimated. Work on these topics is ongoing and further comparisons and examinations are being conducted to inspect patterns of yellowtail bycatch in access areas, to better inform the industry on trends on bycatch patterns, and to further assess observer effects in the industry-funded scallop observer program. If you need further information or clarification, please contact Amy Van Atten at 508-495-2266, and the Fisheries Sampling Branch (FSB) staff will be glad to help you.

Sincerely,

Nancy B. Thompson, Ph.D.
Science and Research Director

Enclosure

cc: P. Kurkul, NMFS/NERO
F. Almeida
F. Serchuk
W. Gabriel
A. Van Atten



NEFSC NORTHEAST FISHERIES OBSERVER PROGRAM (NEFOP) SEA SCALLOP FISHERY CATCH ESTIMATION METHODS

The preferred method for the collection of catch weights is to weigh the entire catch of each species. When it is not possible to weigh the entire catch, observers may use the following acceptable catch estimation methods described below: tally / basket count, volume to volume ratio, or cumulative sum. Observers are required to document their estimation, subsampling, and extrapolation methods on a catch estimation worksheet, and the weight type is labeled as an “estimate”. Multiple factors impact the observer’s ability to weigh the entire catch, including the time between tows, the number of dredges used, the total amount caught in the tow, the relative amount of bycatch in the tow, deck space, weather conditions, safety hazards, length of continuous fishing effort, and sorting and discarding methods used by the crew.

Tally/Basket Count Method

Ideally, the observer picks through the entire pile of catch on deck and sorts to species level. The observer determines total amount of each species by counting baskets (or animals or totes, depending on size and frequency of the species and type of container used).

In Open Areas, the observer weighs at least three baskets of scallops in the shell per watch. The average weight per basket is recalculated every watch, generally every 8-12 hours. To determine the total weight in a tow, the observer multiplies the average weight of the weighed baskets in the watch by the total number of baskets in the tow. This value is recorded on the haul log as an estimated weight, with a weight type category “round” (in-the-shell).

In Closed Areas, the observer weighs at least one basket of shucked scallop meats per watch. The crew shucks the scallop sample, rather than the observer shucking the scallops, so that the sample is representative of how the industry dresses scallops. Only one basket of shucked samples is weighed, to minimize inconvenience to the crew. The average weight per basket is recalculated every watch, generally every 8-12 hours. To determine the total weight in a tow, the observer multiplies the weight of the weighed basket in the watch by the total number of baskets in the tow. This value is recorded on the haul log as an estimated weight, with a weight type category “dressed” (meat-weight).

Volume to Volume Ratio Method

Large catches and short tows might prevent an observer picking through the entire catch, using the tally/basket count method to determine weights for every species. In those cases, the observer first removes critically important or rare species (e.g. yellowtail flounder) if possible, and directly determines actual total weights for those species. The observer then estimates the total volume of the remaining pile, and extracts a volume-based subsample. The observer estimates the total volume by determining the area and depth of the pile. The observer is instructed to determine the area based on the shape of the pile, which, in the scallop fishery, is commonly an oval or half-oval. The observer then extracts a random subsample of the pile

using a standard orange basket. The subsample should be at least 20% of the total volume, to increase representativeness. Volume of the subsample is estimated by multiplying the number of baskets in the subsample by the volume of a basket (1.47 ft³). The total volume of the catch is divided by the total volume of the subsample (to obtain the "sample weight multiplier"). The observer then records the weight of each species in the subsample by disposition (whether it was kept or discarded and discard reason). Those weights are then multiplied by the sample weight multiplier to provide an extrapolated total weight for each species (by disposition) for the tow.

Observers may use this method for the entire catch or just discards. In some cases, the crew may shovel the entire catch into bushel baskets. The observer then counts the total number of mixed species bushels and uses that as a basis for calculating total volume.

Cumulative Sum Method

During a deckloading period, when catches from multiple tows are piled on top of each other in rapid succession, the observer may obtain a total cumulative actual weight of yellowtail flounder from the combined tows. The amount of scallops would be determined by using the tally/basket count method. The observer would then divide the total weight equally among all the participating deckloaded tows, to obtain an estimated weight per tow of the kept and/or discarded scallops and yellowtail flounder.

CHANGES IN NORTHEAST FISHERIES OBSERVER PROGRAM SCALLOP FISHERY CATCH ESTIMATION PROTOCOLS, 2006-2008

The following is a brief summary of the scallop catch estimation and subsampling protocols in place during fishing years 2006, 2007, and 2008.

2006 Catch Estimation Protocols

Before June 2006, observers were instructed to obtain actual weights for yellowtail flounder as a priority when on an Access Area trip. Observers were instructed to use the tally method if they could not obtain actual weights of yellowtail flounder. Observers were also instructed to estimate weights of scallop catch using the basket count method. In June 2006, before the opening of the Nantucket Lightship Access Area, a briefing packet was sent to observers providing further guidelines on the volume to volume method. Additionally, a catch estimation worksheet (see below) was created to provide documentation of the observer's subsampling work and catch estimation methods employed for all observed hauls. The worksheet was implemented on a voluntary basis during the 2006 fishing year.

2007 Catch Estimation Protocols

In January 2007, once the catch estimation worksheet had been field tested and refined, the observer program manual and biological sampling manual were updated and sent to all certified NEFOP observers. The catch estimation worksheet was added to the manual at this time. Documentation of sampling methods was required, and a trial period for mandatory completion

meshes long in the twine top, how the twine top is hung (i.e. diamond, square, etc.), the number of rings (or its equivalent) on which the twine top hangs, and the number of rows of rings in the apron.

Bycatch Monitoring and Reporting

Real-time Data Collection

When a scallop access area is scheduled to open, observers are contacted to review data collection protocols, subsampling methods, and priorities for that particular time and area. This information is also sent to observers via a formal memo that is available on the NEFOP website for reference. Within 24 hours of an access area trip landing, trip and catch data including the weights of yellowtail flounder kept and discarded and weights of scallop meat (kept) are uploaded via a hand-held computer and transmitted electronically via a secure website to the Northeast Fisheries Science Center. These data are reviewed the same day that they are uploaded, and checked for outliers. The data are compared to the Vessel Monitoring System (VMS) data to ensure that both the observer and the captain have documented and declared the same VMS codes. Yellowtail flounder catches are reviewed, and trips that have high catches (greater than 10 lbs) are flagged for further and immediate review. The preliminary data are sent electronically to the NERO within 12 hours of the observer upload. The trip data (paper logs) are sent by the observer to the NEFSC within 72 hours of the trip landing and are then compared to the uploaded data. Additionally, the scallop and yellowtail flounder catch weights are reviewed for transcription or calculation errors, and trends in catch rates. Reports to the NERO indicate preliminary unchecked data and preliminary checked data with a distinct font color.

NEFOP Website Reporting

Website reporting of observer summaries began in July 2007 with the opening of the Nantucket Lightship and Closed Area I access areas (<http://www.nefsc.noaa.gov/femad/fsb/>). The NEFOP website includes summaries of predicted effort, assigned and achieved coverage rates, and number of trips accomplished by access area (including open area limited access effort). These reports are used in real-time assessments of observer coverage and to forecast the need for observer placement. During an opening of a scallop access area that has a yellowtail flounder bycatch total allowable catch (TAC), weekly summaries of number of trips, total number of hauls, number of observed hauls, observed yellowtail flounder discards, and kept scallop meat weights are documented. Also posted in 2008 were plots of weekly yellowtail flounder catches by haul, distinguishing limited access and general category trips, to further provide stake-holders with real-time information. In 2008, the 2007 yellowtail catch plots were also posted for comparison between years.

Extrapolation of the Observed Bycatch Data

The estimate of yellowtail flounder discarded in scallop access area fisheries is based on discard rates calculated from the ratio of observer-reported yellowtail flounder discards to scallops kept on observed trips.

For the first 35 days of the fishery, all observed trips sailing during the 35 days are used to calculate the discard rate. The discard rate used is the sum of the observer-reported yellowtail flounder discards on the trips divided by the sum of the observer-reported scallops kept on the trips. The 35 day period is intended to include enough observed trips to provide a reliable discard rate estimate while taking into account potential monthly seasonal changes in the rate.

After the first the 35 days, a rolling discard rate is calculated. Each day, any new observed trips sailing that day are added and observed trips sailing 36 days previous are dropped. Then yellowtail flounder discards are summed and divided by scallops kept for all observed trips sailing during the previous 35 day rolling period to estimate a discard rate for that day. Again the 35 day period is intended to include enough observed trips to provide a reliable discard rate estimate while taking into account potential monthly seasonal changes in the rate.

Different discard rates are calculated for different scallop access areas including Nantucket Lightship, Closed Area 1 Access Area, etc. For each area there are two rates calculated, one for limited access trips and one for general category trips. The limited access and general category discard rates are multiplied by their respective scallop landings as reported daily through VMS catch reports for the scallop access areas to estimate total yellowtail discards.

The above calculations use scallops landed in meat weights and yellowtail flounder in live (round) weight. The discard rate is the live weight of yellowtail flounder discards divided by the meat weight of scallops kept, which is then multiplied by meat weight of access area scallops kept as reported on VMS catch reports to result in estimated live weight of yellowtail flounder discards of the scallop fleet in the access area.

VMS-reported scallops kept differ slightly from dealer-reported scallops landed. Dealer reports are considered the more reliable measure of fleet scallop landings since they are weighed and the dealer data are audited. To convert VMS to dealer-reported scallop landings, the previous year's access area scallop trips in the two systems were linked and the ratio of the sum of dealer scallop landings to the sum of VMS scallops kept was calculated. This is the ratio used to convert VMS-reported scallops kept to dealer-reported scallops landed on access area scallop trips. The yellowtail flounder discard rate is applied to dealer-equivalent scallops landed after conversion from VMS-reported scallops kept. This results in an estimate of access area yellowtail flounder discards in dealer-equivalent live weight. Based on fishing year 2006 trips this dealer-to-VMS scallop ratio was 1.01 for limited access scallop landings and 1.00 for general category scallop landings on access area trips.

Yellowtail flounder kept on access area scallop trips also contributes to the access area yellowtail catch TAC. Scallop trips in the access areas report yellowtail flounder kept daily in a similar manner to northeast multispecies trips into the U.S./Canada Management Area. These VMS-reported yellowtail kept amounts are then converted to dealer-equivalent live weight using the same dealer-to-VMS ratio as for northeast multispecies trips. The conversion was calculated in the same manner as for scallops kept described above; the previous year's northeast multispecies VMS catch reports of yellowtail flounder kept were linked to dealer reports and the ratio of the sum of dealer yellowtail flounder landed (in live weight) to the sum of VMS-reported yellowtail flounder kept was calculated. This results in an estimate of yellowtail flounder kept in dealer-

equivalent live weight. Based on fishing year 2006 trips this dealer-to-VMS yellowtail flounder ratio was 1.07 for northeast multispecies trips and this conversion was applied to VMS-reported yellowtail flounder kept on scallop access area trips.

For 2008 in Nantucket Lightship, the first 35 day discard rate for limited access trips was approximately 1.3%. The daily rate ranged from 1.1% to 1.5% through the closure of the fishery on Aug. 4, 2008. This discard rate times approximately 4.7 million lbs of dealer-equivalent scallop landings resulted in approximately 60,500 lb of estimated yellowtail discards from limited access trips. The general category discard rate for the first 35 days was about 0.6%. The rate ranged from 0.6% to 0.8% through the closure of the fishery. This discard rate times approximately 161,000 lbs. of dealer-equivalent scallop landings resulted in approximately 1,070 lbs. of estimated yellowtail discards from general category trips. All trips reported keeping 1,166 lbs. of dealer-equivalent live weight of yellowtail flounder.

Impact of Outliers on the Final Estimate

Observed bycatch data are assumed to be representative of the fleet as a whole. If one out of ten observed trips shows an exceptionally large discard of yellowtail flounder, then it is assumed that one out of ten fleet trips discards this much yellowtail flounder. The discard rate calculated by dividing the sum of yellowtail flounder discards by the sum of scallops kept on observed trips is assumed to be a point estimate of the fleet's yellowtail flounder discard rate.

When FSO notices an exceptional observed trip, they call it to the attention of the observer program for possible review.

FSO has not undertaken a full sensitivity analysis of individual observed trips on the estimated fleet yellowtail flounder discards. However a summary of the impact of individual trips on the 2006 Closed Area II Access Area yellowtail flounder discard estimate was presented to the Scallop Committee on September 13, 2006 (Figure 1). It showed the impact on the discard estimate of removing individual observed trips from the discard rate calculation for each of the 39 limited access scallop observed trips. On average each trip changed the percent of TAC achieved by 2.26% either higher or lower. The standard deviation of percent of TAC changes was 3.17%. For 2008 in Nantucket Lightship there were 35 limited access observed trips used in the discard rate calculation.

Potential Effects of Observer Presence and Yellowtail Flounder Bycatch on Fishing Behavior

If vessel operators systematically change their fishing behavior, effort, and location when observers are onboard, data recorded on observed trips will not be representative of the fishery as a whole. When "observer bias" or the "observer effect" occurs, the catch and bycatch rates of observed trips would deviate from the true typical rates. This is not a desirable effect and one of the most difficult forms of bias to test for. The program tries to minimize the probability of occurrence by using random selection techniques while maximizing coverage of the full fleet, and is further exploring methods to test for observer bias.

Based on industry-funded scallop observer program data, lengths of observed trips were different from lengths of unobserved trips in some areas. (Figure 2). From 2006 to 2008, trips with an observer on board in the Elephant Trunk, Closed Area I, and Nantucket Lightship access areas tended to be longer. In contrast, trips with an observer on board in the Hudson Canyon access area tended to be shorter. Smaller sized scallops found in the Hudson Canyon area may have led to lower catch rates, and so set-aside compensation may not have been attainable to offset the costs of taking an observer in that area. There were no significant differences detected in the yellowtail flounder bycatch rate in relation to the trip length, however. (Figure 3). The absence of significant differences in yellowtail flounder bycatch rates as a function of trip length implies that the overall estimate of yellowtail flounder is unaffected by the reduced average trip length on observed vessels.

The movement of vessels in response to yellowtail flounder catches in the Nantucket Lightship access area was also analyzed (Figure 4). It was hypothesized that scallop vessels would change their fishing location due to yellowtail flounder bycatch, but the hypothesis was not supported by observer data. Distances between tows (end of one tow to beginning of the next) typically ranged between 0 and 3 nautical miles, but did not systematically change depending on the amount of yellowtail bycatch.

The locations of high yellowtail flounder bycatch were then mapped in comparison to locations of high scallop catches (Figure 5). A region of high yellowtail flounder catch was identified in the central part of the Nantucket Lightship access area, generally between the 60m and 70m depth contour lines. This region corresponded to an area of medium to low scallop catch, and was consistent from 2006 - 2008. Vessels with Limited Access permits were more likely to fish in this region, whereas most vessels with General Category permits fished to the northwest (Figure 6). There was no indication that scallop sizes were larger in this region than in the rest of the access area. It is hypothesized that if scallop trips were to avoid this region, the yellowtail flounder catch might significantly decrease without significant changes to overall scallop catches.

Figure 1. Sensitivity Summary. Impact of observer reports on FY06 Closed Area II Limited Access estimated yellowtail discards: 475,460 lb dealer-equivalent weight, 106% of TAC.

Trip Date Sailed	Trip Discard Ratio	Estimated YT Discarded Without Trip (lb)	Difference in Estimated YT Discarded (lb)	Estimated YT % of TAC Without Trip	Difference in Estimated % of TAC
6/15/2006	0.009	478,066	2,607	107%	0.58%
6/15/2006	0.021	475,038	-421	106%	-0.09%
6/15/2006	0.029	472,942	-2,517	106%	-0.56%
6/17/2006	0.006	477,395	1,935	107%	0.43%
6/18/2006	0.052	467,341	-8,119	104%	-1.82%
6/19/2006	0.002	483,486	8,026	108%	1.79%
6/21/2006	0.006	482,403	6,943	108%	1.55%
7/1/2006	0.023	478,474	3,014	107%	0.67%
7/1/2006	0.042	465,432	-10,027	104%	-2.24%
7/7/2006	0.028	475,152	-307	106%	-0.07%
7/13/2006	0.008	496,428	20,968	111%	4.69%
7/24/2006	0.072	463,909	-11,551	104%	-2.58%
7/24/2006	0.073	449,697	-25,762	101%	-5.76%
7/24/2006	0.035	476,025	566	106%	0.13%
7/25/2006	0.036	475,252	-207	106%	-0.05%
7/26/2006	0.018	485,728	10,269	109%	2.30%
8/1/2006	0.001	487,229	11,770	109%	2.63%
8/1/2006	0.135	433,247	-42,213	97%	-9.44%
8/1/2006	0.001	502,136	26,677	112%	5.96%
8/3/2006	0.007	493,415	17,956	110%	4.01%
8/3/2006	0.021	484,121	8,662	108%	1.94%
8/4/2006	0.018	482,995	7,535	108%	1.68%
8/4/2006	0.018	483,903	8,443	108%	1.89%
8/4/2006	0.022	484,781	9,321	108%	2.08%
8/5/2006	0.021	477,253	1,794	107%	0.40%
8/7/2006	0.084	465,822	-9,638	104%	-2.16%
8/8/2006	0.021	484,114	8,654	108%	1.94%
8/16/2006	0.198	447,933	-27,526	100%	-6.15%
8/16/2006	0.080	468,937	-6,523	105%	-1.46%
8/17/2006	0.011	480,757	5,297	107%	1.18%
8/17/2006	0.009	489,398	13,938	109%	3.12%
8/17/2006	0.005	487,485	12,025	109%	2.69%
8/18/2006	0.032	480,571	5,112	107%	1.14%
8/18/2006	0.071	471,796	-3,664	105%	-0.82%
8/19/2006	0.035	478,212	2,752	107%	0.62%
8/21/2006	0.012	480,281	4,822	107%	1.08%
8/21/2006	0.308	441,068	-34,391	99%	-7.69%
8/26/2006	0.199	462,913	-12,546	104%	-2.81%
8/26/2006	0.055	475,381	-79	106%	-0.02%

Absolute Average: 10,117 2.26%
Standard Deviation: 14,180 3.17%

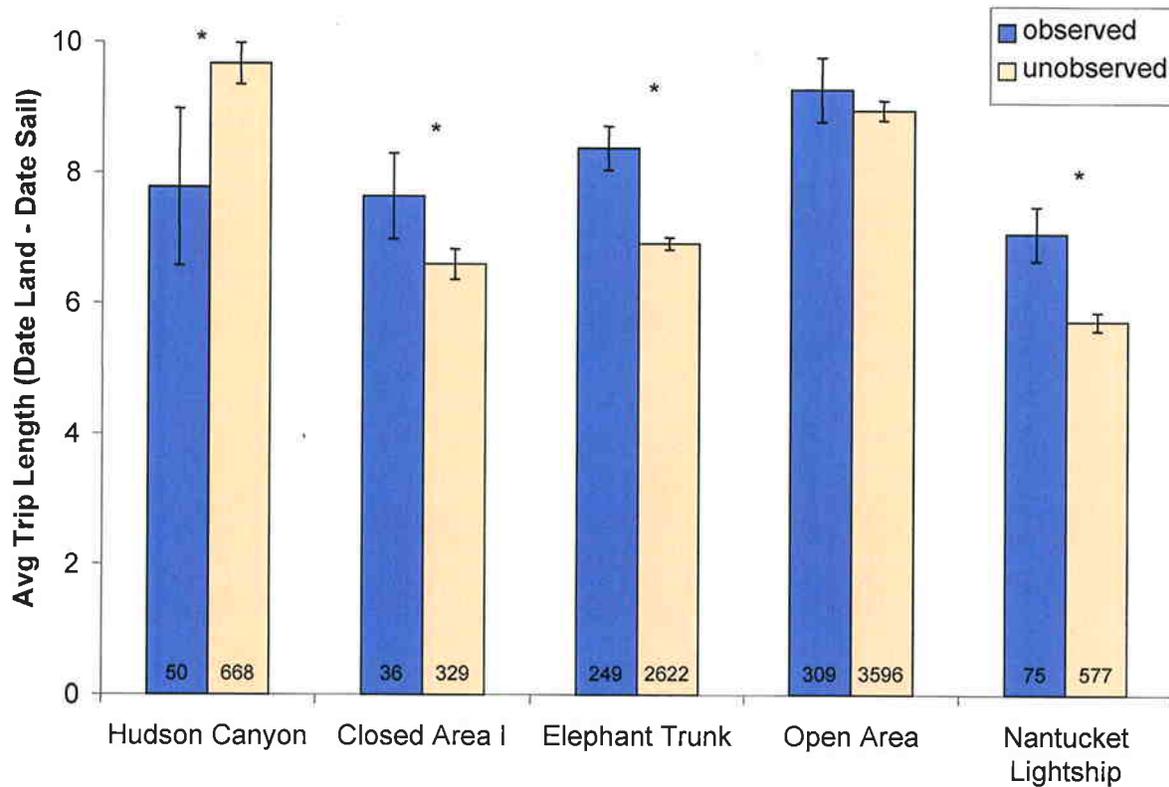


Figure 2. Observer effect on trip length. Only trips on vessels with Limited Access permits between 2006 and 2008 are included. Error bars indicate 95% confidence interval about the mean. Small numbers above x-axis indicate number of trips. Asterisks indicate a significant difference between observed and unobserved trip lengths ($p < 0.05$). Differences were analyzed using a two-tailed t-test assuming unequal variances. Hudson Canyon: trips are significantly shorter with an observer ($t = 2.98$, $p = 0.004$); Closed Area I: trips are significantly longer with an observer ($t = 2.95$, $p = 0.005$); Elephant Trunk: trips are significantly longer with an observer ($t = 8.30$, $p < 0.0001$); Open Area: trip lengths are not significantly different ($t = 1.23$, $p = 0.22$); Nantucket Lightship: trips are significantly longer with an observer ($t = 6.01$, $p < 0.0001$). Trip length is defined as number of whole days from date sailed to date landed.

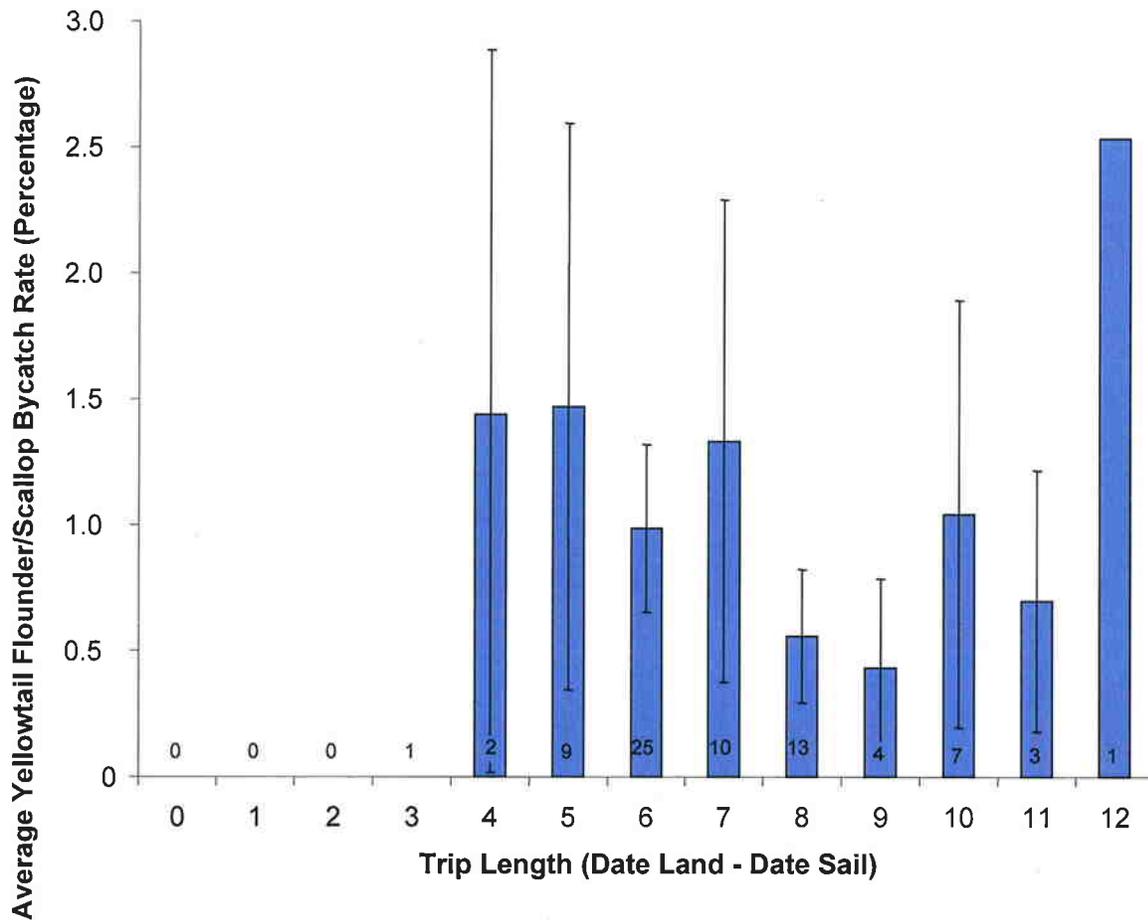


Figure 3. Bycatch rate of yellowtail flounder in the Nantucket Lightship Access Area as a function of trip length. Only trips on vessels with Limited Access permits between 2006 and 2008 are included. Error bars indicate 95% confidence interval about the mean. Small numbers above x-axis indicate number of trips observed. Data were analyzed using a Kruskal-Wallis one-way ANOVA, which indicated no significant relationship between trip length and bycatch rate ($n = 75$, $K = 8.50$, $df = 9$, $p = 0.49$). Trip length is defined as number of whole days from date sailed to date landed. Bycatch rate for each trip is calculated by dividing the total yellowtail flounder live weight by the total scallop meat weight from all the observed tows on a trip (off-watch tows or tows without complete discard information are not included). The bycatch rate is then averaged for all trips with a given trip length.

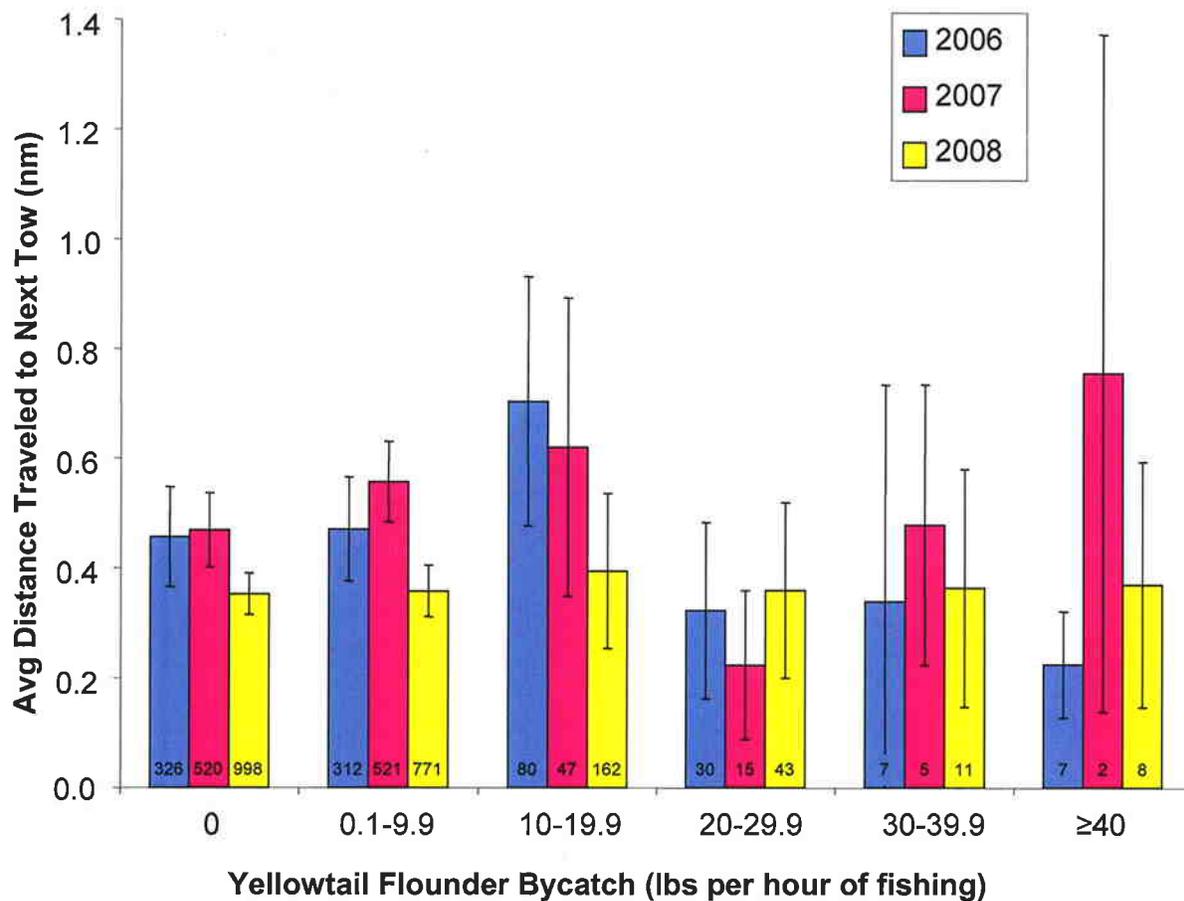


Figure 4. Distance traveled to next tow as a function of yellowtail flounder bycatch, separated by fishing year. Bycatch is calculated as pounds of yellowtail flounder caught divided by fishing duration (haul begin to haul end). Data are from observed trips between 2006 and 2008, and include both General Category and Limited Access vessels. Error bars indicate 95% confidence interval about the mean. Small numbers above x-axis indicate number of tows observed. Data were analyzed using a multivariate ANOVA (factors = year and yellowtail flounder bycatch, binned as above). There was a significant relationship between year and distance traveled ($F = 10.17$, $p < 0.0001$), however there was not a significant relationship between yellowtail flounder bycatch and distance traveled ($F = 1.11$, $p = 0.35$). There was a significant cross effect (year x bycatch, $F = 2.26$, $p = 0.01$), which indicates that the way fishermen react to yellowtail catches changed over the years.

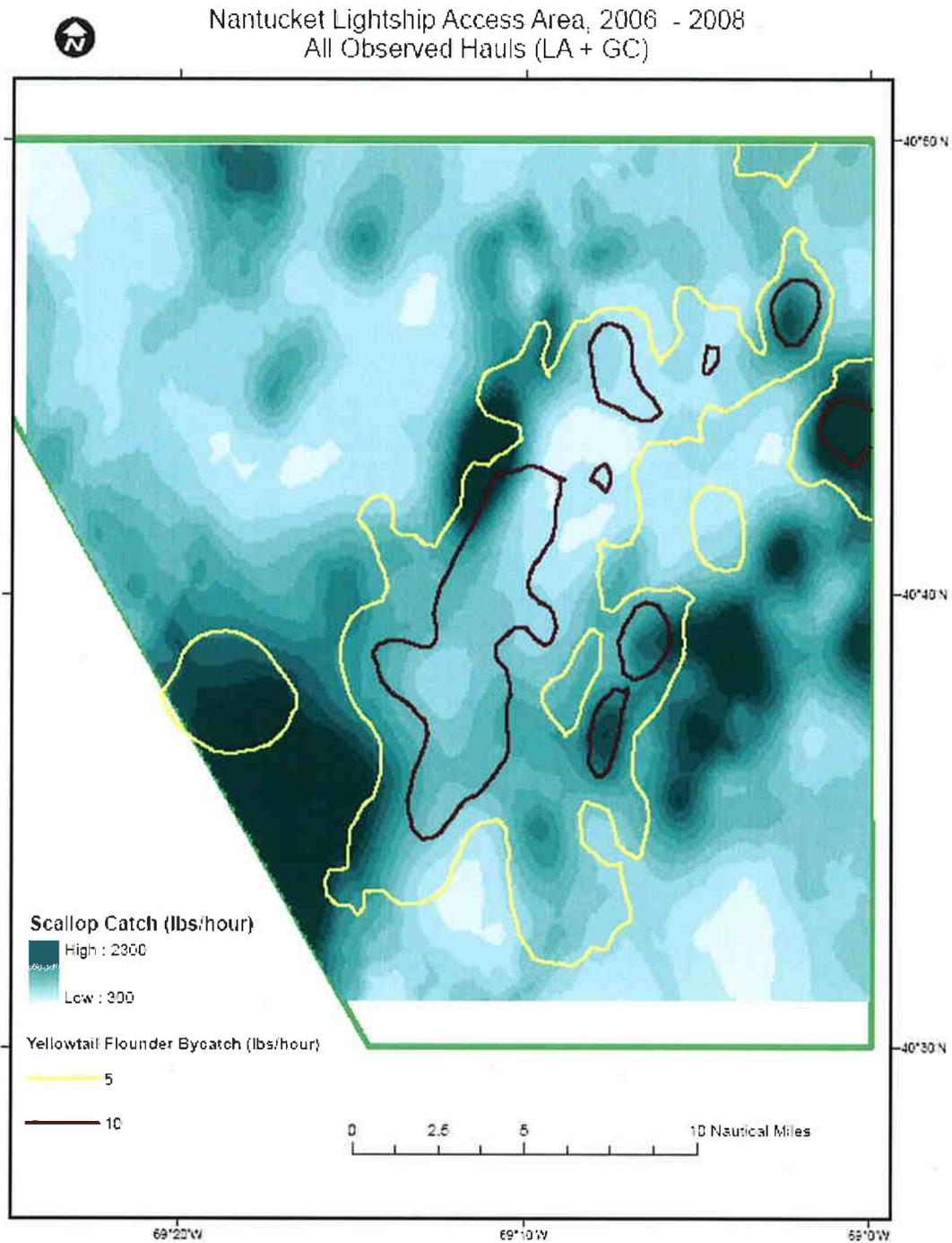


Figure 5. Ordinary kriging analysis was used to show scallop and yellowtail flounder catch rates. Scallop catch rates (pounds per hour of fishing) are shown in green, where darker colors indicates higher catch rates. Areas of high yellowtail flounder bycatch are outlined with solid lines: yellow represents 5 pounds per hour of fishing and red represents 10 pounds per hour of fishing. Blue dashed lines indicate bottom depth contours, in meters. All hauls observed between 2006 and 2008 are included. Maps were created in ArcGIS 9.3 using a spherical model with a major range of 0.096°. 10 hauls are used to calculate average catch rates.



Nantucket Lightship Access Area, 2006 - 2008

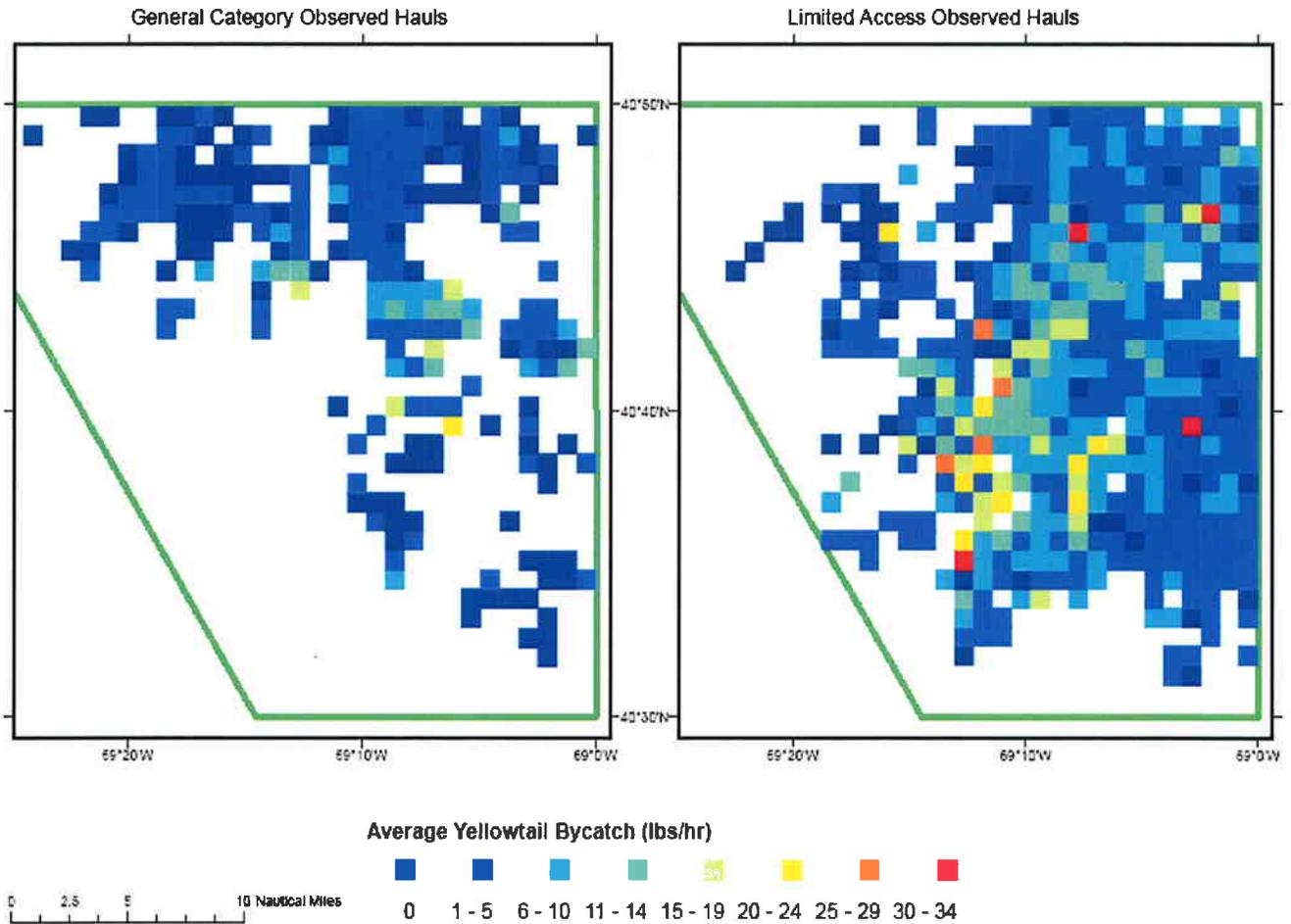


Figure 6. Average yellowtail flounder bycatch rates by permit category. Bycatch rates (pounds per hour of fishing) were averaged over small areas (approximately 30" latitude x 50" longitude). Blue represents low bycatch while red represents high bycatch. All hauls observed between 2006 and 2008 are included. Maps were created in ArcGIS 9.3.

Code of Federal Regulations

Title 50

Part 648 — Fisheries of the Northeastern United States

648.1 Purpose and scope

(a) This part implements the fishery management plans (FMPs) for the Atlantic mackerel, squid, and butterfish fisheries (Atlantic Mackerel, Squid, and Butterfish FMP); Atlantic salmon (Atlantic Salmon FMP); the Atlantic sea scallop fishery (Scallop FMP); the Atlantic surf clam and ocean quahog fisheries (Atlantic Surf Clam and Ocean Quahog FMP); the NE multispecies and monkfish fisheries ((NE Multispecies FMP) and (Monkfish FMP)); the summer flounder, scup, and black sea bass fisheries (Summer Flounder, Scup, and Black Sea Bass FMP); the Atlantic bluefish fishery (Atlantic Bluefish FMP); the Atlantic herring fishery (Atlantic Herring FMP); the spiny dogfish fishery (Spiny Dogfish FMP); the Atlantic deep-sea red crab fishery (Deep-Sea Red Crab FMP); the tilefish fishery (Tilefish FMP); and the NE skate complex fisheries (Skate FMP). These FMPs and the regulations in this part govern the conservation and management of the above named fisheries of the Northeastern United States.

(b) This part governs domestic fishing only. Foreign fishing is governed under subpart F of part 600 of this chapter.

[61 Fed. Reg. 34967, July 3, 1996, as amended at 61 FR 43424, Aug. 23, 1996; 61 FR 58463, Nov. 15, 1996; 62 FR 13299, Mar. 20, 1997; 64 FR 54743, Oct. 7, 1999; 65 FR 1568, Jan. 11, 2000; 65 FR 77464, Dec. 11, 2000; 66 FR 49142, Sept. 26, 2001; 67 FR 63229, Oct. 10, 2002; 68 FR 49699, Aug. 19, 2003]

small boat or raft, during daylight hours as weather and sea conditions allow, and with the agreement of the sea samplers/ observers involved.

- (6) Allow the sea sampler/observer free and unobstructed access to the vessel's bridge, working decks, holding bins, weight scales, holds, and any other space used to hold, process, weigh, or store fish.
- (7) Allow the sea sampler/observer to inspect and copy any the vessel's log, communications log, and records associated with the catch and distribution of fish for that trip.

(e) The owner or operator of a vessel issued a summer flounder moratorium permit, a scup moratorium permit, a black sea bass moratorium permit, a bluefish permit, a spiny dogfish permit, an Atlantic herring permit, an Atlantic deep-sea red crab permit, a skate permit, or a tilefish permit, if requested by the sea sampler/observer, also must:

(1) Notify the sea sampler/observer of any sea turtles, marine mammals, summer flounder, scup, black sea bass, bluefish, spiny dogfish, Atlantic herring, Atlantic deep-sea red crab, tilefish, skates (including discards) or other specimens taken by the vessel.

(2) Provide the sea sampler/observer with sea turtles, marine mammals, summer flounder, scup, black sea bass, bluefish, spiny dogfish, Atlantic herring, Atlantic deep-sea red crab, skates, tilefish, or other specimens taken by the vessel.

(f) NMFS may accept observer coverage funded by outside sources if:

- (1) All coverage conducted by such observers is determined by NMFS to be in compliance with NMFS' observer guidelines and procedures.
- (2) The owner or operator of the vessel complies with all other provisions of this part.
- (3) The observer is approved by the Regional Administrator.

(g) *Atlantic sea scallop observer program.*

(1) *General.* Unless otherwise specified, owners, operators, and/or managers of vessels issued a Federal scallop permit under §648.4(a)(2), and specified in paragraph (b) of this section, must comply with this section and are jointly and severally responsible for their vessel's compliance with this section. To facilitate the deployment of at-sea observers, all sea scallop vessels issued limited access permits fishing in open areas or Sea Scallop Access Areas, and general category vessels fishing under the Sea Scallop Access Area program specified in §648.60, are required to comply with the additional notification requirements specified in paragraph (g)(2) of this section. All sea scallop vessels issued a VMS general category or Non-VMS general scallop permit that are participating in the Area Access Program specified in §648.60 are required to comply with the additional VMS notification requirements specified in paragraph (g)(2) of this section. When NMFS notifies the vessel owner, operator, and/or manager of any requirement to carry an observer on a specified trip in either an Access Area or Open Area as specified in paragraph (g)(3) of this section, the vessel may not fish for, take, retain, possess, or land any scallops without carrying an observer. Vessels may only embark on a scallop trip in open areas or Access Areas without an observer if the vessel owner, operator, and/or manager has been notified that the vessel has received a waiver of the observer requirement for that trip pursuant to paragraphs (g)(3) and (g)(4)(ii) of this section.

(2) *Vessel notification procedures.*

(i) *Limited access vessels.* Limited access vessel owners, operators, or managers shall notify NMFS/NEFOP by telephone not more than 10 days prior to the beginning of any scallop trip of the time, port of departure, open area or specific Sea Scallop Access Area to be fished, and whether fishing as a scallop dredge, scallop trawl, or general category vessel.

(A) *Access Area trips.* For purposes of determining the daily rate for an observed scallop trip in a Sea Scallop Access Area, a service provider shall charge a vessel owner from when an observer boards a vessel until they disembark (dock to dock), where “day” is defined as a 24-hr period, or any portion of a 24-hr period, regardless of the calendar day. For example, if a vessel with an observer departs on the July 1st at 10 pm and lands on July 3rd at 1 am, the time at sea equals 27 hours, which would equate to 2 “days.”

(B) *Open area scallop trips.* For purposes of determining the daily rate for an observed scallop trip for open area DAS trips, a service provider shall charge dock to dock where “day” is defined as a 24-hour period, and portions of the other days would be pro-rated at an hourly charge (taking the daily rate divided by 24). For example, if a vessel with an observer departs on the July 1st at 10 pm and lands on July 3rd at 1 am, the time at sea equals 27 hours, so the provider would charge 1 day and 3 hours.

(ii) NMFS shall determine any reduced DAS accrual rate and the amount of additional pounds of scallops per day fished in a Sea Scallop Access Area for the applicable fishing year based on the economic conditions of the scallop fishery, as determined by best available information. Vessel owners and observer service providers shall be notified through the Small Entity Compliance Guide of any DAS accrual rate changes and any changes in additional pounds of scallops determined by the Regional Administrator to be necessary. Vessel owners and observer providers shall be notified by NMFS of any adjustments.

(6) When the available DAS or TAC set-aside for observer coverage is exhausted, vessels shall still be required to carry an observer as specified in this section, and shall be responsible for paying for the cost of the observer, but shall not be authorized to harvest additional pounds or fish at a reduced DAS accrual rate.

(h) *Observer service provider approval and responsibilities.*

(1) *General.* An entity seeking to provide observer services must apply for and obtain approval from NMFS following submission of a complete application to The Observer Program Branch Chief, 25 Bernard St Jean Drive, East Falmouth, MA 02536. A list of approved observer service providers shall be distributed to vessel owners and shall be posted on the NMFS/NEFOP website at <http://www.nefsc.noaa.gov/femad/fsb/>.

(2) *Existing observer service providers.* Observer service providers that currently deploy certified observers in the Northeast must submit an application containing the information specified in paragraph (h)(3) of this section, excluding any information specified in paragraph (h)(3) of this section that has already been submitted to NMFS.

(3) *Contents of application.* An application to become an approved observer service provider shall contain the following:

(i) Identification of the management, organizational structure, and ownership structure of the applicant’s business, including identification by name and general function of all controlling management interests in the company, including but not limited to owners, board members, officers, authorized agents, and staff. If the applicant is a corporation, the articles of incorporation must be provided. If the applicant is a partnership, the partnership agreement must be provided.

(ii) The permanent mailing address, phone and fax numbers where the owner(s) can be contacted for official correspondence, and the current physical location, business mailing address, business telephone and fax numbers, and business e-mail address for each office.

(iii) An application shall be denied if NMFS determines that the information provided in the application is not complete or the evaluation criteria are not met. NMFS shall notify the applicant in writing of any deficiencies in the application or information submitted in support of the application. An applicant who receives a denial of his or her application may present additional information to rectify the deficiencies specified in the written denial, provided such information is submitted to NMFS within 30 days of the applicant's receipt of the denial notification from NMFS. In the absence of additional information, and after 30 days from an applicant's receipt of a denial, an observer provider is required to resubmit an application containing all of the information required under the application process specified in paragraph (h)(3) of this section to be re-considered for being added to the list of approved observer service providers.

(5) Responsibilities of observer service providers.

(i) An observer service provider must provide observers certified by NMFS/NEFOP pursuant to paragraph (i) of this section for deployment in the scallop fishery when contacted and contracted by the owner, operator, or vessel manager of a vessel fishing in the scallop fishery, unless the observer service provider does not have an available observer within 48 hr of receiving a request for an observer from a vessel owner, operator, and/or manager, or refuses to deploy an observer on a requesting vessel for any of the reasons specified at paragraph (h)(5)(viii) of this section. An observer's first three deployments and the resulting data shall be immediately edited and approved after each trip, by NMFS/NEFOP, prior to any further deployments by that observer. If data quality is considered acceptable, the observer would be certified.

(ii) An observer service provider must provide to each of its observers:

(A) All necessary transportation, including arrangements and logistics, of observers to the initial location of deployment, to all subsequent vessel assignments, and to any debriefing locations, if necessary;

(B) Lodging, per diem, and any other services necessary for observers assigned to a fishing vessel or to attend an appropriate NMFS/NEFOP Observer Training class;

(C) The required observer equipment, in accordance with equipment requirements listed on the NMFS/NEFOP website specified in paragraph (h)(1) of this section, prior to any deployment and/or prior to NMFS observer certification training; and

(D) Individually assigned communication equipment, in working order, such as a cell phone or pager, for all necessary communication. An observer service provider may alternatively compensate observers for the use of the observer's personal cell phone or pager for communications made in support of, or necessary for, the observer's duties.

(iii) *Observer deployment logistics.* Each approved observer service provider must assign an available certified observer to a vessel upon request. Each approved observer service provider must provide for access by industry 24 hours per day, 7 days per week, to enable an owner, operator, or manager of a vessel to secure observer coverage when requested. The telephone system must be monitored a minimum of four times daily to ensure rapid response to industry requests. Observer service providers approved under paragraph (h) of this section are required to report observer deployments to NMFS daily for the purpose of determining whether the predetermined coverage levels are being achieved in the appropriate fishery.

(iv) *Observer deployment limitations.* Unless alternative arrangements are approved by NMFS, an observer provider must not deploy any observer on the same vessel for more than two consecutive multi-day trips, and not more than twice in any given month for multi-day deployments.

is "in service," indicating when the observer has requested leave and/or is not currently working for the industry funded program.

(H) Providers must submit to NMFS/NEFOP, if requested, a copy of each type of signed and valid contract (including all attachments, appendices, addendums, and exhibits incorporated into the contract) between the observer provider and those entities requiring observer services.

(I) Providers must submit to NMFS/NEFOP, if requested, a copy of each type of signed and valid contract (including all attachments, appendices, addendums, and exhibits incorporated into the contract) between the observer provider and specific observers.

(J) Providers must submit to NMFS/NEFOP, if requested, copies of any information developed and used by the observer providers distributed to vessels, such as informational pamphlets, payment notification, description of observer duties, etc.

(viii) Refusal to deploy an observer.

(A) An observer service provider may refuse to deploy an observer on a requesting fishing vessel if the observer service provider does not have an available observer within 72 hours of receiving a request for an observer from a vessel.

(B) An observer service provider may refuse to deploy an observer on a requesting fishing vessel if the observer service provider has determined that the requesting vessel is inadequate or unsafe pursuant to the reasons described at §600.746.

(C) The observer service provider may refuse to deploy an observer on a fishing vessel that is otherwise eligible to carry an observer for any other reason, including failure to pay for previous observer deployments, provided the observer service provider has received prior written confirmation from NMFS authorizing such refusal.

(6) Limitations on conflict of interest. An observer service provider:

(i) Must not have a direct or indirect interest in a fishery managed under Federal regulations, including, but not limited to, a fishing vessel, fish dealer, fishery advocacy group, and/or fishery research;

(ii) Must assign observers without regard to any preference by representatives of vessels other than when an observer will be deployed; and

(iii) Must not solicit or accept, directly or indirectly, any gratuity, gift, favor, entertainment, loan, or anything of monetary value from anyone who conducts fishing or fishing related activities that are regulated by NMFS, or who has interests that may be substantially affected by the performance or nonperformance of the official duties of observer providers.

(7) Removal of observer service provider from the list of approved observer service providers. An observer provider that fails to meet the requirements, conditions, and responsibilities specified in paragraphs (h)(5) and (h)(6) of this section shall be notified by NMFS, in writing, that it is subject to removal from the list of approved observer service providers. Such notification shall specify the reasons for the pending removal. An observer service provider that has received notification that it is subject to removal from the list of approved observer service providers may submit information to rebut the reasons for removal from the list. Such rebuttal must be submitted within 30 days of notification received by the observer service provider that the observer service provider is subject to removal and must be accompanied by written evidence that clearly disproves the reasons for removal. NMFS shall

(i) Have a valid NMFS/NEFOP fisheries observer certification pursuant to paragraph (i)(1) of this section;

(ii) Be physically and mentally capable of carrying out the responsibilities of an observer on board fishing vessels, pursuant to standards established by NMFS. Such standards are available from NMFS/NEFOP website specified in paragraph (h)(1) of this section and shall be provided to each approved observer service provider;

(iii) Have successfully completed all NMFS-required training and briefings for observers before deployment, pursuant to paragraph (i)(2) of this section; and

(iv) Hold a current Red Cross (or equivalence) CPR/first aid certification.

(v) Observers must accurately record their sampling data, write complete reports, and report accurately any observations relevant to conservation of marine resources or their environment.

(4) *Probation and decertification.* NMFS has the authority to review observer certifications and issue observer certification probation and/or decertification as described in NMFS policy found on the NMFS/NEFOP website specified in paragraph (h)(1) of this section.

(5) *Issuance of decertification.* Upon determination that decertification is warranted under paragraph (i)(3) of this section, NMFS shall issue a written decision to decertify the observer to the observer and approved observer service providers via certified mail at the observer's most current address provided to NMFS. The decision shall identify whether a certification is revoked and shall identify the specific reasons for the action taken. Decertification is effective immediately as of the date of issuance, unless the decertification official notes a compelling reason for maintaining certification for a specified period and under specified conditions. Decertification is the final decision of NMFS and the Department of Commerce and may not be appealed.

[61 FR 34967, July 3, 1996, as amended at 61 FR 43425, Aug. 23, 1996; 61 FR 58465, Nov. 15, 1996; 62 FR 14651, Mar. 27, 1997; 64 FR 54745, Oct. 7, 1999; 65 FR 1569, Jan. 11, 2000; 65 FR 45852, July 26, 2000; 65 FR 77466, Dec. 11, 2000; 66 FR 49144, Sept. 26, 2001; 67 FR 63232, Oct. 10, 2002; 68 FR 49700, Aug. 19, 2003; 71 FR 33225, June 8, 2006; 71 FR 34844, June 16, 2006; 71 FR 69073, 69075, Nov. 29, 2006; 72 FR 20038, Apr. 23, 2007; 72 FR 32555, June 13, 2007; 72 FR 68096, Dec. 4, 2007; 73 FR 4750, Jan. 28, 2008; 73 FR 30802, May 29, 2008; 73 FR 39587, July 10, 2008; 74 FR 20534, May 4, 2009]

(a) *Applicability.* This section applies to any fishing vessel required to carry an observer as part of a mandatory observer program or carrying an observer as part of a voluntary observer program under the Magnuson-Stevens Act, MMPA (16 U.S.C. 1361 et seq.), the ATCA (16 U.S.C. 971 et seq.), the South Pacific Tuna Act of 1988 (16 U.S.C. 973 et seq.), or any other U.S. law.

(b) *Observer safety.* An observer will not be deployed on, or stay aboard, a vessel that is inadequate for observer deployment as described in paragraph (c) of this section.

(c) *Vessel inadequate for observer deployment.* A vessel is inadequate for observer deployment if it:

(1) Does not comply with the applicable regulations regarding observer accommodations (see 50 CFR parts 229, 285, 300, 600, 622, 635, 648, 660, and 679), or

(2) Has not passed a USCG Commercial Fishing Vessel Safety Examination, or for vessels less than 26 ft (8 m) in length, has not passed an alternate safety equipment examination, as described in paragraph (g) of this section.

(d) *Display or show proof.* A vessel that has passed a USCG Commercial Fishing Vessel Safety Examination must display or show proof of a valid USCG Commercial Fishing Vessel Safety Examination decal that certifies compliance with regulations found in 33 CFR Chapter 1 and 46 CFR Chapter 1, and which was issued within the last 2 years or at a time interval consistent with current USCG regulations or policy.

(1) In situations of mitigating circumstances, which may prevent a vessel from displaying a valid safety decal (broken window, etc.), NMFS, the observer, or NMFS' designated observer provider may accept the following associated documentation as proof of the missing safety decal described in paragraph (d) of this section:

(i) A certificate of compliance issued pursuant to 46 CFR 28.710;

(ii) A certificate of inspection pursuant to 46 U.S.C. 3311; or

(iii) For vessels not required to obtain the documents identified in (d)(1)(i) and (d)(1)(ii) of this section, a dockside examination report form indicating the decal number and date and place of issue.

(e) *Visual inspection.* Upon request by an observer, a NMFS employee, or a designated observer provider, a vessel owner or operator must provide correct information concerning any item relating to any safety or accommodation requirement prescribed by law or regulation, in a manner and according to a timeframe as directed by NMFS. A vessel owner or operator must also allow an observer, a NMFS employee, or a designated observer provider to visually examine any such item.

(f) *Vessel safety check.* Prior to the initial deployment, the vessel owner or operator or the owner or operator's designee must accompany the observer in a walk through the vessel's major spaces to ensure that no obviously hazardous conditions exist. This action may be a part of the vessel safety orientation to be provided by the vessel to the observer as required by 46 CFR 28.270. The vessel owner or operator or the owner or operator's designee must also accompany the observer in checking the following major items as required by applicable USCG regulations:

(1) Personal flotation devices/immersion suits;

(2) Ring buoys;

- (3) Distress signals;
- (4) Fire extinguishing equipment;
- (5) Emergency position indicating radio beacon (EPIRB), when required, shall be registered to the vessel at its documented homeport;
- (6) Survival craft, when required, with sufficient capacity to accommodate the total number of persons, including the observer(s), that will embark on the voyage; and
- (7) Other fishery-area and vessel specific items required by the USCG.

(g) *Alternate safety equipment examination.* If a vessel is under 26 ft (8 m) in length, and in a remote location, and NMFS has determined that the USCG cannot provide a USCG Commercial Fishing Vessel Safety Examination due to unavailability of inspectors or to unavailability of transportation to or from an inspection station, the vessel will be adequate for observer deployment if it passes an alternate safety equipment examination conducted by a NMFS certified observer, observer provider, or a NMFS observer program employee, using a checklist of USCG safety requirements for commercial fishing vessels under 26 ft (8 m) in length. Passage of the alternative examination will only be effective for the single trip selected for observer coverage.

(h) *Duration.* The vessel owner or operator is required to comply with the requirements of this section when the vessel owner or operator is notified orally or in writing by an observer, a NMFS employee, or a designated observer provider, that his or her vessel has been selected to carry an observer. The requirements of this section continue to apply through the time of the observer's boarding, at all times the observer is aboard, and at the time the observer disembarks from the vessel at the end of the observed trip.

(i) *Effect of inadequate status.* A vessel that would otherwise be required to carry an observer, but is inadequate for the purposes of carrying an observer, as described in paragraph (c) of this section, and for allowing operation of normal observer functions, is prohibited from fishing without observer coverage.

[63 FR 27217, May 18, 1998, as amended at 67 FR 64312, Oct. 18, 2002; 72 FR 61818, Nov. 1, 2007]