

Fishing Year 2012 Observer Set-Aside Compensation Rate (Compensation Rate) Calculation Summary

This document explains the initial calculation of the compensation rate for the 2012 fishing year (FY). The Northeast Regional Office (NERO) and the Northeast Fisheries Science Center (NEFSC) of NOAA's National Marine Fisheries Service (NMFS) worked together on this calculation. This is also an opportunity for vessel owners, captains, crews, industry representative groups, and the New England Fishery Management Council (Council) to review the calculation and provide feedback.

Comments on the compensation rates and the calculation of those rates should be sent to any one of the following:

- By mail to: Daniel S. Morris, Acting Regional Administrator, NERO, 53 Great Republic Drive, Gloucester, MA, 01930. Please write "Comments on the FY 2012 Scallop Fishery Observer Compensation Rates"
- By email to: Comprate@noaa.gov
- By Fax to: 978-281-9135

FY 2012 Initial Compensation Rates

The compensation rate for the Delmarva Access Area (DMV), Closed Area I (CA I) and Closed Area II (CA II) Access Areas, Nantucket Lightship Access Area (NLAA), and Hudson Canyon Access Area (HCAA) for limited access vessels is **150 lb** in addition to the vessel's possession limit for the trip for each day or part of a day an observer is onboard.

Limited access general category (LAGC) vessels may possess an additional **150 lb per trip** into these areas when carrying an observer.

The compensation rate for open areas for limited access vessels fishing under DAS is **0.08 DAS per DAS fished** (the vessel is charged 0.92 DAS for each DAS fished with an observer onboard).

We selected these compensation rates because we expect that they provide sufficient compensation for the observer fee while also providing sufficient observer coverage based on anticipated coverage levels needed for 2012 (see below).

For access areas, the compensation rate provides a buffer of approximately \$709 per day over the \$775 per day cost of the observer at the expected price of scallops. For open areas, the buffer is approximately \$1,225.00. We intend for these excess funds to account for variations in the fishery, such as lower scallop price and landings per day fished (also called landings per unit effort (LPUE)), without creating financial incentive to extend an observed trip.

PLEASE NOTE: These are initial rates because we may consider changing the compensation rate as we gather fishery information throughout FY 2012, such as scallop price, length of trips, LPUE, and overall rate of observer set-aside usage.

The following explains how we determined the initial FY 2012 compensation rates.

Compensation Rate Calculation

We evaluated a range of compensation rates. Table 1 summarizes the information we used in the calculation (see “Information Used in the Calculation” section below for details). Table 2 summarizes the calculation of the initial rates.

Table 1: Information Used in Compensation Rate Calculation

Observer Cost (per day) All Areas	\$775.00					
Scallop Price (Unadjusted)	\$10.00/lb					
	Open	DMV	CA I	CA II	HC	NLAA
Estimated DAS	11,118	3,120	1,040	1,962	3,601	1,114
Set Aside	133	36,000 lb	36,000 lb	67,890 lb	107,980 lb	36,000 lb
	Open	DMV	CA I	CA II	HC	NLAA
Adjusted Price	\$9.91	\$9.71	\$9.96	\$9.94	\$9.93	\$9.90
LPUE	2,600	1,000	3,000	3,000	2,600	2,800

Table 2: Compensation Rate Calculation

	Formula	
Open		
Compensation Rate	Compensation/(LPUE*Adjusted Price)	0.08
Sea Days Covered	Set-Aside / Compensation Rate	1,713
	Compensation per DAS	\$2,000.00
	Buffer per DAS *	\$1,225.00
DMV		
Compensation Rate	Compensation/Adjusted Price	150
Sea Days Covered	Set-Aside / Compensation Rate	240
	Compensation per DAS	\$1,483.75
	Buffer per DAS *	\$708.00
CA I		
Compensation Rate	Compensation/Adjusted Price	150
Sea Days Covered	Set-Aside / Compensation Rate	240
	Compensation per DAS	\$1,483.75
	Buffer per DAS *	\$708.00
CA II		
Compensation Rate	Compensation/Adjusted Price	150
Sea Days Covered	Set-Aside / Compensation Rate	453
	Compensation per DAS	\$1,483.75
	Buffer per DAS *	\$708.00
HC		
Compensation Rate	Compensation/Adjusted Price	150
Sea Days Covered	Set-Aside / Compensation Rate	720
	Compensation per DAS	\$1,483.75
	Buffer per DAS *	\$708.50
NLAA		
Compensation Rate	Compensation/Adjusted Price	150
Sea Days Covered	Set-Aside / Compensation Rate	240
	Compensation per DAS	\$1,483.75
	Buffer per DAS*	\$708.00

* Buffer per DAS = Compensation per DAS minus the daily cost of carrying an observer (\$775.00 per day).

Observer Coverage Levels: The compensation rates above will support observer coverage levels of approximately 15 percent for open areas, 8 percent for the DMV, 23 percent for CA I, 23 percent for CA II, 20 percent for the HC, and 22 percent for the NLAA. These coverage levels are higher than those for FY 2011. The NEFSC is proposing higher coverage levels for FY 2012 in order to address specific scallop fishery bycatch issues. In addition, we try to balance the compensation rates and the associated observer coverage levels to allow for sufficient observer coverage while providing a compensation rate that has a neutral effect on fishing effort. For example, higher compensation rates supporting lower coverage levels provide a buffer between the cost of the observer and the revenue from the compensation that are very high. In turn, excess revenue from the set-aside could change fleet behavior in a way that we cannot predict. We watch this trend as the fishing year proceeds to determine if rate changes are necessary.

Information Used in the Calculation

The information used in in this analysis represents the best available information regarding estimates of the amount of effort, catch, and scallop price.

We used the information from analyses in Framework 22, which was implemented on August 1, 2011, including management measures for FY 2012 (FY 2012 measures described at the following web site: <http://www.nero.noaa.gov/nero/nr/nrdoc/12/12ScalManagementPHL.pdf>)

For details on Framework 22 information and analyses, please see the following web site: <http://www.nero.noaa.gov/nero/regs/frdoc/11/11ScalFW22EAFinal.pdf>

We also considered updated scallop price information based on the price paid for scallop landings during FY 2011 to establish updated price estimates for FY 2012.

The following explains the information that we used in our calculation:

Total fishing days per area: Open area DAS are based the total allocated DAS effective March 1, 2012, including the 133 observer set-aside DAS since they are a portion of total DAS than could be observed. For access areas, we calculate the number of DAS for each area by dividing the total allocated scallop landings for each area by the predicted LPUE (see below). Limited Access General Category (LAGC) effort is included in these estimates.

Table 3: Total DAS by Area

	Open Areas	DMV	CA I	CA II	HC	NLCA
DAS	11,118	3,120	1,040	1,962	3,601	1,114

Set-aside allocations: Table 4 includes the observer set-asides by area. The open area set aside is specified as DAS, for harvest by limited access vessels only. LAGC vessels do not pay for observer coverage on open area trips.

Table 4: 2011 Observer Set-Asides

Open Areas	DMV	CA I	CA II	HC	NLAA
133 DAS	36,000 lb	36,000 lb	67,890 lb	107,980 lb	36,000 lb

Landings per Unit Effort (LPUE): Table 5 provides the estimated LPUE by area. Framework 22 estimates the average amount of scallops that will be landed per fishing day (lb/day), with an average of 2,600 lb/day. However, we examined updated survey information from 2011 to set more likely LPUEs for each area. We realize that actual LPUE may be higher or lower, depending on resource conditions and fishery conditions. With the exception of the DMV access area, we expect LPUE in access areas to be relatively high, as shown in Table 5. Based on resource survey information and input from the scallop industry, we expect the DMV access area LPUE to be very low, as shown in Table 5. LAGC vessels generally complete Access Area trips in one day. Therefore, LAGC LPUE does not factor into calculating the compensation rate for LAGC vessels.

Table 5: LPUE (lb/day)

Open Areas	DMV	CA I	CA II	HC	NLAA
2,600	1,000	3,000	3,000	2,600	2,800

Observer costs: The observer cost continues to be \$775/day.

Trip costs: We have estimated daily fishing costs to be \$2,500/day for limited access DAS vessels and \$400/day for LAGC vessels. Although total trip costs may be higher due to increases in fuel and oil price and other increased operating costs, the daily cost of fishing has only a slight impact on the adjusted price (see below). For example, with a \$2,500/day trip cost and \$10.00/lb unadjusted price, the adjusted price is \$9.91/lb in open areas. Increasing the trip cost to \$5,000/day, the adjusted price drops to \$9.83/lb, which has minimal impact on the compensation and buffer at a given compensation rate.

Scallop price: We estimated the average ex-vessel price of scallops in FY 2012 to be to be \$10.00/lb based on Federally permitted dealer reports. We evaluated lower prices of \$9.00/lb and \$8.00/lb, and a higher price of \$11.00/lb, in order to consider how different fishery conditions would impact observer compensation.

The price of scallops was adjusted downward by approximately 1 percent to account for the cost of the extra time to catch the scallops or compensation DAS to pay for the observer. We based the adjustment on the estimated daily cost of fishing and the estimated LPUE. We established the adjusted price as a way to generalize the effect of costs when applied to various compensation rates and LPUEs (which affects the amount of time needed to catch the extra scallops or fish the extra days). To calculate the adjusted price, we subtracted the cost of the additional fishing time associated with the compensation from total revenues. We then divided the reduced total revenue by total revenue for the trip, equaling an adjustment factor. We applied this calculation to a range of compensation rates, prices, and LPUEs, resulting in an average of about a 1-percent reduction.