

To: Parties Interested in the Northeast Multispecies Fishery
Fr: Michael Clayton
Founder, Cap Log Group, LLC
Dt: June 1, 2010
Re: Potential Economic Impact of 2010 ACLs on Different Vessel Groups in the
Northeast Multispecies Fishery

Overview

The following paper attempts to understand the potential economic impact of the 2010 Annual Catch Limits (ACLs) on different vessel groups in the Northeast Multispecies Fishery. It does so by comparing ACLs with the Target Total Annual Catch (TTAC) and actual landings of recent years.¹

The analysis finds that the estimated 2010 ACL for all Amendment 16 stocks is about half (53%) of the 2007 TTAC and more than double (232%) the 2007 total recorded landings (in landed pounds). Estimated 2010 ACLs are substantially lower than the 2007 landings for Pollock,² Eastern Georges Bank Cod and Southern New England / Mid-Atlantic (SNE/MA) Winter Flounder. However, the 2010 ACLs are higher than the 2007 reported landings for ten of the seventeen A16 stocks.

Whether vessels increase groundfish landings in 2010 depends on their ability to increase landings relative to annual catch limits. Greater profits depend on increased landings, improved prices and decreased per-pound cost of landing fish. These core factors will be important for all in the fishery whose livelihoods depend on groundfish landings (i.e., those who have historically generated more than a minimum threshold of annual revenue from groundfish). In our estimation, these factors will be even more critical for those who own and operate vessels landing less than 150,000 pounds of groundfish annually.³

¹ The Gordon and Betty Moore Foundation funded this paper in conjunction with the Environmental Defense Fund.

² According to the New England Fishery Management Council's "Groundfish Facts" released May 26, 2010, Pollock will be subject to a new stock assessment in June 2010. Initial reports suggest a possible increase in ACL for 2010.

³ As described in detail in CapLog's May 24 publication entitled "Current Level of Consolidation of the Northeast Multispecies Fishery" (see: www.caploggroup.info/publications), in 2007 around 290 vessels landed between 5,000 and 75,000 pounds of groundfish. Another 90 vessels landed between 75,000 and 150,000 pounds.

Background and Process

In June 2009, the New England Fishery Management Council approved Amendment 16, which implemented new federal legal requirements to cap the catch of each species of groundfish at levels prescribed by the Council's Scientific and Statistical Committee. Amendment 16 also enabled fishing vessels to join sectors (harvesting cooperatives) for the purpose of collectively managing a portion of this total allowable catch for the 2010 fishing year. The Council instructed the National Marine Fishery Service (NMFS) to use the combined landings' history of sector members between the 1996 and 2006 fishing years⁴ to determine the portion of the catch allocated to each sector.

Fishermen, Council members and others have expressed concern that firm limits combined with the reductions in the total allowable catch will result in dramatically diminished landings and revenue for the fleet's fishermen. This white paper looks at this question by using the 2010 ACL and the historical landings and revenues as recorded in the NMFS dealer database. To understand the potential economic impact of the regulatory changes, Cap Log Group, LLC (CapLog) attempted to address the following questions:

- How do the 2010 ACLs (in total and by stock) relate to the 2004-2007 fleetwide groundfish TTACs and groundfish landings?
- How might 2010 revenues compare with 2007 revenues (under different landings and price scenarios)?
- How, if at all, will vessels with different landings' histories be affected? Where are the vessels facing the greatest difficulties generally located?

In April 2010, CapLog requested relevant aggregated data on the number of vessels and landings by vessels (by home port and offload port) from 1996 to 2009 from the NMFS's Northeast Fishery Science Center.

⁴ Note that the Council approved the continued use of the catch period (1996-2001) for allocating Georges Bank Cod to the two existing Cape Cod sectors.

Framework for Understanding the Potential Economic Impact of the Regulatory Changes

One way to examine the potential economic impact of the regulatory changes is to estimate likely changes in profitability between 2007 (the most recent year available with comparable data)⁵ and 2010.

While other factors contribute to a fisherman's choice of profession (e.g., culture, community, relative costs and benefits of other occupations), profitability is the least subjective and, potentially, the most measurable variable for assessing economic impact. CapLog focuses on trip profits (i.e., landings' revenue less trip costs) generated from groundfish, since the fixed costs (e.g., vessel insurance and mortgages, docking fees) and the non-groundfish revenues differ so substantially in this fishery. Furthermore, while fishermen in sectors will likely increase their Catch Per Unit Effort (i.e., reduce the cost per pound of landed fish) with the elimination of trip limits and seasonal closures, CapLog has assumed that 2010 costs will remain similar to those borne by fishermen in 2007.⁶

As such, this analysis assumes that differences in landings (and revenue) between 2007 and 2010 will effectively represent the changes in profitability. It also assumes that total landings will depend on the ratio of landings to the allowable catch, since groundfish landings directly depend on the total amount of stocks available to be caught.⁷

⁵ The most recent data available from the Northeast Fishery Science Center was for the 2007 fishing year. The data included all vessels in the Northeast dealer database that landed groundfish. Vessels with individual days-at-sea (DAS) permits comprised approximately 20% of groundfish permits and 98% of total groundfish landings in 2007. The remaining 80% of the permits included combination vessels (holding both sea scallop and groundfish DAS permits), sea scallop vessels (with some type of groundfish permit), commercial vessels holding hook gear permits, and small boat exemption permits. The landings data also includes party and charter vessels with commercial permits and handgear permits that may be held by primarily recreational fishermen. Section 6.2.3 in the Environmental Impact Statement for Amendment 16 provides more information on permit categories and landings and revenue by permit category and gear type.

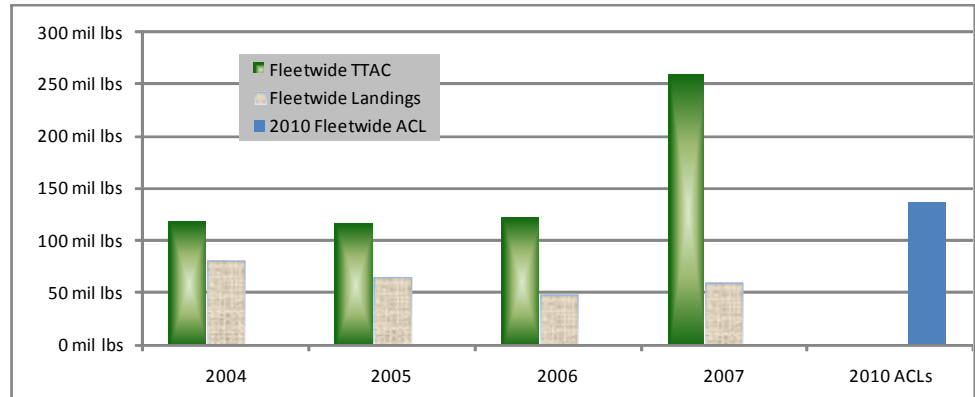
⁶ CapLog acknowledges that the transition to new regulatory structures increases costs on the fishery (e.g., monitoring, data tracking). It has assumed that the funds allocated by the Federal government and transferred to sector managers will cover some of these transitional costs. See CapLog publication noted above for mechanisms for ensuring fishermen absorb any additional costs of sectors fairly (based on the relative benefits derived from them).

⁷ According to the New England Fishery Management Council's "Groundfish Facts" (released May 26, 2010), thirteen of nineteen groundfish stocks were "overfished" in 2009; the status of Pollock will be reassessed in June 2010.

Key Findings

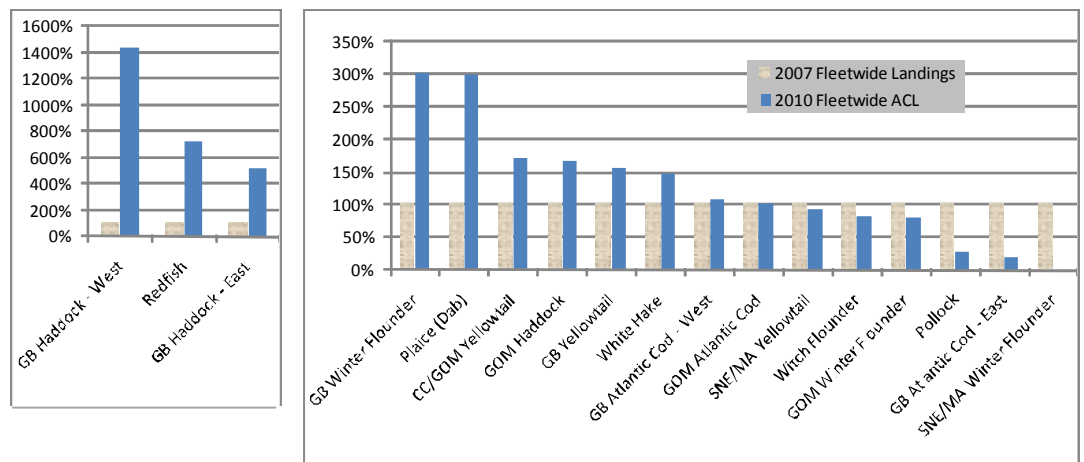
1. In 2007, total landings of groundfish (of all stocks included in Amendment 16) were substantially lower than the Target Total Allowable Catch (TTAC) for those same stocks. The estimated 2010 Annual Catch Limit for all Amendment 16 stocks is about half (53%) of the 2007 TTAC and more than double (232%) the 2007 total recorded landings. The fleetwide 2010 ACL for these stocks is greater than the TTAC for 2004, 2005 and 2006.

Fleetwide TTAC and Landings (2004-2007) in relation to ACL (2010)

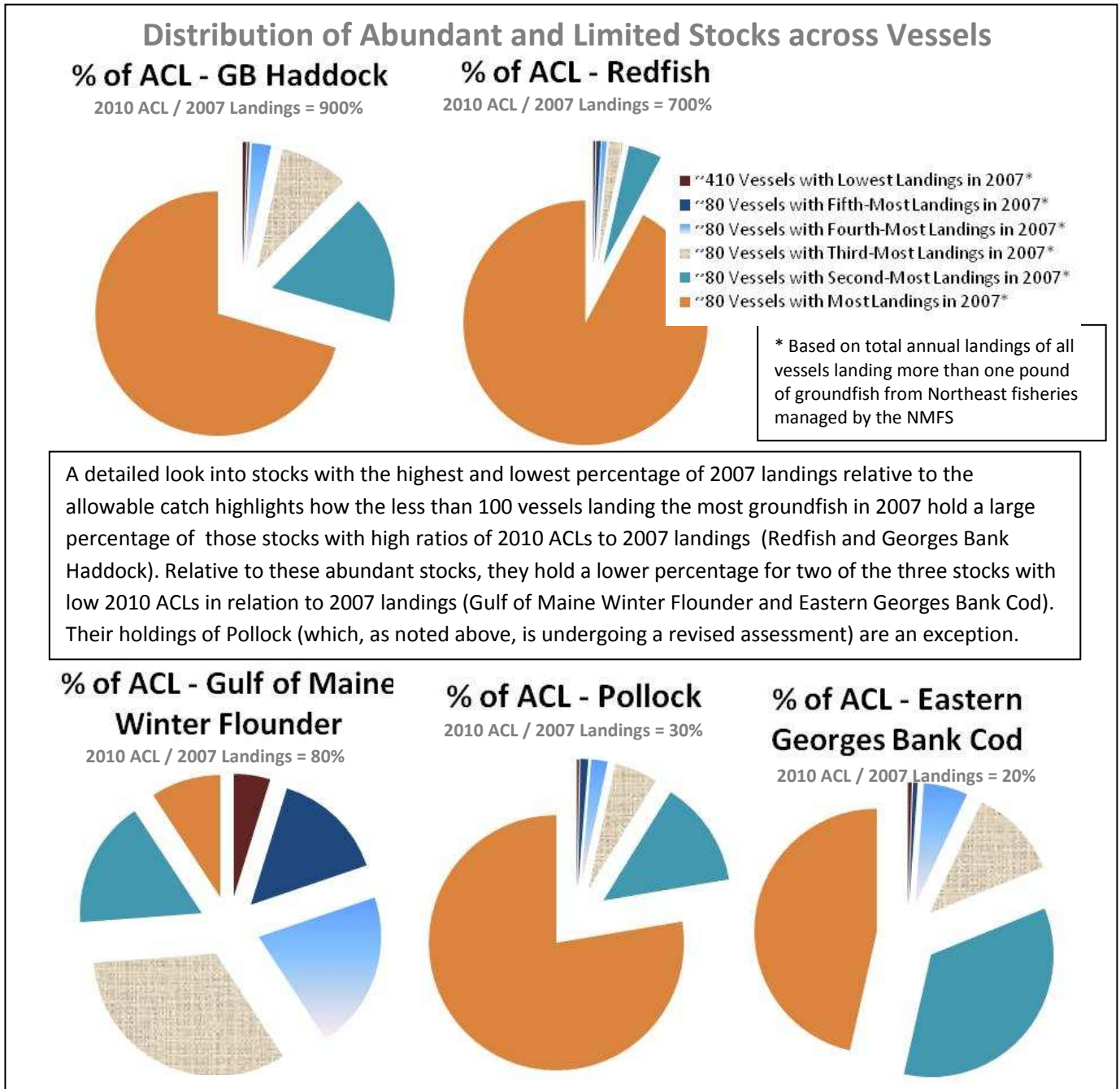


2. The relationship of the estimated ACLs for 2010 and recorded landings for 2007 (fleetwide) differs substantially by stock. The 2010 ACLs are substantially lower than the 2007 landings for Pollock, Eastern Georges Bank Cod and SNE/MA Winter Flounder. The 2010 ACLs are higher than 2007 reported landings for ten of the seventeen Amendment 16 stocks, including Georges Bank Haddock (both East and West), Redfish, Georges Bank Winter Flounder, Dab, Gulf of Maine Yellowtail, Gulf of Maine Haddock and Georges Bank Yellowtail. The 2010 ACLs for the remaining four stocks either increased by under 50% or decreased by 20% or less in relation to 2007 landings.

Fleetwide Landings (2007) in relation to ACL (2010) by Stock



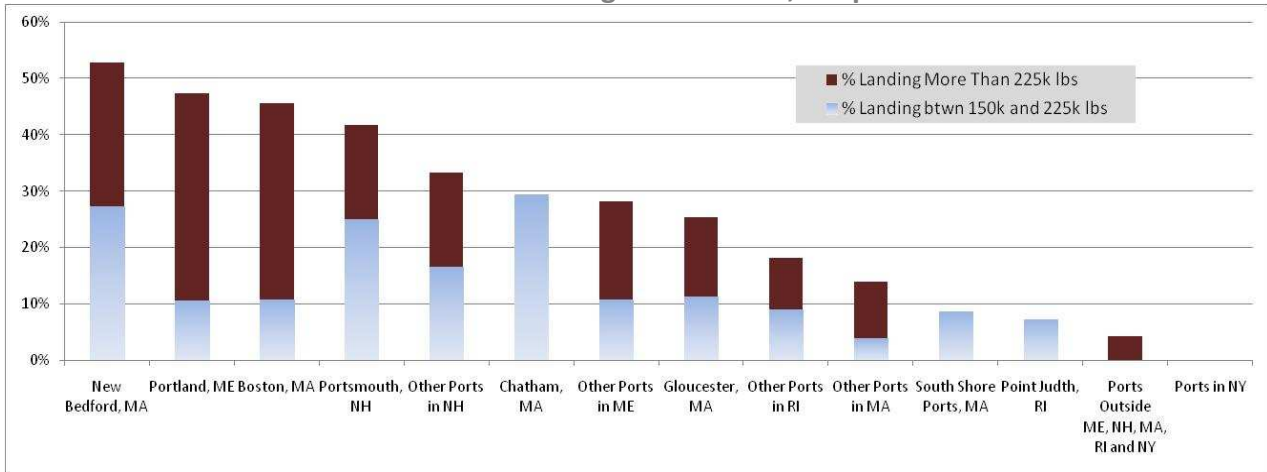
3. The vessels that landed the most fish in 2007 hold higher amounts of abundant stocks, relative to their overall holdings of groundfish and lesser amounts of limited stocks, with the exception of Pollock.



These vessels with the highest annual landings in 2007 may derive particular benefits from any increases in the Pollock ACL (that may result from the current reassessment), since they are best positioned to land a higher amount of the abundant stocks.

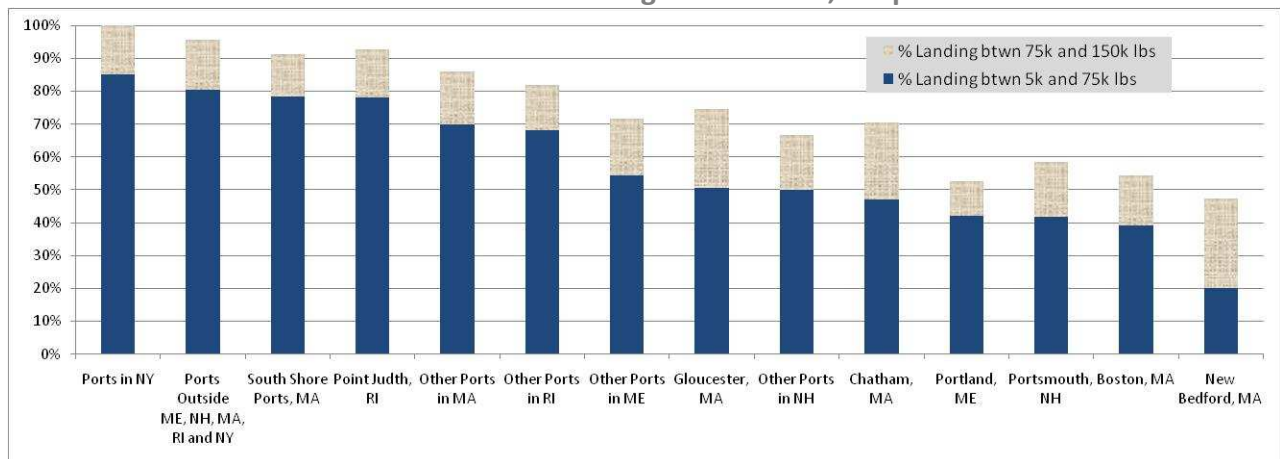
4. Over 40% of the vessels with home ports in New Bedford, Portland, Boston and Portsmouth landed more than 150,000 pounds of groundfish in 2007 (in relation to all vessels landing more than 5,000 pounds).

Percentage of Fleet (by Home Port) Landing More than 150k pounds of Groundfish in Relation to Total Fleet Landing More than 5,000 pounds in 2007



In contrast, more than 90% of the vessels with home ports in the South Shore of Massachusetts, in Point Judith (RI) and in states outside of Maine, New Hampshire, Massachusetts and Rhode Island landed less than 150,000 pounds of groundfish in 2007 (in relation to all vessels landing more than 5,000 pounds). In those same home ports, around 80% of the vessels landed less than 75,000 pounds.

Percentage of Fleet (by Home Port) Landing Less than 150k pounds of Groundfish in Relation to Total Fleet Landing More than 5,000 pounds in 2007



The future of all of the home ports depends on fishermen's abilities to increase landings and profit. However, as shown above, the success or failure of those vessels with more than 150,000 pounds of groundfish landings (in 2007) will likely have a

disproportionate effect on home ports where such vessels are concentrated (e.g., New Bedford, Portland, Boston and Portsmouth); conversely, the success or failure of those vessels with less than 150,000 pounds of groundfish landings (in 2007) will likely have a disproportionate effect on other home ports (e.g., South Shore of Massachusetts, in Point Judith (RI) and in states outside of Maine, New Hampshire, Massachusetts and Rhode Island).

Commentary and Conclusion

Vessels fishing in the Northeast Multispecies Fishery have historically landed a relatively small percentage of the Total Allowable Catch authorized by the NMFS. As a result, the region's fishermen have not realized their economic potential over the past decade. The 2010 ACLs and the sector management system will likely result in many vessels seeing further reductions in revenues between 2007 and 2010 while others see improved profits, resulting from (a) increased landings relative to annual catch limits; (b) higher average prices per pound landed; and (c) reduced trip costs relative to landings.

Below are a few of many factors that may influence the outcome:

- Fishermen in sectors no longer face shortened seasons, trip limits or other effort controls aimed at affecting how they fish. Instead, they must manage how much of each stock they land. Those that do so in ways that maximize landings and revenue (relative to allocations) may very well meet or exceed recent years' profits.

However, the fishermen now work within a system predicated on collaboration and the effective exchange of information. Sector managers and fishermen must plan, adjust, coordinate and manage their portfolio of stocks (which, in many cases, may include some severely limited allocations). They need to have access to transparent, operational and efficient mechanisms for tracking landings, for exchanging needed stock allocations and for communicating locations of limiting stocks. They need to act collaboratively on this information. Ultimately, the new system requires that the NMFS regional office, the sector managers and the fishermen make the dramatic changes in their day-to-day operations. If the infrastructure is in place, those fishermen that successfully make the changes will likely capture most of the benefits of sectors.

- The vessels that generated most of their revenue from groundfish in 2007 but landed less than 150,000 pounds annually may face the greatest challenges in securing benefits from the new system.⁸ As a result, home ports with high percentages of such vessels may face particularly difficult transitions in 2010.

According to the data, this group of vessels seems more likely to depend on groundfish stocks for which ACLs are materially lower than recent landings. They seem to hold less (in relative terms) of the abundant stocks, such as Georges Bank Haddock and Redfish, than the vessels with 2007 landings of more than 150,000 pounds; as such, they will be less able to increase landings by targeting abundant stocks. As shown above, they also will likely benefit less from the possible increase in the Pollock ACL. As a result, these vessels, in particular, will need to cooperate closely with each other and will need to figure out ways to access quota from other sectors when necessary. They may be the most appropriate targets for support in this transition period.

⁸ Discussions with fishermen suggest that those vessels landing under 150,000 pounds in 2007 (which likely included many “day-boats”) may have increased their landings (relative to multi-day vessels) in the last two fishing years (2008 and 2009). During this period, the fishermen seem to have become more efficient at getting to the fishing areas, catching the trip limit (frequently discarding fish to stay below the limit) and then getting back to dock as quickly as possible. Some reported increasing the number of trips completed within one “day-at-sea” increment (completed across multiple days) from three to four trips. If true and if these vessels landed their limits on all four trips, they would have increased landings by about 25%, relative to previous years. In contrast, multi-day vessels (operating under daily limits) may not have been able to experience similar increases in landings. Since the allocation formula used for the sector management system was mostly based on landings from 1996 to 2006, increases in efficiency and landings since 2006 are not reflected in 2010 holdings.

Additional Analysis and Information

Additional analysis, including the number of vessels and landings' distribution by state and by the major homeports in New England, is available by request at info@caploggroup.com. Additional data on the number of active permits by category and the total landings and landings of groundfish by permit category is available on the New England Fishery Management Council web site at <http://nefmc.org/nemulti/index.html>.

Company Background

The Cap Log Group, LLC seeks to help fishermen solve business and financial problems. The Group's unique network of fishermen, economists, entrepreneurs and bankers offers tools and services to help fishermen overcome business and financial challenges that appear during the transition to catch shares. It also provides data and information analysis to help interested parties understand the economic profiles of commercial fisheries.