# The Story of FLDRS *(Fisheries Logbook & Data Recording Software)*

**Past**
(An Evaluation of the Northeast Region's Study Fleet Pilot Program and Electronic Logbook System: Phases I and II Michael C. Palmer, Susan E. Wigley, John J. Hoey, and Joan E. Palmer)

The Northeast Fisheries Science Center's Fisheries Logbook and Data Recording Software (FLDRS) evolved as part of the Study Fleet's pilot program as a way to record, transfer and store data collected at sea by fishers. The program aimed to assemble a "study fleet" of commercial New England groundfish vessels capable of providing high resolution (haul-by-haul) self reported data on catch, effort and environmental conditions while conducting "normal" fishing operations. Field testing and data collection was conducted on board a variety of groundfish vessels from November 2002 to August 2005 in a two-phased approach. Approximately 1,100 trips were reported by 33 vessels using the ELB system during Phases I and II.
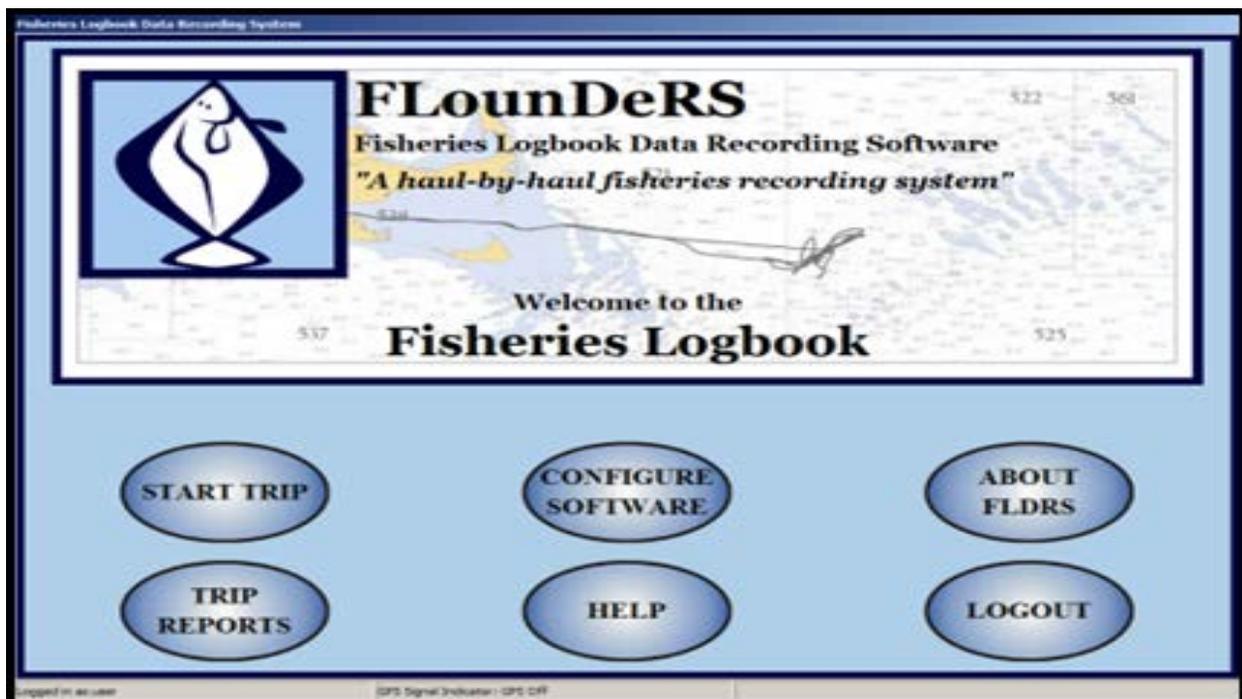
Three logbook software systems were developed and tested over the course of Phases I and II. The first, the Thistle Box3 was determined early in Phase I not to be a viable ELB system for the multispecies fishery fleets. The other two PC based logbook systems, the University of New Hampshire (UNH) logbook and P-Sea Windplot© (PSW) logbook, were both capable of capturing similar data elements and receiving input from temperature probes and transmitting data to the VMS unit. The UNH logbook was an extension of existing software designed as a prototype for an electronic vessel trip report (EVTR). The UNH logbook was deployed on a greater proportion of the fleet (31 of 33 vessels) because it was further developed than the PSW logbook, having more user-friendly features, such as gear-specific species default lists and trip summary reports. Most importantly, initial testing indicated that the PSW logbook software was incapable of capturing fixed-gear fishing effort because of its inability to track simultaneous efforts. While the UNH logbook could track multiple efforts simultaneously, it cannot disassociate fishing effort from fishing trips, which limits its use in some fixed gear fisheries where gear is set on one trip and hauled on a subsequent trip.

**Present**

The current version of FLDRS evolved from the UNH logbook system and is used by @ 120 vessels, representing 83 percent of the total eVTR submissions, accounting for > 6,500 trip reports per year. Currently about 55 vessels report haul level, 26 at sub-trip w/ GPS, and about 40 groundfish sector vessel report at what appears to be trip level.  Based on 2016 regional total landings, FLDRS users account for almost 75% of yellowtail flounder landings, almost 50% of loligo, herring and quahog landings, and 20% to 30% of winter flounder, whiting, skates, scup, and cod. FLDRS has been tested extensively in trawl fisheries, scallop and clam dredge fisheries, longline, gillnet, trap and hand gears to lesser degrees.
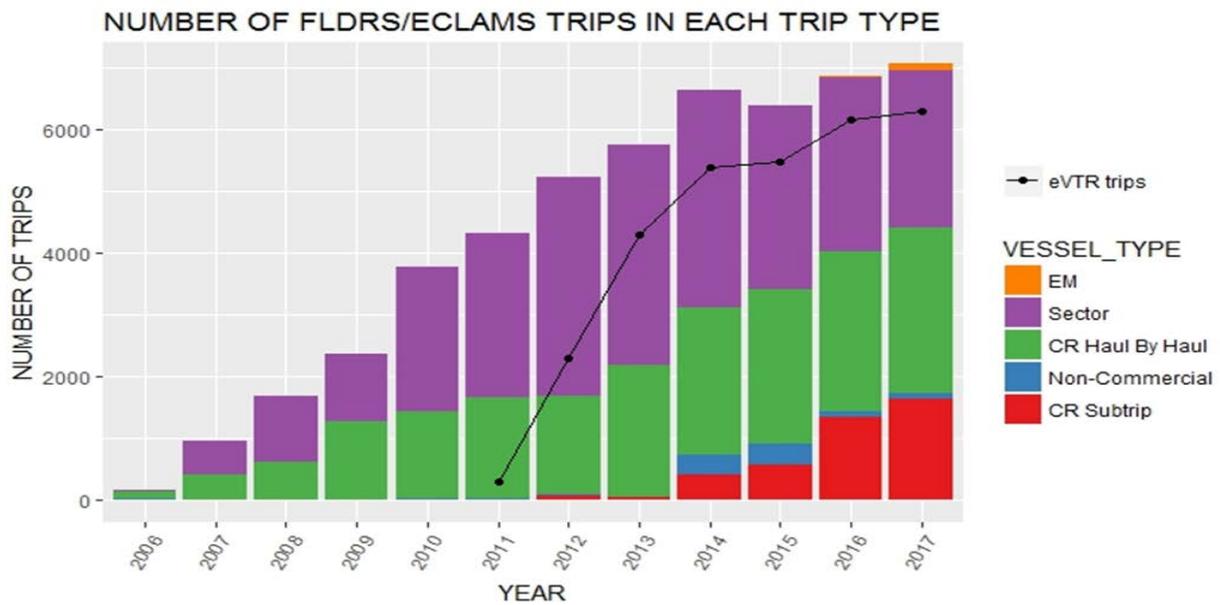


**Future**

The NEFSC is in the early stages of developing version 5 of the FLDRS software. The goals of FLDRS v5 will be to serve as a tool for electronic trip reporting and collection of precise real time data on fishing activity for use in scientific analysis.  FLDRS v5 will upgrade to a more modern software and system design, provide users with remote access to software updates and support tables, remote technical assistance and post export data editing capabilities.  FLDRS v5 will also be expanded to be used across a wide variety of fishing practices including different gear types, target species, industries and geographic areas.