FACT SHEET

South Atlantic Fishery Management Council Pilot Project:
Charterboat Electronic Data Collection

PROJECT SUMMARY: In partnership with Harbor Light Software, Inc. and the four state marine resource agencies in the region, the South Atlantic Council is testing the operation and application of an electronic logbook for use by federally-permitted charterboats within the region. The pilot project will work with charterboat captains to test a tablet-based electronic reporting tool that will help inform the Council on how well this type of platform may work to collect catch information in the charterboat sector. Support for this project comes from funding provided by the Atlantic Coast Cooperative Statistics Program (ACCSP).

What will the pilot project do?

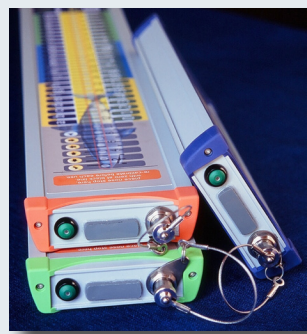- **Test an electronic logbook reporting platform**
  Participating captains from North Carolina to Florida will use a tablet-based system to record information about their fishing trips. Data to be recorded will include fishing location and depth, catch and effort information, and other trip information.

> **What is Electronic Reporting?**
> *The use of technologies - such as phones, tablets, or computers - to record, transmit, receive, and store fishery data.*

integrate the use of an electronic fish measuring board that will record the length of each fish that is caught and transmit the data to the tablet using bluetooth technology. The platform will be based on an existing electronic reporting application developed by ACCSP called SAFIS eTRIPS for use by charterboat captains in the Northeast.

- **Develop an electronic dockside validation reporting tool**
  State partners routinely sample the catch of charterboats once the captains return to shore to record information on catch, lengths and other data. The project will develop validation software that can be used by dockside observers (commonly known as port samplers) on mobile hand held devices to collect trip information. The software will allow the dockside observers to electronically validate and compare the trip reports submitted by the captain in real time. Electronic measuring boards will be integrated with the validation software to record species and length data, improving accuracy of these data.

- **Develop a handheld phone application used by law enforcement officers to check reporting compliance**
  To help law enforcement track reporting compliance and the status of federal permits for charterboat vessels, a smartphone application will be developed that is linked to a secure server where reports and permit/license data are stored. Law enforcement officers will use the mobile app to access the server to make sure the captain has the appropriate federal charterboat permits and is in compliance with submitting reports.

Photo credits:
Harbor Light Software; FL FWC; A. Vonharten

How will the project results be used?

Project results will help inform the Council's efforts to implement weekly electronic reporting requirements for federally permitted charterboats in the South Atlantic.

This project is an opportunity for participating captains to help test the reporting platform and software and develop the electronic reporting details for charter vessels to be developed through the Council's For-Hire amendment.

Additional information on the Council's amendment is available from the South Atlantic For-Hire Reporting Amendment page- http://safmc.net/SAtlFor-HireReportingAmendment

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www.safmc.net

To learn more about ACCSP and SAFIS eTRIPS, visit:
http://accsp.org/
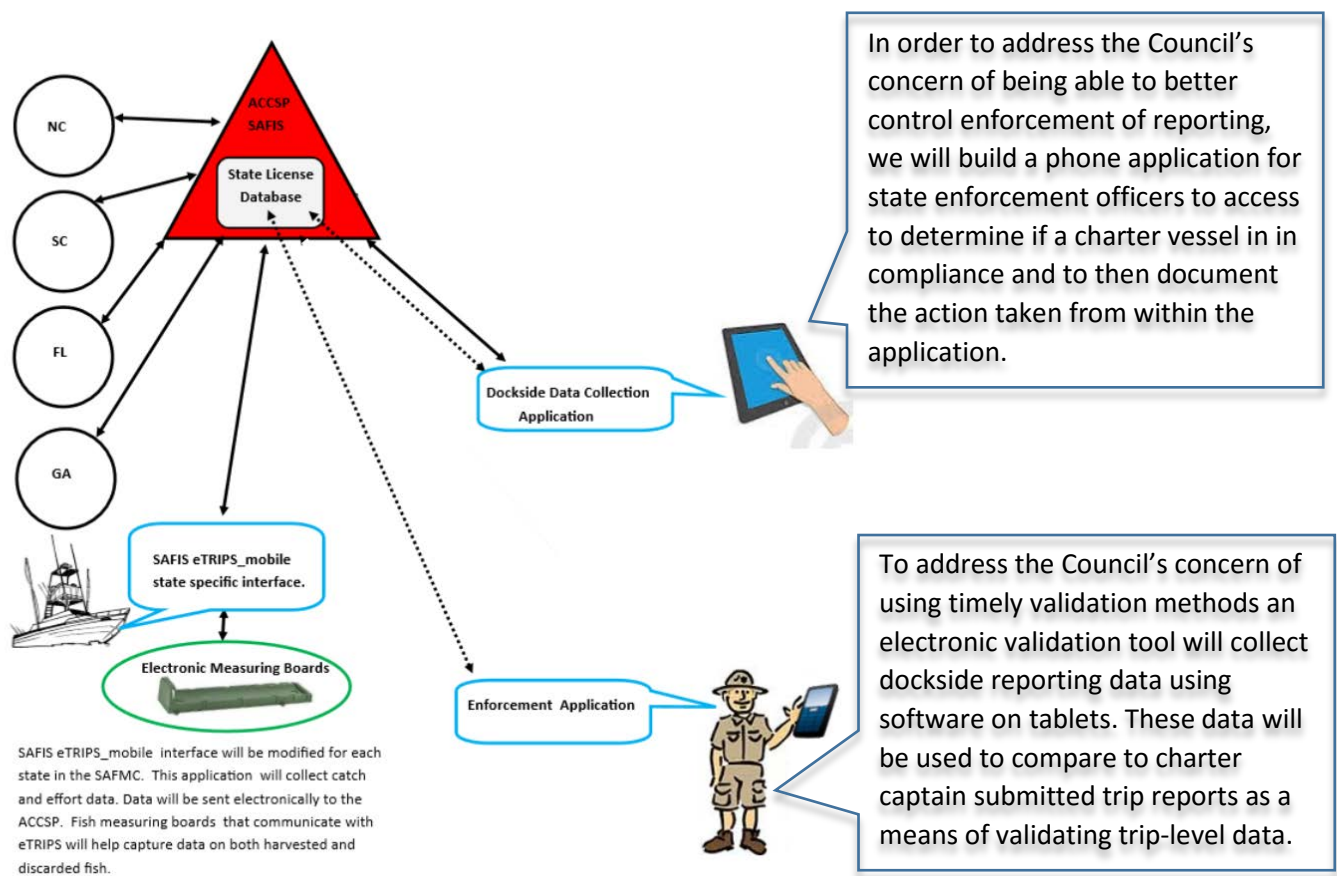http://accsp.org/electronic-trip-reporting

South Atlantic States Pilot Implementation Proposal:
Charterboat Electronic Data Collection

Project Summary and Progress as of August 2016

Project Overview:

There are 4 components to the Project:

1. An electronic catch and effort tablet reporting software, eTRIPS, to be modified as needed to fit the SAFMC and State's needs.
2. A dockside reporting application that is easy to use on a tablet that will capture the current APAIS paper form data.
3. A fish measuring board to connect via Bluetooth to allow the ability to transfer data on discards and landed catch into eTRIPS/Dockside app.
4. A phone based application for enforcement officer to check license and permit status.

In order to address the Council's concern of being able to better control enforcement of reporting, we will build a phone application for state enforcement officers to access to determine if a charter vessel in in compliance and to then document the action taken from within the application.

To address the Council's concern of using timely validation methods an electronic validation tool will collect dockside reporting data using software on tablets. These data will be used to compare to charter captain submitted trip reports as a means of validating trip-level data.

ACCSP
SAFIS

State License Database

NC

SC

FL

GA

Dockside Data Collection Application

SAFIS eTRIPS_mobile state specific interface.

Electronic Measuring Boards

Enforcement Application

SAFIS eTRIPS_mobile interface will be modified for each state in the SAFMC. This application will collect catch and effort data. Data will be sent electronically to the ACCSP. Fish measuring boards that communicate with eTRIPS will help capture data on both harvested and discarded fish.

The project timeline is as follows:
Note: This may be subject to change.

Table 1. Project Timeline (start date depending on time of grant award):

Month	Task
1-4	Tablet eReporting software implementation (including multi-lingual UI, fish measuring board integration).
5-8	Dockside validation software implementation.
9	Compliance software implementation.
4-12	Testing applications in the field, receiving feedback from participants, and making corrections as needed.

Based on the above timeline I have laid out the first few months of actions items. This list will be updated and added to as we move forward. Please review this list and email me any additional action items that I may have been remiss at adding. This list will be placed on a shared drive location once I receive feedback. I will also note any dependencies of any action item.

Status	Module	Action	Person(s) responsible
Completed	Project	Identify State and Federal contacts for project	ACCSP
Completed	eTRIPS	Identify Captains in each state to take part in testing eTRIPS	State Reps
Completed	eTRIPS	Draw up a questionnaire to be sent to each Captain to gather information about their boats and proficiency in using technology.	State Reps
Completed	eTRIPS	Send questionnaire to Captains.	Francine Karp
In Progress	eTRIPS	Receive back and document responses from Captain questionnaire.	Francine Karp
Completed	eTRIPS	Receive in the tablet computers.	Francine Karp
Completed	eTRIPS	Serialize each tablet, do system updates and install eTRIPS evaluation on each.	Francine Karp
Completed	eTRIPS	Send tablets out to Captains with instructions for setup.	Francine Karp
Completed	eTRIPS	Train State contacts in the use of SAFIS management system. (SMS)	ACCSP
Completed	eTRIPS	State contacts to set up accounts for Captains.	State Reps

Open	eTRIPS	In person meetings with each Captain to go over the eTRIPS application and make sure each is set up and working properly.	Francine Karp
In Progress	eTRIPS	Determine SAFMC preferences for things such as gears & dispositions.	Mike Errigo (SAMFC)/State Reps
In Progress	eTRIPS	Determine SAFMC preferences for display of waters fished. Map or list form	Mike Errigo (SAFMC)/State Reps
In Progress	eTRIPS	Determine any additional data collection points required by the SAFMC ie: water depth, targeted species, etc.	Mike Errigo (SAFMC)/State Reps
In Progress	eTRIPS	Determine if ACCSP will need to do backend work to accept additional data collection points, if any.	ACCSP
In Progress	Dockside Reporting	Research prior electronic MRIP projects and determine the "lessons learned"	Francine Karp
In Progress	Dockside Reporting	Speak with users of prior electronic dockside reporting projects and gather feedback on them.	Francine Karp
In Progress	Dockside Reporting	Speak with persons who have used the current APAIS paper forms and understand how they are used in the field.	Francine Karp
Open	Dockside Reporting	Determine the best design approach for the electronic APAIS form with feedback from users.	Bill Spain
Completed	Fish Measuring Board	Order the measuring boards.	Francine Karp
Open	Fish Measuring Board	Receive in and serialize boards and ship out to state contacts.	Francine Karp
Open	eTRIPS	Make modification needed to eTRIPS evaluation. Confirm if the changes will be made on a state by state basis or if one application interface will be used for all SAFMC states.	Bill Spain
Open	eTRIPS	Roll out completed and modified eTRIPS to captains for testing.	Francine Karp
Open	eTRIPS	Receive feedback from Captains on testing. Document and	Francine Karp/Bill Spain/ACCSP/State Reps/Fed reps

		determine changes/fixes to be made.	
Open	Enforcement App	Determine how the enforcement phone app will communicate with the ACCSP.	Bill Spain/ACCSP
Open	Enforcement App	Determine if the ACCSP needs to provide an API to communicate to the database for the purpose of downloading and displaying data in the enforcement app.	ACCSP
Open	Measuring Board	Determine how the measuring board will be used in the field by both the Captains/mates and the dockside samplers.	All
Open	Measuring Board	Begin to lay out design plan for the transmission of data from the boards to other applications.	ACCSP/Bill Spain
Additional Items will be put on the list as the project moves forward.			

Lessons Learned:

As we go along, I would like to keep track of "Lessons Learned" in this project. Please send me any lessons learned that you have to add to this list.

1. **When setting up iOS apps under one Apple ID, the App will not be able to be updated with a different Apple ID.**
   When I updated the iPads I downloaded App under my Apple ID. I then instructed the Captains to make their own Apple ID for their iPads. They were unable to update the eTRIPS app that I had installed. The fix was to have each Captain delete the eTRIPS app and reinstall using their Apple ID.

South Atlantic States Pilot Project: Charterboat Electronic Reporting

Co-PI: Dr. Mike Errigo, SAFMC

Co-PI: Francine Karp, Harbor Light Software, Inc.

Project Background

- 3 major components
  1. Electronic logbook for charterboat captains to log catch
  2. Reporting tool for electronic dockside validation of trip reports
  3. Phone app allowing law enforcement officers to check reporting compliance
- Each component has an initial software development phase, a field testing phase, and a refinement phase
- Also recruiting, training, and outreach for participants

Progress Update

- Equipment
  - o All tablets have been ordered, setup with software, and distributed to state partners and participants
  - o Measuring boards have been ordered and will take several more weeks to arrive
- Participants
  - o All participants have been recruited and contacted by a project representative
  - o NC: 5+1 volunteer, SC: 4+2 volunteers, GA: 2+2 volunteers, FL:6+2 (Keys)
  - o Participants are being entered into the SAFIS system and given a login and password
  - o Initial training using a test app was done so participants can become familiar with the app

Progress Update

- Software Development
  - Initial discussions focused on what changes needed to be made to the logbook app
  - Core data elements were decided on
  - Still working on gear types and dispositions
  - Coding has now begun since funding came in
  - Development of the validation tool is underway, with collaboration of MRIP
  - Work on LE tool will begin once the logbook pilot is underway

Progress Update

- Field Testing
  - Hope to have captains using the software on actual trips in Sept.
  - Testing will continue into next summer
- Outreach
  - Training on the use of the app is currently ongoing
  - A test app was loaded for captains and state reps to familiarize themselves with the program
  - Training videos were made to help facilitate the learning process
  - Ongoing contact with the captains will occur throughout the project on a regular basis

Project Timeline (start date depending on time of grant award)	
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9	Compliance software implementation.
4-12	Testing applications in the field, receiving feedback from participants, and making corrections as needed.

Funding became available on August 1st

Project Timeline (start date depending on time of grant award)	
Month	Task
Aug-Nov	Tablet eReporting software implementation (including multi-lingual UI, fish measuring board integration).
Dec-Mar	Dockside validation software implementation.
Apr	Compliance software implementation.
Nov-Jul	Testing applications in the field, receiving feedback from participants, and making corrections as needed.

Hoping to start field testing in Sept

Thanks!

- Francine Karp: Harbor Light Software, Co-PI

- Bill Spain: Harbor Light Software

- Kris Kelleher: Harbor Light Software

- Mike Cahall: ACCSP

- Karen Holmes: ACCSP

- Geoffrey White: ACCSP

- Nicholas Mwai: ACCSP

- Chris Wilson: NC DENR

- Doug Mumford: NC DENR

- Michelle Duval: NC DENR

- Amy Dukes: SC DNR

- Brad Floyd: SC DNR

- Kathy Knowlton: GA DNR

- Delaine Hildreth: GA DNR

- Beverly Sauls: FL FWC

- Royce Zehr: FL FWC

All the captains who volunteered to test the equipment.

Questions?