### LOUISIANA STATE UNIVERSITY

## Field Support Group



A university-wide collaborative unit based on Colleges of Coast & Environment, Science, Engineering, Humanities & Social Sciences, Agriculture and others

10/19/2017

## FSG Mission

## To provide:

- A quality data product that fulfills the scientists, engineers and others needs.
- All necessary assistance to the research effort from the proposal to the final presentation.

## Facility

 10,000 sq foot facility with a wood shop, a metal shop, and a fully functional machine and CNC shop.



## Truck & Boat Fleet

• Ford F-350

4X4



• 26' Catamaran

• 22' Boston Whaler

• 23' Carolina Skiff



## LSU RV Coastal Profiler

### 41' Multi-Purpose Research Vessel



### For the Adventurous Researcher



## **Tools and Equipment**

- Side Scan Sonar
- Calibration
  equipment
- Seismic "chirp"
  Equipment
- Magnetometer
- Etc.











- Bridgeport horizontal end mill
- Grizzly vertical end mill
- Clausing 600 metal lathe
- Clausing 1300 metal lathe



## Machine Work

### From simple sensor housings



# to complicated pumping systems







## Welding

- MIG, TIG, and stick capable
- Ability to weld all commonly used metals



### **Fabrication Capabilities**



From a simple sensor deployment module to an entire real-time monitoring station.



## **CNC** Fabrication

• CNC Plasma cutting of most sheet metals.



• 3-D CNC Milling of most metals and exotic plastics.





10/19/2017

Specialty/Difficult Diving

• All FSG members are certified Haz-mat and decontamination diving certified.





## Electronics

### Interface cards were engineered and built in-house

As the technology became available, a photo-resist method was adopted to ensure card uniformity



#### Before





## Past Work Experience

- Event specific observations
- Fabrication solutions
- Temporary sensor package deployments
- Model Correlations (ground truth)
- Deep Sea Moorings
- Side-Scan Sonar, Seismic, etc. transects
- Real-time sea state monitoring stations

## Our personnel at work









### All Field Support Group members are:

- Certified in different levels of dive proficiency, from open water diver to commercial diver.
- Adult CPR certified
- Safe-Gulf certified
- Fall-Protection certified
- TWIC card carriers

Some Field Support Group members are:

• Boat Captain qualified

### How can our model benefit you?





**Field Support Group** 

Bill Gibson (225) 578-2947 Chris Cleaver (225) 324-1072 Shop Phone (225) 578-2988 bgibson@lsu.edu ccleav1@lsu.edu