Waveglider Update
Impacts to NDSF & Science community

- Added Capability for over the horizon operations
- Increased overall efficiency of cruises
- Has “saved” several Sentry dives from abort
- Enables remote science with the NDSF vehicles
- Autonomous capability to work along side ANY of the NDSF vehicles
- Future use to be proposed by PI

Typical waveglider budget

- Shipping (65%)
- Airtime (18%)
- Insurance (7%)
- Maintenance & sustaining (5%)
- Consumables (3%)

Future capabilities

- Waveglider is necessary for bootstrapping multivehicle ops in NDSF and other vehicles.
- Potential use with Alvin/Jason to monitor seafloor equipment such as elevators or landers during cruise?
- Real time sensor data passthrough, enhancing users experience.
Recommendations & Path forward

**Facility/logistics**
- Allocate staffing/support for waveglider on shore
- Blend waveglider into logistics and shipping plans
- Address more complex mobilizations for Sentry/Jason with waveglider component

**Reduce operating costs**
- An expected decrease in costs once spares are better allocated for the vehicle from more frequent use.
- Reduce shipping shipping costs by integrating into existing systems.
- Reduction in airtime costs with reduced and more efficient data transfer.

**Schedule requirements**
- Understand requirements moving forward for scheduling waveglider on future cruises and expanding access to waveglider.

**Path forward**

1. **Enable user access**
   Through existing vehicle day rates, provide funding and support for the waveglider with requesting the waveglider will be part of the STR and thus embedded in associated facility day rate.

1. **Analyze past technical issues to ensure reliability**
   Ensure future use of the waveglider is robust and able to support the demands of the science users. Learning from past issues and roll this into a system that will provide the capability for extensive use.

1. **Purchase waveglider and integrate into facility**
   The integration of the waveglider into our facility will provide a more robust funding structure for the PI’s and the facility. By securing a waveglider for the facility the request and funding structure will be simplistic and provide a means for science users to have easy access to the vehicle.

1. **Promote and communicate capability to the science community**
   Provide material and instructions on how science users can include and integrate the waveglider into their science program, using past examples to highlight how efficiency can be increased with the waveglider and enhance the science user experience.