

SVC Summary report:

Alvin Basket attributes

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The upgraded *Alvin* basket is slightly larger than the previous version, 3'x4' versus 3'x3', allowing for the potential to carry more scientific equipment on an individual dive. Like the previous version, the basket is fully adaptable, and the gear can be mounted in multiple configurations. The *Alvin* crew is vital to facilitating mounting and inclusion of any scientific equipment to the basket. They know what will and will not fit onto the basket together, and try their best to fit everything requested. In addition, there are ergonomic concerns of placement of equipment for the *Alvin* pilots; they need to be able to adequately reach, maneuver, and manipulate the equipment which can limit the basket configuration.

The primary concern with the new basket versus the old basket is that while the new basket is larger, some space is occupied by the junction boxes (J-boxes), reducing the overall size available for scientific equipment (these can be seen in the pictures below; they are right behind the titanium pressure bottle). The J-boxes reduce the overall size of the basket by approximately 6 horizontal inches. While there is always a demand for space on the basket, the new basket provides an upgrade to the previous configuration.

There was usually a good balance between geochemical equipment, biological equipment, and necessary *Alvin* equipment (e.g. weights) on any given SVC dive. Below is an example of a basket configuration used on one of the SVC dives (Figure 1).

Overall, we believe the upgrades have improved the usability and versatility of *Alvin* for future science missions.

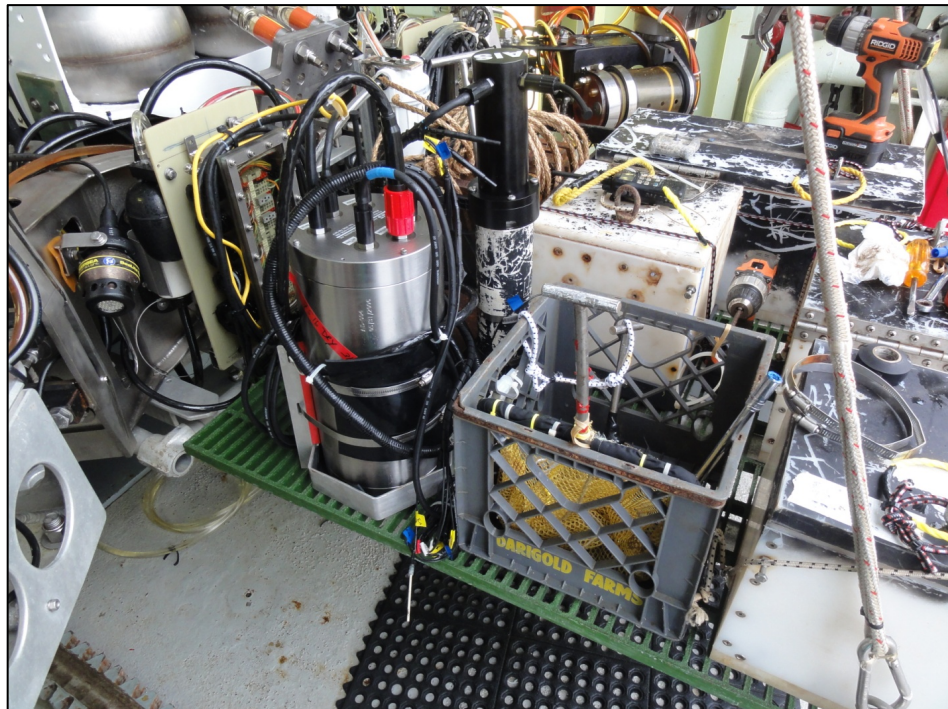


Figure 1: Basket configuration example.