

MISO Facility: *Alvin* Down-Looking Camera

Under the existing MISO grant a specialized frame was fabricated for use with *Alvin* for down-looking image acquisition using the MISO digital deep-sea cameras and strobes. Figures to the left show the unit on the *Alvin* basket. This includes a fiberglass base, and Delrin strobe mounts which articulate outward by small hydraulic rams powered using *Alvin*'s hydraulics so that adequate camera/strobe separation is achieved. A junction box was manufactured that provides easy integration into the *Alvin* science wiring system and for efficient downloading of the images from the camera using a parallel connector on the J-box so that the camera connection does not have to be accessed.

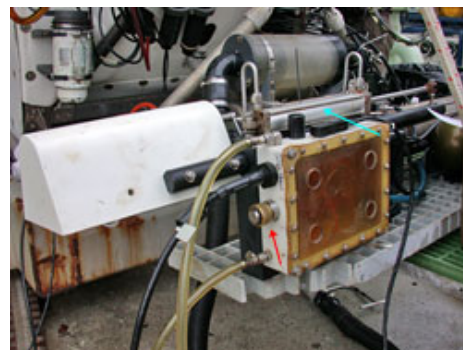
This system has been used by several investigators for down-looking image acquisition from *Alvin* in the Galapagos Rift [Shank et al., 2002, 2005, Rzhanov et al., in press], East Pacific Rise [Shank et al., 2004] and in the Gulf of Mexico [C. Fisher, unpub. data, 2006].

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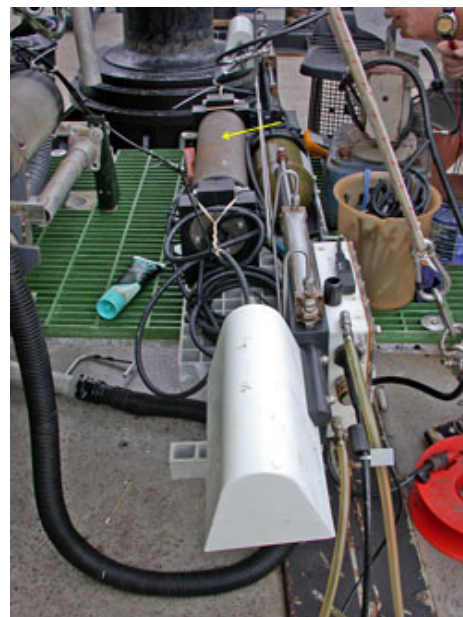
[Enlarge Image](#)

MISO *Alvin* down-looking camera/strobe frame.



[Enlarge Image](#)

MISO *Alvin* down-looking camera/strobe frame. Photo shows detail of starboard strobe mount and junction box (red arrow points to the connector used to download images, blue arrow to hydr. ram)



[Enlarge Image](#)

MISO *Alvin* down-looking camera/strobe frame. Photo shows the full frame with the strobe electronics bottle (yellow arrow) mounted. The frame fits behind the *Alvin* basket support in order to minimize the basket space required to accommodate the system.