

Glider Deployment and Recovery Procedure

This document strictly covers the recommended deployment and recovery procedures. These procedures are intended for use by boat crews when all communications with the glider related to deployment and recovery will be conducted via iridium.

Deployment Required Equipment:

- Glider
- Wings (min. 2)
- Green plug
- Buoy and line (min. 6 meters)
- Phillips head screwdriver
- Set of Allen wrenches
- Ballast weights
- Form of communication with glider pilot (cell phone, iridium phone, etc.)
- Thruster accessory box (optional)

Glider Deployment Procedure:

Once loaded onto a boat and before leaving shore, it is critical that a glider is properly secured. There are two main reasons for this: 1) a glider cannot float when buckled into its cart and 2) damage can occur from a glider sliding on its cart or within the boat. It is recommended that the glider and cart are tied down with available lines to prevent either from moving during transit. The only acceptable place to fasten lines to a glider are a pick-point and/or the tail boom.

Another important component of deployment procedure is communication between the boat crew and glider pilot. Anticipated arrival time at the deployment location should be communicated to the glider pilot with periodic updates throughout transit as the boat crew deems necessary. Upon arrival at the deployment location, the boat crew should make sure the glider has a clear view of the sky and wait for the glider pilot's confirmation that it is OK to insert the green (go) plug. The antenna for satellite communications is in the glider's tail. While waiting for confirmation from the glider pilot that the glider is ready to be deployed, the boat crew should start the following tasks:

- 1) Inset and screw down wings
- 2) Attach buoy and line through the loop at the back of the fin or around the fin boom on older style fins
- 3) (Optional) Install and screw down thruster

Once the boat crew has prepped the glider and the glider pilot gives confirmation for deployment, the boat captain should orient the boat so that the glider will be deployed into the wind. This will prevent the boat from being pushed over the glider once it is in the water. When deploying the glider, it is recommended to have the boat in neutral. Depending on where on the boat the glider will be deployed, deployment may be a one or two person procedure. Deploying off of a boat with an open stern may only require one person whereas deploying over the gunnel of a boat almost always requires two people.

If deploying over the gunnel of a boat, it is important that the two people lifting the glider into position stand on either side of the glider so that they are facing one-another and slightly towards the front the glider. This will help distribute the weight of the vehicle. Once ready to move the glider and its cart, it is best to unbuckle the strap. If deploying over the gunnel of a boat, it may be easier put the glider's wings on after lifting and resting the glider on the gunnel. Once in position to deploy, the boat crew will then remove the two side pins on the cart nose ring allowing the ring to swing down. When preparing to deploy, it is recommended that one person controls the glider while the other controls the cart. During deployment of the glider, the boat crew should be cautious around the buoy line as entanglement would be very dangerous.

To deploy the glider, the boat crew will want to slide the cart toward the water and slowly tip the back of the cart upwards while controlling the speed of the glider with a hand that is on the fin when it begins sliding off the cart. Once the glider is about halfway down the cart the boat crew can release the fin and let it go into the water. It is not good practice to release the glider too quickly or at too steep of an angle. If deployed at a steep angle very quickly, the glider may resurface with its momentum pointing it back into the boat and could strike it causing damage. Once deployed, the boat crew should communicate to the glider pilot that the glider is in the water and standby for further instructions. The following photos show deployment of a glider over the gunnel of a small boat.



Recovery Required Equipment:

- Glider cart
- Red plug
- Phillips head screwdriver
- Form of communication with glider pilot (cell phone, iridium phone, etc.)
- Thruster accessory box (optional)

Glider Recovery Procedure:

An important component of the recovery procedure is communication between the boat crew and the glider pilot. The glider pilot should communicate the anticipated surfacing time and periodic location updates to the boat crew. Upon recovery, the boat crew should communicate to the glider pilot that the glider is secured.

Depending on where on the boat the glider will be recovered, recovery may be a one or two person procedure. Recovering off of a boat with an open stern may only require one person whereas recovering over the gunnel of a boat almost always requires two people. When recovering a glider the boat captain must be very cautious when approaching the glider. Always approach the glider and recover from downwind so that the boat does not get pushed over the glider. While the boat captain is approaching the glider, the boat crew should be getting the glider cart in position and then remove the two side pins on the cart nose ring allowing the ring to swing down. Once physically close enough for the boat crew to grab the glider, it is best to have the boat in neutral. It can be helpful to have a floating telescoping boat hook to grab the glider in case the glider is just out of arms reach. The easiest method of recovery has one person manipulating the glider and another person manipulating the cart. The fin is the easiest and safest place to manipulate the glider while it is in the water.

Once the boat crew has a hold of the glider the cart should be put in position for recovery. The front of the cart should be lowered into the water with the two pegs on the back of the cart resting on the edge of the boat, preventing the cart from sliding further into the water. The person manipulating the glider should direct the aft of the glider between the cart rails by lifting the glider by its fin. At this point it is helpful to pause for a moment to let water drain out of the aft cowling. With a strong pull the boat crew will need to simultaneously pull the glider up the cart rails while also pulling the cart backwards and pushing down on the aft of the cart so that it becomes parallel with the deck of the boat. Once the glider is stable on the boat, the boat crew should work to pin the nose ring and unscrew and remove the gliders wings and thruster (optional). The boat crew should communicate to the glider pilot that the glider has been recovered and await instructions to remove the green (go) plug and insert the red (stop) plug, if necessary.

It is critical that a glider is properly secured before beginning transit back to shore. There are two main reasons for this: 1) A glider cannot float when buckled into its cart and 2) Damage can occur from a glider sliding on its cart or within the boat. It is recommended that the glider and cart are tied down with available lines to prevent either from moving during transit. The following photos show recovery of a glider over the gunnel of a small boat.

