Clarifying Procedures: Securing to a Cleat and Tow Lines,

by Dean LaChapelle, October 2007

During the Oroville OPTREX we had an interesting discussion regarding side towing and cleat tie offs .I did some reviewing of the USCG Boat Crew Seamanship Manual and the Auxiliary Boat Crew Training Manual. I also made a call to the DSO-OPs Gail Ramsey and the District 11N Operations Training Officer Mr. Frost. I have written the discussion and arguments as well as I can recall and have presented it for your review in the attachment. If you have any comments please feel free to let me know....dean

I. DISCUSSION: SECURING TO A CLEAT

Both the USCG and the USCG AUX Boat Crew SEAMANSHIP manuals illustrate the securing of a line to a Standard Cleat without the use of a half hitch or weather hitch. The noted procedure and observed technique used is 2 or 3 figure 8's and a couple round turns to finish. The only place in the manuals that references a half hitch to finish a cleat hitch is the discussion regarding securing an Anchor line to a Bit, Samson's Post or Standard cleat. They do not illustrate or note that a half hitch or weather hitch is to be used on any other cleat.

ARGUMENT

Both Seamanship manuals refer to a STANDARD cleat. Most OPFACs are recreational vessels and very few are equipped with large Standard Cleats. A smaller cleat usually does not provide the space for "two or more figure "8" wraps" and a couple round turns as we see done by regular C.G. boat crews. When a facility has Standard cleats large enough to accommodate two or more figure "8s" and two or three round turns, they might be used. Most facilities, however, have smaller cleats and it would be more prudent to take two turns around the horns of the cleat and finish with a half hitch/weather hitch as recommended by CHAPMANS. Remember though, when placing of removing any hitch on a loaded line, there is always a chance of getting fingers caught. Always do so with caution.

II. DISCUSSION: **PLACING THE "EYE" OF TOW LINES ON THE TOW DURING A SIDE TOW**

Placing the "eye" of the tow line on the towed vessel can impede rescue should the distressed vessel begin to sink. If the towed vessel begins to sink and must be let go, the tow lines will be carried away with the vessel. The lines floating in the water around the sinking vessel can foul the rescue vessels propellers. Therefore, we should place the "eye" of the tow lines on the facility then pass the lines to the distressed vessel, loop around their cleats, then bring them back and tie off on the facility, a sinking vessel can be let go and the lines brought back aboard the facility. A rescue can then proceed unabated.

ARGUMENT

Most facilities are recreational vessels as stated above. They are usually not equipped with large standard cleats. In most cases there is not enough room on our cleats to place an "eye" and, wrap and finish off the lines. History has shown that Auxiliary Facilities use a side tow for very short distances to a dock or moorage in calm water. If a towed vessel begin to take on water it will probable be notice during the End Tow evolution. The priority then would be the safety of persons on the tow. If a distressed vessel is sinking the priority would be to remove the person from the vessel, not take it into a tow. If it begins to take on water during a tow and the flow can not be mitigated, consider removing persons from the sinking vessel then moving it into shallow water if you can do so safely.

III. DISCUSSION**: TYING OFF THE No. 4 LINE TO THE OUTSIDE CLEAT CAN CAUSE A ROLL-OVER**

Passing the #4 line to the outside stern cleat of a tow to pull in the stern during a side tow can put enough tension on the line to cause a roll-over of the tow and/or the towing vessel in certain sea conditions. The #4 line should be connected to the nearside stern cleat of the tow to avoid this

condition.

ARGUMENT

This condition is unheard-of during side tows, such as we conduct, on flat waters over short distances. It is extremely unusual even in the unpredictable sea found offshore and on the open ocean traveled by Deep Sea Tug. By attaching the #4 breast line to the outside stern cleat of a towed vessel two important things occur. First, you have removed one line from the inside stern cleat leaving only the #2 or Tow Strap attached. Most recreational boats are equipped with small un-reinforced and non backed cleats. Most are not even through bolted but, are attached with screws. To place the #2 and #4 on such a cleat can create a hazard. Should the cleat break free under the tension of towing, serious injury could occur.

CONCLUSIONS

We must first remember our safety priorities: 1st Crew members, 2nd Aid to Distressed persons then, 3rd Property. Most of our OPFACs will not have large standard cleats. Most of the boats we will tow will have small un-backed and poorly attached cleats; if they have cleats at all. Using the bow trailer eye will be the best place to make an attachment and is the best place to hook-up for stern tows. The stern tow is the most common and most often used by Auxiliary Operational Facilities. We can tow a vessel to a safe harbor, in many cases, without evolving to the side tow, by slinging or using the current and/or wind to side slip to a dock. Side tows present a number of concerns. The evolution to side tows must be choreographed in such a way as to avoid injury to personnel and damage to property. Considering the condition of most boat cleats it is better to use more cleats than less to spread forces and stress. Starting from the bow and counting to the stern the **Facilities** tow lines and cleats are numbered 1 through 4. No. 1 line was the tow line during the end tow evolution but, is brought forward to become the #1/Bow line during a side tow. The #2 line is also called the Tow(ing) Strap while the #3 line can be called the Backing Strap. The #4 Stern line attached and pulling from the off side cleat, is able to pull the sterns together with less tension load due to the angle than if pulling from the near cleat, in which case, it will act more like a #3/Backing Strap. Working together the #1 and #4 adjusts and maintains the angle between the distressed vessel and the OPFAC under side tow. The #4 can not do this very well if assigned to the near cleat. Pulling from the near stern cleat of a distressed vessel which is already occupied by the tow strap, may cause a catastrophic load to that cleat if it has not been properly attached and backed.