

**EFFECT OF DOWNFLOODING**

A vessel can be designed with a substantial amount of righting energy and a broad range of stability. Yet, these design features may be all for naught if the fishing vessel operator doesn't maintain the watertight integrity of his vessel, and allows premature downflooding to occur. Downflooding is defined as the entry of water into the hull which results in progressive flooding and the

loss of stability.

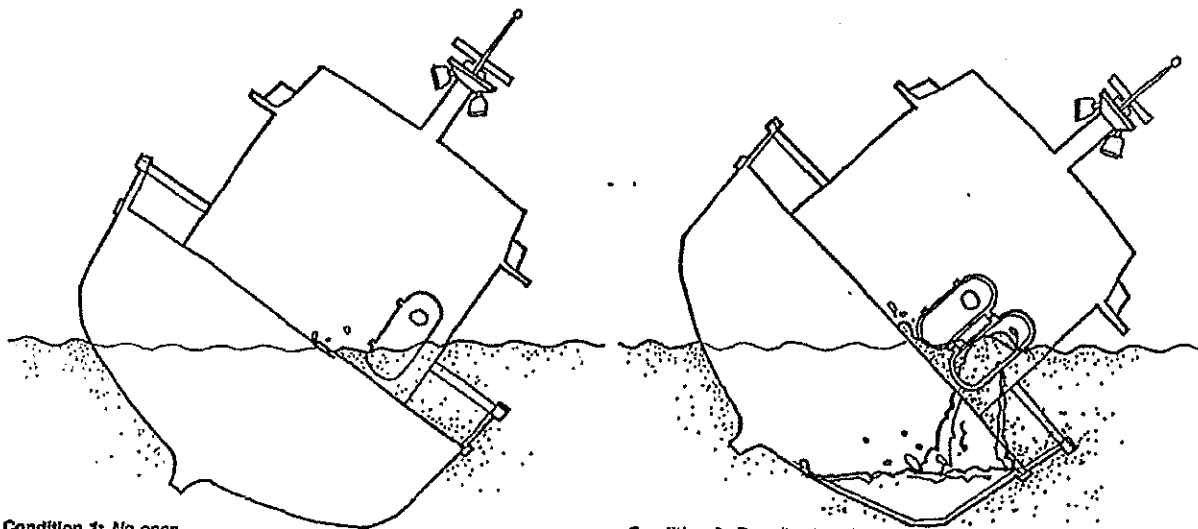
Figure 10 shows the sample vessel with two different downflooding points considered. In condition 1, all doors, hatches and vents are properly secured, thereby allowing the vessel to develop its full righting energy. Condition 2, on the other hand, shows a door left open allowing flooding to occur as soon as the door is immersed. Although the hull has significant

righting energy available, it cannot be fully used if the vessel takes on water.

The importance of closing off openings, particularly in heavy weather cannot be overemphasized. If operators make it a practice to maintain this integrity, it really does become a habit, which significantly improves the chances of survival in heavy weather conditions. Operators should be aware of the status of all watertight

closures at all times. They should be closed, except when actually being used, to maintain both the watertight integrity and the stability of the vessel. Potential downflooding points include doors into engine room and crew spaces, hatches into fish wells or lazarettes, port-holes and any other openings through which water can gain entry.

Figure 10. Effect of Downflooding Height on Righting Energy



Condition 1: No open downflooding points

Condition 2: Downflooding thru open door

