

In the event of heavy icing, extreme caution must be used when deciding whether to turn away from the wind and run with the seas to avoid further ice buildup. The already-topheavy vessel will then be exposed to beam seas and heeling inertias during the turn, and then following seas after the turn. The following seas will not pass as quickly as head seas, leaving the vessel perched on wave crests at times, causing a potentially serious reduction in stability. (See page 5-14 concerning the effects of following seas.)

• DOWNFLOODING

The stability data presented in this report are based on the assumption that the vessel is watertight up to the main and focsle decks. The downflooding angle is the angle at which uncontrolled flooding will occur. If all watertight doors and hatches are secured, the first downflood point will be the engine room vents in the stack, above the focsle deck, which would not flood until about 80-85. of heel. However, if hatches or weather doors are left open, downflooding could occur much sooner. (See page 5-9 concerning the effects of downflooding.)

• WATER ON DECK

Water on deck has four detrimental effects on stability: It adds to the weight of the vessel and reduces freeboard, raises the center of gravity, creates a free surface, and can cause increased roll acceleration and angles. Therefore, it is important to keep all freeing ports clear and operable at all times, and to avoid excessive trim by the stern.

The size and number of freeing ports on "DESTINATION" meet the Coast Guard regulations for fishing vessels (46 CFR 28.555), and must not be blocked or reduced in size in any way. The Coast Guard criterion for water on deck (46 CFR 28.565) is also satisfied.

• BEAM WINDS AND ROLLING

Operation in beam seas can have two adverse effects on the vessel. One is that the vessel ships water on deck more readily. The other is that a vessel can be rolled past its range of positive stability. "DESTINATION" passes the Coast Guard criteria for Severe Wind and Roll (46 CFR 28.575) for operation on open waters, in all conditions of loading in this report.

• UNINTENTIONAL FLOODING

"DESTINATION" is *NOT* designed to meet any particular standards for uncontrolled flooding of the vessel. (The Coast Guard criterion in 46 CFR 28.580 is only applicable to new vessels.) In the event of damage to the hull, it is imperative to determine the extent and location of damage in order to stop or reduce the rate of flooding.