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NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 02-11

Subj: NAVIGATION AND AVIATION SAFETY WITH THE USE OF KITE PROPULSION SYSTEMS

1. PURPOSE. To address safety concerns with the use of kite propulsion systems.

2. ACTION. All vessels should take special care when navigating with or near vessels using a kite propulsion system as outlined below. Additionally, aircraft operating at low altitudes in the marine environment should be made aware of the potential for encounters with tethered kite propulsion systems.

3. DIRECTIVES AFFECTED. None.

4. DISCUSSION.

   a. Technological advancements to reduce the consumption of fuel in the maritime industry are rapidly being developed. One such technology uses a kite tethered to a vessel to augment ship's propulsion and reduce fuel consumption. While the Coast Guard applauds and encourages the use of fuel conservation techniques, use of this technology also introduces navigation and aviation safety concerns whenever these devices are used.

   b. Current designs provide for the kite to operate between 300 feet and 2,000 feet altitude. Maritime patrol, search and rescue, and logistics aircraft operate at these altitudes in many locations in all the world's oceans. These aircraft, whether operating from ashore, a vessel, or an offshore structure, can appear at sea without notice.

5. PROCEDURES.

   a. The Coast Guard recommends that all vessels that employ kite propulsion systems do so with the utmost care and with regard to possible interactions the kite may have with other vessels and low-flying aircraft. Vessel operators should consider taking precautions to guard both aviation and navigation safety. Precautions to consider include:

      (1) Marking the kite and its tether to improve day and night visibility;

      (2) Not using kite propulsion systems when in or near an area of restricted visibility; and

(3) When using a kite propulsion system near shore, an offshore structure or artificial island, consider contacting shore-side authorities or facility operators to advise that the kite is or will be in use, and at what height it will be flying.

b. Kites may limit the maneuverability of the vessel using them and could entangle with nearby vessels or offshore structures. Further precautions for vessels to consider include:

(1) Deploying, recovering or using the kite only in areas where the ship's maneuverability is not restricted and where use of the kite will not impede the passage of another vessel.

(2) Making periodic Securité Broadcasts when the kite is deployed and when in sight of other vessels.

6. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS. Environmental considerations were examined in the development of this Circular and have been determined not to be applicable.

7. FORMS/REPORTS. None.

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