



16710/P008259  
Serial: H1-1304066  
December 5, 2013

Walworth Yacht Designs PC  
Attn: Mr. David Walworth  
PO Box 3792  
Kingshill, VI 00851

Subj: ISLAND FLYER, O. N. 1131233  
Gold Coast Yachts, Inc. Hull No. GCY65WPCH202  
65' x 24' x 7' Small Passenger Catamaran (T)  
67 Passengers / Exposed Waters  
Revised Stability

- Ref:
- (a) Walworth Yacht Designs (WYD), "Weight Change Calculations," received October 23, 2013
  - (b) WYD, "Stability Calculations," 21 files, received November 04, 2013
  - (c) WYD, "Stability Calculations," 3 files, received November 22, 2013
  - (d) WYD, "Stability Calculations," 17 files, received November 27, 2013
  - (e) WYD, "Stability Calculations," 3 files, received December 02, 2013
  - (f) Marine Safety Center Technical Note 04-95, "Lightship Change Determination; Weight-Moment Calculation vs. Deadweight Survey vs. Full Stability Test," dated May 11, 1995
  - (g) Stability Letter for ISLAND FLYER, O. N. 1131233, dated October 28, 2002
  - (h) Revised Stability Letter for ISLAND FLYER, O. N. 1131233, dated May 22, 2003

Dear Mr. Walworth:

We reviewed references (a) through (e), received with your electronic correspondence dated between October 23 and November 04, 2013, for compliance with applicable stability regulations of 46 CFR Subchapters T and S and reference (f). Accordingly, references (a) through (e) are "**Examined.**" Supporting calculations such as these are not normally approved; however, the information was used to verify the vessel's compliance with applicable stability requirements. As with all calculations, the responsibility for their accuracy rests with the submitter. The following comments apply:

1. In accordance with the guidance of reference (f), deadweight surveys are generally required when the total aggregate weight change (sum of weights added, weights relocated, and weights removed) exceeds 2% of the lightship displacement last determined by test or when the longitudinal center of gravity (LCG) shifts by more than 1% of the vessel's length between perpendiculars (LBP). The most recent modifications for the subject vessel include adding fixed ballast on the main deck, adding a railing to the top deck, and installing reinforcement beams in the overhead of the deckhouse. As the weight and center of gravity of the fixed ballast is known, it is not included in the aggregate weight calculations. The following table identifies all aggregate weight and LCG changes since the date of the last stability test (excluding easily identifiable weights):

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Date	Modification	Aggregate Weight Change		LCG Shift		VCG Shift
		(LT)	(%)	(ft)	(% LBP)	(ft)
05/22/2003	Fixed Ballast	0.00	0.00%	0.02 fwd	0.03%	0.01 down
10/03/2013	Upper Deck Additions	0.14	1.01%	0.01 fwd	0.02%	0.05 up
<b>Total to date:</b>		0.14	1.01%	0.01 fwd	0.02%	0.05 up

These changes fall below the limits outlined in reference (f) and, therefore, a new stability test is not required at this time.

3. Any future weight changes evaluated must include the total aggregate weight changes from the lightship values of the last stability test, not just from the approved lightship characteristics determined by the calculations in reference (a). The lightship values from the last stability test are:

Displacement	14.02 Long Tons (LT)
VCG	5.10 Feet Above the Design Water Line (DWL)
LCG	37.27 Feet Aft of the Bow

The DWL is located 2 feet 1-3/4 inches above the keel at amidships. Amidships is located 31 feet 11 inches aft of the bow.

4. Due to the addition of passengers to the upper deck, new stability calculations were provided in references (b) through (e). Based on our review of the stability calculations using the revised lightship incorporating all weight changes, we concur that the subject vessel has adequate stability in all indicated conditions of loading and operation for service with up to 67 passengers, assuming an average weight of 185 pounds per person, on an Exposed Waters route.

5. Your review indicates that the subject vessel does not comply with the requirement of 46 CFR 170.173(c)(2) (maximum righting arm occurring at a heel angle greater than 15 degrees). However, your calculations demonstrate that the vessel possesses other intact stability characteristics (magnitude of righting arms, righting energy, and range of stability) so far in excess of the requirements, that the actual location of the maximum righting arm is not critical. We concur with your proposal that these characteristics provide an equivalent level of safety to the requirements of the regulations, in accordance with 46 CFR 170.010.

6. We note that the location of the collision bulkhead of the subject vessel is not in compliance with 46 CFR 179.310, which stipulates that the collision bulkhead be no more than 15% of the Length Between Perpendiculars (LBP) aft of the Forward Perpendicular (FP). The subject vessel's collision bulkhead is 34.4% of the LBP aft of the FP; however, in this particular case, the subject vessel's structural arrangement permits a substantial margin of safety after flooding the forwardmost compartments. We consider this to be an equivalent level of safety in accordance with 46 CFR 170.010.

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10. FREEING PORTS: Deck freeing ports and drains shall be maintained operable and completely unobstructed at all times.

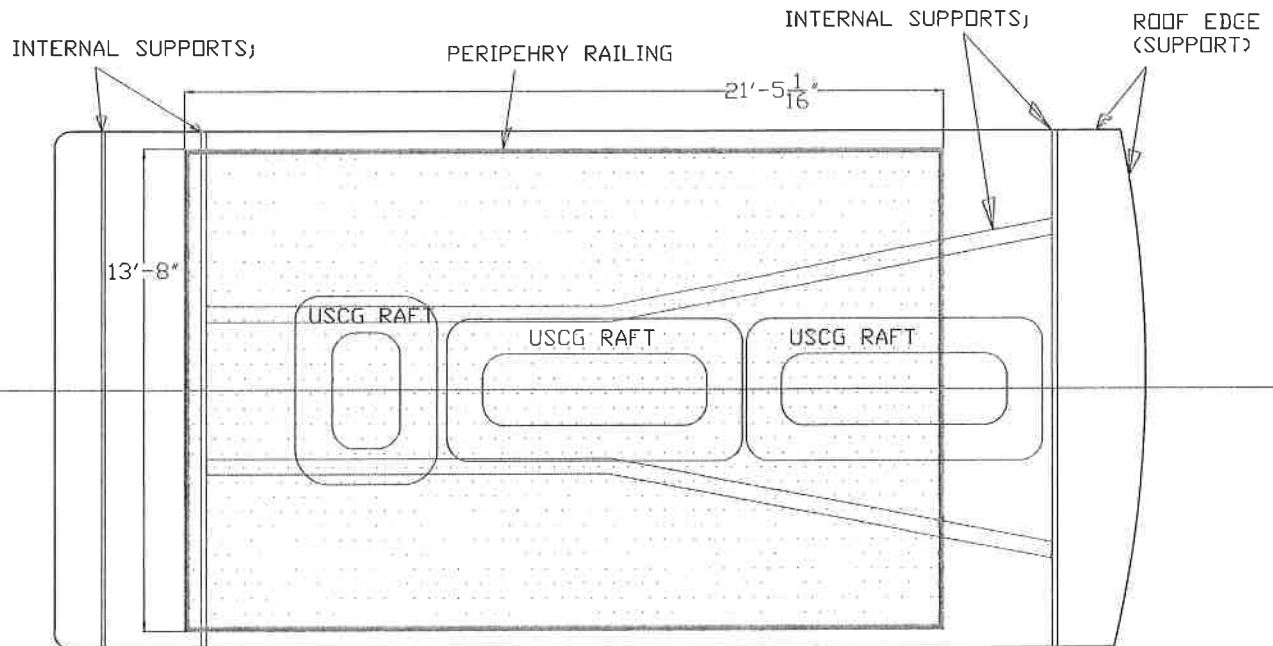
This stability letter shall be posted under glass or other suitable transparent material at the operating station so that all pages are visible. It supersedes any stability information previously issued to the vessel.



K. B. FERRIE  
Commander, U. S. Coast Guard  
By direction



ISLAND FLYER  
SCALE; 1/4"=1'  
AUGUST 20th, 2013



PROPOSED ROOF AREA FOR PASSENGERS; 13'8" x 21'5".



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These changes fall below the limits outlined in reference (f) and, therefore, a new stability test is not required at this time.

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5. Your review indicates that the subject vessel does not comply with the requirement of 46 CFR 170.173(c)(2) (maximum righting arm occurring at a heel angle greater than 15 degrees). However, your calculations demonstrate that the vessel possesses other intact stability characteristics (magnitude of righting arms, righting energy, and range of stability) so far in excess of the requirements, that the actual location of the maximum righting arm is not critical. We concur with your proposal that these characteristics provide an equivalent level of safety to the requirements of the regulations, in accordance with 46 CFR 170.010.

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7. In accordance with 46 CFR 185.602, the subject vessel is required to have draft marks or loading marks. It appears that the vessel does not have either of these markings. This issue shall be resolved to the satisfaction of the cognizant OCMI. If draft marks or loading marks are installed at a future date, the limiting drafts as read on those marks must be submitted to this office. At that time, we will revise the stability letter accordingly.


Enclosure (1) is the subject vessel's revised stability letter. The revised lightship values, incorporating all weight additions and removals since the last stability test, are included in enclosure (1). The vessel's owner is responsible for ensuring that enclosure (1) is posted under glass or other suitable transparent material at the operating station/pilothouse of the vessel so that all pages are visible. It supersedes any stability information previously issued to the vessel.

As an agreed upon condition for your participation in the Marine Safety Center's electronic commerce program, please provide the OCMI with a paper copy of references (a) through (e). Should you need stamped copies for your files, please submit the appropriate number of copies to this office for that purpose.

Our Project Number for this vessel is P008259. Please ensure that future correspondence includes the Project Number and Official Number that appear in the subject line.

Should you have any questions about the above comments, please feel free to contact the project officer, Lieutenant Adam J. Paz, at the phone number listed above.

Sincerely,



M. E. SINCLAIR  
Lieutenant, U. S. Coast Guard  
Chief, Small Vessel Branch  
By direction

Encl: Revised Stability Letter for ISLAND FLYER, O. N. 1131233, dated  
December 5, 2013

Copy: Commander, Coast Guard Sector San Juan, Prevention Department

