ALTERNATE COMPLIANCE PROGRAM

Addendum to US Supplement Rev. 1.0, approved November 21st 2003

For Passenger Catamaran Vessels certificated or to be certificated under 46 CFR Subchapter H

Lloyd's Register Rules and Regulations for the Classification of Special Service Craft, July 2003

ADDENDUM TO ANNEX
to the
MEMORANDUM OF AGREEMENT
between the
UNITED STATES COAST GUARD
and
LLOYD'S REGISTER

GOVERNING PARTICIPATION IN THE ALTERNATE COMPLIANCE PROGRAM AND THE DELEGATION OF CERTAIN SURVEY AND CERTIFICATION SERVICES FOR UNITED STATES OF AMERICA FLAGGED VESSELS

Section 11.1: Scope

This document consists of Section 11 of the Alternate Compliance Program U.S. supplement to Lloyd's Register's Rules and Regulations for the Classification of Ships, Rev. 1.0, approved on 23 November 2003 and in addition to the other requirements of this supplement is only applicable to Passenger Catamaran Vessels operating in displacement mode, certificated or to be certificated under 46 CFR Subchapter H subject to all International Conventions (SOLAS, MARPOL, Load Line) of steel or equivalent construction and classed in accordance with Lloyd's Register's Rules and Regulations for the Classification of Special Service Craft, July 2003, with the following minimum classification notation:

100A1 SSC Passenger Catamaran
or
✠100A1 SSC Passenger Catamaran

Section 11.2: Use of Lloyd's Register Rules and Regulations for the Classification of Special Service Craft.

The Lloyd's Register Rules and Regulations for the Classification of Special Service Craft (SSC Rules) covers the structural design, watertight integrity and standard of construction of the hull and construction, installation and testing of the propulsion machinery, essential auxiliary machinery, essential piping and electrical systems to the extent indicated for various ship and hull types not covered by the Lloyd's Register Rules and Regulations for the Classification of Ships (Ship Rules).

However, the requirements contained in this Supplement are intended to be applied together with the Ship Rules and the international conventions. Accordingly, this section describes those portions of the SSC Rules that are substituted for portions of the Ship Rules for application to passenger catamarans classed under the SSC Rules and assigned service notation.

Where any aspect of the design or construction is not covered by the SSC Rules, the relevant requirements of the (Lloyd's Register) *Rules and Regulations for the Classification of Ships* will be applied as considered necessary, in accordance with SSC Rules, Part 1, Ch. 2, §2.1.6. In general, the structural requirements contained in the Lloyd's Register SSC Rules are based on direct (first principle) calculations rather than the empirical approach taken in the Lloyd's Register Ship Rules. The Engineering Systems (Machinery and Piping); Electrical and Control Engineering parts of the Lloyd's Register SSC Rules are based from a technical standpoint on the Lloyd's Register Ship Rules modified to account for multi-hulled vessels and high speed light displacement craft.

The arrangements and equipment of a passenger vessel classed by the SSC Rules are required to comply with the applicable requirements of the following international conventions:

- International Convention on Load Lines, 1966, as modified by the 1988 Protocol relating thereto;
- International Convention for the Safety of Life at Sea, 1974, as amended;
- International Convention for the Prevention of Pollution from ships, 1973, as modified by the Protocol of 1978 relating thereto,

The following listing delineates the parts of the Lloyd's Register SSC Rules which are substituted for the Lloyd's Register Ship Rules subject to system specific requirements referenced in Section 11.3 of this Addendum:

- Part 1, Chapter 1 to 3 for LR Ship Rules Part 1, Chapters 1 to 3
- Part 3, Chapter 1, Part 5, Chapter 1, Part 6, Chapter 1 for LR Ship Rules, Part 3, Chapter 1
- Part 3, Chapter 2 for LR Ship Rules, Part 3, Chapter 3
- Part 3, Chapter 3 and Chapter 5 for LR Ship Rules, Part 3, Chapter 13.
- Part 3, Chapter 4, for LR Ship Rules, Part 3, Chapter 11
- Part 5, Chapters 2, 4 and 5 and; Part 6, Chapters 3, 4 & 7 for LR Ship Rules, Part 3, Chapter 5 to 7.
- Part 6, Chapter 2, for LR Ship Rules, Part 3, Chapter 10.
- Part 6, Chapter 3, for LR Ship Rules, Part 3, Chapter 8
- Part 6, Chapter 5, for LR Ship Rules, Part 3, Chapter 9
- Part 6, Chapter 5 for LR Ship Rules, Part 4, Chapter 2

The following listing delineates the parts of the Lloyd's Register SSC Rules which are to be complied with in addition to the Lloyd's Register Ship Rules for Ship and Machinery Piping Systems:

- Part 15, Chapter 2, Section 12 "Multi-Hull Craft Requirements"
- Part 15, Chapter 3, Section 8 "Multi-Hull Craft Requirements"

Section 11.3: Additional Requirements for SOLAS Passenger Catamaran vessels classed under Lloyd's Register SSC Rules.

The vessel's Service Restriction and significant wave height for design purposes are to be mutually agreed with the USCG Marine Safety Center and the OCMI.

46 CFR 71.50-3 Drydock examination, internal structural examination, underwater survey, and alternate hull exam intervals.
Vessels must undergo a drydock and internal structural examination once every 12 months unless approved to undergo an underwater survey in lieu of drydocking as per 46CFR71.50-5.

46 CFR 72.10: Means of Escape
Reference is made to Section 4.1 & 9.1 of the Supplement and additionally as follows:

46 CFR 72.10-45: Weather deck communications.

(a) Vertical communication shall be provided between the various weather decks by means of permanent inclined ladders. Where ladders are for the exclusive use of the crew for rapid communication and do not form part of a normal escape route, vertical ladders may be employed.

46 CFR 72.15: Ventilation
46 CFR 72.15-10: Vessels using fuel having a low flash point of 110 deg F or lower
For craft having oil fuel with a flash point below 110°F the arrangements for the storage, distribution and utilisation of the oil fuel are to be such that the safety of the craft and persons on board is preserved, having regard to fire and explosion hazards. The arrangements are to comply with the following requirements:-

Tanks for the storage of such oil fuel are to be located outside any machinery space and at a distance of not less than 30 inches inboard from the shell and bottom plating, and from decks and bulkheads. (Reference is made to SSC Rules Part 15, Chapter 3, §5.1.2)

The spaces in which oil fuel tanks are located are to be mechanically ventilated using exhaust fans providing as per the table below

Size of Space	ft^3	Minutes per air Change
Over	Not Over	
--	500	2
500	1000	3
1000	1500	4
1500	--	5

Exhaust blower motors shall be outside of the ducts, and if mounted in any compartment required to be ventilated by this section, shall be of the explosion proof type. Blower blades shall be non-sparking with reference to their housings.

The outlets for such exhausts are to discharge to a safe position.

Exhaust blower switches shall be located outside of any space required to be ventilated by ths section and shall be of the type interlocked with the ignition switch so that the blowers are started before the engine ignition is switched on. A red warning sign at the switch shall state that the blowers shall be operated prior to starting the engines for a sufficient time to insure at least one complete change of air in the compartments served.

The area of the ducts shall be such as to limit the air velocity to a maximum of 2,000 feet per minute. Ducts may be of any shape, provided that in no case shall one dimension exceed twice the other.

At least two inlet ducts shall be located at one end of the compartment and they shall extend to the lowest part of the compartment or bilge on each side. Similar exhaust ducts shall be led to the mechanical exhaust system from the lowest part of the compartment or bilge on each side of the compartment at the end opposite from that at which the inlet ducts are fitted.

All ducts shall be constructed of non-ferrous metal or galvanized ferrous metal not less than No. 22 USSG, intact and gastight from end to end and shall be of substantial construction. The ducts shall lead as direct as possible and be properly fastened and supported.

All supply ducts shall be provided with cowls or scoops having a free area not less than twice the required duct area. When the cowls or scoops are screened, the mouth area shall be increased to compensate for the area of the screen wire. Dampers of the supply ducts are to be interlocked to the exhaust fans to remain always open except in the event of a fire. Cowls or scoops shall be kept open at all times except when the stress of weather is such as to endanger the vessel if the openings are not temporarily closed. Supply and exhaust openings shall not be located where the natural flow of air is unduly obstructed, or adjacent to possible sources of vapour ignition, nor shall they be so located that exhaust air may be taken into the supply vents.

A fixed vapour detection system is to be installed in each space through which oil fuel lines pass, with alarms provided at a continuously manned control station. (Reference is made to SSC Rules Part 15, Chapter 3, §5.1.4)

Safe and efficient means of ascertaining the amount of oil fuel contained in any tank is to be provided. Gauge glasses are not to be used. Other means of ascertaining the amount of oil fuel contained in any tank may be permitted if such means do not require penetration below the top of the tank, and providing their failure or overfilling of the tanks will not permit the release of oil fuel. (Reference is made to SSC Rules Part 15, Chapter 3, §5.1.5)

Vessel to shore oil fuel connections are to be of closed type and suitably grounded during bunkering operations. (Reference is made to SSC Rules Part 15, Chapter 3, §5.1.6)

Air pipes shall discharge to a safe position and terminate with flame arresters in accordance with MSC. Circ./677. (Reference is made to SSC Rules Part 15, Chapter 3, §5.1.7)

76 CFR 72.15-20 Ventilation for crew quarters and passengers spaces.

(a) All crew and passenger spaces shall be adequately ventilated in a manner suitable to the purpose of the space.
(b) Reference is made to Section 4.1 of the Supplement (46 CFR 92.15-15(b)).

46 CFR 72.25 - Passenger Accommodations

46 CFR 72.25-10: Location of Passenger Quarters

(a) Deck forming the deckhead of passenger quarters/accommodation between adjacent watertight bulkheads shall not be below the deepest load line at any point within the watertight compartment in question.

46 CFR 72.25-15 Passenger Accommodations for excursions boats, ferryboats and passenger barges.

(a) Separate public toilet spaces shall be provided for male and female passengers with at least the minimum equipment in each based upon the number of passengers permitted to be carried as set forth below:

Number of Passengers			
Over	**Not Over**	**Toilets**	**Washbasins**
0	100	1	1
100	300	2	1
300	500	3	2
500	1000	4	2
1000	1500	5	3
1500	2000	6	3
2000	2500	7	4
2500	3000	8	4
3000	3500	9	5
3500	4000	10	5
4000	…..	Additional by extrapolation	Additional by extrapolation

(b)In men's spaces, urinals may be substituted for toilets, provided at least one-half the required toilets are fitted.

(c) On ferryboats and barges having a short run, passenger toilet facilities need not be fitted.

46 CFR 72.40-10 Storm Rails
(a) Suitable storm rails shall be installed in all passageways and at the deckhouse sides where passengers or crew might have normal access. Storm rails shall be installed on both sides of passageways which are 6 feet (1829 mm) or more in width.

46 CFR 72.40-25 Vehicular Ferries
(a) On vehicular ferries, suitable chains, cables or other barriers shall be installed at the ends of the vehicle runways. In addition suitable gates, rails or other devices shall be installed as a continuation of the regularly required rails.

46 CFR 72.40-20 Guards in dangerous places
(a) Suitable covers, guards, or rails shall be installed in way of all exposed and dangerous places such as gears, machinery, etc..

46 CFR 76: Fire Protection Equipment.
Reference is made to Sections 5.1, 5.2 & 9.1 of the supplement specifically and additionally as follows:

Fire Rated windows are not currently covered under the Mutual Recognition Act (MRA). Therefore, A and B-class fire rated windows must be subject to the testing set forth in the IMO Fire Test Procedures Code, Annex, Chapter 3, and must comply with the following table for hose stream and thermal radiation tests:

Window Area	Fire Rating	Hose Stream Test Required?	Heat Flux Test Required?
≤645cm^2	A-Class	No	No
≥645cm^2	A-Class	Yes	Yes
≥645cm^2	A-0	Yes	No
≤645cm^2	B-15	No	No
≥645cm^2	B-15	No	Yes
Any Dimension	B-0	No	No

46 CFR 76-05-20 (Table 76.05-1(a))
A CO_2 fixed fire extinguishing system being installed for protection of the enclosed ventilating systems for motors and generators of electric propelling machinery.

46 CFR 76.17 Foam Extinguishing Systems, Details
Where a fixed low expansion foam extinguishing system is installed for the protection of Machinery Space bilges it shall comply with FSS Code, Annex, Ch. 6, Section 2.3 and the following additional requirements:

46 CFR 76.17-5 Quantity of Foam Required.
(a)(2) Where an installation is made to protect a oil fired boiler installation on a flat which is open to or can drain to the lower engine room or other space, both the flat and the lower space shall be protected simultaneously. The flat shall be fitted with suitable coamings on all openings other than deck drains to properly restrain the oil and foam at that level.
(c)(2) A separate supply of foam agent need not be provided for each space protected. The total available supply shall be at least sufficient for the space requiring the greatest amount.
(c)(3) Where pumps are required, the water supply shall be from outside the space protected and shall in no way be dependent upon power from the space protected.

46 CFR 76.17-10 Controls
The foam agent, its container, and all controls and valves for the operation of the system shall be of an approved type.
Where system pumps are required, it shall not be necessary that they be started from the control space.
Complete, but simple instructions for the operation of the system shall be located in a conspicuous place at or near the controls.
Foam apparatus, the control cabinets or spaces containing valves or manifolds for the various fire extinguishing systems shall be distinctly marked in conspicuous red letters at least 50 mm (2 in) high "FOAM FIRE APPARATUS".

46 CFR 76.17-15 Piping
Piping, valves and fittings shall meet the applicable requirements of LR Rules, Part 5, Ch. 12 as modified by the requirements of the supplement.

All piping valves and fittings of ferrous materials shall be protected inside and outside against corrosion unless specifically approved otherwise.

Materials readily rendered ineffective by heat of a fire shall not be used.
All piping, valves, and fittings shall be securely supported, and where necessary, protected against injury.
Drains, strainers and dirt traps shall be fitted where necessary to prevent the accumulation of dirt or moisture.
Threaded joints shall be metal to metal, with no thread compound used.
Distribution piping shall be used for no other purpose.
All piping shall be thoroughly cleaned and flushed before installation of the discharge outlet.

46 CFR 76.17-20 Discharge Outlets
Discharge outlets shall be USCG approved.

46 CFR 76.60 Fire Axes
Requirements of this part are satisfied by the provision of Fire Fighters outfits and personal protective equipment in accordance with SOLAS II-2/10.10 and FSS Code Ch. 3, Section 2.1.

46 CFR 56.50-50 Bilge and Ballast System: –
Each hull of vessel with more than one hull must have at least two means for pumping the bilges in each hull.
For multi-hull craft the value of molded **Breadth**, *B* used in evaluation of the bilge main sizing and capacity is as defined in *Part 3, Ch. 1, §6.2.7*., LR SSC Rules as the greatest moulded breadth, in metres for multi-hull craft it is to be taken as the sum of the breadths of the individual hulls.

Where the bilge system in each hull is entirely separate, then each hull bilge system should comply with the requirements of Part 5, chapter 13, section 3 to 8 of the Rules and Regulations for Classification of Ships and the current Lloyds Register-USCG Supplement.

46 CFR 52 Power Boilers
Power boilers are to be designed, constructed, inspected and tested in accordance with ASME Section I with additional requirements and modifications as specified in 46 CFR 52. Automation, installation and inspection shall comply with the requirements of Part 5, Chapter 10 of the Ship Rules or the ASME Code

46 CFR 53 Heating Boilers
Heating boilers are to be designed, constructed, inspected and tested in accordance with ASME Section IV with additional requirements and modifications as adopted in 46 CFR 53. Automation and installation and inspection shall comply with the requirements of Part 5, Chapter 10 of the Ship Rules or the ASME Code Section IV.

46 CFR 78.47-35 Fire Doors.
All doors in main vertical zone bulkheads or stairway enclosures, except from individual rooms such as staterooms, fan rooms, lockers, etc., shall be numbered conspicuously on an etched plate or equivalent in not less than 10mm (3/8 inch) letters and figures ``F. S. D. 1,'' ``2,'' ``3,'' etc. If stenciled or similar notice is used, the letters and figures shall be at least 25mm (1 inch) high. The number shall be conspicuous with the door in the open position