

Kelly Marine Surveyors, Inc.

Marine Surveyor and Consultant

1990 127 foot Kvarner Fjellstrand jet drive catamaran passenger ferry

"Aurora 2000"

Member of the "Society of Accredited Marine Surveyor"

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Report of Marine Survey

Of The Vessel

"Aurora 2000"

1990 127 foot Kvarner Fjellstrand jet drive catamaran passenger ferry

Conducted by
Captain Jim Kelly

Captain Jim Kelly Accredited Marine Surveyor

Quality Power and Sail
50 South Bryan Road
Dania Beach, Florida 33004

Mr. Roger Moore & Mr. Jeff Garcia

March 31, 2017

Member of the "Society of Accredited Marine Surveyor"

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I. INTRODUCTION

SCOPE OF SURVEY

Acting at the request of Quality Power and Sail the attending surveyor did attend onboard the 1990 127 foot Kvarner Fjellstrand jet drive catamaran passenger vessel "Aurora 2000" on March 30th, 2017 where an "In-the-Water-Survey" was conducted at Seminole Marina located at 2208 Idlewild Road in Palm Beach Gardens, Florida. The ship's papers were on board and appeared to be in order. The IMO Number 8911360 was verified from the vessel's documentation. The reason for the survey was to ascertain the physical condition and value of the vessel. DC power was used to check operation of the electrical systems specified in this report only. No reference or information should be construed to indicate evaluation of the internal condition of the engines or the propulsion system's operating capacity. Electronic equipment was checked for "power up" only.

This vessel was surveyed without the removals of any parts, including fittings, anchors and chain, instruments, spare parts and miscellaneous materials in the bilges and lockers, or other fixed or semi-fixed items. Locked compartments or otherwise inaccessible areas would also preclude inspection. Owner is advised to open up all such areas for further inspection. Further, no determination of stability characteristics or inherent structural integrity has been made and no opinion is expressed with respect thereto. This survey report represents the condition of the vessel on the above dates, and is the unbiased opinion of the undersigned, but it is not to be considered an inventory or a warranty either specified or implied.

NOTE: It is recommend and understood that all DIESEL/GAS engines be surveyed by a qualified Engine Surveyor to determine the condition of the engines, gears and pumps, heat exchangers, coolers, etc.

CONDUCT OF SURVEY:

THE MANDATORY STANDARDS PROMULGATED BY THE UNITED STATES COAST GUARD (USCG), UNDER THE AUTHORITY OF TITLE 46 UNITED STATES CODE (USC); TITLE 33 AND TITLE 46, CODE OF FEDERAL REGULATIONS (CFR), AND THE VOLUNTARY STANDARDS AND RECOMMENDED PRACTICES DEVELOPED BY THE AMERICAN BOAT AND YACHT COUNCIL (ABYC) AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAVE BEEN USED AS GUIDELINES IN THE CONDUCT OF THIS SURVEY.

The use of the word "appears" is intended to indicate that a close or complete inspection was not possible or it was not deemed appropriate at the time of this survey. The deficiencies reported herein reflect the conditions observed at the time the survey was conducted.

Use of asterisks * in the body of the report will indicate that a finding will be listed in the *Findings and Recommendations* section pertaining to the asterisked item, following the body of the report.

Note:

An engine surveyor was on board during the hull survey and performed a separate survey on the vessel's propulsion system. Questions about the condition of this system should be addressed to that surveyor.

I. INTRODUCTION

VESSEL DESCRIPTION

1990 127 foot Kvarner Fjellstrand jet drive propulsion passenger catamaran ferry powered by twin MTU 16 cylinder turbo charged diesel engines.

Vessel is operated from the pilothouse with Kawame throttle and jet drive controls.

Vessel's cabin superstructure, decks and hull are constructed of 7/16 inch thick electrical welded aluminum plating.

II. GENERAL INFORMATION

GENERAL INFORMATION

FILE NUMBER: KF-90127-17

SURVEY PREPARED FOR: Quality Power and Sail
50 South Bryan Road
Dania Beach, Florida 33004

NAME OF VESSEL: "Aurora 2000"

TYPE OF SURVEY: Condition Valuation Survey

OVERALL VESSEL RATING:..... **** "Average Condition"

ESTIMATED MARKET VALUE: \$950,000

ESTIMATED REPLACEMENT COST: \$3,800,000

YEAR/MAKE/MODEL OF VESSEL: 1990 Kvarner Fjellstrand passenger
catamaran ferry vessel.

BUILDER: Kvarner Fjellstrand

YEAR BUILT: 1990

MODEL YEAR: 1990

MAKE OF VESSEL: Kvarner Fjellstrand

MODEL OF VESSEL: 182 Passenger Catamaran Ferry Vessel

HULL IDENTIFICATION NUMBER (HIN): IMO Number: 8911360

HOME PORT: Republic of Panama
Panama Canal Zone

HAILING PORT: Palm Beach Gardens, Florida

OFFICIAL NUMBER: IMO Number: 8911360

USCG DOCUMENTATION NUMBER: IMO number : 8911360

PLACE OF SURVEY: Seminole Marina
2208 Idlewild Road
Palm Beach Gardens, FL

DATE/TIME OF SURVEY: March 30, 2017

HULL MATERIAL: 7/16 inch thick electrical welded
aluminum

II. GENERAL INFORMATION

HULL TYPE:	Catamaran
LENGTH OVER ALL (L.O.A.):	127 feet
BEAM:	30.9 feet
DRAFT:	5 Feet 3 Inches
GROSS TONS:	442 Ton
NET TONS:	156 Tons
PROPULSION SYSTEM:	Twin MTU 16 cylinder Turbo charged diesel engines
FUEL TYPE:	Diesel Fuel
FUEL CAPACITY:	Port and starboard fuel tanks capacities are 1,728 gallons of each.
AC POWER:	115 V.A.C.\ 230 V.A.C.
DC POWER:	12 V.D.C\ 24 V.D.C.
FRESH WATER CAPACITY:	Port and starboard total capacity for potable water is 456 gallons.
INTENDED USE/BUYER:	Passenger ferry vessel.
BUYER'S EXPERIENCE:	License Captain aboard
INTENDED CRUISING AREA:	Florida waters and Bahama Island waters.
INTENDED USE:	Passenger ferry boat.

II. GENERAL INFORMATION

DEFINITION OF TERMS:

The terms and words used in this report have the following meanings as used in this Report of survey:

APPEARS:

Indicates that a very close inspection of the particular system, component or item was not possible due to constraints imposed upon the surveyor(e.g. no power available, inability to remove panels, or requirements not to conduct destructive tests).

FIT FOR INTENDED USE:

Use which is intended by Survey Purchaser(present or prospective owner).

SERVICEABLE: ADEQUATE:

Sufficient for a specific requirement.

POWERS UP:

Power was applied only. This does not refer to the operation of any system or component unless specifically indicated.

EXCELLENT CONDITION:

New or like new.

GOOD CONDITION:

Nearly new, with only minor cosmetic or structural discrepancies noted.

FAIR CONDITION:

Denotes that system, component or item is functional as is with minor repairs. (MONITOR OFTEN)

POOR CONDITION:

Unusable as is. Requires repairs or replacement of system, component or item to be considered functional.

USE OF *:

Use of * in the body of this report will indicate that a finding will be listed in the "Findings and Recommendations" section pertaining to the * item.

II. GENERAL INFORMATION

DEFINITION OF TERMS: *(continued)*

Asterisks * in this General Information section refers to the source of such information as follows:

- * Per Manufacturer's Specifications
- **Refer to Summary and Valuation Section
- *** Per USCG Documentation
- **** Per Buc Book

III. SYSTEMS

HULL DECK AND SUPERSTRUCTURE

HULL CONSTRUCTION

TYPE:

Catamaran with sharply raked bow stems semi-V planing hull with hard chines.

MATERIAL:

7/16 inch electrical welded aluminum plating.

EXTERIOR HULL:

Port and starboard hulls are painted blue with white painted cabin super structure.

BULKHEADS:

7/16 inch electrical welded aluminum plated bulkheads.

STRINGERS:

Hull stiffness provided by aluminum longitudinal stringers. Complete inspection not possible due to limited access. Appears serviceable where observed.

STEM:

Sharply raked port and starboard bow stems.

TRANSOM:

Port and starboard square transoms.

BILGE:

Deep (below decks) bilge area provides the area for most boat systems and tankage.

CHAIN LOCKER (DRAINAGE):

Anchor chain locker center bow deck.

LIMBER HOLES:

Limber holes are of adequate size and clear where sighted.

FRAMES (RIBS):

Aluminum frames (ribs). Appeared serviceable where sighted.

DECK CONSTRUCTION

TYPE:

Decks are 7/16 inch thick electrical welded aluminum plating.

MATERIAL:

Aluminum.

DECK FITTINGS

STANCHIONS:

Aluminum stanchions and safety rails around the perimeter of the bow deck and aft deck.

III. SYSTEMS

HULL DECK AND SUPERSTRUCTURE

DECK FITTINGS *(continued)*

CHOCKS AND CLEATS:

Two Port (2) and two Starboard (2) aluminum bollard type cleats on Bow deck. There are also Port and Starboard 12 inch aluminum horn cleats approximately mid ship.

Two Port (2) and two Starboard (2) aluminum bollard type cleats on Aft deck. There are also Port and Starboard 12 inch aluminum horns clears approximately mid ship.

WINDLASS/GIPSY:

115 V.A.C./230 V.A.C, anchor chain windlass located on the center line bow deck.

HAWSE PIPES:

Aluminum hawse pipe.

DECK SURFACE:

7/16 inch thick electrical welded aluminum plating with anti skid surfaces.

HATCHES:

Anchor chain locker hatch.

ANCHOR PLATFORM:

Aluminum anchor chute with roller assembly.

DAVITS:

Hydraulic davit crane on upper aft deck. Inoperable.

SUPERSTRUCTURE

MATERIAL:

Cabin superstructure is 7/16 electrical welded aluminum plating.

DECK HATCHES:

Anchor chain deck hatch.

WINDOWS/PORTS/DOORS:

Vessels upper deck and lower deck cabins are fitted with forty (40) large tempered tinted viewing safety glass windows.

BRIDGE DECK

MATERIAL:

Upper level passenger seating with aircraft blue fabric/vinyl covered seats. Forward of the passenger seating is the pilot house furnished with electrical adjusting helm seat and port and starboard electrical adjusting copilot's seats.

SEATS:

265 aircraft type fabric/vinyl passenger seats with adjustable head rest.

WINDSHIELD:

Pilot house windshield panels are tempered tented safety glass.

III. SYSTEMS

HULL DECK AND SUPERSTRUCTURE

BRIDGE DECK (*continued*)

SAFETY RAIL SYSTEM:

Tubular aluminum safety rails around the perimeter of bow deck and around the perimeter of upper aft deck and around the perimeter of lower aft deck.

ADDITIONAL EQUIPMENT AND ACCESSORIES

GENERAL EQUIPMENT:

Hydraulic dvt.

DINGHY/TENDERS:

14 foot fiberglass tender powered with Mariner 60 horsepower gasoline outboard engine.

DOCK LINES:

Adequate 2 inch diameter nylon docking lines.

CABIN APPOINTMENTS

INTERIOR DESCRIPTION:

STORAGE AREAS:

Adequate storage for passenger's suite cases and luggage.

HEADLINERS:

Blue fabric cloth headliner in upper level and lower level passenger seating areas.

FABRIC AND CUSHIONS:

Blue fabric cloth/vinyl aircraft type passenger chairs with adjustable head rest.

FLOOR AND WINDOW COVERINGS:

Blue carpet.

HEADS:

Eight (8) head facilities.

LIGHT FIXTURES:

12 volt lighting throughout vessel.

AIR CONDITIONING UNITS:

Vessel's upper deck passenger cabin and passenger lower deck passenger cabin, and the pilothouse are air conditioned.

CABIN HEATING:

The air conditioner units are reverse cycle for heat.

TELEVISIONS:

Upper deck level passenger's cabin and lower deck passenger's cabin have four (4) televisions.

GALLEY

LOCATION:

Lower level deck snack bar.

III. SYSTEMS

CABIN APPOINTMENTS

GALLEY (continued)

SINKS:

Large stainless steel galley sink.

PROPULSION

MAIN ENGINES

TYPE:

Twin MTU turbo charged 16 cylinder diesel engines.

MANUFACTURER:

Twin MTU turbo-charged diesel engines

HORSE POWER:

2000 horsepower

NUMBER OF CYLINDERS:

16 cylinders

THROTTLE CONTROLS:

Kamewa hydraulic jet drive propulsion controls.

ENGINE MOUNTS AND BED:

Aluminum engine beds

LUBRICATION:

Level and Condition: Level indication is normal both port and starboard. The appearance of the oil is very black. Note: The surveyor recommends that all engine fluids and filters be renewed as soon as possible.

VENTILATION:

115 V.A.C./ 230 V.A.C. engine room Port and Starboard extractors.

BILGE BLOWERS:

115 V.A.C./230 V.A.C. port and starboard engine room extractors

EXHAUST SYSTEM:

Raw water cooled with cast iron risers and cast iron pipes then exiting through the transom. Reinforced exhaust hoses to pipe connections are double clamped where sighted and appeared serviceable.

FUEL TRANSFER (PUMPS):

115 V.A.C./ 230 V.A.C. Fuel transfer pumps located in port and starboard engine rooms.

ENGINE ALARMS:

Low oil pressure alarm and coolant over heat warning audible at helm station. Appears serviceable.

III. SYSTEMS

PROPULSION

COOLING SYSTEM

TYPE:

Port and starboard engines are fresh water cooled with enclosed reservoirs cooled by heat exchangers.

RAW WATER STRAINERS:

Aluminum sea water strainers with sight glasses.

COOLANT LEVEL:

Normal level observed.

HOSES AND CLAMPS:

Reinforced cooling water rubber hoses double clamped and well routed and supported where sighted.

BELTS AND PULLEYS:

Pulley belts condition appeared serviceable.

SEACOCKS AND STRAINERS:

Bronze ball-valves. Serviceable condition.

FUEL SYSTEM

MAIN ENGINE(S) FUEL SYSTEM

FUEL TYPE:

Diesel fuel

MATERIAL:

7/16 inch thick steel electrical welded fuel tanks.

NUMBER OF TANKS:

Two (2) aluminum diesel fuel tanks.

TANKS CAPACITY:

Port and starboard 1728 gallon capacity fuel tanks.

SECURED:

Electrically welded to the port and starboard hulls.

LOCATION:

Port and starboard aft engine rooms.

FILL PIPE LOCATIONS:

Port and starboard topsides above the rub rails and on the aft deck center line.

FILL PIPE GROUNDED:

Port and starboard fuel tank fills are properly grounded.

FILL PIPE MATERIAL:

Steel piping and U. S. Coast Guard approved B-1 reinforced rubber fuel hoses.

III. SYSTEMS

FUEL SYSTEM

MAIN ENGINE(S) FUEL SYSTEM *(continued)*

FILL PIPE FITTINGS:

Fill deck fitting clearly marked as to fuel type: "Diesel fuel".

HOSE CONNECTIONS, CLAMPS:

Fuel hoses double clamped where sighted. Appeared serviceable.

FUEL LINES AND FITTINGS:

Copper fuel supply lines and copper fuel return lines with copper alloy fittings.

FUEL MANIFOLD VALVES:

Port and starboard fuel tanks fitted with fuel manifolds with ball valves.

VENT LOCATION:

Port and Starboard outboard topsides below port and starboard fuel fill pipes.

SHUT-OFF VALVE:

Ball valves at tanks, Racor fuel filters/water separators, and the central manifold systems. Appeared serviceable.

FUEL FILTERS:

Triple remote Racor 75/1000 fuel filters/water separators for port and starboard engines.

FILTER/FUEL CONDITION:

Appears serviceable.

ELECTRICAL SYSTEMS

ELECTRICAL SYSTEM (D.C. SYSTEM)

VOLTAGE:

12 V.D.C./24 V.D.C. systems.

BATTERIES:

Eight (8) 12 volt Group 31 lead-acid batteries inside of the port and starboard engine rooms. New. Six (6) 12 volt 8-D lead-acid batteries located in the pilothouse. These batteries are for powering up navigation and communication electronics.

BANKS:

Five (5) battery banks.

MAIN BATTERY SWITCHES:

Rotary selector battery switches.

PANEL:

12 volt and 24 volt distribution panels with designated circuit breaker switches and voltmeters and ammeters.

BREAKERS/FUSES:

Breaker switches.

III. SYSTEMS

ELECTRICAL SYSTEMS

ELECTRICAL SYSTEM (D.C. SYSTEM) *(continued)*

TYPE CONNECTORS:

Round captive lug type. Where sighted appeared serviceable.

ROUTING/SUPPORT:

Well supported and secured where sighted.

CHARGING SYSTEM (BATTERY CHARGER):

Eltex power inverters for charging batteries located in the port and starboard engine rooms and located in the pilothouse. Serviceable condition.

CHARGING SYSTEM (ALTERNATOR):

24 volt belt driven alternators on port and starboard main engines. 12 volt belt driven alternators on port and starboard generator engines.

ELECTRICAL SYSTEM (A.C. SYSTEM)

MAIN BREAKER:

The 115 V.A.C. and 230 V.A.C. main circuit breaker switches are fitted on the main 115 V.A.C. and 230 V.A.C. distribution panels. Serviceable condition.

BRANCH BREAKERS:

Individual designated circuit break switches. Serviceable condition.

CIRCUIT LOAD MONITORS:

115 V.A.C. and 230 V.A.C. voltmeters and ammeters. Serviceable condition.

CONNECTIONS (TYPE):

Captive lug type. Appeared serviceable.

WIRE TYPE (SIZE AND RATING):

Size and rating where sighted appeared well routed and supported. Serviceable for intended use.

ROUTING:

Well routed and supported where sighted.

OUTLETS:

Various V.A.C. outlets available throughout vessel. Appeared adequate and conveniently located. Appeared serviceable.

GENERATORS AND INVERTERS

TYPE:

Port and starboard engine room diesel powered generators.

MANUFACTURER:

Port and starboard Mercedes diesel powered generators. Serviceable condition.

FUEL TYPE:

Diesel fuel.

III. SYSTEMS

ELECTRICAL SYSTEMS

GENERATORS AND INVERTERS (*continued*)

KILOWATT RATING:

Port and starboard engine room 200 K.W. generators.

VOLTAGE RATING:

115 V.A.C./230 V.A.C. voltage rating.

NUMBER OF CYLINDERS:

Generator engines are 6 cylinders.

LOCATION:

Port and starboard aft engine rooms.

FLUID LEVELS:

Coolant normal. Oil normal. Surveyor recommends that all fluids be renewed according to the manufactures recommended specifications.

COOLING SYSTEM:

Port and starboard generator engines are fresh water cooled by heat exchangers.

FUEL SUPPLY:

Diesel fuel.

FUEL FILTER:

Remote Racor 900 MA fuel filters/water separator.

LUBRICATION SYSTEM:

Engine mounted mechanical oil pumps with spin on/off type filters.

EXHAUST SYSTEM:

Aqua lift type FRP (fiber reinforced plastic) silencers.. Raw water cooled exhaust with double clamps where sighted. Appeared serviceable.

FLAME ARRESTOR:

U. S. Coast Guard approved.

ACCESSIBILITY:

Good.

WARNING LABELS:

The required labels appeared to be in place and readable.

FRESH WATER SYSTEM

FRESH WATER SYSTEM: (POTABLE WATER)

STORAGE TANKS:

Port and starboard electrical welded aluminum potable water tanks.

CAPACITY:

Port and starboard 228 gallons each potable water tanks.

III. SYSTEMS

FRESH WATER SYSTEM

FRESH WATER SYSTEM: (POTABLE WATER) *(continued)*

ACCESS:

Access to tanks and valves appeared adequate.

INSPECTION/CLEANING ACCESS:

Serviceable.

MATERIAL:

Water tanks are constructed of 7/16 inch thick electric welded aluminum plating.

FILL PIPE LOCATION:

Port and starboard aft decks.

VENT PIPE LOCATION:

Port and starboard outboard topsides below water fills.

PUMPS:

115 V.A.C./230 V.A.C. motors/water pumps located inside of the port and starboard engine rooms. Serviceable condition.

HOSES AND CLAMPS:

Copper tubing and fittings throughout vessel.

FRESH WATER SYSTEM (HOT WATER SYSTEM)

TYPE:

Port and starboard custom built 7/16 inch thick hot water tanks

CAPACITY:

Port and starboard 50 gallon hot water tanks.

PRESSURE RELIEF VALVE:

Copper pressure relief valve built into tanks.

SANITATION

SANITATION (BLACK WATER)

MANUAL OR ELECTRIC TYPE:

Pressurized house hold type toilets.

NUMBER OF HEADS:

Eight (8) head facilities.

STEERING SYSTEM

STEERING SYSTEM

TYPE:

Kamewa hydraulic steering bucket

III. SYSTEMS

STEERING SYSTEM

STEERING SYSTEM (*continued*)

MANUFACTURER:

Kamewa

NUMBER OF STATIONS:

One (1) steering station

LOCATIONS:

Pilothouse

LINES AND FITTINGS:

Reinforced flexible hydraulic hoses with metallic fittings. Appeared serviceable.

GROUND TACKLE

GROUND TACKLE

ANCHORS:

Danforth type 200 lb. galvanized steel anchor.

CHAIN:

200 feet of 3/4 inch diameter galvanized steel anchor chain.

WINDLASS:

Hydraulic anchor chain windlass.

ELECTRONICS AND NAVIGATION EQUIPMENT

ELECTRONICS AND NAVIGATION EQUIPMENT

VHF:

Four (4) Sailor VHF radios.

RADAR:

Racal Decca Bridge Master II 72 mile radar.

AUTOHELM:

Robertson AP-9 MK II automatic pilot

COMPASSES:

Bergen Norway 6 inch magnetic steering compass.

THRU-HULLS

THRU-HULLS:

THRU-HULLS LIST:

Aluminum thru-hull fittings.

LOCATION:

Port and starboard engine rooms.

III. SYSTEMS

THRU-HULLS

THRU-HULLS: *(continued)*

USE:

Port and starboard main engine's cooling water. Port and starboard generator engine's cooling water.

MATERIAL:

Aluminum.

TYPE:

Ball valves.

BONDED:

Bonded where sighted.

CONDITION:

Serviceable condition.

OPERABLE:

Ball valves are operable.

BONDING SYSTEM

BONDING SYSTEM

MAIN BONDING CONDUCTOR:

The bonding system is well established where sighted. The bonding system is using individual green insulated wire and appeared to be serviceable were sighted.

THRU-HULL FITTINGS:

The thru-hull fittings as well as all sighted underwater fittings are bonded.

SEA STRAINERS:

All sea strainers appeared to be bonded.

ENGINES AND GENERATORS:

Port and starboard main engines and generator are bonded and grounded.

SAFETY EQUIPMENT

SAFETY EQUIPMENT (UNITED STATES COAST GUARD)

NUMBER AND TYPE OF PFD'S:

Two hundred sixty-five (265) Type I U. S. Coast Guard approved Personal Floatation Devices (PFDs). Need to replace half of the (PFDs).

NUMBER OF THROWABLE PFD'S:

Five (5) ring buoys equipped with strobe lights and whistles.

FIRE EXTINGUISHERS:

Two (2) Buckeye powder 39.9 fire extinguishers mounted in pilothouse. New. Six (6) hand held dry chemical Class A, B, and C 10 lb. fire extinguishers,

III. SYSTEMS

SAFETY EQUIPMENT

SAFETY EQUIPMENT (UNITED STATES COAST GUARD) *(continued)*

VISUAL DISTRESS SIGNALS:

Visual Distress Signals are out of date.

SOUND DEVICES:

Trumpet air signal horn.

NAVIGATION LIGHTS:

Sidelights are operable. Mast head light is operable. Stern light is operable. Anchor light is operable.

INLAND NAVIGATION RULE BOOK (12M-39'4" OR LONGER):

Inland and International Rules of the Road is aboard vessel.

"NO OIL DISCHARGE" PLAQUE:

Found properly displayed in engine spaces.

AUXILIARY SAFETY EQUIPMENT

LIFE RAFT:

Eight (8) 25 person canister survival rafts. Life rafts need servicing.

E.P.I.R.B.:

Jotron E.P.I.R.B. inside the pilothouse.

FIRE ALARMS:

Firer alarm inside of pilothouse.

BILGE WATER ALARM AND SAFETY SWITCHES:

Bilge high water alarm in port and starboard aft engine rooms.

FIXED FIRE EXTINGUISHING SYSTEM (HALON TYPE):

FE 200 Clean Agent fire suppression systems are inside of port and starboard engine rooms. Recently serviced.

FIRST AID KIT:

Vessel has small hospital facility aboard.

MAN OVERBOARD SYSTEM:

Throwable 36 inch Jim Buoy ring buoys.

BILGE PUMPS

LIST:

Fourteen (14) 24 volt submersible bilge pumps with automatic float switches located in port and starboard engine room's water tight bilge compartments. Serviceable condition.

IV. FINDINGS AND RECOMMENDATIONS

Deficiencies noted under "**SAFETY**" should be addressed before vessel is next underway. These findings represent an endangerment to personnel and/or the vessel's safe and proper operating condition. *Findings may also be in violation of U.S.C.G. regulations.*

Deficiencies noted under "**OTHER DEFICIENCIES**" should be corrected in the near future so as to maintain standards and to help the vessel to retain it's value.

Deficiencies will be listed under the appropriate heading:

A. SAFETY DEFICIENCIES:

*A1- Vessel's canister survival rafts need to be inspected and serviced by a certified survival raft service facility.

*A2- It is recommended equipping vessel with out of date Visual Distress Signals (VSD's). Flares.

B. OTHER DEFICIENCIES NEEDING ATTENTION:

*B1- It is recommended having vessel dry-docked to have hull's bottom pressure pressured washed, scrapped and sanded smooth to remove crustacean growth. Apply two (2) applications of primer and two (2) applications of anti foul bottom paint.

*B2- It is recommended engaging a marine engine mechanic to service port and starboard main engines and port and starboard generator engines. Change port and starboard engine's and port and starboard generator engines lube oil filters, lube oil, Racor fuel filters/water separators, secondary fuel filters

C. SURVEYORS NOTES AND OBSERVATIONS:

*Note: it is the opinion of the undersigned Marine Survey that said vessel is a "Good Fire and Insurance Risk".

V. SUMMARY AND VALUATION

STATEMENT OF OVERALL VESSEL RATING OF CONDITION:

It is the surveyor's experience that develops an opinion of the **OVERALL VESSEL RATING OF CONDITION** After a the survey has been completed and the findings have been organized in a logical manner.

The grading of condition, developed by **BUC RESEARCH**, and accepted in the marine industry, for a vessel at the time of survey, determines the adjustment to the range of base values in the **BUC USED BOAT PRICE GUIDE**, for a similar vessel sold within a given time period, as a consideration to determine the Market Value.

The following is the accepted marine grading system of condition:

"EXCELLENT (BRISTOL) CONDITION", is a vessel that is maintained in mint or bristol fashion - usually better than factory new - loaded with extras - a rarity.

"ABOVE AVERAGE CONDITION", has had above average care and is equipped with extra electrical and electronic gear.

"AVERAGE CONDITION", ready for sale requiring no additional work and normally equipped for her size.

"FAIR CONDITION", requires usual maintenance to prepare for sale.

"POOR CONDITION", substantial yard work required and devoid of extras.

"RESTORABLE CONDITION", enough of hull and engine exists to restore the boat to usable condition.

As a result of my investigation, as shown in the **SYSTEMS AND FINDINGS AND RECOMMENDATIONS** section of this **REPORT OF SURVEY**, and by virtue of my experience, my opinion is

OVERALL VESSEL RATING:

"Average Condition".

V. SUMMARY AND VALUATION

STATEMENT OF VALUATION:

1. The "**FAIR MARKET VALUE**" is the most probable price in terms of money which a vessel should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus.

Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- a. Buyer and seller are typically motivated.
- b. Both parties are well informed or well advised, and each acting in what they consider their own best interest.
- c. A reasonable time is allowed for exposure in the open market.
- d. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
- e. The price represents a normal consideration for the vessel sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.
- f. It is your surveyor's opinion that the "**FAIR MARKET VALUE**" of the subject vessel is:

\$950,000

Nine Hundred Fifty Thousand Dollars

V. SUMMARY AND VALUATION

SUMMARY:

In accordance with the request for a marine survey by Quality Power and Sail of the 1990 127 foot aluminum catamaran passenger ferry vessel "Aurora 2000" for the purpose of evaluating its "Present Condition" and estimating its "Fair Market Value", I herewith submit my conclusion based on the preceding report. The subject vessel was personally inspected by the undersigned on March 30th, 2017 and was found to be a well constructed and comfortable vessel. Subject to correction of deficiencies listed in section IV A. (Safety) the vessel is considered to be suitable for its intended use. Other deficiencies list should be attended to in a timely fashion.

SURVEYOR'S CERTIFICATION:

I certify that, to the best of my knowledge and belief:

The statements of fact contained in this report are true and correct.

The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, unbiased professional analyses, opinions, and conclusions.

I have no present or prospective interest in the vessel that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.

My compensation is not contingent upon the reporting of a predetermined value or direction in value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulate result, or the occurrence of a subsequent event.

I have made a personal inspection of the vessel that is the subject of this report.

This report is submitted without prejudice and for the benefit of whom it may concern.

ATTENDING SURVEYOR: _____