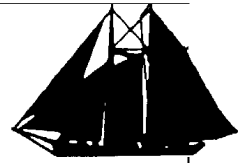




AZIMUTH MARINE LLC



SURVEYING & CONSULTING

Capt. Jeffrey R. Stone

azimuthmarinesurvey.com



SURVEY REPORT #844M11

By Request of:



Phone:



E-mail:



Date: May 11, 2019

Vessel Name: "COUNTERPOINT"



Type: Auxiliary Sail

Intended Service Area: New England Coastal Waters

Hull ID #:



USCG Doc.#:



Certificate aboard / numbers attached: Yes/Yes

Purpose of Survey: Condition and valuation for pre

purchase or insurance underwriting purposes only. *(Note: this survey is not to be used for transfer to a third party or use other than intended)*

Where Surveyed: On the hard @ NEB, Portsmouth, RI

Attending: Buyer (above) and Broker (below)

Broker/Agent:



Phone:



Estimated Fair Market Value: \$ 80,000
(As she lays)

Estimated Replacement Cost: \$ 500,000
(New; similar construction)

DARTMOUTH ST.

NEWPORT, RHODE ISLAND 02840

VESSEL PARTICULARS

Builder: Bristol Yachts Inc.
Designer: Ted Hood
Year Built: 1982
Model: Bristol 45.5 aft cockpit
LOA: 45' 05" **LWL:** 37' 02"
Beam: 13' 09"
Draft: 4' 11" board up
 9' 05" Board dwn
Air draft: 63' 06"
Displacement: 34,660 Lbs.
Ballast (type/amount):
 Encapsulated Lead / 15,000
 Lbs.
Hull Type: Keel/centerboard / skeg
 mounted rudder
Material/Color: Fiberglass / White
Speed: 8 Kts \pm



Above measurements are taken from mfg's specs or widely published material

HULL AND SUPERSTRUCTURE:

Construction Scantlings: Single skin gel coat over multiple layers of polyester resin impregnated fiberglass, Solid layup, no coring. FRP integral floors and tabbed structural bulkheads and partitions.

Superstructure/Layout: Low trunk forward to aft cockpit / chain locker way. Then forward cabin w/ V berth followed by port head, stbd hanging locker. The saloon is next aft w/ port side dining around "U" shaped settee. Straight settee is stbd. The galley is stbd aft, the nav station and second head are port aft. Two quarter berths lie aft most port and stbd.

GENERAL CONDITION:

The hull (topsides and bottom), deck, rudder, interior bulkheads and stringers were examined visually, with a "Protimeter" moisture meter (readings are on a relative scale with 1000 being the highest reading, 100 -200 being normal low readings), with a sounding hammer, and thermal imaging camera (See notes on thermal images and moisture meters at the end of this report);

- **Keel** – Fair, no evidence of hard grounding. FRP encapsulation is fully adhered to the lead.
- **Bottom** - Found smooth and fair. Percussion sounding and thermal imaging indicates a sound laminate. No osmotic blisters were noted. Moisture content was low at every point measured.
- **Rudder** – Foam filled FRP. Fair and symmetrical. Percussion sounding and thermal imaging indicates a sound rudder w/ no moisture intrusion and no apparent separation of FRP from the core. The moisture meter read low on the relative scale.
- **Topsides** - Clean and fair. The topside gel coat has oxidized and there are some light scuff marks and scratches. No significant blemishes to note.
- **Decks** – Non-skid fiberglass, Balsa core. Secure and in good condition. Percussion sounding and thermal imaging indicates a sound deck w/ no lifting or separation noted. Moisture meter indicates low moisture content.
- **Hull/Deck Joint** - Horizontal Plane - internal flange / Bonded and through bolted w/ Teak toe rail over. Joint appears sound everywhere viewed. No evidence of leaks or areas appearing worked.
- **Hatches&Ports-Gaskets** - Gaskets and coamings inspected and appear water tight and in good condition – no evidence of leaks
- **Bilge** – Clean and dry fwd. Deep bilge has heavy oily residue (*Note*)

- **Floors and stringers** – Secure. No visible cracks or areas appearing “worked”.
- **Bulkheads and tabbing** – Teak veneer plywood. The fiberglass bonding to the bulkheads, partitions, stringers and engine beds were inspected. All appeared to be in good condition with no sign of movement, delamination or deterioration, or areas appearing “worked”.
- **Interior** – The varnish is in good condition. Joiner work, appointments and upholstery are in good condition
- **Cabin Sole** - Teak and Holly veneer plywood

Summary of condition: “Good” Structurally sound, cosmetics are good. Tanks, thru hull valves, and engine space are in need of attention

Weather at time of survey: Clear, air temps in the 60’s light wind



PROPULSION SYSTEM

General Condition: Inspected visually. Engine hours as seen on the meter are much to low for the age. An engine examination by a qualified diesel tech is planned. The structure in front of the engine appears to be left from an earlier mechanical engine driven refrigeration compressor (*Note*)

Type: Diesel

Hours: 358 “By meter”

Manufacturer: “Westerbeke”

Model: Unknown

Serial Number: Unknown

#Cylinders/HP: 4 / 60

Year/Year rebuilt: Assumed Original

Cooling System: Fresh water heat exchanger

Alarms: Yes

Gauges: Full @ helm

Controls: Single lever, sheathed cable

Eng. Beds/Mounts: HD molded FRP stringers / Appear good

Drip pan?: Molded FRP, integral to engine mounts

Exhaust(s): Reinforced hose - wet exhaust

Silencer(s): In-line – water lift

Mixing Elbow/Riser: Good. No evidence of leaks
Belts/Hoses: Appear good
Reduction Gear: "Hurth", Ratio not sighted
Drive Type: Direct drive
Shaft: 1 1/4" Stainless Steel. Inspection of the propeller and shaft revealed all to be in apparent good condition and to be tracking true and no evidence of galvanic corrosion.
Shaft Coupling: Steel, light and normal corrosion
Propeller: 3 bladed Bronze "Max Prop" 18" Dia. Right hand. Gear and bushing wear is moderate to advanced (*Note*)
Stuffing Box: Dripless, heavy corrosion on the seal (*Note*)
Strut/Bearing: Through skeg / Cutless – no wear
Zincs: Need replacing (*Note*)



MECHANICAL SYSTEMS

General Condition: All gear tested and inspected visually. Found to operate normally, in good condition and well installed, except as noted
Eng.Rm.Ventilation: 12v Blower (*33 CFR 183.610*)
Insulation: Foam
Wheel/Tiller: SS wheel
Steering Gear: Cable to quadrant – sheaves firmly mounted, bearings well lubricated, cable appears sound w/ no broken strands sighted, turned freely from lock to lock, all appeared to be operating normally without any restriction in the mechanism.
Emergency Steering: Tiller – sighted, not fitted or tested
Rudder Post Gland: Bronze stuffing box w/ flax packing on heavy FRP gusseted tube
 Bearings appear in good condition (*Note*)
Bilge Pump(s)-Manual: Diaphragm in cockpit, 2nd below, not plumbed in
Bilge Pump 12vdc: "Rule" w/ float did not operate (*Note*)
High Bilge Alarm?: None: Recommended (*ABYC H-22*)
Potable Water-Manual: Foot pump
Pressure: "Par-Max" w/ accumulator tank. Deck shower fitting on deck fwd has separated from its mount (*Note*)
Washdown Pump: "Par" - spigot on deck is aluminum and has corroded to the point of failure (*Note*)
Air conditioning/Heating: "Espar" Diesel heater, "Cruisair" air conditioning 16,000 BTU. A/c compressor is heavily oxidized at its base and variously around the unit (*Note*)
Head(s): (1) "Vacu Flush" 12vdc aft, (1) "Wilcox Crittenden" manual fwd
Holding Tank: Type III MSD plumbed to fwd head only. The aft head discharges directly overboard – see Tankage and Plumbing
USCG Approved: With the securing of overboard discharge thru hull valves - Compliant w/ requirements for "No Discharge Zones" (*33 USC 159*)
Tank discharge: "Sealand", or via deck pump out. Sealand pump not tested

Showers: Handheld in head

Sump/Pump: "Whale" at aft head, Enclosed sump fwd w/ submersible pump fwd. Fwd pump to be proved (*Note*)

ELECTRICAL SYSTEMS

General Condition: All gear tested and inspected visually. Found in good condition and well installed, except as noted. Batteries are not formally load tested during survey except to the extent that they stand up to the loads put on them in the course of operating DC equipment.

DC-Batteries/Amps: (1) 12v Gp34 engine start, (3) 165 Ah "Victron" house batteries

Installation: Plastic boxes w/tops straps on engine start, House; FRP try under port quarter berth. House batteries are not adequately restrained. Ungrounded terminals are *not* protected on house bank (*Note*).

Battery type: AGM

Condition of terminals: Good

Approved: Yes, except terminal protection and restraints on house bank (*ABYC E 10.7.1 – 10.7.12*)

Engine Alternator/Amps: "Balmar"
100 amps & 55 amp

Charger/Amps: "Pro Tech" / 40 amp –
to be tested

Vapor Proof Switch(es): (2) "Guest"

DC control panel: At nav station. Volt and ammeter in panel.

Circuit Protection: Magnetic breakers & fuses

Installation: DC wiring is stranded copper w/ common ground bus to engine. Harnessing in place. Well loomed, compliant w/ *NFPA 302 7-13.4, ABYC E-11*



Thru Hull Bonding? / Condition: Coated stranded copper wire / thru hull valve corrosion attests to poor bonding condition (*Note*)

Galvanic Isolator: None

Isolation Transformer: None

AC-Shorepower: 30 amp service – Vessel was not plugged in, AC systems were not tested

AC control panel: In saloon, in original condition. Volt and ammeter in panel

Reverse Polarity Indicator: Continuous light in compliance w/ *ABYC 11.6.3.3.1*

GFCI Protected?: Yes *ABYC E-11.15.3.5* states: *If installed in a head, galley, machinery space, or on a weather deck, the receptacle shall be protected by a Type A (nominal 5 milliamperes) Ground Fault Circuit Interrupter (GFCI).*

Inverter/Watts: Small 500 watt for computer use. Did not power up

Generator/KW: None

Cabin Lights: 12vdc – several fixtures are out (*Note*)

Spreader Lights: 12vdc – out (*Note*)

Navigation Lights: 12vdc – stbd side light is out (*Note*)

Anchor Light: 12vdc – out (*Note*)

Hot Water Heater: "Atlantic Marine Systems" 6 Gallon - 120vac & engine

GALLEY EQUIPMENT

General Condition: All gear inspected visually. Found in good condition, operational as designed, and well installed, except as noted

Sink(s): Stainless Steel

Refrigeration: "Sea Frost" cooling water pump did not operate, its exterior strainer, mounted on the hull has completely occluded due to bottom paint and marine growth (*Note*)

Stove Type: Propane – older unit does not appear to have thermo-couple shut offs (*Note*)

Burners/Oven: Three w/ oven

Tank Stowage: After cockpit locker

Safety Solenoid: Yes w/ gauge

Approved: No (*ABYC A-1.6 - 1.10*)

Supply lines: Flex Hose & Copper. Protected where pass through bulkheads and vessel structure (*NFPA 320 6-5.10.4.2*); Successfully tested for ability to hold pressure.

TANKAGE AND PLUMBING

General Condition: All gear inspected visually and tested for operability. Found to operate normally, in good condition and well installed, except as noted

Fuel Tanks/Capacity: Three / 150 Gals.

Material: Stainless Steel

Location: Under sole

How Secured: Framing with FRP collar around the base

Accessibility/Condition: Ltd / The tank and lines revealed no apparent leaks (not pressure tested). The port and aft most tank has heavy oxidation on the aft inboard corner at the cross connect fittings (*Note*), *photo above*

Fills/Vents/Overflows: On deck / topside

Fuel Lines/Clamps: Neoprene - approved

Filters: "Racor" and secondary (*Note*)

Shut-off Valve/Manifold: At filters. Gate valves on the tank interconnections.

Fuel level indicator?: At helm

Water Tanks/Capacity: Two / 140 Gals. The tank and lines revealed no apparent leaks. (not pressure tested)

Material: Stainless Steel

Location: Under saloon sole fwd port and starboard.

How Secured: Framing w/ FRP collar around the base

Accessibility/Condition: Ltd / the port tank has been cut open and a rubber bladder inserted within. This imply a failure of the tank

Fills/Vents: On deck / topsides

Hoses/Clamps: Good

Filters: Yes

Valves/Manifold: fwd under the sole



Holding Tank/Capacity: One / Est. 20 Gals

Material: Polyethylene

Thru-Hull Fittings/Valves: Bronze barrel valves on all fittings except two Marelon ball valves aft. External inspection of the through-hull fittings revealed all to have from moderate to heavy oxidation. All Bronze valves show some degree of galvanic or electrolytic corrosion.
(Note)

Approved: Yes (ABYC H – 27.4, 27.5)

Condition: All Bronze valves found frozen, the engine intake fitting at the valve is weak and appears to leak (Note)

Clamps/Hoses: Double / reinforced. Several scupper drain hose clamps were found oxidized and in one case broken by virtue of corrosion (Note)

Tapered Plugs?: At each through hull valve below LWL – Yes

Anti-Siphon Loops: Yes (Note)

Raw water Strainers: Bronze

Hose Chafing?: Where many hoses have been recently replaced, several are quite old and show signs of deterioration (Note)

ELECTRONICS/NAVIGATION EQUIPMENT

General Condition: All equipment tested and found operational as designed, except where noted

Compass(es): "Ritchie" 4 inch

VHF/SSB Radio: "Icom IC M58" / "Icom IC M802 – SSB did not power up (Note)

Autopilot: "Raymarine ST6002"

Speed Log: "Raymarine ST60"

Wind Indicator: "Raymarine ST60" w/ close hauled & "Windex"

Depthfinder: "Raymarine ST60"

GPS/ Radar: "Raymarine E80" Radar antenna is mounted port quarter. The mount does not appear to be robust enough for off shore use (Note)

Stereo/Radio: "Pioneer" AM/FM cassette

Barometer: "Weems & Plath" 4 inch Brass

Ship's Clock: "Weems & Plath" 4 inch Brass

DECK EQUIPMENT

General Condition: All gear inspected visually. Found in good condition and well installed, except as noted

Anchor Windlass: "Lewmar" 12vdc horizontal axis with wild cat and capstan

Anchor(s): 60 Lb "CQR", Light "Danforth". Anchors and rode found to be in good condition and are considered adequate for a vessel of this size

Chain/Rode(s): 3/8" all chain primary / 1/2" Nylon secondary

Bow Roller(s): SS on stem

Bow/Stern Pulpit: 1" Stainless Steel / 1" SS

Stanchions/Lifelines: 1" SS / double wire

Docklines: Misc. braid 3 strand

Fenders: Medium pneumatic

Covers: Mainsail, dodger,

Reboarding: SS ladder

SPARS, RIGGING AND SAILS

General Condition: All gear tested and inspected visually. Found in good condition and well installed, except as noted. Inspection of the mast, boom, standing and running rigging from deck level revealed all to be in apparent good condition.

Type of Rig: Mast head Sloop

Spar Material: Aluminum

Where Stepped: On keel

Condition of Step: Moderate corrosion on the heel of the spar at the SS collar of the step
(Note)

Keel bolts: None, Ballast is encapsulated

Standing Rigging: 1x19 SS wire

Condition: Appears good from deck

Terminals: Swaged - The lower swages were inspected and no cracks were observed.

Turnbuckles/(cotter pins?): Bronze / yes

Chainplates/Stem: SS plate to bulkheads on the fwd lowers, these have been leaking
(Note). Aft lowers and cap shroud have rod from the deck head to FRP integral tabbed shelves,

Spinnaker Pole/Reaching Strut: Aluminum

Running Rigging: Dacron braid

Condition: Serviceable Good

Winches: "Bariet" (2)#36ST primaries, (2)#28 secondaries. (1); #27,#10,#25,#26 on mast

Rigging details (vang/traveler,etc.): "Harken" headsail roller furler, "Navtec" hydraulic backstay adjuster, conventional slab reefing mainsail, rigid vang, mid boom sheeting and adjustable traveler

Sail inventory: Main, Headsail, and spinnaker- not inspected



SAFETY/REQUIRED EQUIPMENT

General Condition: All gear updated and in good condition, except as noted

Throwable Device: Lifesling

PFD's: USCG Type II (33 USC 175) Found to be in good condition, adequate in number for persons aboard

VDS: Expired (33 USC 175) (Note)

Horn/Bell: Handheld freon / Yes

Radar Reflector: Suggested

Oil/Pollution Placards: Yes / Yes (33CFR151.9)

Fire Extinguishers: (3) 7 Lb. ABC dry chemical

Condition: Discharged (Note)

Fixed Fire System: Suggested

CO detector/ Gas sniffer: Suggested / Recommended (Note)

Smoke detector: Recommended (NFPA 12.3)

Manuals onboard?: Equipment

Other: EPIRB

REMARKS AND RECOMMENDATIONS

"Counterpoint" was found in good condition structurally and cosmetically. The engine condition is unknown, and it is suggested here, that a qualified diesel engine mechanic review it. The bonding system should be reviewed and all thru hull valves serviced and inspected. The port aft fuel tank is suspect. Though not presently leaking, the oxidation on the inboard aft corner of that tank is cause for concern, especially in view of the fact that the port water tank appears to have failed and has had a bladder inserted within.

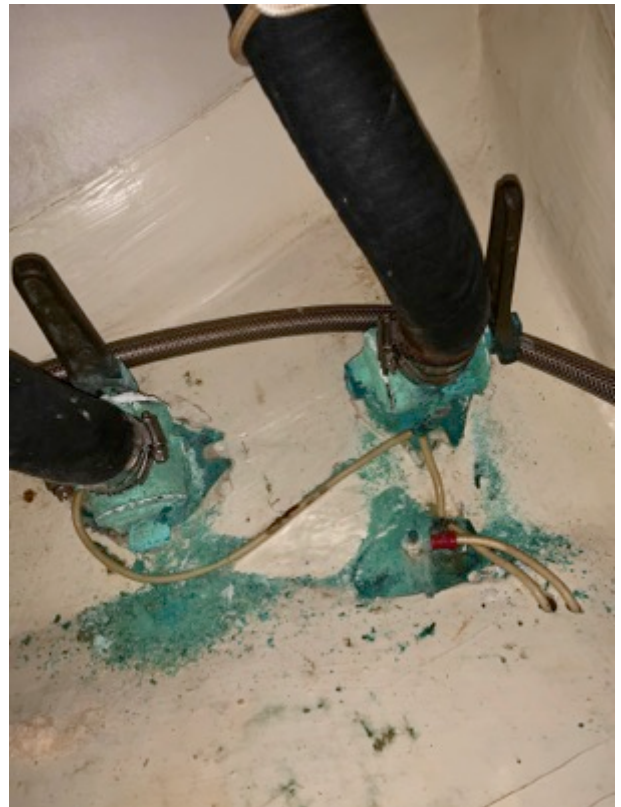
The Bristol 45.5's are a well-built and sturdy vessel. Attention to the larger issues will assure a long life ahead. These issues are common to any older vessel.

In as far as may be ascertained from a general inspection, without making extensive removals or opening up to expose ordinarily concealed areas, and without taking borings to determine thickness or soundness of structures and members, or testing for tightness of components. Upon compliance with the following required items, this vessel should represent a sound financial and insurance risk.

Note: The N.F.P.A. National Fire Protection Association, and ABYC (American Boat and Yacht Council), do not represent legal requirements, only safety standards. Non-conformity can affect insurance. U.S.C.G Requirements are law by the Federal Boat Safety Act of 1971.

REQUIRED:

1. Assure a minimum of (3) visual distress signals are aboard that have future expiration dates. (consider SOLAS standard) (46CFR28.145).
2. Assure that a minimum of two serviceable (no rust, gauge in green) USCG-approved type B-I (or one type B-II) handheld ABC fire extinguishers are mounted in prominent locations (46CFR28.155)
3. Assure that all navigational lights are operational, viz. stbd side light and anchor light.
4. Service the engine raw water pickup hose at the thru hull valve.
5. Service, clean, lube and inspect for de-zincification of all Bronze through hull valves. Replace valves as necessary.
6. Replace the transom inboard plastic thru hull fitting, found degraded and cracked at survey.



RECOMMENDATIONS:

Hull and superstructure

7. Recommend steam or power washing the deep bilge to eliminate the oily waste.

Decks

8. Replace the hose clamps on the scupper drains where they have degraded

Propulsion system

9. Service the dripless shaft packing gland
10. Recommend an engine review and inspection by a qualified diesel engine mechanic.

Mechanical systems

11. Recommend repairs to the automatic bilge pump.

Electrical systems

12. Recommend adequate restraints be installed on the house battery bank.
13. Service all thru hull bonding wire connections.

Tankage and plumbing

14. Recommend closely monitoring the port aft fuel tank. At present it appears that fuel supply to the engine is from the port aft tank only, and the other tanks feed into it. A second pick up is suggested on another tank so that the vessel will not lose supply to the tank in the event of a tank failure.
15. Clean the exterior bronze strainer for the refer cooling water pick up.

Galley equipment

16. Recommend repairs/replacement of the refrigeration cooling water pump.
17. Recommend replacement of the galley stove with an approved unit having thermo couple gas shut offs.

SUGGESTIONS / AT OWNER'S DISCRETION:**Propulsion system**

18. Suggest reconditioning the propeller in the next few seasons..

Mechanical systems

19. Prove operation of the fwd shower sump pump.
20. Consider replacement of the air con compressor.
21. Suggest replacement of the deck washdown spigot and thru deck fitting on the foredeck.

Electrical systems

22. Suggest repairs to the foredeck light.

Tankage and plumbing

23. Consider the fabrication of a fuel manifold with supply and return from any tank.

Galley equipment

24. Consider removal of the old engine driven refer compressor mounting hardware on the engine.

Electronics/Navigation equipment

25. Consider repairs as necessary to the SSB.
26. If voyaging offshore consider a redesign of the radar mast mounting, or install the radar on the mainmast.

Spars, rigging & sails

27. Before any long voyage, suggest removal, inspection and re-bedding of the port and stbd fwd lower shroud chain plates.
28. Suggest pulling the spar as time permits, and inspecting the mast heel for material wastage due to bimetal corrosion.

SURVEYOR'S NOTES:

1. Fire extinguishers should be checked monthly to assure that pressure gauge readings are in the green area. Dry chemical extinguishers should also be removed from their brackets, turned upside down and shaken vigorously to keep the chemical loose then properly secured to the mounting bracket. ABYC A-4.5.4.1-2 and NFPA 302 E.3. recommend annual service/tagging.
2. Carbon monoxide is a potentially deadly gas produced any time a carbon-based fuel, such as gasoline diesel, propane, charcoal or oil, burns. On board sources include gasoline and, to a lesser degree, diesel engines, generators, cooking ranges and space and water heater. Carbon monoxide is called the "silent killer" for good reason: exposure to low levels of the odorless, colorless gas can result in symptoms that mimic seasickness such as nausea, headache, dizziness and drowsiness. The installation of marine grade carbon monoxide detectors with audible alarm in all enclosed cabin areas is thus strongly recommended. And, ventilation of fresh air into cabins, even when air conditioners or heaters are running, is essential.
3. Suggest installation of one UL-listed smoke detector in enclosed compartment as recommended by NFPA 302 12.3 *Note: Battery-powered combination CO/smoke detector units are acceptable.*
4. Recommend installation of a high bilge water audible alarm system. (ABYC H-22.7.3)
5. Thru hull bonding systems require good connections of the bonding wire to all fittings, or its purpose of maintaining all fittings at the same electrical potential is negated and dissimilar metal corrosion can occur. Suggest regular inspection of all bonding connections.
6. Shaft and rudder stuffing glands should be checked monthly, thru-hull valves should be operated at the same time to maintain operating condition. They all should be serviced and zincs replaced as necessary at each haul-out. *Note that Dripless packing glands are not maintenance free. The shaft and gland must be kept free of salt deposits and scoring. The hose clamps should be changed regularly*
7. Valves in anti siphon loops can occasionally stick closed, negating their purpose. Suggest seasonal maintenance and inspection of these valves to assure proper operation,
8. Primary (Racor) and secondary (engine mounted) fuel filters should be changed annually and more frequently as needed

ADDITIONAL PHOTOS:



Deteriorated deck wash spigot thru deck fitting

Deep bilge; black oily residue at the bottom



DEFINITION OF TERMS:

The following is this surveyor's system for the evaluation of deficiencies as noted in the "REMARKS AND RECOMMENDATIONS" section of the report.

"REQUIRED" are deficiencies of the first priority that may compromise the safety of the vessel, and/or relate to compliance with the Code of Federal Regulations.

"RECOMMENDATIONS" are second priority issues which do not affect the immediate safety of the vessel but if left unattended could have an overall negative effect. Hatch fasteners loose, worn cutless bearings, moderate deterioration of wood structural members and etc. fall into this category.

"SUGGESTIONS" are third or low priority items that relate to cosmetic issues or to the preservation or enhancement of the fair market value of the vessel.

"SURVEYOR'S NOTES" are items of general maintenance or common practice that are wise to bear in mind.

STATEMENT OF VALUATION:

The "Estimated Fair Market Value" is the most probable price 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 passing of title from seller to buyer under conditions whereby:

- Buyer and seller are typically motivated.
- Both parties are well informed or well advised and each acting in what they consider their own best interest.
- A reasonable time is allowed for exposure to the open market.
- Payment is made in US Dollars or in terms of financial arrangements comparable thereto, and
- 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.

"Estimated Fair Market Value" is derived after consideration of the reliability of the data, the extent of the necessary adjustments and the condition of the vessel.

SURVEY LIMITATIONS and SCOPE:

1. The mandatory standards promulgated by the United States Coast Guard (USCG), under the authority of Title 46 United States Code (USC): Title 33 and 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, but complete compliance with all such standards is not guaranteed. Findings reflect conditions observed at the time of the survey, and only deficiencies were noted.

2. The survey, which is this subject of this report, was conducted in accordance with generally accepted marine standards and criteria utilized in the marine surveying industry. **Parts of most vessels cannot be examined due to inaccessibility, Some removal procedures add greatly to the time involved and, consequently to the cost. Therefore such procedures are not performed unless specifically requested or recommended.** Surveyors do not: Test the vessel, hull or tanks for tightness or leaks; Unload cluttered holds or lockers; clean bottoms; operate the vessel. It is pointed out that where wood decay, or damaged laminates are involved, it is not unusual for repairs to uncover additional decay or laminate deterioration.

3. We recommend surveyor attendance underway to test gear under working conditions. The vessel was examined in the water and / or drydock (see page one for details). Testing the vessel in the water under load, if performed, shall be referred to with the generic term "Sea Trial". This

term has no bearing on the wind or weather conditions, or body of water upon which the vessel was tested, and provides no guarantee of how the vessel will perform under different conditions, upon different waterways and in different weather conditions

- Attendance underway: To be scheduled

4. The hull, deck, and house were sounded for structural integrity. Sole boards were lifted and accessible drawers and lockers were opened for inspection. Machinery, electrical and electronic equipment were operated except as noted. Where temperatures are referenced in this report, they were taken with a "Raytek MT6" digital infrared thermometer or a FLIR i7 thermal imaging camera.

5. **On Thermal Images and Moisture meters:** Moisture meters can indicate the presence of *water vapor*, and do not, in themselves indicate the quality of coring material. Likewise, the thermal imaging camera, where used to examine possible areas of water ingress to coring materials or the presence of laminate faults, record *temperature differentials*, and do not in themselves correlate degree of moisture ingress or fracture with degree of contrast in color. The thermal imaging camera used in this report has a resolution of 19,600 pixels w/ a thermometer sensitivity of .18°F. Thermal sensitivity is many times finer than that.

6. The report is confined to the surveyor's opinion as to the general physical condition and estimated value of the vessel, it is not to be considered an inventory or a warranty either specified or implied. It does not represent a complete record of all information exchanged verbally between the surveyor and client. Nor does this report include a determination as to the seaworthiness of the vessel, include stability tests necessary to determine such limitations, nor does it attempt to itemize waters unsuitable for the vessel's use.

7. This survey is prepared for the exclusive use of the client whose name and address appear on the front page. The intended users of this report and valuation are the client and those lenders and underwriters who may finance or insure this vessel for this client only. This report is not transferable to any other person or entity; therefore, this surveyor assumes no liability arising out of the reliance on the information contained herein by persons or entities not parties to this survey.

8. This survey report is the result of a verbal contract between the Surveyor and the requesting party. If, upon receipt of this document, the requesting party disagrees with any of the following terms and conditions, it should contact the Surveyor immediately. In the event of dissatisfaction with the conduct of the survey, with errors contained in the report, or with omission of information, it is agreed by all concerned that the Surveyor's liability is restricted and that the sole and maximum remedy shall be limited to the amount of the rendered service fee for this survey and report. The use of this report constitutes acceptance of, and agreement to all the terms and conditions stated above.

Signed without prejudice,

Jeffrey R. Stone: Society of Accredited Marine Surveyors (AMS #845 Y, SC)
Master, 1600 Gt. Oceans
Member ABYC

