

CHARLES T. CARL COMPANY
INSURANCE

348 WEST MARKET
SAN DIEGO, CALIFORNIA 92101
(714) 236-9633

401798

CABLE ADDRESS: CARLSD

DJB

JES

WMM

cc: PASC

April 17, 1979

Mr. D. J. Brush, General Manager
Holmes & Narver, Inc.
P. O. Box 29939
Honolulu, Hawaii 96820

Re: U. S. Oceanography - "Liktanur II"

Dear Mr. Brush:

This will acknowledge your April 11th, 1979 letter for information concerning the owner and our qualifications of the above captioned vessel.

On every report to us, the surveyor makes the comment that "Housekeeping and general appearance is above average for commercial vessel of this class", see page 1 of 11 December 1978 survey. In this same report, see pages 3, 4, and 5, the list of sophisticated electronics and navigational equipment, added for this particular contract, reflect, along with the surveyor's housekeeping comments (above) the meticulous perfection with which Charles Otterman approaches any move whatsoever. He is known for his perfectionist characteristics. This demanding attitude reflects in the selection and supervision of his crews. Without his supervision and involvement and crew selection we would not be interested in the insurance program for this contract. His excellent academic training and professional experience, dating from 1961, support the above.

If you wish any additional information we will be pleased to provide it.

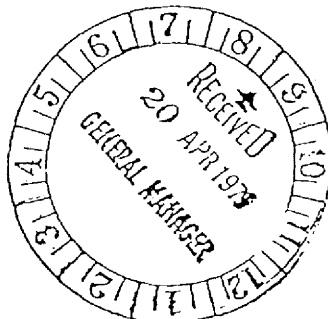
Sincerely,



Charles T. Carl

CTC/cf

cc: Charles Otterman



5011979

CAPT. BRYAN H. SMITH, NC.
MARINE SURVEYORS

2736 SHELTER ISLAND DRIVE - SAN DIEGO, CALIFORNIA 92106 - 224-3164

File Copy
Retention

79 100

REPORT OF SURVEY

This survey report is issued subject to the condition that we and the individual surveyor are under no circumstances responsible for error, omission, negligence, or mis-statement. It constitutes a statement of our opinion based upon the condition as we found them. It is not a warranty of the condition of the vessel or its hull or machinery.

NAME: "EGABRAG"

Home Port: San Diego, CA Official No. 572 028 Former Name YG 46
 Owner: U. S. Oceanography, Inc. Type: Oceanographic research
 Address: P. O. Box 81626, San Diego, CA Accomodations: crew 6
 HULL: Designer: Hull No. 46
 Built By: Bethlehem Steel Co. for U.S. Navy, San Francisco, CA Year: 1945
 Dimensions: L.O.A. 118.1' ^{WLL} Reg. L. 110.1' ^{BEAM} Draft 8.1' Tonnage: Gross 195.98 Net 120
 Speed of Boat: rptd. 10 knots cruise Cruising Range: rptd. 15,000 miles
 Construction: steel displacement hull Fastenings: welded
 Planking: steel plate, welded Frames: steel, welded Decking: steel plate, welded
 MACHINERY: Main Engine: Enterprise (fresh water cooled) Type: diesel, 6 cyl.
 Drive: Enterprise, direct Year: 1945 Horse Power: 300 HP Model: DMG6 No. 44278
 Auxiliaries: see remarks
 Pumps: see remarks

Engine room ventilation: natural Exhaust: dry, stack Is woodwork protected: yes
 Flame arrestor: not required, diesel Carburetor drip pan: not required, dies
 Propeller: bronze 3-blade, 66" x 44" Tailshaft: 7" steel Rudder: steel, fitted
 ELECTRICAL SYSTEM: Voltage: 12v, 24v, 120 DC Batteries: 14 (300 amp 8D) (cond, unknr)
 Wiring: non-metallic sheathed & armored / Master Battery Switch: yes Condition: appar. sat

TANKS: Fuel: diesel No. 12 Material: steel Capacity: rptd. 15,000 gals
 Location: 10-forward 12-integral aft Vented to atmosphere Filling Lines: to deck
 Water Tanks: No. 2 Material: integral, steel Location: forward Capacity: rptd. 16,000 gals
 Holding Tank: 600 gal. steel forward Other:

BALLAST: --- Inside --- Outside
 DECK EQUIPMENT: Winches: Hyde Windlass Co. 15 HP elect. anchor winch, vort. Wildcat & dru
 Anchors, Line & Chain: 2-anchors (Danforth 750#, Navy stockless 1000#), 75 fath. 1" chain /
 Sails: various steel cable & line
 Spars: steel signal mast Standing rigging: galvanized Condition: appar. satis
 Fittings: galvanized Running rigging: Condition: appar. satis

GALLEY: Range: see equipment list Fuel: butane and elect. Area Protected: yes
 Refrigeration: see equipment list
 NAVIGATION EQUIPMENT: Compass: box magnetic & Sperry Gyro Size: 7" & 5" Last Adjusted: 12/78
 Radio: see equipment list Call Letters: WY19490
 Direction Finder: Bendix DF Fathometer: Ray, Ex. II recorder, flasher Radar: 3-Morrison (A & C),
 Other: see equipment list Datamarine Pac. digital Loran Ray, C

SAFETY EQUIPMENT: Portable Fire Extinguisher: 12-15# CO2, 1-10# & 1-5# Prot date: 12/78
 Fire Extinguishing System: 2-50# CO2 covering engine room Manual dry chemical 1 no
 Life preservers, wearable: 14 Throwable: 2-ring / buoys: 2-ocean inflatable life rafts (10 & 1 persons)

TENDERS: see equipment list
 SURVEYED: AFLOAT & ON DRYDOCK: 11-11 December 1978, Harbor Boat Yard & Foot of Market St., San Diego, CA
 By Request of: Charles D. Carl Insurance Co.

VALUES: Replacement: \$1,150,000.00 Market: 1
 REMARKS:

This vessel is a 118.1' diesel screw 1945 former U. S. Navy YG46, converted in 1975-1976 by present owner for oceanographic research, of displacement hull design and welded steel construction, pilot house steering and engine controls. From examination afloat and on drydock of accessible areas the vessel appears to be sound and well maintained, with no evidence of structural damage. House-keeping and general appearance is above average for commercial vessel of this class.

RECEIVED

Date: 11 December 1978
jt: 02 January 1979

M. D. Henderson
M. D. HENDERSON
79 100
CHARLES T. CARL ES.

5011980

VESSEL: "EGABRAG"

Hull shell plating above the waterline has numerous indents, typical of vessel of this type and service.

During conversion to present service all exterior surfaces were sand-blasted to bare metal and dimel coated prior to painting.

Vessel was drydocked on 4-6 December 1978 at Harbor Boat & Yacht Co., San Diego, California at which time the underwater body was found to be in satisfactory condition, was sand swept and 2-coats of anti-fouling paint applied, zincs were renewed. All sea valves were opened out for inspection and were placed in good condition. The propeller was balanced and polished. During dry-docking in February 1977 at San Diego Marine Construction Co., San Diego, California, the shaft was drawn and placed in good condition, stern bearing was renewed. The shaft was bumped this drydock period, readings found satisfactory and recorded.

The vessel was completely refurbished during conversion in 1975-1976, providing modern comfortable living spaces. All new galley appliances have just been installed, a laboratory and quarters for scientific personnel have been added, all living and accommodation spaces are air conditioned, a steel poop deck and aft deck mess area was installed.

As will be noted from the equipment list the vessel's electronic equipment is extensive, of excellent quality and most of it is new including the most modern navigation equipment available.

The vessel is equipped with a complete set of manuals and blueprints, and adequate spare parts for all machinery and vessel equipment.

During the current yard period a 50 KW DC generator was removed and a new Onan 30 KW ships service unit installed.

There were no recommendations remaining upon completion of survey.

Crew for voyage from San Diego, California to Kwajalein Atoll, Marshall Islands via Honolulu, Hawaii commencing on or about 13 December 1978, will consist of:

Master (Edward Jones)
Mate (J. Kucian)
Engineer (Monros Whightman)
Cook (James Warren)
2-deckhands

Edward Jones is known by the undersigned to be holder of a U.S. Coast Guard Ocean Operator license, to have an extensive experience background, and to be well qualified as Master of this vessel for the proposed voyage.

The other crew members are reported by Edward Jones and owner of the vessel, to be well experienced and qualified in their respective onboard capacities.

In the opinion of the undersigned the vessel is in satisfactory condition, is adequately equipped, and is satisfactorily crewed for voyage from San Diego, California to Kwajalein Atoll.

Due caution for wind, weather and sea conditions to be maintained by the master.

5011981

VESSEL: "EGABRAG"

In addition to the above listed equipment, the vessel is also fitted with:

ELECTRONICS

Sperry, open scale repeater-Part #1881011-bridge
 Sperry, Gyropilot-Model # SGP100-bridge
 Sperry, non follow up steering Controller-Part #03956-642384-bridge
 Sperry MK-37 Gyrocompass-Serial # 2309, Part #03956-1884334-2, port cabin
 Sperry Transmission unit-Serial # 2309, Part #03956-1887900-1, port cabin
 Sperry, Control Unit-Serial #2309-Part #03956-1884337-3, port cabin
 Sperry Compensator unit, Serial #2309, Part #03956-1884337-3, port cabin
 Sperry Electric-Hydraulic drive motor-Part #232-9738, engine room
 Sperry, Solid state amp-Part #03956-1882505, bridge
 Radar Seascan MK-2, port bridge,
 Radar Seascan MK-2, starboard bridge
 Fathometer, Datamarine Pacific, bridge
 Fathometer Explorer III recorder, Model #DE725C, bridge
 Sonar, Ocean-Sonics 12KC, office
 Loran C Morrow, Model #LCA-1950, office
 Loran A Morrow, Model #LAM 850-A, office
 CB radio, Johnson Messenger 123A, Model #023FO44-71045, bridge
 VHF radio, Bimini Pearce Simpson, Model # 47192655, bridge
 VHF radio, Benmar, Model #2400, bridge
 CB Com-phone, Lafayette-23, Model #058502-0091; bridge
 Portable VHF transceiver, Pace FM-152, Model/Serial #04525481, cabin
 Portable VHF transceiver, Pace FM-152, Model/Serial # P0600239, cabin
 Battery Charger, Pace P5816, Model/Serial # 065-11859, office
 Direction finder, Bendix 3 bands, Model/Serial # 420-11205, bridge
 FM/AM Multi-band receiver, Sony, Model/Serial # CRF-5100, cabin
 Portable color TV, aft cabin
 Portable color TV Sears, cabin
 VHF transceiver, Raytheon, Model # Ray-50A, bridge
 Omega Navigation system, Model 400, cabin
 Omega Navigation recorder, Model 50, cabin
 Loren C, Raytheon, Model Raynor-6000, cabin
 Single Sideband radiotelephone, Raytheon, Serial# 51164, Model #1275-B, cabin
 Portable VHF transceiver, Tempo FMH-2, Serial # DN-0821, cabin
 Loran C automatic Morrow, Model LCA-2950, Serial #33326
 VHF scanner, SBE OPTI-SCAN, office

NAVIGATION INSTRUMENT & EQUIPMENT

Field glasses 7 x 50, No. 773135, cabin
 Field glasses 9 x 63, No. T-20232, bridge
 Sextant, Humburg, C-Plath; cabin
 Box compass, Dirigo, cabin
 Charts Navigational
 Navigational publications & books
 NOTE: Value of items 5 & 6 \$4000

PORTABLES ENGINEERING EQUIPMENT

Generator, Bendix, 1 KW, Model # PG119, Serial # 2008
 Generator, Pencor AC/DC 3600 RPM, Serial 22235
 Generator, Onan A/C, Serial A 773230 6855
 Welder, AC/DC, Wisconsin, Model EY27W
 Jet-Pump, Pacific Marine 3500 rpm, 60 gal. per min, Serial #29150
 Compressure diving, Keene, Model PCD-10, Serial #0674
 Pump high pressure, Sears, Model 390 2554

VESSEL: "EGABRAC"

PORTABLES ENGINEERING EQUIPMENT (continued)

Fire pump, Teel, Model 3P582B
 Air compressor industrial, Speedaire, Serial #32430
 Fire pump, Wisconsin, Model 5-80, Serial #5226628
 Air compressor paint, Sears Speedair, Model #32430
 V-pump, Mars-Line, Serial # 2395
 Pump self-priming, Jabsco, Model 118100001
 Battery Charger 12 volt, Sears, Model 287198
 Battery Charger 12 volt, Sears, Model 608-71981
 Sander Commercial, Craftsman, Serial 315-11550
 Bench saw 10 inch, Sears Serial K SSEN-1047
 Spray-gun, Wagner ST-350, Model ST350
 Shop-Vac wet & dry, Sears, Model 75 317870
 Drill press 15 1/2", Craftsman
 Saw TS 50, Stihl, Serial # 7137326
 Fastening system, Hilti DX 600 N, Serial #089446
 Fastening system, Hilti DX 1006, Serial # 357826
 Fastening system, Hilti DX 350, Serial # 119954
 Fastening system, Hilti TE 17, Serial # 503380
 Chain Saw, Homelite X2-101 (gas), Serial 2907500
 Lathe, South-Bend 5' bed Cat # 8113B
 Compressor Electric, Ingersal-Rand type 30 3000 psi, Serial 223 x 5
 Freon-12 condensing unit, G.E., Serial C795013
 Air compressor high pressure air 3000 psi
 Stern winch, 5 HP

GALLEY EQUIPMENT

Microwave oven, Sanyo, galley
 Toaster, 4 slice, General Electric part # A7T128
 Food mixer, Braun AG, Serial # 4122922, galley
 Stove 4 burner, C'Keeffe & Merrett, galley
 Deep fryer, Wells, Serial 39715 Model # F-49, galley
 Griddle portable, Toast-Master, Model N2430A, Serial A 40495, galley
 Refrigerator, Jordon, Model SIT-20Y, Serial 91903-65
 Food Warmer, Aeroheat, Model E303 type CCI0 78M
 Freezer, Sears, Model 198-7182321, Serial # P806-72556
 Clothes washer, Speed Queen, Serial T411934, Model DW 3092W
 Refrigerator, Frigidaire

SMALL BOATS & MOTORS

21' boat, Boston Whaler (Outrage) Serial # BWCB-9191M766, CF7879CA
 14' boat, Boston Whaler hull ID # 2B9161, Serial BWCC-3775-M771
 Ocean Service Life Raft, 15-man Goodrich Serial # 15MMUS14
 Ocean Service Life Raft, 10 man Revere Serial # RSA10-1288-1760
 Outboard Motor, Johnson 6 200 HP Model 200-T677C, Serial J4788609
 Outboard Motor, Johnson 25 HP, Model 25R1775 Serial #E4559058
 Outboard motor, Johnson 25 HP
 Inflatable boat 16' Campway

UNDERWATER DIVING EQUIPMENT

Diving hard hat, Kirby Morgan, Model KMB-10
 Diving hard hat, Kirby Morgan Model KMB-10
 Divers communication phone, Helle
 Divers communication phone, Helle
 Portable wire phone, Helle
 High pressure air purifier, Del-Monox
 Regulator, diving
 Underwater TV Camera housing
 TV lens 4 each
 Camera, Nikonos 3 each
 Camera, Canon TX 2 each

CAPT. BRYAN H. SMITH, JR.
MARINE SURVEYOR

VESSEL: "EGABRAG"

UNDERWATER DIVING EQUIPMENT (continued)

Camera lenses, Canon 4 assorted
Underwater lens, 21 MM
Decompression meter, divers
Torch, underwater cutting 2 each
Welding lead underwater, 600'
Diving wet suit, 3 each
Diving dry suit, Unisuit
Diving tanks 72 cu. ft. 17 each
Diving hose, 1500 feet

SHIPS AUX. EQUIPMENT & DECK EQUIPMENT

Air conditioner, Fan Coil Unit, Part # C10-41
Air conditioner, Fan Coil Unit, Part # B10-41
Air conditioner, Fan Coil Unit, Part # CB11-21
Air condensing units (3 each), Part # ACR50036-3
Air condensing units ACR50119-2
Generator ships service, Cnan 12 KW with sound shield 2 each
Generator ships service, Onan 30 KW
Crane, Austin Western 30 ton, Model # S-630, Serial # 514
Radial davit, starboard side, manual power winch
Approximately 1000' wire spliced for slings
Approximately 3000' sampson braid hawsers
Approximately 3000' miscellaneous line
Approximately 2000' welding lead
2-spreader bars
1-spare 66" x 45" propeller

PUMPS:

Allis Chambers 200 GPM elect. DC fire pump
Allis Chambers 30 GPM 1 1/4" elect. DC bilge
Ejector 100 GPM 10 HP elect. bilge/fire main
Handy Billy 60 GPM, 9.8 HP portable gas. bilge/fire
MP 200 GPM, 3", 10 HP elect. portable bilge
American Marsh 400 GPM, 4", clutch drive off
Hercules diesel auxiliary generator
25 Misc. portable pumps, welders & compressors 5 HP

The above listed vessel equipment was not individually inventoried and accounted for by the undersigned. There may be some duplication of equipment shown in this report.

There were no recommendations remaining upon completion of survey.

This survey sets forth the condition of the vessel at the time of the survey to the best of the surveyor's ability and without the removal of bulkheads, paneling, ceiling or other portions of her structure and without the testing of or opening up of propulsion machinery or auxiliaries, tanks or fittings for internal examination or drawing of shafting, or disassembly of valves. It represents the honest, unbiased opinion of the surveyor based on conditions found and is not a warranty of the condition of the vessel or its hull, machinery or equipment.

M. D. Henderson
M. D. HENDERSON
Marine Surveyor

MDH: 11 December 1978
jt: 2 January 1979

5011984