2003

Maritime GLOSSARY of Terms

INTERNATIONAL MARITIME ACADEMY

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INTERNATIONAL MARITIME ACADEMY

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2-digit codes
Special examples of Special Access Codes

5-bit packed (also known as telex format or ITA2)
A format, based on 5-bit codes, used for sending alphanumeric characters to and from telex terminals using International Telegraph Alphabet 2.

7-bit ASCII
A format, based on 7-bit codes, used for sending the alphanumeric characters of the ASCII character set.

8-bit data
A format, based on 8-bit codes, used for encoding information such as text, national character sets, numerical information, and so on.

A

A FIXT [sic] GANGWAY
is a continuation of the quarter-deck to a knee before it, so as to form the gangway when the quarter-deck of itself reaches not forward enough. There is sometimes a fixed gangway, made at the aftpart of the forecastle in large ships, when the waist is longer than the customary length of a deal.

A SHIFTING GOOSE NECK
is a sort of iron cleat, confined near the foremost end of the tiller, by means of thin iron plates, one on each side, which are bolted through the tiller, so that the goose-neck may move forward between the plate as in a groove. Its use is to shift forward as the tiller may shrink and go aft, to be kept fast in the rudder. The goose-neck is fastened by two screw eye-bolts, which go through it and jamb it upon the tiller.

Abaft
A relative term used to describe the location of one object in relation to another, in which the object described is farther aft than the other. Thus, the mainmast is abaft the foremast (in back of).

Abaft the beam
Said of the bearing of an object which bears between the beam and the stern (further back than the ship's middle).

Abandon ship
Get away from the ship, as in an emergency.

Abandon vessel (to)
To evacuate crew and passengers from a vessel following a distress

Abeam
The bearing of an object 90 degrees from ahead (in a line with the middle of the

Able bodied seaman
The next grade above the beginning grade of ordinary seaman in the deck crew.

Aboard
In the vessel (on the ship).

Aboveboard
Above decks; without concealment of deceit (out in the open).

Abreast
Abeam of (alongside of).

Accommodation ladder
A term applied to a portable flight of steps suspended over the side of a vessel from a gangway to a point near the water, providing any easy means of access from a small boat. Accommodation Ladders are usually supplied with two platforms, one at each end. Sometimes called gangway ladder.

Accommodation ladder
Ladder attached to platform at vessel's side with flat steps and handrails enabling persons to embark / disembark from water or shore

Accounting Authority Identification Code
A unique code, assigned by the ITU to identify an Accounting Authority

Administration
The government of the state whose flag the ship in entitled to fly.

Admiral
Comes from the Arabic "Emir" or "Amir" which means "First commander" and "Al-bahr which means "the sea". Emir-al-barh evolved into Admiral.

Adrift
Floating at random; not fastened by and kind of mooring; at the mercy of winds and currents; loose from normal anchorage. A vessel is said to be adrift when she breaks away from her moorings, warfs, and so on.

Adrift
Uncontrolled movement at sea under the influence of current, tide or wind

Aeronautical drift

Drift caused by bailout trajectory or aircraft gliding distance.

Aeronautical position

Initial position of a distressed aircraft at the time of re-entry, engine failure, aircrew ejection or bailout.

Afloat

Floating.

Aframax

A tanker of such size as to take commercial advantage under Worldscale (generally, tankers 80,000-119,000 DWT).

Aft

At, near, or toward the stern (back end).

Aft, After

Toward the stern or the back of the vessel. Between the stern and the midship section of the vessel.

After Body

That part of the ship's body abaft the midships or dead-flat. (See BODIES. See also DEAD FLAT.) This term is, however more particularly used in expressing the figure or shape of that part of the ship. (see BODY PLAN, Plate I.)

Afterbody

The section of the vessel aft of amidships.

Agency Fee

A fee charged to the ship by the ship's agent, representing payment for services while the ship was in port. Sometimes called attendance fee.

Aground

Resting on the bottom.

Ahoy

A call used in hailing a vessel or boat (hey!).

Air Draft

The distance from the vessel's water line to the upper most point on the vessel, usually the top of a mast or radar tower. When a vessel has to transit areas where there may be overhead obstructions (bridges, power lines, cranes, loading arms, etc.) it is vital to know what its air draft (draught) will be at the time of transit. The air draft of a vessel will vary depending upon the draft of the vessel and its trim.

Air draft

The height from the waterline to the highest point of the vessel

Air Funnel

A cavity framed in the openings of the timbers, to admit fresh air into the ship, and convey the foul air out of it. They are, generally, and should be, placed in the largest openings so as to be clear for passing the air freely. (See Figure of the Air Funnel, on Plate I.)

Air tank

A metal air-tight tank built into a boat to insure flotation even when the boat is swamped.

Aircraft co-ordinator

A person who co-ordinates the involvement of multiple aircraft in SAR operations.

Aircraft glide

Maximum ground distance an aircraft could cover during descent.

Alee

To the leeward side (away from the wind).

Alert phase

A situation wherein apprehension exists as to the safety of an aircraft or marine vessel and of the persons on board

Alerting post

Any facility intended to serve as an intermediary between a person reporting an emergency and a rescue co-ordination centre or rescue sub-centre.

algal bloom

A rapid increase in the abundance of phytoplankton or benthic algae in a given area

alien species

A species that has been transported by human activity, intentionally or accidentally, into a region where it does not occur naturally

Alive

Alert (pep it up!).

All hands

The entire crew.

All standing

To bring to a sudden stop.

Allowed Lay Time

The number of hours allowed for loading and discharging a cargo as stipulated in a Charter Party.

Aloft

Above the upper deck (above).

Alongside

Side to side.

American Bureau of Shipping

A Classification Society. Under the provisions of the U.S. Load-Line Acts - it has the authority to assign load lines to vessels registered in the U.S. and other countries.

American Standard Code for Information Interchange

A standard alphanumeric character set, based on 7-bit codes.

Amidships

In or towards the middle of a ship in regard to length or breadth (center of).

Amidships

In midships, or in the middle of the ship, either with regard to her length or breadth. Hence that timber, or frame, which has the greatesg breadth and capacity in the ship is denominated the midship bend. (See DEAD FLAT. See also Sheer Draught, Plate I.)

Amidships (or 'Midships')

The middle portion of a vessel.

amnesic shellfish poisoning

A disease with severe neurological effects caused by eating shellfish contaminated with the marine biotoxin domoic acid. The signature symptom is chronic short-term memory loss (see also BIOTOXINS).

anadromous

A form of life cycle in some fishes (e.g., salmon) in which maturity is attained in the ocean, and the adults ascend streams and rivers to spawn in fresh water. (see also CATADROMOUS)

Anchor

A device or iron so shaped to grip the bottom and holds a vessel at anchor by the anchor chain.

Anchor bar

Wooden bar with an iron shod, wedge: shaped end, used in prying the anchor or working the anchor or working the anchor chain. Also used to engage or disengage the wild-cat.

Anchor chain

Heavy, linked chain secured to an anchor for mooring or anchoring.

Anchor lights

The riding lights required to be carried by vessels at anchor.

Anchor Line

The short pieces of plank, or of board, fastened to the sides of the ship, or to stantions [sic] under the fore channel, to prevent the bill of the anchor from tearing the ship's side. when fishing or drawing up the anchor. (See SHEER DRAUGHT, Plate I.) It is only used in the navy, and many ships upon which it was fitted have lately had it taken away.

Anchor watch

The detail on deck at night, when at anchor, to safeguard the vessel (not necessarily at the anchor; a general watch).

Anchorage

A place suitable for anchoring.

Anchor's aweigh

Said of the anchor when just clear of the bottom (leaving or moving).

anoxia

The absence of oxygen.

Antenna Tuning Unit

used to match the characteristics of an antenna to the power amplifier stages of a transmitter

anthropogenic

Originating from human activities

API

The American Petroleum Institute, founded in 1919, was the first oil trade association to include all branches of the petroleum industry.

API Gravity (Relative Density)

A means used by the petroleum industry to express the density of petroleum liquids. API gravity is measured by a hydrometer instrument having a scale graduated in degrees API.

aquaculture

The cultivation of aquatic organisms.

aquifer

A permeable geological formation through which groundwater can flow and from which groundwater can be readily extracted. (see also GROUNDWATER)

aragonite

A crystalline form of calcium carbonate.

Area control centre

An air traffic control facility primarily responsible for providing ATC services to IFR aircraft in controlled areas under its jurisdiction

Articles of Agreement

The Document containing all particulars relating to the terms of agreement between

the Master of the vessel and the crew. Sometimes called ship's articles.

Ashore

On the shore (on land).

Assembly station

Place on deck, in mess rooms, etc., assigned to crew and passengers where they have to meet according to the muster list when the corresponding alarm is released or announcement made

Astern

The bearing of an object 180 degrees from ahead (behind).

Athwartships

At right angles to the fore-and-aft line of the vessel (sideways-across).

ATRS

A standard of reference published by a group of American Tanker brokers and expressed in dollars and cents for thousands of possible voyages. Commonly used for U.S. coastwise voyages.

AUSREP

A vessel position-reporting system similar to AMVER, but operated by the Australian Authorities

Automated Mutual-assistance Vessel Rescue System

a vessel position-reporting system operated by the U.S. Coast Guard for any merchant vessel of 1000 grt or greater on a voyage lasting longer than 24 hours, to and from anywhere on the globe

Automatic Gain Control

used to vary the radio frequency amplification of a radio receiver to keep the signal at a usable level

Automatic request for repeat

The error-correction process used in store-and-forward messaging, by which a receiver checks for errors in received data packets and requests the sending end to re-transmit those packets.

Avast

An order to stop or cease hauling (stop action at once).

Awareness range

Distance at which a search scanner can first detect something different from its surroundings but not yet recognize it.

Awareness stage

A period during which the SAR system becomes aware of an actual or potential incident.

Awash

Level with the water (water ready to, or slightly covering decks).

Awning

A canvas canopy secured over the ship's deck as a protection from the weather (covering).

Aye, aye, sir

The reply to an officer's order signifying that he is understood and will be obeyed (I understand).

B

background (level or concentration)

Ubiquitous and generally very low concentration of a contaminant in a defined marine area, resulting from historical inputs via multiple pathways, especially through the atmosphere.

Backhaul

A deviation to move cargo on the return leg of a voyage for the purpose of minimizing ballast mileage and thereby reducing transportation cost. For example, N. Europe/ E.Med./ USNH/ Carib., versus N. Europe./ Carib.

Backing (of wind)

Shift of wind direction in an anticlockwise manner, for example from north to west (opposite of veering)

Badge

A sort of ornament fixed on the quarters of small vessels near the stern, and containing, either a sash for the convenience of the cabin, or the representation of it. It is commonly decorated with carved work, as marine figures, martial instruments, &c.

Bag of Head Rails

The lowest part of the head-sails, or that part which partakes of the horizontal position. (See Sheer Draught, Plate I.)

Bail

To throw water out of a boat; a yoke, as a ladder bail (rung).

Balcony

The gallery in the stern of large ships. (See Sheer Draught, and Perpendicular View of the Stern, Plate I.)

Ballast

Seawater taken into a vessel's tanks in order to submerge the vessel to proper trim. Ballast can be taken into cargo tanks, double bottoms, fore and aft peak tanks and/or segregated ballast tanks, (SBT).

Ballast Clean

Term applied to the seawater used for ballast when it is not contaminated by any oil and is carried in clean tanks.

Ballast Dirty

Term applied to the sea water used for ballast when it is contaminated with the remnants or residue left in cargo tanks that previously carried crude oil or heavy persistent refined oils.

Ballast Movement

A voyage or voyage leg made without any paying cargo in a vessel's tanks. To maintain proper stability, trim, or draft, seawater is usually carried during such movements.

Ballast Passage

The "ballast leg" of a voyage as differentiated from the "loaded leg."

Ballast Permanent

Ballast carried in ship's tanks that were designed to carry nothing else.

Ballast Pump

A pump used for filling and emptying the ballast tank.

Ballast Segregated/Dedicated

Ballast kept in tanks segregated from cargo pipes and tanks.

Ballast Tanks

The tanks used to carry the vessel's ballast. They may be permanent, dedicated, or cargo tanks.

ballast water

Water carried by a vessel to improve its stability.

Balusters

The ornamental pillars, placed along, or in front of, the balcony in the stern and quarters of large ships.

Bareboat Charter

A Charter in which the bare ship is chartered without crew; the charterer, for a stipulated sum taking over the vessel with a minimum of restrictions usually for 10 or more years. See DEMISE CHARTER..

Bareboat Charter

Owner lets an unmanned ship for a long period at a rate that covers any depreciation and nominal return. Charterer mans the vessel and pays all operating expenses.

Barge

Also lighter. A general name given to a flat-bottomed craft specially adopted for the transportation of bulk cargoes.

Bark

A name given to small ships, especially to <I.SQUARE-STERNEDships, having no head-rails, and to such as have three masts without a mizen top-sail.

Barrel

The standard unit of liquid volume in the petroleum industry. It is equal to 42 U.S. gallons.

Base

The foot or lowest part of a pillar; or that part of a body over which rests, or is designed to rest.

Batten down

To make watertight. Said of hatches and cargo (tie up or secure).

Beach (to)

To run a vessel up on a beach to prevent its sinking in deep water

Beachcomber

A derelict seaman found unemployed on the waterfront, especially in a foreign country (seaman without a ship).

Beam

The width of a ship. Also called its breadth.

BEAM LINE

A line rated along the inside of the ship, fore and aft, shewing the uppersides of the beams at the side of the ship.

Beam wind

A wind at right angles to a vessel's course (wind blowing at the ship's side.)

Bear a hand

To assist or help.

Bear down

To approach (overtake or come up to).

Bearing

The direction of an object (with reference to you, your ship, another object).

Becalmed

A sailing vessel dead in the water due to lack of wind (not moving).

Becket

A rope eye for the hook of a block. A rope grommet used in place of a rowlock. Also, a

small piece of rope with an eye in each end to hold the feet of a sprit to the mast. In general any small rope or strap used as a handle.

BED or BARREL SCREWS

(See SCREWS.)

Belay

To make fast as to a pin or cleat. To rescind an order (tie up).

Belaying pin

A wooden or iron pin fitting into a rail upon which to secure ropes.

BELLFRY

An ornamental framing, made of stantions at the after beams of the forecastle, with a covering or top, under which the ship's bell is hung. In large ships the stantions are supported by knees. In small ships it is frequently built over the windlass.

Bells

Belly strap

A rope passed around (center) a boat or other object for hanging.

Below

Beneath the deck (under).

benefit-cost analysis (cost-benefit analysis)

A technique to compare the relative economic efficiency of projects or policies. A comparison is made between the gross benefits of a project or policy and the opportunity costs (the highest value a productive resource such as labour, capital or a natural resource could return if placed in its best alternative use) of the action.

benthic organism

Bottom dwelling organism.

benthos

Collective synonym for benthic organisms, but frequently also applied to the floor or deepest part of a sea or ocean.

Berth

Dockage space for vessel. Sleeping quarters. Also slang for having a crew position on the vessel

Berth

(1) A sea room to be kept for safety around a vessel, rock, platform, etc. (2) The place assigned to a vessel when anchored or lying alongside a pier, etc

Between decks

The space between decks. The name of the deck or decks between theceiling and main deck.

Bilge

The lower internal part of the hull where the vertical sides meet the bottom. This term applies to both the inside and the outside of the hull. The internal space can be the lower part of a ship’s hold or the engine room and serves as a drainage area where accumulated water can run into and be pumped from.

Bill of Lading

A B/L is the basic document between a shipper and a carrier and a shipper and consignee. It represents the contract of carriage and defines the terms and conditions of carriage. It is the final receipt from the carrier for the goods shown on it and for the condition of the goods. It describes the nature, quantity and weight of the cargo carried. It is also the document of title of the goods shown.

billion

1,000,000,000.

BILLS

The ends of compass or KNEE TIMBER.

BIMCO

Baltic and International Maritime Council

Binnacle

The stand, usually of brass or non-magnetic material in which the compass rests and which contains the compensating magnets (compass holder).

BINNACLE (Formerly BITTACLE)

A wooden case, or chest, which contains the compasses and the lights to shew them, by night, &c. It is divided into three compartments, with sliding shutters. Those at the side have a compass in each, and that in the middle is fitted to hold a lamp, or candles, which emit light on the compasses through a pane of glass on each side. In small vessels it is sometimes fixed before the companion, and the lights put in from the captain's ladderway, without going upon deck. On the deck of a ship of war there are always two binnacles, one for the use of the man who steers, and the other for him who cons, or superintends the steerage.

biodegradation

The breakdown of a substance by biological activity.

biogenic

Produced by organisms.

biogeochemical cycle

The flow of a substance among different places, environmental compartments (e.g., atmosphere, water column, organisms), and chemical forms as a result of geological, chemical, and biological processes.

biological diversity (also called biodiversity)

The diversity of life, often divided into three levels: genetic (diversity within species), species (diversity among species), and ecosystem (diversity among ecosystems)

biomass

The mass of living matter per unit of habitat (e.g., volume of water or area of bottom). Synonyms: standing crop, standing stock.

biotoxins

Naturally occurring toxic compounds produced by certain organisms.

bit

The basic unit of digital communications; may be either 1 or 0. The Inmarsat-C system uses different bit formats -see 5-bit packed, 7-bit ASCII, 8-bit data. See also byte.

Bits per second

a unit of measurement for speed of transfer of data through a system. The Inmarsat-C system currently uses 600 bps data transfer over the satellite link.

Bitter end

The last part of a rope or last link in an anchor chain.

BITT-PINNS

The upright pieces of oak timber, let in and bolted to the beams of two decks at least, and to which the Cross-pieces are let on and bolted. (See Inboard Works, Plate IV.)

Bitts

A pair of vertical wooden or iron heads on board ship, used for securing mooring or towing lines. Similar to dock bollards.

Bitts

Cast steel heads serving as posts to which mooring lines and cables are secured on a ship.

BITTS

A frame of oak timber, whereon the cables or ropes are occasionally fastened. It consists of two upright pieces of oak, called Bitt-pinns, when the bitts are large, or of knees, when the bitts are small, with a cross-piece fastened horizontally athwartships near the head of them. The largest Bitts are commonly called the Riding Bitts, and are those to which the cables are fastened, when the ship rides at anchor. There are also small Bitts to belay ropes to, as the Bow-line and Brace Bitts, situated near the masts; the Fore Jear and Topsail Sheet Bitts, situated on the forecastle, and round the foremast; the Main Jear and Topsail Sheet Betts, which tenon into the foremost beam of the quarter deck. The Bitts round the mizen mast are generally formed with knees, and have sheave-holes for the topsail sheets, &c. (See Sheave-holes. See also Plans and Inboard Works, Plate III. and IV.)

Black gang

Member of the engine-room force, which included the engineers, firemen, oilers, and wipers.

Blast

A whistle signal made by the vessel

Blind sector

An area which cannot be scanned by the ship's radar because it is shielded by parts of the superstructure, masts, etc.

Block

An apparatus consisting of an outside shell and a sheave through which a rope may be passed (pulley).

BLOCK

The large piece of elm out of which the figure is carved at the head of the ship. (See Sheer Draught, Plate I.)

Block and block

Same as two blocks.

BLOCKS

to lead in the catfall are fixed on the plank-sheer over the catheads. A sheave-hole is cut in each, with a snatch, that the fall may lead in fair upon deck. The hole need not be cut through on the outside. (See Sheer Draught, Plate I.)

BLOCKS FIXED

are solid pieces of oak, let through the sides of the ship, and fitted with sheaves to lead the tacks, sheets, traces [sic], &c. into the ship. The block to lead in the main-tack, is fixed at the after end of the fore channel, or before the chestree, and close up under the sheer-strakes. The block for leading in the fore and spritsail sheets is fixed in the side close up under the sheer-strakes, and just before the fenders or steps of the gangway. The block for leading in the main-sheet is fixed through the side, clear of the wardroom bulkhead, or just before it on the upper deck of large ships. In frigates and smaller ships it

is fayed upon the plankshеer, abreast of the mizen-mast. The block for the main-brace and studding sail sheet is fixed on the plank sheer close aft. The blocks for the main and fore lifts are kevel-headed, and are fixed either inside or out abreast their respective masts. The blocks for the dorrick and the top and lift blocks, are fixed outside, a little abaft the mizen-mast; the former on the starboard, and the latter on the larboard side.

BLOCKS FOR TRANSPORTING

the ship, are two solid pieces of elm or oak, one fixed on each side of the stem, above the taffarel, and a snatch with a large score cut each way in the middle. When used, the hawser is hauled in through the snatch.

Boarding arrangements

All equipment, such as pilot ladder, accommodation ladder, hoist, etc., necessary for a safe transfer of the pilot

Boarding speed

The speed of a vessel adjusted to that of a pilot boat at which the pilot can safely embark/disembark

Boat-fall

A purchase (block and tackle) for hoisting a boat to its davits.

BOATS

Small vessels, either open or decked. Rowing boats are open, and others are generally decked over. Boats are managed on the water by rowing and sailing, and are occasionally slight or strong, sharp or flat bottomed, open or decked, plain or ornamented, as they may be designed either celerity or burthen, for deep or shallow water, for sailing in a harbor or at sea, for convenience or pleasure. The construction and the names of boats are different, according to the various purposes for which they are calculated, and the services required of them. The largest that ships take to sea is the LONG-BOAT, (Plate IV.), built very strongly, and furnished with masts and sails. The LAUNCH is a sort of LONG-BOAT, and is now generally taken to sea in its stead; but it is not built upon a principle of sailing, it being more flat, is broader, and more useful for weighing small anchors than the LONG-BOAT. The BARGE is next in size, but very different from the former in its construction, having a slighter frame, and being more ornamented. It is constructed for rowing or sailing, having conveniences for ten or twelve oars, and two or three masts, and is chiefly used for the conveyance of admirals and other officers of rank to and from the ship. The PINNACE is of the same form as the barge, but is something smaller, and never rows more than eight oars. It is for smaller ships, or for the use of officers of subordinate rank. A YAWL is something less than the pinnace, nearly of the same form, and used for similar purposes. They are generally rowed with six oars. The above boats are all carvel-built. CUTTERS for ships are clincher-built, and are used for the conveyance of seamen, or the lighter stores. They are shorter and broader in proportion to their length than the long boat, and constructed either for rowing or sailing

Bob-cat

A mini-caterpillar with push-blade used for the careful distribution of loose goods in cargo holds of bulk carriers

BOBSTAY-HOLES

Holes cut through the fore part of the knee of the head, between the cheeks, large enough to admit the bobstay-collars, to which the bobstays are set up for the security of the bowsprit.

BOILER KILN, A

is shaped similar to the former, but with an open top. It is formed of sheets of copper rivetted togenther, and is fixed in brick work. Under each end, or in the middle, are furnaces to make the water boil, when the plank is in. The upper part is covered with shutters that are hoisted occasionally by small tackles. The dimensions, &c. of a copper boiler in one of the royal yards are, length, forty feet; breadth at the ends, four feet three inches; and in the middle, six feet; depth, two feet ten inches; and weight, fifty-three cwt. three quarters, and seven pound.

Boiler Room

Compartment in which the ship's boilers are located.

Boilers

Steam generating units used aboard ship to provide steam for propulsion or for heating and other auxiliary purposes.

Bollard

An upright, wooden or iron post to which hawsers or mooring lines may be secured.

BOMB-BED-BEAMS

The beams which support the bomb-bed in bomb-vessels.

BOMB-VESSEL

A vessel of war, particularly designed for throwing shells from mortars. It was invented by the French, and said to have been first

used in the bombardment of Algiers. Prior to that time the throwing of shells from sea was supposed impossible.

Bonded Bunkers

Ship's stores that can be delivered under special arrangement direct from a bonded warehouse to the vessel without payment of the custom duties.

Bonded Stores

Ship's stores that can be delivered under special arrangements direct from a bonded warehouse to the vessel without payment of the customs duties.

Boom

A spar used for fore and aft sails.

Boom

A general name given to a projecting spar or pole that provides an outreach for handling cargo.

Boom cradle

A rest for a cargo-boom when lowered for securing for sea.

Boot-topping

The anti-corrosive paint used on and above the waterline.

Bos'n

Shortening of the old term "boatswain," an unlicensed member of the crew who supervises the work of the deck men under direction of the first mate.

Bos'n's chair

The piece of board on which a man working aloft is swung.

Bos'n's chest

The deck chest in which the bos'n keeps his deck gear.

Bos'n's locker

The locker in which the bos'n keeps his deck gear.

Bow

The forward most part of a vessel. This area usually houses gear lockers and is the end where anchors and mooring equipment are located.

Bowsprit

A spar extending forward from the stem.

BOXING

A projection of wood formerly left on the hawse-pieces, in wake of the hawse-holes, and which projected as far out as the plank inside and out. This method of fitting the hawse-holes is now, however, generally laid aside; as, among other advantages which attend the present practice, it is found that, as the method of boxing consumed an unnecessary quantity of large timber, this expence is now avoided; beside which, the planks, without boxing, run forward to the stem, and thereby strengthen the bow. The purpose of boxing is much better answered by a pipe of lead let through the holes, and turned with a flap inside and out, the undersides of which are the thickest, to allow for the wearing of the cable.

The term BOXING is also applied to the scarph of the lower piece of stem, let flatwise into the forefoot. (See Sheer Draught, Plate I.)

Boxing the compass

Calling names of the points of the compass in order.

BRACES

formerly called POINTERS, are also square pieces of timber fixed diagonally across the hold, to support the bilge and prevent the ship's working loose. (See Midship's Section, Plate III.) Braces were formerly fitted to extend from the bilge to the middle of the beam above.

BRACKETS

Short crooked timbers, resembling knees, for support or ornament. The HAIR-BRACKET is the boundary of the aft part of the figurehead, and its lower part finishes with the fore part of the upper deck. (See Sheer Draught, Plate I.) The CONSOLE BRACKET is a light piece of ornament, at the fore part of the quarter gallery, sometimes called a CANTING-LIVRE.

BREAD-ROOM

A place parted off below the lower deck, close abaft, for the reception of the bread. It should always be very completely covered with tin or other metal not so liable to corrode. (See STORE ROOMS.)

Breadth

Beam

BREADTH-SWEEPS

(See Frames.)

Break ground

Said of anchor when it lifts clear of the bottom.

Breaker

A small cask for fresh water carried in ship's boats. A sea (wave) with a curl on the crest.

Break-Head

The short platform at the fore-part of the upper-deck, in large ships, placed at the

height of the ports from the deck, for the convenience of the chase-guns. Its termination aft is the bulk-head called the beak-head bulk-head, which incloses the fore-part of the ship. (See Sheer Draught, Plate I.)

Break-Head Beam

The same as CAT BEAM, which see under the article BEAMS.

Break-Head Carlings

Large carlings which are used to frame the beak-head instead of a collar beam.

BREAST-RAIL

The upper rail of the balcony, or of the breast-work at the fore part of the quarter deck. (See Sheer Draught and Perpendicular view of the Stern, Plate I., Inboard Works, Plate IV., and Plan of the Deck, Plate III.)

BREAST-WORK

The stantions, with their rails, at the fore part of the quarter-deck. The breast-work fitted on the upper deck of such ships as have no quarter-deck serves to make a separation from the main-deck. (See Inboard Works, Plate IV., and Plan of the upper Deck, Plate III.)

Bridge

A general term referring to that area of a vessel where the wheel house and chart room are located. It is the navigating section of a vessel.

Bridge AFT

Vessels with no midship house. All quarters with Bridge are contained in one superstructure at after end of vessel.

Briefing

Concise explanatory information to crew and/or passengers

BRIG or BRIGANTINE

A merchant vessel, having two masts, with the mainsail fore and aft, and not athwartships as in ships. In the Royal Navy, when cutter-built vessels are thus rigged, they are called CUTTER-BRIGS.

Bright work

Brass work, polished (also varnished wood work in yachts).

BROKEN-BACKED or HOGGED

The condition of a ship when the sheer has departed from that regular and pleasing curve with which it was originally built. This is often occasioned by the improper situation of the centre of gravity, when so posited as not to counterbalance the effort of the water in sustaining the ship, or by a great strain, or from the weakness of construction. The latter is the most common circumstance, particularly in some French ships, owing partly to their great length, sharpness of floor, or general want of strength in the junction of the component parts. (See HOGGING.)

BUCKLERS

Pieces of elm plank barred close against the inside of the hawse-holes, to a cant below and under the hook above, to prevent the water from coming in. Those used at sea, denominated BLIND-BUCKLERS, have no aperture; but those used in a harbor, &c. when a ship is at anchor, and called RIDING-BUCKLERS, are made in two pieces, the upper piece rabbeting on the lower piece at the middle of the hawse-hole, and the two pieces, when joining, have a hole in the middle, large enough to admit the cable.

Bulbous Bow

A large protruding bow section designed to break water friction allowing the vessel to make better speeds.

BULGEWAYS

(See BILGEWAYS.)

Bulk Cargo

Usually a homogeneous cargo stowed in bulk, and not enclosed in any container.

Bulkhead

A partition in a ship that divides the interior space into various compartments in the walls of a vessel's tanks.

BULKHEADS

The various partitions which separate one part of a ship from another. Those in the hold are mostly built with rabbetted or cyphered plank, as are those of the magazine, to keep the powder securely from the cargo, ballast, or stowage in the hold. Thus likewise are the fish and bread-room bulkheads. Those upon the decks are mostly to separate the officers from the seamen; as the ward-room bulkhead, which is composed of doors and panels of joiner's work. Thus, also, the cabin and screen bulkheads, in large ships, inclose the cabin from the walk abaft, or balcony; and, forward, the gallery is inclosed by the beak-head bulk-head.

Bum Boat

A small open rowboat employed in carrying supplies for sale to vessels in a harbor.

BUM-KIN, or more properly BOOM-KIN [bumkin, boomkin]

A projecting piece of oak or fir, on each bow of a ship, fayed down upon the false-rail, or upper rail of the head, with its heel cleated against the knight-head in large, and the bow in small ships. It is secured, outwards, by an iron strap, and rod or rope lashing, which confine it downwards to the knee or bow. It is ueed for the purpose of hauling down the fore-tack of the fore-sail.

Bunk

Built-in bed aboard ship.

Bunker

Compartment for the storage of oil or other fuel.

Bunkers

Fuel for a vessel. The type will vary depending upon the propulsion mode of the vessel. Steamships will use a heavy fuel oil, diesels use a range of fuels from heavy to light, and gas turbines generally use kerosene.

Buoy

A floating object employed as an aid to mariners to mark the navigable limits of channels, their fairways, sunken dangers, isolated rocks, telegraph cables, and the like.

BUSHED

Cased with harder metal, as that inserted into the holes of braces or sheaves to prevent their wearing, and, consequently, to take off friction.

Butterworth Tank Cleaning System

A mechanical device used for the purpose of cleaning oil tanks by means of high pressure jets of hot water. The apparatus basically consists of double opposed nozzles which rotate slowly about their horizontal and vertical axis and project two streams of water through all possible angles against all inside surfaces of the space being cleaned. The tank washing machines can deliver sprays of water at various temperatures and pressures that are dictated by the type of cargoes carried and the reasons for cleaning (Quick bottom wash through gas-freeing and tank entry for hot work).

By the board

Overboard (over the side).

By the head

Deeper forward (front end deepest in water).

By the run

To let go altogether.

Byte

One byte is comprised of eight bits. Depending on circum- stances, one byte may represent one alphanumeric character, or numeric information collected by the terminal, or signalling data used by the Inmarsat-C system. Typically, in the Inmarsat-C system, fifteen bytes are contained in one packet.

C

Cabin

The captain's quarters. The enclosed space of decked-over small boat.

Cable

A chain or line (rope) bent to the anchor.

Cable

(1) Chain connecting a vessel to the anchor(s). (2) Wire or rope primarily used for mooring a ship. (3) (Measurement) one hundred fathoms or one tenth of a nautical mile.

Cable-length

100 fathoms or 600 feet (6 feet to a fathom).

Call Letters

The letters assigned to the ship's radio (station).

CALLIPERS (calipers)

Compasses with circular legs, for taking correctly the diameter or size of the timber. There is a smaller sort for taking the diameter of bolts or any thing cylindrical.

Calm

A wind or force less than one knot (knot: 1 nautical mile per hour).

CALVES TONGUE

(See TONGUE.)

Camber

The arching of the deck upward measured at the centerline in inches per foot beam.

Camel

A wooden float placed between a vessel and a dock acting as a fender.

Canceling Date

A stated date after which, if a vessel is not ready to load, the intending charterers have the option of canceling the charter. The passing of the canceling date leaves the owner’s obligation unimpaired unless the charterer releases him.

Cancellation Clause

A clause in a charter party whereby the charterer reserves the right to cancel the charter if the ship fails to arrive, ready to load, on a specified date at a named port.

CANTING

The act of turning any thing completely over, so that the under surface shall lie upwards. It is otherwise said to be half or quarter canted.

CANTING LIVRE

The same as console bracket. (See BRACKETS.)

Capacity Plan

A general plan or inboard profile which gives all data relating to the capacity of cargo spaces, tanks, bunkers and storerooms.

Capping

Routing a vessel around the Cape of Good Hope, South Africa.

Capsize (to)

To turn over

Capstan

The vertical barrel device used to heave in cable or lines

Capstan-bar

A wooden bar which may be shipped in the capstan head for heaving around by hand (to heave up anchor or heavy objects by manpower).

Captain

Master of a ship or pilot-in-command of an aircraft, commanding officer of a warship or an operator of any other vessel

Captain of the Head

A guy who gets Head (toilet) cleaning detail.

Cardinal buoy

A seamark, i.e. a buoy, indicating the north, east, south or west, i.e. the cardinal points from a fixed point such as a wreck, shallow water, banks, etc.

Cardinal points

The four principal points of the compass: North, East, South and West.

Cardinal points

The four main points of the compass: north, east, south and west

Cargo Hose

A hose usually of 6 to 10 inches in diameter used for the transfer of cargo from ship to shore and vice versa.

Cargo Plan

A plan giving the quantities and description of the various grades carried in the ship's cargo tanks.

Cargo Pump

Pump used on tankers for discharging cargo and loading or discharging ballast. Located, at the bottom of the pump room, these pumps are usually of the common duplex type, or turbine type of which the centrifugal is the most common.

Cargo Quantity Option Certificate

A certificate signed by vessel and shore representatives acknowledging the amount of cargo intended to load.

Cast off

To let go.

CAST, TO

To stretch over any thing, as [CAST-KNEES]

CAST-KNEES,

or those hanging-knees which croak or arch over the corner of a gun-port, rider, &c.

Casualty

case of death in an accident or shipping disaster

catadromous

A form of life cycle in some fishes (e.g., freshwater eels) in which maturity is attained in the fresh water, and the adults descend treams and rivers to spawn in the ocean. (see also ANADROMOUS)

CAT-BEAM, THE, or BEAK-HEAD BEAM

is the broadest beam in the ship, generally made in two breadths, tabled and bolted together. The fore-side is placed far enough forward to receive the heads of the stantions of the beak-head bulk-head. (See Inboard Works, Plate IV., and Half-breadth Plan, Plate I.)

CATS-TAIL

The inner part of the cathead, that fays down upon the cat beam, in large ships, and under the forecastle beams of smaller ships.

Catwalk

A raised bridge running fore and aft from the Midship House, and also called "walkway." It affords safe passage over the pipelines and other deck obstructions.

Caulk

To fill in the seams with cotton or oakum.

Center Tanks

Cargo tanks located on the vessel's centerline.

Centerline

A horizontal fore-and-aft reference line for athwartship ship measurements, dividing the vessel into two symmetrical halves.

Centrifugal Pump

A pump consisting of a shaft to which vanes are attached and which rotates in a circular casing. Water or liquid flows into the casing near the center of the rotating shaft and is propelled outward along the vanes by centrifugal force. It escapes through a discharge pipe at the circumference of the casing.

Chafing gear

A guard of canvas or rope put around spars, mooring lines, or rigging to prevent them from wearing out by rubbing against something.

Chain locker

The compartment for storing the anchor chains, located near the bow of the ship.

Charley Noble

The galley smoke-pipe (cook's stove pipe), named after The English sea captain who was noted for the scrupulous cleanliness and shine of the brass aboard his ship.

Charter Party

A document of contract, or agreement, by which a ship- owner agrees to lease, and a charterer agrees to hire, an entire ship, or all or part of the cargo space to carry cargo for an agreed sum under certain conditions.

Charter Rates

The tariff applied for chartering tonnage in a particular trade.

Charterer

The company or person given the use of the vessel for the transportation of cargo or passengers for a specified time.

CHASE

A score cut lengthwise for a tenon to be fixed in, as the tenon at the heels of pillars, &c. Ledges may be chased-about into the carlings, or the carlings into the beams, by cutting the score or chase large enough at one end for it to sweep about into its place.

CHASE PORTS

The ports at the bows, and through the stern of the ship. The former are made for the purpose of firing at an enemy a-head, and are called bow-chasers. The latter for the purpose of firing upon an enemy in pursuit, or for dismasting an enemy that may lie athwart the stern, in order to rake the ship.

Check

To ease off gradually (go slower and move carefully).

Check (to)

(1) To make sure that equipment etc. is in proper condition or that everything is correct and safe. (2) To regulate motion of a cable, rope or wire when it is running out too fast

Checksum digit

A digit which is appended to a numeric data element and used to verify its accuracy. Checksum digits are computed by adding the digits of the data element.

CHEEKS

(1) Knees of oak timber which support the knee of the head, and which they also ornament by their shape and mouldings. They form the basis of the head, and connect the whole to the bows, through which and the knee they are bolted. (See Sheer Draught, Plate I.) (2) are also the circular pieces on the aftside of the carrick bitts. (See Windlass, in Plate IV.)

CHESTREES

Pieces of oak timber, fayed and bolted to the topsides, one on each side, abaft the fore-channels, with a sheave fitted in the upper part for the convenience of hauling home the main-tack. Its true situation is half the length of the main-yard before the centre of the man-mast. (See Sheer Draught, Plate I.)

Chief

The crew's term for the chief engineer.

Chief mate

Another term for first mate.

Chock

A heavy wooden or metal fitting secured on a deck or on a dock, with jaws, used for the lead or to guide lines or cables.

CHOCKS or ROWLOCK CHOCKS OF BOATS

are a sort of cleat, fastened on the gunwale to support the sholes [sic]. WINDLASS CHOCKS are fastened inside the bows of small craft, to support the ends of the windlass.

Choked

The falls foul in a block. The falls may be chocked or jammed intentionally for a temporary securing (holding).

clarifier

A fine-tune control to enable accurate tuning to the required signal, especially for single-sideband (ssb) receivers

Classification of Petroleum

Classes "A-C" of petroleum are considered flammable and have a flash point of 80 F or below. Examples of these classes range from very light napthas (Class A) to most crude oils (Class C). Class D cargoes such as kerosene and heavy crudes are considered combustible and have a flash point above 80 F but below 150 F. Class E cargoes are the heavier fuel oils and lubricating oils and have a flash point above 150 F.

Classification Society

The professional organizations which class and certify the strength and seaworthiness of vessel construction. Class and certification issued to each vessel may be required for insurance purposes. American Bureau of Shipping (ABS) and Lloyds Register of Shipping are two of the most well known classification societies in the world today.

Clean Ballast Tanks

Cargo tanks dedicated to carrying ballast. Unlike SBT (see below), CBT do not require separate pipes and pumps for ballast handling.

Clean Service

Tanker transportation of products lighter than residual fuels, e.g. distillates, including No. 2 Heating Oil.

Clean Ship

Refers to tankers that have their cargo tanks free of traces of dark persistent oils that remain after carrying crudes and heavy fuels oils.

Cleat

A fitting of wood or metal, with horns, used for securing lines (tying up).

CLINCHER-BUILT

A term applied to the construction of some vessels and boats, when the planks of the bottom are so disposed, that the lower edge of every plank overlays the next under it, and the fastenings go through and clinch or turn upon the timbers. It is opposed to the term CARVEL WORK.

CLINCHING or CLENCHING

Spreading the point of a bolt upon a ring, &c. by beating it with a hammer, in order to prevent its drawing.

Clingage

The residue that adheres to the inside surface of a container, such as a ship's tank or shore tank, after it has been emptied.

Clipper bow

A stem curving up and forward in graceful line.

Close up (to)

To decrease the distance to the vessel ahead by increasing one's own speed

Close-coupled towing

A method of towing vessels through polar ice by means of icebreaking tugs with a special stern notch suited to receive and hold the bow of the vessel to be towed

Closed Gauging System

A method of obtaining measurements of the tank contents without opening the tank. This may be accomplished by using automatic tank gauges or by taking measurements through a pressure/vapor lock standpipe. This type of gauging is done extensively on vessels with inert gas systems. Such a system that allows no vapors to be lost to the atmosphere is a true closed system while other types that allow minimum vapors to be lost to the atmosphere are called "restricted systems."

CLOSE-QUARTERS

Strong barriers, or bulkheads, stretching athwart a merchant ship, in several places, and behind which the crew may retreat when boarded by an enemy. They are therefore fitted with several loop-holes, through which the small arms may be fired, with other conveniences for the defense of the ship, and the annoyance of the adversary.

Closest Point of Approach/Time to Closest Point of Approach

Limit as defined by the observer to give warning when a tracked target or targets will close to within these limits

COACH or COUCH

An apartment before the captain's cabin.

Coaming

The raised frame work around deck openings, and cockpit of open boats (hatch coaming).

COAMING CARLINGS

Those carlings that inclose the bomb-beds of bomb-vessels, and which are called carlings because they are shifted occasionally.

Coast earth station

Maritime name for an Inmarsat shore-based station linking ship earth stations with terrestrial communications networks.

coastal area

An entity of land and water affected by the biological and physical processes of both the

sea and land and defined broadly for the purpose of managing the use of natural resources.

Coastal, Small, Harbor/Lake Tankers

Under 16,500 DWT.
These small ships supply terminals with a variety of products from heating oils gasolines and kerosene, to more exotic fuels and chemicals. They are predominantly product carriers and are also are used extensively for bunkering service in harbors and busy ports.

COBOOSE (CABOOSE)

A small shifting kind of shed or galley, to cover the fire place of some merchant ships. It generally stands against the barricade on the fore-part of the quarter-deck, or shifts occasionally.

COCK PIT

That part of the after platform, under the lower deck, between the store-rooms, where the wounded are taken down to be dressed in time of action, and where the surgeon has a repository for his medicines, &c.

Cockpit

The well of a sailing vessel, especially a small boat, for the wheel and steerman.

Cofferdam

The space between two bulkheads set close together, especially between fuel tanks (two walls separated to use for drainage or safety).

Cofferdam

The narrow, empty space between two adjacent watertight or oiltight compartments. This space is designed isolate the two compartments from each other and/or provide additional buoyancy. It prevents any liquid contents of one compartment from entering the other in the event of a bulkhead failure. In oil tankers, cargo spaces are usually isolated

Coiled Ship

Refers to a tanker that is equipped with heating coils in the cargo tanks to permit the heating of cargo if necessary.

COLLAR-BEAM, THE

is the beam upon which the stantions of the beak-head bulk-head stand. The upper side of it is kept well with the upper side of the upper deck port-sills, and lets down upon the spirketting at the side. But its casting over the bow-sprit, in the middle, giving it a form which in timber is not to be gotten without difficulty, a framing of two large carlings, and a stantion on each side of the bowsprit, is now generally substituted in its place. (See Inboard Works, Plate IV.)

Colors

The national ensign.

COME UP, TO

To cast loose the forelocks or lashings of a sett, in order to take in closer to the plank.

Coming around

To bring a sailing vessel into the wind and change to another tack. One who is influenced to a change of opinion.

Comité Consultatif International Télégraphique et Téléphonique

an advisory committee to the International Telecommunica- tion Union (ITU). Now called the ITU Telecommunication Standardization Sector (ITU-T).

Commence search point

Point, normally specified by the SMC, where a SAR facility is to begin its search pattern.

COMPANION

In ships of war, the framing and sash lights upon the quarter-deck or round-house, through which the light passes to the commander's apartments; and, from the upper deck to the gun or messroom in frigates. In merchant ships it is the birthing or hord [sic] round the ladder-way, leading to the master's cabin, and in small ships is chiefly for the purpose of keeping the sea from beating down. (See Inboard Works, Plate IV. and Plan, Plate III.)

Company Inspector

A Company employee given the responsibility of determining the quantity and/or the quality of a volume of oil being moved or stored.

Compatibility (of goods)

Indicates whether different goods can be safely stowed together in one cargo space or in an adjacent hold.

Compressed and expanded

a description of a type of voice communication channel, for use over long distances, in which the signal to noise ratio is improved by compressing the initial signal, using to an algorithm that amplifies low signal levels and attenuates high levels, to produce a transmitted signal with a mean level; this signal is expanded at the receiver, using the same algorithm. The circuitry at the transmit end of the link is called a compressor and that at the receive end an expander. An uncompanded channel is one in which the compressor and expander are

switched out of the circuit and this signal processing does not occur.

Conclusion stage

A period during a SAR incident when SAR facilities return to their regular location and prepare for another mission.

conservation

The management of a natural resource for the protection, maintenance, rehabilitation, restoration, and/or enhancement of populations and ecosystems.

Consignee

The person to whom cargo is consigned as stated on the bills of lading.

Consignor

The shipper of the cargo.

Contamination

The result from commingling of a grade of cargo with a sufficient quantity of another grade to destroy the characteristics of the cargo.

contamination (marine)

An anthropogenic increase in the concentration of a substance in the marine environment. In this report the term “contamination”makes no inference about the existence of any adverse effects

Contract of Affreightment

A service contract under which a ship owner agrees to transport a specified quantity of fuel products or specialty products, at a specified rate per ton between designated loading and discharge ports. This type contract differs from a spot or consecutive voyage charter in that no particular vessel is specified. (Rates are usually discounted below other forms of contracts.)

Controlled Fleet

All ships owned and period chartered by affiliate(s).

CONVERSION

The art of lining and moulding timber, plank, &c. with the least possible waste, and one that the student can never make himself too well acquainted with.

Convoy

A group of vessels which sail together, e.g. through a canal or ice

Co-ordinated search pattern

Multi-unit pattern using vessel(s) and aircraft.

COPING

Turning the ends of iron lodging knees so that they may hook into the beams.

coral

Colonial animals in the phylum Cnidaria; in this report the term is used to refer to those that build reefs. Coral is also often used to refer to the hard, calcareous coral skeleton.

coral bleaching

A phenomenon in which corals under stress (e.g., by elevated water temperature) expel their mutualistic algae (zooxanthellae) in large numbers, or the concentration of algal photosynthetic pigments decreases. As a result, the corals’ white skeletons show through their tissue and they appear bleached.

coral reefs

Extensive limestone structures built largely by corals. They occur in shallow tropical and provide habitat for a large variety of other marine life forms.

Cork fenders

A fender made of granulated cork and covered with woven tarred stuff.

COSPAS-SARSAT

A satellite-based distress beacon locating system

Cospas-Sarsat System

A satellite system designed to detect distress beacons transmitting on the frequencies 121.5 MHz and 406 MHz.

cost-benefit analysis

see benefit-cost analysis

Counter

A part of the stern; the lower counter being that arched part of the stern immediately above the wing transom. Above the lower counter is the second counter, the upper part of which is the under part of the lights or windows. The counters are parted by their rails, as the lower counter springs from the tuck-rail, and is terminated on the upper part by the lower counter-rail. From the upper part of the latter, springs the upper or second counter, its upper part terminating in the upper counter rail, which is immediately under the lights. (See Sheer Draught and Perpendicular View of the Stern, Plate I.)

Counter Mould

The converse of the mould. (See MOULDING.) If, when a piece of timber, moulded on both sides, as the keelson, breast-hooks, riders, &c. is intended to fay at once, the operation is performed thus: after one edge is accurate trimmed to the mould, the windings or bevellings are taken square from the piece, and accurately applied to the

part to which it is to be fayed, and one or sometimes three square spots set off on the counter-side. Then the counter-mould, after being exactly fayed, and the square spots marked, is laid on the piece, to answer the corresponding square spots there; and, they agreeing, the piece may be trimmed through to the fist moulding edge, and will not fail to answer. If there should be wanes on the piece, the mould had better be tacked fast to the side of the piece, and the edge of the mould taken square in; and, to be the more exact, the rase, or the wood to the edge of the mould, had better be taken away with a chisel, and dubbed through afterwards.

Counter Rails

The ornamented rails athwart the stern, into which the counters finish. (See Sheer Draught and Perpendicular View of the Stern, Plate I.)

Counter Timbers

The right-aft timbers which form the stern. The longest run up and form the lights, while the shorter run up only to the under part of them, and help to strengthen the counter. The side counter timbers are mostly formed of two pieces, scarphed together in consequence of their peculiar shape, as they not only form the right-aft figure of the stern, but partake of the shape of the top-side also. Sometimes those right-aft are made in two. (See Sheer Draught, and Perpendicular View of the Stern, Plate I.)

Course

The intended horizontal direction of travel of a craft.

Course

The intended direction of movement of a vessel through the water

Course made good

That course which a vessel makes good over ground, after allowing for the effect of currents, tidal streams, and leeway caused by wind and sea

Cove

The arched moulding sunk in at the foot or lower part of the taffarel. (See Sheer Draught, and Perpendicular View of the Stern, Plate I.)

Coverage factor

The ratio of the search effort (Z) to the area searched (A). C = Z/A. For parallel sweep searches, it may be computed as the ratio of sweep width (W) to track spacing (S). C = W/S.

Crab

A smaller sort of capstan, formed of a wooden piller, and three or more small whelps, whose lower end works in a socket, whilst the middle traverses or turns round in partners which clip it in a circle. Above the whelps are two holes to receive bars, that act as levers, and by which it is turned round. It serves as a capstan for raising of weights, &c. By a machine of this kind, so simple in its construction, may be heaved up the frame timbers, &c. of vessels when building. For this purpose it is placed between two floor timbers, while the partners which clip it in the middle may be of four or five inch plank fastened on the same floors. A block is fastened beneath in the slip, with a central hole for its lower end to work in, as Fig. 5. on Plate III. Besides the crab described here, there is another sort which is shorter and portable. The latter is fitted in a frame composed of cheeks, across which are the partners, and at the bottom a small platform to receive the spindle, as Fig. y, Plate III. [see photo of landborne version in Bunting, "A Day's Work", p. 151]

Cradle

A stowage rest for a ship's boat.

Cradle

A strong frame of timber, &c. placed under the bottom of a ship in order to conduct her steadily in her ways till she is safely launched into water sufficient to float her. (See Frontispiece.)

Craft

Any air or sea-surface vehicle, or submersible of any kind or size

Cranks

Pieces of iron, shaped as an elbow, &c. and attached to the beams of the quarter-deck for the capstan bars to be stowed thereon; they are sometimes fitted to stow the bars under the boatskids. Others are drive in the upper part of the taffarel, to support the stern lanterns.

Crash-stop

An emergency reversal operation of the main engine(s) to avoid a collision

Croaky

A term applied to plank when it curves or compasses much in short lengths.

Cross-bored

Bored with holes alternately on the edges of planks, &c. to separate the fastenings, so as to avoid splitting the timbers or beams.

CROSS-CHOCKS

are larger [than CHOCKS?] pieces of oak timber fayed acrossthe dead-wood and heels of the first-futtocks, to make them equal in height with the floor. In merchant ships they are seldom used. Elm for this purpose may be used with the same advantage as oak, as along the midships it will be equally durable, and is less liable to split. (See Midship Section, Plate III.)

Crosshaul

Two ships on intersecting trade routes. This voyage pattern may indicate uneconomic vessel allocation. For example; Aruba/Fawley and Puerto la Cruz/New York.

Crossing the line

Crossing the Equator.

Cross-spales

Deals, or fir plank, nailed in a temporary manner to the frames of the ship at a certain height, and by which the frames are kept to their proper breadths, until the deck-knees are fastened. The main and top-timber breadths are the heights mostly taken for spaling the frames, but the height of the ports is much better; yet this may be thought too high if the ship is long in building, or the ground not to be depended upon.

Crow

An iron lever, used to prize about the timbers, or any weight, particularly when in such a situation as not to be handled. Crows are if various sorts; some are opened at the end, with a claw for drawing nails, others have a moveable staple at the end for drawing small bolts or large nails. The latter are commonly called Engine Crows.

Crow-foot

The same as BEAM-ARM. [q.v.]

Crow's nest

The platform or tub on the mast for the look-out.

Crude Oil Wash

A method of cleaning tanks using oil from the ship's cargo. COW is normally used when a tanker is discharging. Oil is taken from the tanks and pumped through a special line to fixed or semi-fixed tank washing machines where it is sprayed against all inside surfaces of the tank. This procedure removes any cargo which is 'clinging' to the surfaces of the tank.

Crude Oil Washing

a system of cleaning the cargo tanks by washing them with the cargo of crude oil during discharge

Crutches (or clutches)

The crooked timbers fayed and bolted upon the foot-waling abaft, for the security of the heels of the half-timbers. (See Inboard Works, Plate IV.) Also stantions of iron or wood, whose upper parts are forked to receive rails, spare masts, yards, &c. and which are fixed along the sides and gangways.

Cubic Capacity

The inside measurement of a tanker's cargo compartments or tanks, usually expressed in barrels or cubic feet/meters.

Cubic Limitation

Reaching cargo tank capacity before vessel sinks to its load-line. This is usually caused by loading a light crude (crude with a high API) or clean products.

Cuddy

The cabin abaft, under the round house of East India ships, for the captain's apartment.

Cumulative probability of success

The accumulated probability of finding the search object with all the search effort expended over all searches to date. POSc is the sum of all individualsearch POS values.

Cumulative relative effort

The sum of all previous relative efforts plus the relative effort for the next planned search effort. This value determines the optimal search factor. Zrc = Zr-1 + Zr-2 + Zr-3 +...+Zr-next search

Cup

A solid piece of cast iron, let into the step of the capstan, and in which the iron spindle works which is at the heel of the capstan.

Custody Transfer Measurement

A measurement which furnishes quantity and quality information which can be used as the basis for a change in ownership and/or a change in responsibility for materials.

Custom of the Trade

A phrase sometimes used to describe an action or procedure that is not committed to writing, but which has been followed for a long time, and is considered 'standard practice' by practitioners in the trade.

Cutter

A swift sailing vessel with one mast, more particularly described hereafter.

Cutting-down line

The elliptical curve line, forming the upper side of the floor timbers at the middle line of the ship. Also the line that forms the upper

part of the knee of the head, above the cheeks. (See Inboard Works, Plate IV. on which the cutting down line is represented as limiting the depth of every floor timber at the middle line, and also the height of the upper part of the deadwood afore and abaft.)

Cutwater

The knee of the head. (See that Article.)

Cut-water

The foremost part of the stem, cutting the water as the vessel forges ahead.

D

Dagger

A piece of timber that faces on to the poppets on the bilgeways, and crosses them diagonally to keep them together. The plank that secures the heads of the poppets is called the dagger plank. The dagger seems to apply to any thing that stands diagonally or aslant.

Dagger knees

Knees to supply the place of hanging knees. Their side arms are brought up aslant, or nearly to the underside of the beams adjoining. They are chiefly used to the lower deck beams of merchant ships, in order to preserve as much stowage in the hold as possible. Any straight hanging knees, not perpendicular to the side of the beam, are in general termed dagger knees. (See Inboard Works, Plate IV.)

Dagger plant

(See DAGGER, above.)

Damage control team

A group of crew members trained for fighting flooding in the vessel

Data Terminal Equipment

a component part of an SES, used primarily for storage and interfacing the SES to external devices (such as a keyboard or monitor)

Datum

A geographic point, line, or area used as a reference in search planning.

Datum

(1) The most probable position of a search target at a given time. (2) The plane of reference to which all data as to the depth on charts are referenced

Datum area

Area in where it is estimated that the search object is most likely to be located.

Datum line

A line, such as the distressed craft's intended track line or a line of bearing, which defines the centre of the area where it is estimated that the search object is most likely to be located.

Datum marker buoy

Droppable floating beacon used to determine actual sea current, or to serve as a location reference.

Datum point

A point, such as a reported or estimated position, at the centre of the area where it is estimated that the search object is most likely to be located.

Davit

A curved metal spar for handling a boat or other heavy objects.

Davit

A short beam of fir, trimmed eight square towards the outer-end, and used as a crane, whereby the flukes of the anchor are hoisted to the gunwale without injuring the planks of the side.

Davits

A set of arms on a ship from which its lifeboats are suspended.

Dead ahead

Directly ahead on the extension of the ship's fore and aft line.

Dead freight

Non-utilization of cargo carrying capacity on a vessel.

Dead light

Steel disc, that is dogged down over a porthole to secure against breakage of the glass and to prevent light from showing through.

Dead reckoning

Determination of position of a craft by adding to the last fix the craft's course and speed for a given time.

Dead-door

Doors made of whole deal, with slit deal lining, fitted in a rabbet to the outside of the gallery doors, and bolted withinside, to prevent the water from flowing into the ship in case the quarter gallery should be carried away. [same idea as DEAD-LIGHTS. (CM)]

Dead-eyes

Oblate pieces of elm, fixed at the outer edges of the channels, with three holes in each of them, through which the laniards of the shrouds are reeved. (See Sheer Draught, Plate I. and Midship Section, Plate III.)

Dead-flat

A name given to that timber or frame which has the greatest breadth and capacity in the ship, and which is generally called the midship bend. In those ships where there are several frames or timbers of equal breadth or capacity, that which is in the middle should be always considered as dead-flat, and distinguished as such by the character ['+' surrounded by a circle]. The timbers before dead-flat are marked A, B, C, &c. in order; and those abaft dead-flat by the figures 1, 2, 3, &c. The timbers adjacent to dead-flat, and which have no rising, are distinguished by the characters (A) (B) &c. and (1) (2) &c. (See Sheer Draught, Plate I.)

Dead-lights

Shutters for the stern and gallery lights, to prevent the water from gushing into the ship in a high sea. They are made of whole deal, with slit deal linings, fitted on the outside, and bolted or otherwise fastened within, in bad weather.

Dead-rising or Rising line of the floor

Those parts of the floor or bottom throughout the ship's length, where the sweep or curve at the head of the floor timber is terminated, or inflects to join the keel. Hence, although the rising of the floor at the midship flat is but a few inches above the keel at that place, its height forward and aft increases according to the sharpness of form in the body. Therefore the rising of the floor in the sheer plan, is a curve [sic] line drawn at the height of the ends of the curve of the floor timbers, and limited at the main frame, or dead-flat, by the dead-rising; appearing in flat ships nearly parallel to the keel for some timbers afore and abaft the midship frame; for which reason these timbers are called flats: but in sharp ships it rises gradually from the main frame, and ends on the stem and post.

Dead-water

The eddy-water which the ship draws after her at her seat, or line of floatation in the water, particularly close aft. To this particular great attention should be paid in the construction of a vessel, especially in those with square tucks, for such being carried too low in the water, will be attended with great eddies or much dead-water. Vessels with a round buttock have but little or no dead-water, because, by the rounding or arching of such vessels abaft, the water more easily recovers its state of rest.

Deadweight Scale

A table that is part of the vessel plans and indicates the draft the vessel will be down to at any particular phase of loading.

Deadweight Tonnage

The lifting or carrying capacity of a ship when fully loaded. This measure is expressed in long tons when the ship is in salt water and loaded to her marks. When loaded to her summer marks the value is for her summer deadweight (SWDT). It includes cargo, bunkers, water, (potable, boiler, ballast), stores, passengers and crew.

Dead-wood

That part of the basis of a ship's body, forward and aft, which is formed by solid pieces of timber scarfed together lengthwise on the keel. These should be sufficiently sided to admit of a stepping or rabbet for the heels of the timbers, that the latter may not be countinued downwards to sharp edges; and they should be sufficiently high to seat the floors. Afore and abaft the floors the deadwood is continued to the cutting-down line, for the purpose of securing the heels of the cant-timbers. (See Sheer Draught, Plate I.)

Dead-work

(See SUPERNATANT.)

Deals

Fir wood, of similar thickness to plank.

Deck

A platform or horizontal floor that extends from side to side of a ship. The main deck is the highest complete deck on a ship (the one which runs the full length of the ship).

Deck Log

Also called Captain’s Log, scrap logbook or rough logbook. A full nautical record of a ship’s voyage, written up at the end of each watch by the deck officer on watch. The principle entries are: course steered; distance run; compass variations, sea and weather conditions; ship’s positions, principal headlands passed; names of lookouts, and any unusual happenings such as fire, collision, and the like.

Deck Officer

As distinguished from engineer officer, refers to all officers who assist the master in navigating the vessel when at sea, and supervise the handling of cargo when in port.

Deck Stores

The spare gear and consumable stores provided for the upkeep and safe working of the tanker and her cargo, excluding stores used in engine room.

Decks

The decks are in a ship what floors are in a house. They are to support the artillery, stores, &c. and, with the beams, to connect the ship together. Their names arise from their situation, as Lower Deck, Middle Deck, Upper Deck, and Quarter Deck. When a deck stretches fore and aft upon one line, without any falls or intervals, it is called a Flush Deck. The space before the foremast bulkhead, under the quarter-deck, is often called the Half Deck; and, in some north country ships, the steerage is frequently called by this name.

Deep waisted

A term signifying that the height of the topsides is much above the upper deck, as they are in most vessels in the Royal Navy.

Deep Water Route

A designated area within definite limits which has been accurately surveyed for clearance of sea bottom and submerged obstacles to a minimum indicated depth of water.

Demise Charter

Also called bareboat charter in which the bare ship is chartered without crew; the charterer, for a stipulated sum, taking over the vessel with a minimum of restrictions usually for 10 or more years. See Bareboat Charter.

Demurrage

A fixed sum, per day or per hour, agreed to be paid for the detention of the vessel under charter at the expiration of laytime allowed.

Depth in the hold

The height between the floor and the lower deck. This is one of the principal dimensions given for the construction of a ship. It varies according to the height at which the guns are required to be carried from the water; or according to the trade for which a vessel is designed.

depuration

The process by which pathogens are removed from contaminated live seafood (shellfish in particular) by holding it in clean water for a period of time

Derelict

An abandoned vessel at sea (a danger to navigation).

Derelict

Vessel still afloat, abandoned at sea

Destination

Port for which a vessel is bound

detritus

The particulate, organic remains and waste of organisms. It constitutes a major food source in marine ecosystems.

Deviation

A departure from a voyage pattern on either the forward or return leg of a voyage.

DGPS

(Differential) Global (satellite) Positioning System

Diagonal line

A line cutting the body-plan diagonally from the timbers to the middle line. It is square with, or perpendicular to, the shape of the timbers, or nearly so, till it meets the middle line. (See Body plan, Plate I.)

Diagonal ribband

A narrow plank, made to a line formed on the half-breadth plan, by taking the intersections of the diagonal line with the timbers in the body-plan to where it cuts the middle line in its direction, and applying it to their respective stations on the half-breadth plan, which forms a curve to which the ribband is made as far as the cant body extends and the square frane adjoining. (Sed RIBBANDS.)

diarrhetic shellfish poisoning

see gastroenteritis

dichlorodiphenyltrichloroethane

A potent, slowly degradable insecticide still widely used in many parts of the world.

Diffuse Sources of Pollution (Also Called Non-Point Sources) Multiple, Not Easily Identifiable Sources of Pollution (Eg, Agriculture, Urban Area

An organic compound containing sulphur that is produced in the ocean by certain phytoplankton species and is a precursor for some cloud condensation nuclei in the atmosphere.

Digital Selective Calling

A technique using digital codes which enables a radio station to establish contact with, and transfer information to, another station or group of stations.

dinoflagellates

A group of marine phytoplankton, some of which produce biotoxins

Dip

A position of a flag when lowered part way in salute (method of salute between vessels, like planes dipping wings).

Direction finding

Homing on signals to pinpoint a position

Direction of current

Direction toward which a current is flowing. Also called ``set''.

Direction of waves, swells, or seas

Direction from which the waves, swells, or seas are moving.

Direction of wind

Direction from which the wind is blowing.

Dirty Ballast

Applies to the seawater used for ballast when it is contaminated with the remnants or residue left in cargo tanks that previously carried crude persistent refined oils.

Dirty Service

Tanker transportation of crudes and residual fuels.

Dirty Ship

Refers to tankers that have been carrying crude oil and heavy persistent oils such as fuel oil and dirty diesel oils.

disability-adjusted life year

A method of calculating the global or world-wide health impact of a disease or the global disease burden (GDB) in terms of the reported or estimated cases of premature death, disability and days of infirmity due to illness from a specific disease or condition. (see also global disease burden)

Disabled

A vessel damaged or impaired in such a manner as to be incapable of proceeding on its voyage

Disembark (to)

To go from a vessel

Dispatch

The function of issuing voyage instructions or sailing orders to vessels. Also an agreed amount to be charged by terminals for prompt vessel turn around.

Dispatch Days

Days saved in the loading and discharge of a cargo vessel within the (lay) time allowed under the charter party. Note: Dispatch is not usually applied in the tanker business.

Displacement

The weight of the water displaced by a vessel.

Displacement Tonnage

Expressed in tons it is the weight the water displaced by the vessel which in turn is the weight of the vessel at that time. The vessel's light displacement is the weight of the vessel only and the vessel's loaded displacement is the weight of the vessel and all cargo, stores, fuel, water, etc. on board.

Disponent Owner

Charterer who has sublet the vessel and is acting as the owner per the terms of the contract.

Disposition

A draught or drawing representing the several timbers that compose the frame of the ship, so that they may be properly disposed with respect to the ports, &c. (See Disposition of the Frame in Plate III.) [analogous to a plating expansion drawing in metal hull construction (CM)]

Distress alert

Notification by any means that a distress situation exists and assistance is needed.

Distress alert

A radio signal from a distressed vessel automatically directed to an MRCC giving position, identification, course and speed of the vessel as well as the nature of distress

Distress alerting

The reporting of a distress incident to a unit which can provide or co-ordinate assistance

Distress phase

A situation wherein there is reasonable certainty that a vessel or other craft, including an aircraft or a person, is threat need by grave and imminent danger and requires immediate assistance

Distress signal

A flag display or a sound, light, or radio signal calling for assistance.

Distress Urgency traffic

the verbal exchange of information on radio from ship to shore and/or ship to ship / aircraft about a distress / urgency situation as defined in the relevant ITU Radio Regulations

Ditching

The forced landing of an aircraft on water.

Ditty-bag

A small bag used by seamen for stowing small articles.

Dog

An iron implement used by shipwrights, having a fang at one, or sometimes at each end, to be driven into any piece for supporting it while hewing, &c. Another sort has a fang in one end and an eye at the other, in which a rope may be fastened, and used to haul any thing along.

Dog shore

A shore particularly used in launching.

Doldrums

The belt on each side of the Equator in which little or no wind ordinarily blows.

Dolphin mooring post

A cluster of piles for mooring.

Double bottom

A general term used for all watertight spaces contained between the outside bottom plating, the tank top and the margin plate. Double bottoms are usually sub-divided into a number of separate tanks and can be used to hold clean ballast, potable or boiler feed water, or fuel. They also provide a measure of protection for cargo tanks if bottom plating is damaged in the event of grounding. Chances of pollution may be diminished due to this protection.

Double up

To double a vessel's mooring lines.

Doubling

Planking of ships' [sic] bottoms twice. It is sometimes done to new ships when the original planking is thought to be too thin; and, in repairs, it strengthens the ship, without driving out the former fastenings.

Dove-tail

A score at the end of a piece of wood resembling the end of a dove's tail, and into which a corresponding piece is fitted. It is cut larger within than without for the purpose of holding the two pieces together the more firmly. (See Perpendicular View of the Stern, Plate I.)

Dove-tail plates

Metal plates, formed like dove-tails, and used to confine the heel of the stern-post and keel together.

Dowse

To take in, or lower a sail. To put out a light. To cover with water.

Dowsing chocks

Pieces fayed athwart the apron and lapped on the knight-heads or inside stuff above the upper deck.

Draft

The distance from the surface of the water to the ship's keel (how deep the ship is into the water).

Draft

The depth of a ship in the water. This distance is measured from the bottom of the ship to the surface of the water. Draft marks are cut into or welded on the surface of a ship's plating. They are placed forward and aft on both sides of the hull and also amidships. At the midships draft we will also find the authorized Load Line markings which designate maximum drafts allowed for vessels under various conditions.

Drag

A sea anchor contrived to keep a vessel's head to the wind and sea.

Dragging (of anchor)

Moving of an anchor over the sea bottom involuntarily because it is no longer preventing the movement of the vessel

Draught

The drawing or design of the ship, upon paper, describing the different parts, and from which the ship is to be built. it is mostly drawn by a scale of one quarter of an inch to a foot, so divided or graduated that the dimensions may be taken to one inch. (See Sheer Draught, Plate I.)

Draught (or draft)

Depth in water at which a vessel floats

Draught of water

The depth of water a ship displaces when she is afloat. (See Sheer Draught, Plate I.)

Dressing ship

A display of national colors at all mastheads and the array of signal flags from bow to stern over the masthead (for special occasions and holidays).

Drift

Movement of a search object caused by environmental forces.

Drift error

See TOTAL DRIFT ERROR

Drifting

Being driven along by the wind, tide or current

Drift-pieces

Solid pieces, fitted at the drifts, to form the scroles. They are commonly mitered into the gunwale, but should rather be let in with square butts, as the caulking will stand better. (See Sheer Draught, Plate I.)

Drifts

Those parts where the sheer is raised according to the heights of the decks or gangways, and where the rails are cut off and ended by scroles. (See Sheer Draught, Plate I.)

Driver

The foremost spur on the bilgeways; the heel of which is fayed to the foreside of the foremost poppet, and cleated on the bilgeways, and the sides of it stand fore and aft. It is now seldom used.

Drop

The fall or declivity of a deck, which is generally of several inches. Drops are also small foliages of carved work in the stern-munions, &c.

Drop back (to)

To increase the distance from the vessel ahead by reducing one's own speed

Drumhead

The head of a capstan, formed of semi-circular pieces of elm, which, framed together, form the circle into which the capstan bars are fixed. (See CAPSTAN.)

Druxey

A state of decay in timber with white spungy [sic] veins, the most deceptive of any defect.

Dry Certificate

A document issued at the discharge port by a representative of the consignee indicating that each shipboard cargo tank has been completely discharged.

Dry dock

A basin for receiving a vessel for repairs, capable of being pumped dry (to repair vessel and scrape marine growth from bottom).

Dry-dock

An enclosed basin into which a ship is taken for underwater cleaning and repairing. It is fitted with water tight entrance gates which when closed permit the dock to be pumped dry. Also called gracing dock, gracing dry dock.

DSC

Digital Selective Calling (in the GMDSS system)

Dubbing

Working with an adze.

Dumb Pintle

(See PINTLE.)

dumping

Any deliberate disposal at sea of wastes or other matter, or any deliberate disposal of vessels or other man-made structures.2

Dungarees

Blue working overalls.

Dunnage Battens

Pieces of oak or fir, about two inches square, nailed athwart the flat of the orlop, to prevent wet from damaging the cables, and to admit air. Dunnage battens are also used in sail-rooms, and in magazines, so as to form a vacant space beneath the sails and powder barrels. DUNNAGE, in general, signifies light wood, or similar materials, used to elevate the stowage.

E

Eagle Flies

Pay day

Ears of boat

The knee-pieces at the fore-part on the outside, at the height of the gunwale. (See Long Boat, Plate IV.)

Easy

Carefully (watch what you're doing).

ECNH

East Coast North of Hatteras

ecology

The branch of science studying the interactions among living things and their environment.

economic costs

Reductions of economic value. (see also economic value)

economic externalities

A benefit or a cost not included in the market price of the goods and services being produced, i.e., costs not borne by those who create them and benefits not paid for by those who receive them.

economic value

The sum of the following: direct use values (the net value of any income that can be earned from a resource, e.g., timber, fish, tourism); ecological function values (e.g., flood control, waste assimilation, storm protection); option values (e.g., sources of future drugs, genes for plant breeding); existence values (e.g., satisfaction that the resource exists); bequest values (e.g., inter-generational equity). As far as possible, the

economic value is expressed in monetary terms (see environmental valuation).

ecosystem

A community or several communities of organisms together with their physical environment. A conceptual view of interaction within and independence among species and communities emphasising the nature of the flow of material and energy among these parts and the feedback loops from one part to another.

ecotoxicology

The science of poisons and toxic substances occurring in the environment and their effects.

Edging of plank

Sawing or hewing it narrower.

Effective Isotropically Radiated Power,

a measured transmitted power

Effort factor

(1) For point datums, the effort factor is the square of the total probable error of position (E). fZp=E2. (2) For line datums, the effort factor is the product of the total probable error of position (E) and the length of the line (L). fZl =E6L.

EGC FleetNETsm

This service is provided by FleetNETsm Information Providers, to distribute commercial information to SESs belonging to a F/eetNETsm group, identified by an unique ENID code

EGC network identification code

See EGC FLeetNETsm

EGC receive capability

This is a capability provided on a Class 2 or Class 3 Inmarsat-C SES to receive ECC broadcasts

EGC SafetyNETsm

This service is provided by SafetyNETsm Information Providers to distribute Maritime Safety Information (MSI) to SESs fitted with an ECC receive capability

Ekeing

Making good a deficiency in the length of any piece, by scarphing or butting, as at the end of deck-hooks, cheeks, or knees. The ekeing at the lower part of the supporter under the cat-head, is only to continue the shape and fashion of that part, being of no other service. We make this remark, because, if the supporter were stopt short without an ekeing, it would be better, as it [the ekeing] causes the side to rot, and it commonly appears fair to the eye in but one direction. The EKEING is also the piece of carved work under the lower part of the quarter-piece, at the aft part of the quarter gallery. (See Sheer Draught, Plate I.)

El Niño

A warm current that usually appears around Christmas off the coast of Ecuador and Peru. In this report the term is used to refer to episodic (3-5 year) events when the current is particularly intense and dominates the local population of organisms (the abundance of fish in particular). Such events lead to wider regional or global ocean-atmospheric perturbations whose manifestations range from increased sea surface temperatures in the tropical East Pacific to aberrant rainfall patterns. (see also ENSO)

El Niño / Southern Oscillation

A cyclical, large-scale changes in atmospheric and ocean patterns in which, among other things, warm surface water in the Pacific moves further to the east than normal. (see also El Niño)

Electronic mail

a global message-handling system whereby subscribers to commercial E-mail services can interchange messages and electronic data files between computers. E-mail services are provided by some Inmarsat-C CESs, and by some private organizations. Access to E-mail services may be by PSTN or PSDN networks.

Elevation

The orthographic draught, or perpendicular plan of a ship, whereon the heights and lengths are expressed. It is called by shipwrights the SHEER DRAUGHT. (See Plate I.)

Elongated spreader

step of a pilot ladder which prevents the ladder from twisting

Embark (to)

To go aboard a vessel

Emergency locator transmitter

Aeronautical radio distress beacon for alerting and transmitting homing signals.

Emergency phase

A generic term meaning, as the case may be, uncertainty phase, alert phase or distress phase

Emergency position-indicating radio beacon

A device, usually carried aboard maritime craft, that transmits a signal that alerts search and rescue authorities and enables rescue units to locate the scene of the distress.

endemic disease

An infectious disease that is present in the community at all times but normally at low frequency.

endemic species

Species native to and restricted to specific geographic areas.

End-for-end

Reversing the position of an object or line.

endocrine disruptors

Substances that interfere with processes controlled by animal hormones (e.g., growth, sexual maturity).

Enhanced Group Call

The EGC services provided in the Inmarsat-C system are ECC SafetyNETsm, ECC FleetNETsm and Inmarsat system messages

ENROLLMENT (US)

The document issued by the U.S. Government to vessels under U.S. flag engaged solely in domestic coastwise trade, as distinguished from the Register, which is confined to vessels engaging in foreign trade.

Ensign

(1) The national flag. (2) A junior officer.

Ensign

The flag carried by a ship as insignia of her nationality.

enteroviruses

Viruses that cause disease, mainly in the intestinal tract of mammals. (see also pathogens)

Entrance

A term applied to the fore part of a ship under the load-water line, expressive of its figure; as, "she has a fine entrance," &c.

environmental impact assessment

A process by which the consequences of planned development projects are evaluated as an integral part of planning the project. The analysis of biological, physical, social and economic factors to determine the environmental and social consequences of a proposed development action. The goal of the EIA is to provide policy makers with the best available information in order to minimise economic costs and maximise benefits associated with a proposed development.

environmental valuation

Procedures for valuing changes in environmental goods and services, whether or not they are traded in markets, by measuring the changes in the consumer or producer surpluses associated with these environmental goods.

epidemiology

The study of the factors that influence the frequency and distribution of diseases.

EPIRB

Emergency Position Indicating Radio Beacon

Escort

Attending a vessel to be available in case of need, e.g. ice-breaker, tug, etc

estrogen

A hormone that produces sexual changes or cycles in mammals.

estuary

The region where a river meets the marine environment. It is characterised by variable salinity and often by high biological productivity.

ETA

Estimated Time of Arrival

ETD

Estimated Time of Departure

eutrophication

Increased primary production caused by the anthropogenic enrichment of a water body with nutrients. In the context of the present report the term is used only when the increased production results in negative impacts such as harmful algal blooms, oxygen deficiency, or the overgrowth of corals by seaweeds. (see also primary production and nutrients)

Even keel

Floating level (no list).

Even Keel

The existing conditions of a vessel whose fore and aft drafts are equal.

Even Keel

A ship is said to swim on an even keel when she draws the same quantity of water abaft as forwards.

EYE-BOLT

(See BOLTS.)

F

FACE-PIECE

A piece of elm, generally tabled on to the fore part of the knee of the head, to assist the conversion of the main piece, and likewise to shorten the upper bolts, and prevent the cables from rubbing against them as the knee gets worn.

FACING

Letting one piece, about an inch in thickness, on to another, in order to strengthen it.

facsimile

See fax

FAIR

A term to denote the evenness or regularity of a curve or line.

Fairway

Navigable part of a waterway

Fairway speed

Mandatory speed in a fairway

Fake

A single turn of rope when a rope is coiled down.

Fake down

To fake line back and forth on deck.

FALL

The descent of a deck from a fair curve lengthwise, as frequently in the upper deck of yachts, or merchant ships, to give height to the commander's cabin, and sometimes forward at the hawse-holes.

FALLING-HOME, or by some, TUMBLING-HOME

The inclination which the topside has within a perpendicular. (See FLAIRING.)

False alarm

Distress alert initiated for other than an appropriate test, by communications equipment intended for alerting, when no distress situation actually exists.

False alert

Distress alert received from any source, including communications equipment intended for alerting, when no distress situation actually exists, and a notification of distress should not have resulted.

FALSE-KEEL

A second keel, composed of elm-plank, or thick-stuff, fastened in a slight manner under the main keel, to prevent it from being rubbed. Its advantages also are, that, if the ship should strike the ground, the false keel will give way, and thus the main keel will be saved; and it will be the means of causing the ship to hold the wind better. (See Sheer Draught, Plate I.)

FALSE-POST

A piece tabled on to the aft part of the heel of the main part of the stern post. It is to assist the conversion and preserve the main post, should the ship tail aground. (See Sheer Draught, Plate I.)

FALSE-RAIL

A rail fayed down upon the upperside of the main or upper rail of the head. It is to strengthen the head-rail, and forms the seat of ease at the after end next the bow.

Fantail

After deck over counter. The part of a rounded stern which extends past the rearmost perpendicular.

FASHION PIECES

The timbers so called from their fashioning the after part of the ship in the plane of projection, by terminating the breadth and forming the shape of the stern. They are united to the ends of the transoms and to the dead-wood.

Fathom

Six feet. Comes from the Dutch word "fadom" which was the distance between

Fathom

A measure of 6 feet

fax

Abbreviation for ‘facsimile’, a device used to transmit a facsim- ile copy of an original document. The Inmarsat-A, -B and -M systems support two-way fax transmissions. The Inmarsat-C system is limited in the ship-to-shore direction to allowing an SES to send text messages only (no graphics) to a fax terminal and in the shore-to-ship direction to a fax terminal using a third- party fax bureau service to send text messages only (no graphics) to an Inmarsat-C SES.

FAY (TO)

To join one piece so close to another that there shall be no perceptible space between them.

Fend off

To push off when making a landing.

Fender

Canvas, wood or rope used over the side to protect a vessel from chafing when alongside another vessel or a dock.

FENDERS

Two pieces of oak-plank fayed edgeways, perpendicularly, against the topsides abreast the main hatchway, to prevent the sides of the ship from being rubbed by the hoisting of any thing on board. It appears, however from the construction of these fenders, that their only use, in the Royal Navy, can be, when any thing is to be parbuckled up the side; and, as this is very unusual, most weights being hoisted on board by the yard-tackles, or a derrick, so that the articles never touch ths sides, they are of little use, and had better be dispensed with, as thy are the means of rotting the sides in the parts on which they are affixed. (See Sheer Draught, Plate I.)

Fetch

The distance the waves have been driven by a wind blowing in a constant direction, without obstruction.

Field day

A day for general ship cleaning.

FIFE-RAIL

A rail formerly let over the timber-heads above the plank-sheers of the quarter-deck and forecastle, and formerly worked similar to the plank-sheer, but lately planked up to it, excepting the taffarel fife-rail. (See Stern, Plate I.)

FIGURE

The principal piece of carved work or onrnament at the head of the ship.

Filling Density

The ratio of the weight of liquid in a tank to the weight of distilled water at 60 F. the tank will hold. It is expressed as a percent.

FILLING ROOM

A small place in the magazine, lined with lead, and wherein the powder is started loosely to fill the cartridges.

FILLINGS

Pieces of fir fayed between the cheeks of the head; and the pieces in general, to which no particular denomination is otherwise given, applied or affixed wherever solidity is required; such as those, of oak, between the floors to which the kelson is fayed; and between the timbers, to receive the chain and preventer bolts, &c.

FILLING-TIMBERS

The intermediate timbers between the frames that are gotten up into their places singly after the frames are ribbanded and shored. (See the Disposition of them in Plate III.)

FINISHINGS

The carved ornaments of the quarter galleries. Those below the lower stool are called the lower finishings; and those above the upper stool, the upper finishings. (See Sheer Draught, Plate I.)

Fire monitor

Fixed foam/powder/water cannon shooting fire-extinguishing agents on tank deck, manifold etc.

Fire patrol

A member of the watch going around the vessel at certain intervals so that an outbreak of fire may be promptly detected; mandatory in vessels carrying more than 36 passengers

FIRE-HEARTH

The fire-place and conveniencies in the gallery [sic] for cooking the provisions for the people. It is composed of a grate, iron-boilers, ovens, a smoke-jack, &c.

FISH-ROOM

A place parted off in the after-hold, by bulkheads, between the spirit-room, bread-room, and powder-room. It was formerly used for stowing the salt-fish to be consumed on board; a practice long since discontinued. It is now used for the stowage of coals, and sometimes for spirits, which the ship is destined for a long voyage.

Fix

A geographical position determined by visual reference to the surface, referencing to one or more radio navigation aids, celestial plotting, or other navigation device.

FIXED BLOCKS

Those blocks that come through the sides and are bolted, as the sheet, tack, and brace blocks. (See BLOCKS.)

Flag State

Any state that allows ships to be registered under its laws.

Flags of Necessity (or Convenience)

Flag states that provide lesser economic, financial, tax and/or regulatory burdens to ship owners registering their ships in those countries.

FLAIRING

The reverse of falling or tumbling-home. As this can be only in the fore-part of the ship, it is said that a ship has a flairing-bow, when the topside falls outward fraom a

perpendicular. Its uses are, to shorten the cathead, and yet keep the anchor clear of the bow. It also prevents the sea from breaking in upon the forecastle. (See Fore Body Plan, Plate I.)

Flame Screen (or Arrester)

A device comprised of a fine wire gauze that is fitted into the discharge end of a vent line. It prevents the passage of flame, but will allow vapor to pass through. Flame screens are also fitted to removable ullage plugs used to cover ullage holes on cargo tank tops.

FLATS

A name given to the timbers a-midships that have no bevelings, and are similar to dead-flat, which is distinguished by these characters ['+' surrounded by a circle], (A) (B) (1) (2) &c. (See DEAD FLAT. See also Sheer Draught, Plate I.)

Fleet Coordinators

Vessel dispatchers who coordinate vessel movements, bunkers, cargo, etc.

Flemish down

To coil flat down on deck, each fake outside the other, beginning in the middle and all close together.

FLEXURE

The binding or curving of a line or figure. (See Inflected Curves.)

FLIGHT

A sudden rising, or a greater curve than sheer, at the cheeks, catheads, &c.

Flight information centre

A unit established to provide flight information and alerting services

FLIGHT OF THE TRANSOMS

As the ends or arms of the transoms, being gradually closed in proportion to their distance from the wing transoms downwards, become more narrow as they approach the keel, the general figure or curve which they thus describe, similar to the rising of the floors, is called the flight of the transoms.

Flooding

Major uncontrolled flow of seawater into the vessel

FLOOR

The bottom of a ship, or all that part on each side of the keel, which approaches nearer to a horizontal than a perpendicular direction, and whereon the ship rests when aground.

FLOOR-HOLLOW

The inflected curve that terminates the floor next the keel, and to which the floor hollow mould is made. (See Long-Boat on Plate IV.)

FLOOR-RIBBAND

The ribband next below the floor-heads which supports the floors. This ribband should be well shored, and great pains should be taken to keep it fair and level, as the whole fabric depends very much thereon. (See RIBBANDS.)

FLOORS, or FLOOR-TIMBERS

The timbers that are fixed athwart the keel, and upon which the whole frame is erected. They generally extend as far forward as the fore-mast, and as far aft as the after square timber; and, sometimes, one or two cant-floors are added. (See FRAMES. See also Midship Section on Plate III.)

FLOOR-SWEEPS

The radii that sweep the heads of the floors. (See FRAMES. See also Sheer Draught and Body Plan, Plate I.)

FLUSH

With a continued even surfce; as a FLUSH DECK, which is a deck upon one continued line, without interruption, from fore to aft.

FLY-UP

Is a term similar to the article FLIGHT, signifying a sudden deviation upwards from a sheer line, as the clamps of the lower deck fly -up abaft to prevent their great sny.

Fo'c'sle

A modem version of the old term "forecastle," or bow section of the ship, where the crew lived.

Fog horn

A sound signal device (not necessarily mechanically operated).

Fog-bound

Said of a vessel when forced to heave to or lie at anchor due to fog.

FOOT SPACE RAIL

The rail that terminates the foot of the balcony, and in which the balusters step, if there be no pedestal rail. It rabbets over the ends of the deals of the deck. (See Sheer Draught and Perpendicular View of the Stern, Plate I.)

footprint (of a satellite)

The area on the earth's surface (sea or land) within which an antenna can obtain line-of-sight communications with a satellite. In the Inmarsat systems this area corresponds to

an Ocean Region. Footprint is also known as coverage area.

FOOT-WALING, or FUTTLING, or CEILING

The inside plank of the ship's bottom. (See Midship Section, Plate III.)

Force Majeure

Clause permitting contract to be broken in the event of uncontrollable events, e.g. war, strike government action, which preclude its fulfillment.

FORE

The distinguishing character of all that part of a ship's frame and materials which lie towards the stem.

FORE AND AFT

In the direction of the ship's length from head to stern.

FORE BODY

That part of the ship's body, afore the midships or dead-flat. (See BODIES.) This term is more particularly used in expressing the figure or shape of that part of the ship. (See Body Plan, Plate I.)

Fore peak

The part of the vessel below decks at the stem.

Fore peak

The narrow extremity of the vessel’s bow. Also the tank located in that part of the ship.

Fore, Foreward

Toward the stem or the bow. The section of the vessel between the stem and amidships.

Forecastle

A compartment where the crew lives.

FORE-CASTLE

The short deck above the upper deck forward.

Forefoot

The heel of the stem where it connects to the keel.

FORE-FOOT

The foremost piece of the keel. (See Sheer Draught, Plate I.)

FORE-LOCK

A thin circular wedge of iron, used to retain a bolt in its place, by being thrust through a mortise hole at the point of the bolt. It is sometimes turned or twisted round the bolt to prevent its drawing.

FORE-MOST

Nearest to the head of the ship.

FORE-PECK [sic]

Close forward under the lower deck.

FORK-BEAM

(See BEAMS.)

FORWARD

In the fore-part of the ship.

Forward-looking airborne radar

Any aircraft-mounted radar designed to detect targets on or near the ocean surface by scanning a sector typically centred in the direction of aircraft heading. FLAR may also perform weather avoidance/navigation in support of aircraft operations.

Forward-looking infrared

An imaging system, mounted on board surface vessels or aircraft, designed to detect thermal energy (heat) emitted by targets and convert it into a visual display.

Foul

Jammed, not clear.

Foul (of anchor)

Anchor has its own cable twisted around it or has fouled an obstruction

Foul (of propeller)

A line, wire, net, etc., is wound round the propeller

Fouled hawse

Said of the anchor chain when moored and the chain does not lead clear of another chain.

Founder

To sink (out of control).

FOXEY

A defect in timber, of a reddish cast or hue, proceeding from over-age, &c.

FRAME TIMBERS

The various timbers that compose a frame bend; as the floor-timber, the first, second, third, and fourth, futtocks, and top-timber, which are united, by a proper shift, to each other, and bolted through each shift. They are often kept open, for the advantage of the air, and fillings fayed between them in wake of the bolts. Some ships are composed of frames only, and are supposed to be of equal strength with others of larger scantling. (See Disposition, and Midship Section, Plate III.)

Frames

The ribs of a ship.

FRAMES

The bends of timber which form the body of the ship, each of which is composed of one floor-timber, two or three futtocks, and a top-timber on each side; which being united together, form the frame. Of these frames or bends, that which incloses the greatest space is called the midship or main frame or bend. The arms of the floor-timber form a very obtuse angle; and, in the other frames, this angle decreases or gradually becomes sharper, fore and aft, with the middle line of the ship. Those floors which form the acute angles afore and abaft are called the rising-floors. (See Body Plan, Plate I. and Midship Section, Plate III.)

A frame of timbers is commonly formed by arches of circles called sweeps, of which there are generally five. 1st. The floor-sweep, which is limited by a line in the body-plan, perpendicular to the plane of elevation, a little above the keel; and the height of this line above the keel is called the dead-rising. The upper part of this arch forms the head of the floor-timber. 2d. The lower breadth sweep; the centre of which is in the line representing the lower height of breadth. 3d. The reconciling sweep; this sweep joins the two former, without intersecting either [a geometrically precise way of saying "faired in" (cm)]; and makes a fair curve from the lower height of breadth to the rising line. If a straight line be drawn from the upper ecge of the keel to cut the back of the floor-sweep, the form of the midship frame below the lower height of breadth will be obtained. 4th. The upper breadth sweep; the centre of which is the line representing the upper height of breadth of the timbers. This sweep, described upwards, forms the lower part of the top-timber. 5th. The top-timber sweep, or back-sweep, is that which forms the hollow of the top-timber. This hollow is, however, very often formed by a mould, so placed as to touch the upper breadth sweep, and pass through the point, limiting the half-breadth of the top-timber.

Free Discharge

The charterer is responsible for the cost of unloading the cargo.

Free In And Out

The charterer is responsible for both the costs of loading and unloading the cargo.

Free on Board

The charterer is responsible for the cost of loading the cargo.

Freeboard

The distance from the surface of the water to the main deck or gunwale.

Freeboard

The distance from the water line to the top of the weather deck on the side.

Freeing port

A port in the bulwark for the purpose of freeing the deck of water.

Freight Rate

The charge made for the transportation of freight.

Freighter

A ship designed to carry all types of general cargo, or "dry cargo."

FRIEZING

The ornamental carving or painting above the drift-rails, and likewise round the stern or bow. It is generally a representation of foliage or emblematic trophies of war, &c.

Fuel Oil

A name given to the heaviest grades of residual fuel used in marine oil burning boilers.

FULCRUM

The prop of support of a lever in lifting or removing a heavy body.

Full speed

Highest possible speed of a vessel

Fumes

Often harmful gas produced by fires, chemicals, fuel, etc.

FURRENS

Pieces to supply the deficiency of timber the moulding way.

FUTTLING

(See FOOTWALING.)

FUTTOCKS

The separate pieces of timber wo which the frame timbers are composed. They are named according to their situation, that nearest the keel being called the first futtock, the next above, the second futtock, &c. (See FRAMES. See also Midship Section, Plate III.)

G

GALLERY

The long narrow compartment, or balcony, projecting from the stern and quarters of a large ship. The stern gallery is usually decorated with a balustrade. (See QUARTER GALLERIES. See also Sheer Draught, Plate I.)

GALLEY

The place appointed for the fire-hearth and the use of the cooks. It is generally under the forecastle or the fore-part of the ship.

GAMMONING-HOLE

A mortise hole cut through the knee of the head, between the cheeks, through which the rope passes that gammons the bowsprit. (See Head, Plate I.)

GANG-BOARDS

The narrow platforms within the sides, next the gunwales, which connect the quarter-deck to the forecastle. Each is composed of three or four Prussia deals fayed and bolted together edgewise.

GANGWAY

The entrance into the ship by the steps on the side, which, of course, is best when flush with the quarter-deck. (See Sheer Draught, Plate I.)

Gangway (Gangplank)

A device by which persons come on board or disembark the vessel.

Gantline

A line rove through a single block secured aloft.

Garboard strake

The strake next to the keel (running fore and aft).

GARBOARD STRAKE

That strake of the bottom which is wrought next the keel, and rabbets therein. (See Planking, Plate III.)

GARLANDS

(See SHOT GARLANDS.)

Gas Free

An atmospheric condition in a tank when it is free from any concentration of inflammable, noxious or toxic gases and vapors.

Gas Free Certificate

A certificate issued by a chemist after sampling the air in a tanker's cargo tanks after the cargo has been pumped out. It is endorsed with one of the following notations: (1) Safe for men, (2) Not safe for fire, (3) Safe for men and fire, (4) Not safe.

gastroenteritis

A pathological disturbance of the gastrointestinal tract (i.e., the stomach and intestines), often caused by pathogens and biotoxins found in certain shellfish. (see also pathogens and biotoxins)

gateway

An interface between communication systems such as the Inmarsat-C system and the national/ international tele-communications networks

Gather way

To attain headway (to get going or pick up speed).

Gauging

Measuring depths, usually by means of a steel tape.

Gear

The general name for ropes, blocks and tackles, tools, etc. (things).

General Arrangement Plan

A drawing of a ship which lists all necessary statistics and operating information such as LOA, SDWT, cargo, water, fuel capacity, etc. The deadweight scale is also contained on this important chart which is usually posted outside the ship's office or mate's cabin.

General Average

A general contribution of money paid by all parties concerned in a marine adventure in direct proportion to their several interests when a voluntary or deliberate sacrifice has been made of one or more of the party's goods in time of peril with a view to saving the remainder of the property.

General communications

Operational and public correspondence traffic other than distress, urgency and safety messages, transmitted or received by radio.

General emergency alarm

A sound signal of seven short blasts and one prolonged blast given with the vessel´s sound system

General Interest Economics

Treating all factors, when evaluating transportation alternatives, on an absolute after-tax cost basis.

General Interest Prices

Refers to tax paid cost on marine fuel oil i.e. cost crude, refining, taxes, and distribution expenses.

General Operator's Certificate

a certificate of competency to operate equipment within the GMDSS

General Purpose Vessels

16,500 - 24,999 DWT.

On a worldwide basis, this class of vessel probably covers the largest range and variety of cargoes carried. This class of ship includes chemical carriers, special service

product and crude oil vessels and serve mostly coastwise terminal trades.

GI

Anything of Government Issue.

Gilguy

A term used to designate an object for which the correct name has been forgotten.

Gipsey

A drum of a windlass for heaving in line.

Give way

To keep out of the way of another vessel

Glass

Term used by mariners for a barometer.

Glass Pipe Installation

Special equipment for visual inspection of oil content in water and monitoring of water cleaning efficiency.

global disease burden

A term used by the World Health Organisation to numerically estimate the relative world-wide or global health impact of diseases. The estimate is made in terms of DALYs. (see also DALY)

Global maritime distress and safety system

A global communications service based upon automated systems, both satellite-based and terrestrial, to provide distress alerting and promulgation of maritime safety information for mariners.

Global Navigation Satellite System

World-wide position and time determination system that includes one or more satellite constellations and receivers.

Global positioning system

A specific satellite-based system used in conjunction with mobile equipment to determine the precise position of the mobile equipment.

Glory hole

Steward's quarters

GMDSS

Global Maritime Distress and Safety System

Go adrift

Break loose.

Gold Franc

A nominal currency used by CESs and Accounting Authorities to calculate communication charges incurred by an SES. A fixed rate of exchange exists between the GF and the nominal currency the SDR: 1 SDR = 3.061 GF.

Golden Slippers

Tan work shoes issued to U.S. Maritime Service trainees

GOOGINGS or GUDGEONS

The hinges upon which the rudder traverses. (See Rudder, in Sheer Draught, Plate I.) Also the metal pieces upon which a windlass works.

GOOSE-NECK

A large iron hook, fixed with a strap at the after end od the main channel, to stow the studding sail boom in.

GRAIN-CUT

Cut athwart the grain; as when the grain of the wood does not partake of the shape required; for instance, if a knee be cut out of a broad straight-grained plank, it is evident that the grain, being cut across, would be very short in one or both arms.

Grapnel

A small anchor with several arms used for dragging purposes.

Grating

A wooden lattice-work covering a hatch or the bottom boards of a boat; similarly designed gratings of metal are frequently found on shipboard.

GRATINGS

The lattice coverings of the hatchways, which are made with openings to admit air, or light, by cross battens and ledges. The openings should never be so large as to admit the heel of a man's shoe, as they may otherwise endanger those that pass over them.

Graveyard watch

The middle watch.

Green sea

A large body of water taken aboard (ship a sea).

greenhouse gases

Gases that trap heat radiating from the Earth’s surface, thereby warming the lower atmosphere.

Grid

Any set of intersecting perpendicular lines spaced at regular intervals.

Grid cell

A square or rectangular area formed by pairs of adjacent, perpendicular grid lines.

GRIPE

A piece of elm timber, that completes the lower part of the knee of the head, and makes a finish with the fore-foot. It bolts to

the stem, and is farther secured by two plates of copper in form of a horseshoe, and therefore called by that name. (See Sheer Draught, Plate I.)

GROMMETS (for boats)

Wreaths of rope which confine the oars to the pine in the gunwale.

gross domestic product

A measure of the value added to an economy as a result of human activity. It includes activities carried out in the country by foreign owned companies and individuals and excludes the value of output of goods and services by firms outside the country owned by residents and the remittance of funds to the country from these entities. The measure is “gross” in that it does not include the depreciation of man-made capital nor the depletion or degradation of renewable natural resources.

gross national product

A measure of the value added to an economy as a result of human activity. It includes the value of output of goods and services by firms outside the country owned by residents and the remittance of funds to the country from these entities but excludes the value of output of goods and services by foreign-owned firms in the country. Like the measure of GDP, it does not include the depreciation of man-made capital nor the depletion or degradation of renewable natural resources.

Gross Tonnage

The internal capacity of a vessel measured in units of 100 cubic feet.

Ground speed

The speed an aircraft is making relative to the earth's surface.

Ground tackle

A term used to cover all of the anchor gear.

Grounding

Running ashore (hitting the bot-tom).

groundwater

Water that occupies pores and crevices in rock and soil, below the surface of the Earth. The upper limit of the groundwater is the water table, whose level varies according to the quantity of water entering and extracted from the groundwater. (see also aquifers)

GROUNDWAYS

Large pieces of timber, generally defective, which are laid upon piles driven in the ground, across the dock or slip, in order to make a good foundation to lay the blocks on, upon which the ship is to rest.

Guarantee Items

Repair of guarantee items that develop during the first year of service of a new vessel and are usually corrected by the builder under a guarantee.

GUARD-IRONS

Curved or arched bars of iron fixed over the carved work of yachts, &c. particularly over the head and quarter pieces, to prevent their being damaged.

GUN ROOM

The after-part of the lower deck, parted off for the accomodation of the subaltern officers.

GUNNER's STORE ROOM

(See STORE ROOMS.)

Gunwale

The upper edge of a vessel or boat's side.

GUNWALE

That horizontal plank which covers the heads of the timbers between the main and fore drifts. (See Sheer Draught, Plate I.)

GUY

A rope extended from the head of sheers, and made fast at a distance on each side, by which they are kept steady.

H

habitat

The physical space where an organism, population or species lives. Habitats are usually categorised by particular physical or biological characteristics (e.g., coral reefs, mangrove forests).

Hail

To address a vessel, to come from, as to hail from some port (call).

HAIR BRACKET

The moulding which terminates the fore ends of the head rails, comes at the back of the figure, and breaks in fair with the upper cheek. (See Sheer Draught, Plate I.)

Half cardinal points

The four main points lying between the cardinal points: north east, south east, south west and north west

half duplex

The ability of a communication channel to transmit data in either direction, but in only one direction at a time.

HALF-BREADTH OF THE RISING

A curve in the floor plan, which limits the distances of the centres of the floor-sweeps from the middle line of the body-plan. (See Half Breadth Plan, Plate I.)

HALF-BREADTH-PLAN

(See PLAN.)

Half-mast

The position of a flag when lowered halfway down.

HALF-PORTS

A sort of shutters [sic] made of deal, and fitted to the slope of those ports which have no hanging lids. They have a hole cut in them for the gun to go through.

HALF-TIMBERS

The short timbers in the cant-bodies, which are answerable to the lower futtocks in the square body. (See Disposition in Plate III.)

Halliards or halyards

Ropes used for hoisting gaffs and sails, and signal flags.

HAMMACOE, or HAMMOCK-RACKS

The battens nailed to the sides of the beams, and to which the sailors hang their hammocks and bedding.

HAMMERS

The tools used by shipwrights for driving nails and clenching bolts. Claw-hammers are the most convenient for the former purpose, having a claw at one end to draw the nail out if it splits or rocks in driving. Clench-hammers should be made of hard steel, with one end flat for clenching, and a face for smoothing the clench.

Hampered vessel

A vessel restricted by her ability to manoeuvre by the nature of her work

HANCE or HANCH

A sudden fall or break, as from the drifts forward and aft to the waist. Also those breaks in the rudder, &c. at those parts where it suddenly becomes narrower. (See Sheer Draught, Plate I.)

Hand

A member of the ship's company.

Hand lead

A lead of from 7 to 14 pounds used with the hand lead line for ascertaining the depth of water in entering or leaving a harbor. (Line marked to 20 fathoms).

Hand rail

A steadying rail of a ladder (banister).

Hand rope

Same as "grab rope" (rope).

HAND SCREWS or JACKS, DOUBLE or SINGLE

The engine represented in the margin used to cant beams, or other weighty timbers. It consists of a box of elm, containing cogged iron wheels, of increasing powers. The outer one, which moves the rest, is put in motion by a winch on the outside, and is called either single or double, according to its increasing force. The outer figure here shewn represents the inside work separately. [crank turns pinion, which turns wheel w/ coaxial pinion, which works a rack]

Hand taut

As tight as can be pulled by hand.

HANDSPEC [CF HANDSPIKE]

A wooden bar, made of tough ash, and used as a lever to prize or remove great weights.

Handy Size

Tankers of about 12,000 to 25,000 DWT.

Handybilly

A watch tackle (small, handy block and tackle for general use).

Hang from the yards

Dangle a man from one of the yard arms, sometimes by the neck, if the man was to be killed, and sometimes by the toes, if he was merely to be tortured. A severe punishment used aboard sailing ships long ago. Today, a reprimand.

HANGING

Declining in the middle part from a horizontal right line, as the hanging of the decks, hanging of the sheer, &c.

HANGING-CLAMP

A semi-circular iron, with a foot at each end, to receive nails, by which it is fixed to any part of a ship, to hang stages to, &c.

HANGING-KNEE

Those knees against the sides whose arms hang vertically or perpendicularly. (See Midship Sections, plate III.)

Harbor Dues

Various local charges against all seagoing vessels entering a harbor, to cover maintenance of channel depths, buoys, and

lights. etc. All harbors do not necessarily have this charge.

HARPINS

Pieces of oak similar to ribbands, but trimmed and bevelled to the shape of the body of the ship, and holding the fore and after cant bodies together undil the ship is planked. But this term is mostly applicable to those at the bow; hence arises the phrase "clean and full harpins," as the ship at this part is more or less acute. (See Fore-part of the Half-breadth Plan, Plate I.)

HARRIS-CUT

This term is applied when the edges of planks are cut to an under bevelling, to fay one upon another, as the birthing or sides of the well, so that no ballast may get in at the joints.

Hatch

An opening in a ship's deck for passageway or for handling cargo or stores.

HATCHES

The coverings for the hatchways.

Hatchrails

Ropes supported by stanchions around an open hatch to prevent persons from falling into a hold

HATCHWAYS

The square or oblong openings in the middle of the decks, for the convenience of lowering down goods; forming also the passages from one deck to another and into the hold, &c. (See Plans of Decks, Plates III. and IV.)

Hawse (hawse pipe)

The hole in the bow through which the anchor chain passes.

Hawse buckler

An iron plate covering a hawse hole.

HAWSE-HOOK

The breasthook over the hawse-holes. (See Inboard Works, Plate IV.)

HAWSE-PIECES

The timbers which form the bow of the ship, whose sides stand fore and aft or nearly so; that is, parallel to the middle line of the ship. (See Sheer Draught, plate I.)

Hawser

A rope used for towing or, mooring.

Hawser

A cable used in warping or mooring the vessel.

Head

The ship's water closet (toilet or wash-room). The upper edge of a quadrilateral sail.

HEAD

The upper end of any thing; but more particularly applied to all the work fitted afore the stem, as the figure, the knees, rails, &c. (See Sheer Draught, Plate I.)

Head room

The height of the decks, below decks.

Heading

The horizontal direction in which a craft is pointed.

Heading

The horizontal direction of the vessel's bows at a given moment measured in degrees clockwise from north

HEAD-LEDGES

The thwartship pieces which frame the hatchways and ladderways. (See Plans, Plates III. and IV.)

HEAD-RAILS

Those rails in the head which extend from the back of the figure to the cat-head and bows, which are not only ornamental to the frame but useful to that part of the ship. (See Sheer Draught, Plate I.)

HEAD-TIMBERS

The pieces that cross the rails of the head vertically. They are bolted through their heels to the cutting down of the knee, and unite the whole together. (See Sheer Draught, Plate I.)

Heart

The inside center strand of rope.

Heating Coils

Coils located in the bottom of cargo tanks that steam passes through to heat cargo. The heat lowers the viscosity of the cargo and permits easier pumping of the cargo at the discharge port. Vessels in clean service normally do not have or need heater coils as the viscosity of the clean products (with the exception of some lube oils) is high enough to permit easy pumping at atmospheric temperatures.

Heave around

To revolve the drum of a capstan, winch or windlass. (Pulling with mechanical deck heaving gear).

Heave away

An order to haul away or to heave around a capstan (pull).

Heave in

To haul in.

Heave short

To heave in until the vessel is riding nearly over her anchor.

Heave taut

To haul in until the line has a strain upon it.

Heave the lead

The operation of taking a sounding with the hand lead (to find bottom).

Heave to

To bring vessel on a course on which she rides easily and hold her there by the use of the ship's engines (holding a position).

Heaving line

A small line thrown to an approaching vessel, or a dock as a messenger.

HEEL

The lower end of a timber, &c. A ship is also said to heel when she is not upright.

HEIGHT OF BREADTH LINES, UPPER and LOWER

The two curved lines described on the sheer-plan, at the height of the main-breadth, or broadest part of the ship, at each timber. In the body-plan, they are horizontal lines at those heights on which the main-breadths of each timber are set off. In those lines are found the centres for sweeping the lower and upper breadth sweeps. (See MAIN BREADTH. See also Sheer Draught, and Body Plan, Plate I.)

HELM

The whole of the machinery astern, which serves to steer or guide the ship, as the rudder, the tiller, the wheel, &c.

HELM-PORT TRANSOMS

The piece of timber placed athwart the inside of the counter timbers at the height of the helm-port. It is bolted through every stern timber, and kneed at each end for the security of that part of the ship. (See Perpendicular View of the Stern, in Plate I.)

HELP-PORT

That hole through the counter, through which the head of the rudder passes. (See Sheer Draught, Plate I.)

HELVE

The handle of axes, adzes, mauls, &c.

Hemp

Rope made of the fibers of the hemp plant and used for small stuff or less than 24 thread (1.75 inch circumference). (Rope is measured by circumference, wire by diameter.)

hermaphrodite

An organism that has both male and female reproductive organs.

High, wide and handsome

Sailing ship with a favorable wind, sailing dry and easily. A person riding the crest of good fortune

Hog (Hogging)

The condition of a vessel caused by the unequal distribution of cargo. When a vessel loads too heavily at the ends it causes an arching, or bending upward, of the hull at the midships area. This can also be caused by the vessel working in heavy seas with a large wave under the amidships section.

HOGGING

(See also BROKEN BACKED.)
A ship is said to hog when the middle part of her keel and bottom are so strained as to curve or arch upwards. This term is therefore opposed to sagging, which, applied in a similar manner, means by a different sort of strain, to curve downwards.
In order to elucidate this subject, let us suppose a vessel to be acted upon by several forces as in the figure a b, [a simple "force" diagram] with the forces or weight, e, f, acting downwards [at either end], and c, d, the pressure of the water, acting upwards [amidships; could be a single force; that there are two of them emphasizes the notion that the upwards force is applied to some extent over the length of the ship, but predominantly amidships]; the vessel may in this state be maintained in equilibrio, provided that it has a sufficient degree of strength; but, so soon as it begins to give way, we see that it must bend in a convex manner, since its middle would obey the forces c and d, acting upward, whilst its extremities would be actually forced downwards by the forces or weights e and f. Vessels deficient in strength are generally found in such a situation; and, since similar effects continually act whilst the vessel is immersed in the water, it has happened but too often that the keel has experienced the bad effect of a strain.
Hence it is evident, that hogging may arise either from want of strength in the component parts of a vessel, or from disarrangement in the stowage.
Many long, deep, straight floored vessels, too slightly built, have been found to hog, owing to the great upward pressure of the water upon the broad part of the bottom; and

it has been found that, the longer and larger ships are, the more easily have their bottoms bent or hogged, even when the stowage has been correct; and much more so when it has been unequally distributed towards the head and stern.

Ships deeply laden, with very heavy cargoes or materials nearly amidships, have, on the contrary, been sometimes found to sag downwards, in proportion as the weight of the cargo has exceeded the upward pressure of the water.

But, according to the present practice of building in Great Britain, these disadvantages are little to be feared; although, in a less advanced state of the art, they were frequently found in British vessels, and are still as frequently found in vessels of foreign construction; many of the latter being of too small scantlings and too slightly constructed. Even sharp built vessels of this country, upon the present construction, are seldom found to hog; and we presume that no vessel constructed agreeably to the Table of Dimensions and Scantlings, given hereafter, will be found so to do. But it is to be particularly observed, that these dimensions, with respect to the strength of the body, will not admit of diminution.

If, however, the relative dimensions be changed; and, if the length be increased, as recommended in some cases, in order to produce an increase in the velocity, or, if the ship is intended to be laden with very heavy materials, as lead, &c. the strength may be proportionably increased by enlarging the scantlings of the thickstuff at the joints of the timbers, &c.

Hoist

a cable used by helicopters for lifting or lowering persons in a pick-up operation

Hoist away

An order to haul up.

Hold

The space below decks utilized for the stowage of cargo and stores.

HOLD

That part of the ship below the lower deck, between the bulk-heads, which is reserved for the stowage of ballast, water, and provisions, in a ship of war; and for that of the cargo, in merchant vessels.

Holiday

An imperfection, spots left unfinished in cleaning or painting.

HOLLOW-MOULD

The same with Floor-hollow, which see. Sometimes the back sweep which forms the upper part of the top-timber is called the top-timber hollow.

Holy stone

The soft sandstone block sailors use to scrub the deck, so-called, because seamen were on their knees to use it.

HOOD

The name given to all the foremost and aftermost planks of the bottom, both withinside and without. Also a covering to shelter the mortar in bomb-vessels. In merchant ships it is the birthing round the ladderway. (See COMPANION.)

HOODING-ENDS [hood ends]

These ends of the planks which bury in the rabbets of the stem and stern post.

HOOK of the DECKS

(See BREAST-HOOKS.)

HOOKING

The act of working the edge of one plank, &c. into that of another, in such a manner that they cannot be drawn asunder endways. (See Kelson Scarphs, Inboard Works, Plate IV. and Planking, Plate III.)

HORIZONTAL RIBBANDS

Those ideal ribbands, used in laying off, which are taken off level or square with the middle line of the ship's body. (See RIBBANDS.)

HORN or HORNING

Placing or proving any thing to stand square from the middle line of the ship, by setting an equal distance thereon from each side of the middle line; then bringing the same distance equally from some fixed spot in the middle line by a batten or staff of some length.

HORSE

The round bar of iron which is fixed to the main rail and back of the figure in the head, with stantions, and to which is attached a netting for the safety of the men who have occasion to be in the head. Also the cross-pieces of timber tenoned on to the heads of the bitts for the booms to rest upon.

Horse latitudes

The latitudes on the outer margins of the trades where the prevailing winds are light and variable.

HORSE-IRON

An iron fixed in a handle, and used with a beetle by caulkers, to horse-up or harden in the oakhams [oakums, presumably].

HORSE-SHOES

Large straps of iron or copper shaped like a horse-shoe and let into the stem, which gripe on opposite sides, through which they are bolted together to secure the gripe to the stem.

House

To stow or secure in a safe place. A top-mast is housed by lowering it and securing it to a lowermast.

House flag

Distinguishing flag of a merchant marine company flown from the mainmast of merchant ships.

House rate

An Intra-affiliate billing system.

Hug

To keep close.

Hulk

A worn out vessel.

Hull

The body of the vessel not including its masting, rigging etc.

HULL

The whole frame or body of a ship, exclusive of the masts, yards, sails, and rigging.

Hull down

Said of a vessel when, due to its distance on the horizon, only the masts are visible.

Hurricane

Force of wind over 65 knots.

HW

High water in port as determined by tides which might affect the amount of cargo a vessel can load.

hydrology

The study of the processes affecting the movement of freshwater, including underground waters. Also often used to refer to the processes and movements themselves.

hydrostatic release mechanism

A system of releasing a piece of equipment when immersed in water.

Hypothermia

Abnormal lowering of internal body temperature (heat loss) from exposure to cold air, wind, or water.

hypoxic waters

Waters with a low concentration of oxygen.

I

I nmarsat system message

A message broadcast by the NCC, an NCS or a CES to ships equipped with an ECC receive capability.

Ice-bound

Caught in the ice.

Icing

Coating of ice on an object, e.g. the mast or superstructure of a vessel

ILO

International Labor Organization.

IMO

International Maritime Organization

IMO Class

Group of dangerous or hazardous goods, harmful substances or marine pollutants in sea transport as classified in the International Maritime Dangerous Goods Code (IMDG Code)

imposex

A pseudo-hermaphroditic condition in female gastro-pods (snails) caused by TBT and manifested by the development of a false penis.

IN AND OUT

A term sometimes used for the scantling of the timbers the moulding way, but more particularly applied to those bolts in the knees, riders, &c. which are driven through the ship's sides, or athwartships, and therefore called "In and out Bolts."

In Class

A vessel currently meeting all the requirements of its Classification Society is "in-class".

Inboard

Towards the center line of a ship (towards the center).

INBOARD

Within the ship; as the Inboard Works, &c. (See Plate IV.)

Independent Inspector (Cargo Surveyor)

A person or organization of persons acting independently, but on behalf of, one or more parties involved in the transfer, storage, inventory or analysis of a commodity for purposes of determining the quantity, and/or quality of a commodity. They may also be assigned to the calibration of various measurement instruments and/or storage tanks ashore or on vessels.

Indicated air speed

The aircraft speed shown on the air speed indicator gauge. IAS corrected for instrument error and atmospheric density equals true air speed.

Inert (to)

To reduce the oxygen in a tank by inert gas to avoid an explosive atmosphere

Inert Gas

A gas used by marine tank vessels to displace air in cargo tanks to reduce oxygen content to 8 percent or less by volume and thus reduce possibility of fire or explosion. The inert gas used is usually nitrogen, carbon dioxide or a mixture of gases such as flue gas.

Inert Gas System

A mechanical method of introducing inert gas into a vessel's tanks. An inert gas is one which has little or no ability to react with other gases, or to heat. Examples of inert gases are nitrogen and CO2. Shipboard inert gas systems utilize CO2, either from flue gas sources or from inert gas generators.

Inerting

A procedure used to reduce the oxygen content of a vessel's cargo spaces to 8 percent or less by volume by introducing an "inert" gas blanket such as nitrogen or carbon dioxide or a mixture of gases such as flue gas.

Initial action stage

A period during which preliminary action is taken to alert SAR facilities and obtain amplifying information.

Initial course

Course directed by the OSC or other authorized person to be steered at the beginning of a search

Initial position error

The estimated probable error of the initially reported position of a SAR incident.

Inmarsat

An organization which operates a system of geostationary satellites for world-wide mobile communications services, and which supports the GMDSS and other emergency communications systems.

Inmarsat Mobile Number

the number assigned by the national Routeing Organization to an Inmarsat SES as its identity number:

- an Inmarsat-A maritime IMN has the format lxxxxxx

- an Inmarsat-B maritime IMN has the format 3xxxxxxxxx

- an Inmarsat-C maritime IMN has the format 4xxxxxxxxx

- an Inmarsat-M maritime IMN has the format 6xxxxxxxxx

Inmarsat-A

The original Inmarsat system, operating since 1982, based on analogue techniques and capable of global two-way telephony, facsimile, data and telex communications

Inmarsat-B

An Inmarsat system based on digital techniques and capable of high-quality telephony, facsimile, data and telex services.

Inmarsat-C

An Inmarsat digital system based on low power consumption. This system provides the services of global two-way store-and-forward messaging, distress alerting, ECC SafetyNETsm and FleetNETsm, data reporting and polling.

Inmarsat-E

An Inmarsat distress alerting system based on the use of 1.6 GHz EPIRBs

Inmarsat-M

An Inmarsat system introduced in 1993, based on digital techniques and capable of two-way voice telephony, distress alerting for telephony only, fax and data services

Innage

The amount of space within a tank that is occupied by oil. Innages are sometimes called soundings or body gauges.

INNER POST

A piece of oak timber, brought on and fayed to the foreside of the main stern-post, for the purpose of seating the transoms upon it. It is a great security to the ends of the planks, as the main post is seldom sufficiently afore the rabbet for that purpose, and is also a great strengthener to that part of the ship. (See Inboard Works, Plate IV.)

Inoperative

Not functioning

Inshore Traffic Zone

A designed area between the landward boundary of a traffic separation scheme and the adjacent coast intended for coastal traffic.

Inshore Traffic Zone (of a TSS)

A routing measure comprising a designated area between the landward boundary of a TSS and the adjacent coast

Inspector

A person assigned to determine the quantity and/or the quality of a commodity.

institutional integration (as related to integrated coastal management)

The process of bringing together separate functions of government at different levels together with other stakeholders to provide a unified approach to interventions in the managed area.

Instrument flight rules

Rules governing the procedures for conducting instrument flight. Also a term used by pilots and controllers to indicate type of flight plan.

Instrument meteorological conditions

Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling less than the minima specified for visual meteorological conditions.

Intake Certificate

A document issued by the shipper indicating the amount of cargo loaded aboard the vessel as calculated from the shore tank gauges. Freight is paid on the basis of these figures.

integrated coastal management

The management of sectoral components (e.g., fisheries, forestry, agriculture, tourism, urban development) as part of a functional whole (a holistic approach to management). In ICM the focus is on the users of natural resources, not on the stock per se of these resources. Frequently used synonyms for ICM are integrated coastal area management (ICAM) and integrated coastal zone management (ICZM).

Intermediate Fuels

Light, residual-type fuel oils with characteristics between bunker fuel and marine diesel fuel, typically used in motor ships. It is quoted in terms of Redwood per second.

International Alphabet 5

a standard alphanumeric character set, also known as ASCII, based on 7-bit codes. Supports both UPPER CASE and lower case characters.

International Loadline Certificate

A document issued by a classification society stating the minimum freeboard granted to a vessel and giving the position of the loading disc on the ship's side.

International Mobile Satellite Organization

A system of geostationary satellites for world-wide mobile communications services and which support the Global Maritime Distress and Safety System and other emergency communications systems.

International Telegraph Alphabet 2

a standard alphanumeric character set, generally used for sending messages on the inter- national telex networks. The character set is based on 5-bit codes, also known as telex format or 5-bit packed.

INTERSECTION

The point in which one line crosses another.

Intertanko

International association of independent tanker owners.

intertidal zone (often called littoral zone)

The part of the shoreline that is submerged at high tide and exposed at low tide.

inverter

A means of generating a "mains" voltage from an emergency source of power such as an emergency battery. Used in un-interruptible power supplies.

Inward Charter

The chartering of a vessel by an affiliate from an outside owner or a non-affiliate.

IP

Institute of Petroleum

Irish pennant

An untidy loose end of a rope (or rags).

IRONS

The tools used by the caulkers for driving the oakum.

ISGOTT

International Safety Guide for Tankers and Terminals

Isherwood System

A method framing a vessel which employs closely spaced longitudinals with extra heavy floors spaced further apart. Most tankers use this type of framing system.

isolator

A switch used to isolate the antenna

J

Jack

The flag similar to the union of the national flag.

Jack tar

Sailors were once called by their first names only, and Jack was their generic name. Tar came from seamen's custom of waterproofing clothing using tar.

Jacob's ladder

A rope ladder with wooden rounds used for getting on or off a vessel not at a berth. Also referred to as a pilot's ladder because of its extensive use by vessel's pilots.

Jacob's ladder

A ladder of rope with rungs, used over the side.

JAMBS, for fixing the LIGHTS

Thick broad pieces of oak, fixed up endways, and between which the magazine lights are fitted.

JASREP

A vessel position-reporting system similar to AMVER (see definition), but operated by the Japanese Authorities

Jettison

To throw goods overboard.

Jettison

The act of throwing goods or pumping cargo overboard to lighten a ship to improve stability in an emergency.

Jettison (to) (of cargo)

To throw goods overboard in order to lighten the vessel or improve its stability in case of an emergency

Jetty

A landing wharf or pier; a dike at a river s mouth.

Jews harp

The ring bolted to the upper end of the shank of an anchor and to which the bending shackle secures.

JOINT

The place where any two pieces are united. This term is, however, more particularly used to express the lines which are laid down in the mould-loft for the purpose of making the moulds for the timbers, as those lines exhibit the shape of the body between every two timbers, which is hence called the joints.

Joint rescue co-ordination centre

A rescue co-ordination centre responsible for both aeronautical and maritime search and rescue incidents.

Jolly Roger

A pirate's flag carrying the skull and cross-bones.

Jump ship

To leave a ship without authority (deserting).

Jury rig

Makeshift rig (emergency rig)

K

kbyte

1024 bits or 128 characters.

Keel

The timber or bar forming the backbone of the vessel and running from the stem to the stempost at the bottom of the ship.

Keel

The backbone of the ship. It is a longitudinal beam or plate in the extreme bottom of a ship from which the ribs or floors start.

KEEL

The main and lowest timber of a ship, extending longitudinally from the stem to the stern-post. It is formed of several pieces, which are scarphed together endways, and form the basis of the whole structure, of course it is usually the first thing laid down upon the blocks for the construction of the ship. (See Sheer Draught, Plate I.)

KEEL STAPLES

(See STAPLES.)

Keel-haul

To tie a rope about a man and, after passing the rope under the ship and bringing it up on deck on the opposite side, haul away, dragging the man down and around the keel of the vessel. As the bottom of the ship was always covered with sharp barnacles, this was a severe punishment used aboard sailing ships long ago. Today, a reprimand.

KEELSON, or, more commonly, KELSON

The timber formed of long square pieces of oak, fixed within the ship exactly over the keel) [sic] [( ] and which may therefore be considered as the counter part of the latter([sic] [ )] for binding and strengthing the lower part of the ship, for which purpose it is fitted to, and laid upon, the middle of the floor-timbers, and bolted through the floor and keel. (See Inboard Works, Plate IV.)

Keep a sharp look-out

A look-out is stationed in a position to watch for danger ahead. To be on guard against sudden opposition or danger.

KEVEL, or CAVEL HEAD BLOCKS

A sort of blocks [sic], having a sheave hole or two cut through fore and aft, and which

are bolted to the ship's sides, nearly opposite the masts, to reeve the lifts, &c.

KEVELS

Pieces of oak plank, shaped like timber heads, and fixed into mortises cut through other pieces that are fastened to the insides of the ship. They answer the purpose of timber heads to belay the ropes to.

KEY

A dry piece of oak, &c. cut tapering, to drive into scarphs that have hook-butts.

KILN

A convenience for heating planks to make them pliable. A steam-kiln [steam box] is a trunk composed of deals, grooved neatly into each other, which is generally from three to four feet square, and from forty to sixty feet in length, having a door at each end. It is confined together by bolts driven through it at certain distances, which answer for bearers to rest the plank upon, and it is supported upon brick work. Beneath it, in the middle, is a large iron or copper boiler, or sometimes two boilers, which are then fixed near each end, the steam from which, issuing into the trunk, enters the pores of the plank and makes it pliable.

King-spoke

The upper spoke of a steering wheel when the rudder is amidships, usually marked in some fashion (top spoke of neutral steering wheel).

KNEE OF THE HEAD

The large flat timber fayed edgeways upon the fore-part of the stem. It is formed by an assemblage of pieces of oak coaked or tabled together edgewise, by reason of its breadth, and it projects the length of the head. Its fore-part should form a handsome serpentine line, or inflected curve. The principal pieces are named the main-piece and lacing. (See Sheer Draught, Plate I.)

KNEE TIMBER

That sort of crooked timber which forms, at its back or elbow, an angle of from forty-five to twenty-four degrees. The more acute this angle is, the more valuable is the timber on that account. But if their angle be more obtuse, they are said to be raking, and are proportionably less valuable, being of the less utility for the formation of knees, &c.

KNEES

The crooked pieces of oak timber, by which the ends of the beams are secured to the sides of the ship. Of these, such as are fayed vertically to the sides are called hanging-knees, and such as are fixed parallel to, or with the hang of the deck, are called lodging-knees. (See Midship Section, Plate III. and Plans of the Deck, Plates III. and IV.)

KNIGHT-HEADS, or BOLLARD-TIMBERS

Large oak timbers fayed and bolted to each side of the stem, the heads of which run up sufficiently above the head of the stem to support the bowsprit, care being taken to cast the sufficiently open above the stem to the diameter of the bowsprit. (See Sheer Draught, Plate I.)

Knock off

To stop, especially to stop work.

Knocked down

The situation of a vessel when listed over by the wind to such an extent that she does not recover.

Knot

Speed of 1 nautical mile per hour (1.7 land miles per hour).

KNUCKLE

A sudden angle made on some timbers by a quick reverse of shape, such as the knuckles of the counter timbers. (See Sheer Draught, Plate I.)

KNUCKLE-TIMBERS

Those top-timbers in the fore-body whose heads stand perpendicular, and form an angle with the flair or hollow of the topside. This work is the best when the touch or knuckle is at the plank sheer. (See Fore-body in Plate I.)

L

Labor

A vessel is said to labor when she works heavily in a seaway (pounding, panting, hogging and sagging).

LABOURSOME

Subject to labour, or to pitch and roll violently in a heavy sea, by which the masts and even the hull may be endangered. For by a successive heavy roll the rigging becomes loosened, and the masts at the same time may strain upon the shrouds with an effort which they will be unable to resist; to which may be added, that the continual agitation of the vessel loosens her joints, and makes her extremely leaky.

LACING

One of the principal pieces that compose the knee of the head, which runs up to the top of the hair-bracket, and to which the figure and rails of the head are secured.

Ladder

A metal, wooden or rope stairway.

LADDERS

Ladders are in a ship for the same purpose as stairs in a house, for the convenience of ascending or descending from one deck to another.

LADDER-WAYS

The openings in the decks wherein the ladders are placed. (See Plans, Plate III.)

Lame duck

Term for disabled vessel that had to fall out of a convoy and thus became easy prey for submarines.

Land Earth Station

The generic name applicable to both maritime and land mobile-satellite communications for the term Coast Earth Station (CES).

LANDING-STRAKE, in BOATS

The upper strake but one.

Landlubber

The seaman's term for one who does not go to sea.

LANTERNS

The machines made of tin and glass, to contain candles for the transmission of light to those parts of the ship where an unscreened candle cannot be placed, or where it would be dangerous, as on the poop, in the magazine, store-rooms, &c.

Lanyard

A rope made fast to an article for securing it (knife lanyard, bucket lanyard, etc.), or for setting up rigging.

LAP OVER or UPON (TO)

The mast carlings are said to lap upon the beams by reason of their great depth, and head-ledges at the ends lap over the coamings.

LAPS

The remaining part of the ends of carlings, &c. which are to bear a great weight or pressure, such as the capstan-step. (See Inboard Works, Plate IV.)

LAP-SIDED

A term expressive of the condition of a vessel when she will not swim upright, owing to her sides being unequal.

LARBOARD-SIDE

The left-hand side of the ship, when looking forward from the stern.

Large Range 1

50,000 - 79,999 DWT.

Large Range 2

80,000 - 159,999 DWT.
Vessels in this class that are less than 100,000 dwt are divided into two basic categories namely, "Dirty " and "Clean". The "dirty" vessels carry the "black" or dirty cargoes such as crude oil , heavy fuel oils, asphalt etc. The "clean" vessels carry the refined "white" clean products such as gasoline, jet fuels, kerosene etc. Chemical carriers would also fall into the "clean" category. Because of the strict tank inspection requirements for clean products, most proprietary vessels or those on long term charter or do not routinely change their trading patterns from clean to dirty or vice versa. However market requirements and charter economics do require vessels to sometimes slip in and out of these clean and dirty trades. Vessels in this class that are over 100,00 dwt tend to be crude oil carriers only.

Lashing

A rope securing pieces together.

Last known position

Last witnessed, reported, or computed DR position of a distressed craft.

Launch

To place in the water.

LAUNCH

(1) The slip or descent whereon the ship is built, including the whole of the machinery used in launching. (See Frontispiece.) (2).A large boat now mostly used instead of the LONG BOAT. (See LONG BOAT.)

Launch (to)

To lower, e.g. lifeboats, to the water

LAUNCHING

The act of sending the ship from off the slip into the water.

LAUNCHING-PLANKS

A set of planks mostly used to form the platform on each side of the ship, whereon the bilgeways slide for the purpose of launching. (See Frontispiece.)

Lay aloft

The order to go aloft (go up above).

Lay days

The period of time described in the charter party during which the owner must tender his ship for loading. The charterer is not obliged to start loading before the commencement of lay days. The charterer may cancel the charter if the ship does not tender prior to the expiration of lay days.

LAYING-OFF, or LAYING DOWN

The act of delineating the various parts of the ship, to its true size, upon the mould-loft floor, from the draught given, for the purpose of making the moulds. (See MOULDS.)

Laytime

The allowable time specified in the charter party for vessel's loading or discharging of cargo.

Lazaretto

A low headroom space below decks used for provisions or spare parts, or miscellaneous storage.

LAZARETTO

A name given to an hospital-ship for the reception of the sick, or of persons supposed to be infectious. It is also the name of a place parted off at the fore-part of the lower deck, in some merchant ships, for the convenience of laying up the provisions, stores, &c. necessary for the voyage.

Leaking

Escape of liquids such as water, oil, etc., out of pipes, boilers, tanks, etc., or a minor inflow of seawater into the vessel due to damage to the hull

LEAN

The same with CLEAN, which see.

LEDGES

Oak or fir scantling used in framing the decks, which are let into the carlings athwartships. The ledges for gratings are similar, but arch or round up agreeable to the head-ledges. (See Lower Deck Plan, plate IV.)

Lee shore

The land to the leeward of the vessel (wind blows from the ship to the land).

Leeward

The direction away from the wind.

Leeward

On or towards the sheltered side of a ship; opposite of windward

Leeway

The movement of a search object through water caused by winds blowing against exposed surfaces.

Leeway

Vessel's sideways drift leeward of the desired course

Length Between Perpendiculars

The length of the vessel measured between the forward part of the stem to the after part of the rudder post.

Length Overall

The extreme length of the vessel measured from the foremost part to the aftermost part of the hull.

LENGTHENING

The operation of separating a ship athwartships, and adding a certain portion to her length. It is performed by clearing or driving out all the fastenings in wake of the butts of those planks which may be retained, and the others are cut through. The after-end is then drawn apart to a limited distance equal to the additional length proposed. The keel is then made good, the floors crossed, and a sufficient number of timbers raised to fill up the vacancy produced by the separation. The kelson is then replaced to give good shift to the new scarphs of the keel, and as many beams as may be necessary are placed across the ship in the new interval, and the planks on the outside are replaced with a proper shift. The clamps and foot-waling within the ship are then supplied, the beams kneed, and the ship completed in all respects as before.

Let go (to)

To set free, let loose, or cast off (of anchors, lines, etc.)

LET-IN, To

To fix or fit one timber or plank into another, as the ends of carlings into the beams, and the beams into the clamps, scores being made in each to receive the other.

Letter of Protest or Notice of Apparent Discrepancy

A letter issued by any participant in a custody transfer citing any condition with which issue is taken. This serves as a written record that the particular action or finding was questioned at the time of occurrence.

LEVEL

HORIZONTAL; or as a base square with a perpendicular.

LEVEL LINES

Lines determining the shape of a ship's body horizontally, or square from the middle line of the ship.

LEVELLED-OUT

A line continued out, in a horizontal direction, from the intersection of an angle; or, where the cant-timbers may intersect the diagonal or ribband lines. (See Fore Body, Plate I.)

LEVER

A bar of iron or wood to raise weights. The first and most simple of the mechanic powers. (See MECHANICS.)

Liberty

Permission to be absent from the ship for a short period (authorized absence).

LIEUTENANT'S STORE-ROOM

An apartment fitted up with shelves, bins, and lockers, on the starboard side of the after platform, for the use of the first lieutenant.

Lifeboat station

Place assigned to crew and passengers to muster before being ordered into the lifeboats

Life-line

A line secured along the deck to lay hold of in heavy weather; a line thrown on board a wreck by life-saving crew; a knotted line secured to the span between life-boat davits for the use of the crew when hoisting and lowering

LIGHT WATER-LINE

(See WATER-LINES.)

Lighter

1) General name for a broad, flat-bottomed boat used in transporting cargo between a vessel and the shore. The distinction between a lighter and a barge is more in the manner of use than in equipment. The term "lighter" refers to a short haul, generally in connection with loading and unloading operations of vessels in harbor while the term "barge" is more often used when the cargo is being carried to its destination or over a long distance. 2) To load or discharge cargo to or from another vessel. VTBL vessel to be lightered.

Lighterage

1) Fee charged for conveying cargo by lighters or barges. 2) Area where vessels normally lighter.

Lightering

Conveying cargo with another vessel known as a lighter from a ship to shore, or voyage.

LIGHT-ROOM

A small place parted off from the magazine, and in which the lights for lighting the magazine are contained.

Limber Holes

Holes in the bottoms of stringers through which cargo flows through to the suction strums.

LIMBER-BOARDS

(See LIMBER-PASSAGE.)

LIMBER-HOLES

are square grooves cut through the underside of the floor-timber, about nine inches from the side of the keel on each side, through which water may run toward the pumps, in the whole length of the floors. This precaution is requisite in merchant ships only, where small quantities of water, by the heeling of the ship, may come through the ceiling and damage the cargo. It is for this reason that the lower futtocks of merchant ships are cut off short of the keel.

LIMBER-PASSAGE

A passage or channel formed throughout the whole length of the floor, on each side of the kelson, for giving water a free communication to the pumps. It is formed by the LIMBER-STRAKE on each side, a thick strake wrought next the kelson, from the upper-side of which the depth in the hold is always taken. This strake is kept about eleven inches from the kelson, and forms the passage fore and aft, which admits the water with a fair run to the pump-well. The upper part of the limber passage is formed by the LIMBER BOARDS, which are made to keep out all dirt and other obstructions. These boards are composed of short pieces of oak plank, one edge of which is fitted into a rabbet into the limber-strake, and the other edge bevelled with a descent against the kelson. They are fitted in short pieces for the convenience of taking up one or more, readily, in order to clear away any obstruction in the passage. When the limber boards are fitted, care should be taken to have the butts in those places where the bulkheads come, as there will be then no difficulty in taking those up which come near the bulkheads. A hole is bored in the middle of each butt to admit the end of a crow for prizing it up when required. To prevent the boards from being displaced, each should be marked with a figure corresponding with one on the limber-strake. (See Midship Section, Plate III.)

Limited Liability

The law that permits a shipowner to restrict his liability to the value of this vessel after the accident plus the earnings for the voyage.

LINE OF FLOATATION

(See WATER LINES.)

LINE, To

To cover one piece with another. Also to mark out the work, or make lines upon the floor with a chalked line.

LIPS OF SCARPHS

The substance left at the ends, which would otherwise become sharp, and be liable to split; and, in other cases, could not bear caulking as the scarphs of the keel, stem, &c.

List

The leaning of the vessel to the port or starboard.

List

inclination of the vessel to port side or starboard side

littoral

see intertidal zone.

Lloyd's Register of Shipping

British classification society.

Interstation Signalling Links

These signalling channels are used between an NCS and the CESs in its Ocean Region to pass system information around the system.

Load Displacement

The displacement of a vessel when it floats at its loading draft.

Load Line

The maximum draft to which the vessel may load. The line on a vessel indicating the maximum depth to which that vessel can sink when fully loaded with cargo. Also known as its marks.

Load on Top

Loading of cargo oil on top of cargo residue slops that have been processed according to established LOT procedures.

Load on Top Practice

Load on top is the act of commingling on-board quantity with cargo being loaded.

Load on Top Procedure

Load on top is the shipboard procedure of collecting and settling water and oil mixtures, resulting from ballasting and tank cleaning operations (usually in a special slop tank or tanks), and subsequently loading cargo on top of and pumping the mixture ashore at the discharge port.

Loaded Passage

The passage during which the tanker is carrying cargo.

LOAD-WATER LINE

(See WATER LINES.)

LOBBY

A name sometimes given to an apartment close before the great cabin bulkhead.

Local user terminal

An earth receiving station that receives beacon signals relayed by Cospas± Sarsat satellites, processes them to determine the location of the beacons, and forwards the signals.

Located

In navigational warnings: Position of object confirmed

LOCKERS

Small compartments, built of deal, in the cabins and store-rooms. (See SHOT LOCKERS.)

Log

An apparatus for measuring the speed of a vessel through the water. Also, an entry made in a logbook to record any event e.g. to enter in the logbook the name of a seaman and his offense and the penalty attached to it.

Logbook

A book containing the official record of a ship's activities together with remarks concerning the state of the weather, etc.

log-in

The action performed on an Inmarsat-C SES to inform the NCS in an Ocean Region that the SES is available for communications.

LONG BOAT

The largest and stoutest belonging to a ship. (See BOATS.)

LONG TIMBERS

Those timbers afore and abaft the floors, which form the floor and second futtock in one. (See Sheer Draught, Plate I.)

Long Ton

A unit of weight = 2,240 pounds or 1,106 kilos.

Longitudinal

A fore and aft strength member of a ship's structure.

Longshoreman

A laborer who works at loading and discharging cargo.

Lookout

The man stationed aloft or in the bows for observing and reporting objects seen.

Loom

The part of an oar between the blade and handle. The reflection of a light below the horizon due to certain atmospheric conditions.

LOOP-HOLES

Small apertures through the bulk-heads, coamings, head-ledges, and other parts of merchant ships, through which the small arms are fired on an enemy who boards at close quarters.

Loose

To unfurl.

LOOVERED BATTENS

The battens that inclose the upper part of the well, which are fixed at such an angle as to admit air, and yet prevent any dirt from being thrown into the well.

LOOVER-WISE or LOOVER-WAYS

To place battens or boards at a certain angle, so as to admit air but not wet. The loovered or battened parts of ships'-wells are fixed in this manner to admit air and prevent persons from throwing filth of any kind into the well.

Loran-C

A position-fixing system, based on chains of shore-based low-frequency radio transmissions.

LOWER BREADTH SWEEP

(See FRAMES.)

Lower Explosive Limit

(see also LFL).

Lower Flammable Limit

The limit below which a mixture of hydrocarbon gas and air cannot ignite and burn owing to insufficient hydrocarbon content.

Lubber line

The black line parallel with ship's keel marked on the inner surface of the bowl of a compass, indicating the compass direction of the ship's head.

LUFFER LOOF

The fullest or roundest part of the bow.

Lurch

The sudden heave of the ship.

Lyle gun

A gun used in the life-saving services to throw a life line to a ship in distress or from ship to shore and used when a boat cannot be launched.

M

MAGAZINE

The apartment used to lodge the powder in; which, in large ships, is situated forward, and in small ships abaft. It should always be situated as low down as possible.

MAIN

Chief or principal, as opposed to any thing secondary or inferior. Thus the main-mast is used in contradistinction to the fore or mizen-mast; the main-keel, main-wales, main-hatchway, &c. are in like manner distinguished from the false-keel, channel-wales, and the fore and after hatchways, &c.

MAIN HALF-BREADTH

Half of the main-breadth, and thus called, because it is necessary to lay down on the plan but half of the figure of the ship, both sides being exactly alike. (See Sheer Draught [sic], Plate I.)

MAIN-BREADTH

The broadest part of the ship at any particular timber or frame, which is distinguished on the sheer-draught by the upper and lower heights of breadth lines. (See Sheer Draught, Plate I.)

MAIN-KEEL

The term of distinction between the keel and the false-keel.

MAIN-POST

The same with STERN POST, and used to distinguish it from the false-post and the inner-post.

MAIN-WALES

The lower wales, which are generally placed on the lower breadth, and so that the main-deck knee-bolts may come into them. (See WALES.)

Make colors

Hoisting the ensign at 8 a.m. and down at sunset.

Make the course good

Steering; keeping the ship on the course given (no lazy steering).

Make the land

Landfall. To reach shore.

Make water

To leak; take in water.

Make water (to)

To have seawater flowing into the vessel due to hull damage, or hatches awash and not properly closed

MALLET

A sort of wooden hammer, too well known to need description. The mallet used by caulkers to drive the oakum into the seams is in general very different from that of shipwrights, as it is longer and more cylindrical, and is hooped with iron at each end of the head, to prevent its splitting and wearing in the exercise of caulking. North-country shipwrights, who generally practice both branches, use the last-mentioned mallet upon all occasions.

Man ropes

Ropes hung and used for assistance in ascending and descending.

MANGER

An apartment extending athwart the ship immediately within the hawse-holes. It serves as a fence to interrupt the passage of water which may come in at the hawse-holes, or from the cable when heaving in; and the water thus prevented from running aft is returned into the sea by the manger scuppers, which are larger than the other scuppers on that account.

mangrove forest (or mangal)

A community of salt-tolerant trees and shrubs, with many other associated organisms, that grows on some tropical and sub-tropical coasts in a zone roughly coinciding with the intertidal zone.

Manhole

An opening into a tank or compartment designed to admit a man.

Manila

Rope made from the fibers of the abaca plant.

Manoeuvring speed

A vessel's reduced speed in circumstances where it may be required to use the engines at short notice

MARGIN-LINE

A line or edge parallel to the upper-side of the wing-transom, and about five inches below it, at which place terminate all the butts of the bottom planks abaft. The latter are made good by the tuck-rail. (See Perpendicular View of the Stern, Plate I.)

mariculture

The cultivation of marine organisms.

MARINE CLOTHING ROOM

An apartment built on the larboard side of the after platform to receive the clothing of the marines.

Marine Custody Transfer

A custody transfer activity involving a marine tank vessel(s). Loading, discharging or lightering a ship or barge is a marine custody transfer.

Marine Custody Transfer Measurement

The measurement activity involving a marine custody transfer (MCT).

Marine Surveyor

A duly qualified person who examines ships to ascertain their condition, on behalf of owners, underwriters, etc. Also called "ship surveyor" or simply "surveyor".

Maritime Law

That system of jurisprudence that prevails in courts having jurisdiction of marine causes. Also called marine or admiralty law. It is a branch of both international and commercial law.

market failure

The concept that markets do not reflect the societal costs of all economic activity and, in particular, the economic costs imposed on third parties.

Marlinspike

Pointed iron implement used in separating the strands of rope in splicing, marling, etc.

Maroon

To put a person ashore with no means of returning.

Marry

To temporarily sew the ends of two ropes together for rendering through a block. Also to grip together parts of a fall to prevent running out. To marry strands to prepare for splicing.

Mast step

The frame on the keelson of boat (does not apply on ships) to which the heel of a mast is fitted.

MAST-CARLINGS

Those large carlings which are placed at the sides of the mast-rooms for the purpose of framing the partners. (See CARLINGS.)

Master

A term for the captain, a holdover from the days when the captain was literally, and legally, the "master" of the ship and crew. His word was law.

Masthead

The top part of the mast.

Masthead light

The white running light carried by steam vessel underway on the foremast or in the forepart of the vessel.

MASTS

The long cylindrical pieces of timber, elevated upon the keel, and to which the yards and sails, &c. are attached. (See Sheer Draught, Plate I.)

MAULS

Large hammers used for driving treenails, having a steel face at one end, and a point or pen [sic] drawn out at the other, and hence called a pin-maul. Double-headed mauls have a steel face at each end, of the same size, and are used for driving of bolts, &c.

MAYDAY

The international radiotelephony distress signal, repeated three times.

Mean Draft

The average of the drafts measured at the bow and the stern.

MEDEVAC

Evacuation of a person for medical reasons.

MEDICO

Medical advice. Exchange of medical information and recommended treatment for sick or injured persons where treatment cannot be administered directly by prescribing medical personnel.

Medium Frequency

Medium Frequency (300-3000 kHz)

Medium Range Vessels

25,000 - 49,999 DWT.

Medium sized tankers cover a broad range of vessel types. Ships of this size category are capable of carrying almost any kind of petroleum product. The smaller group will usually carry gasolines, jet fuels, chemicals and heating oils. The larger size of the group will carry heavier fuel oils and crude oils.

member number

This is the number downloaded with a DNID to an SES when that SES is registered into a data reporting network.

Mess gear

Equipment used for serving meals.

message channel

A communication channel used by an SES to send message data through a CES to a required destination.

Messenger

A light line used for hauling over a heavier rope or cable.

MESSENGER

A large cable laid rope used to heave in the cable by the main capstan.

Messman

A member of the steward's department who served meals to officers and crew.

META-CENTRE

That point in a ship above which the centre of gravity must by no means be placed; because, if it were, the vessel would be liable to overset. The meta-centre, which has also been called the shifting-centre, depends upon the situation of the centre of cavity; for it is that point where a vertical line drawn from the centre of cavity cuts a line passing through the centre of gravity, and is perpendicular to the keel. (See CENTRE.)

Meteorological Area

Corresponding to the NAVAREAs defined by IMO.

Meteorological visibility

The maximum range at which a large object, such as land masses or mountains, can be seen. Also referred to as Meteorological Range.

Metric Ton

A unit of weight 2,204.6 pounds (1,000 kilograms).

MIDDLE LINE

A line dividing the ship exactly in the middle. In the horizontal or half-breadth plan it is a right line bisecting the ship from the stem to the stern-post; and, in the plane of projection, or body-plan, it is a perpendicular line bisecting the ship from the keel to the height of the top of the side.

MIDDLE TIMBER

That timber in the stern which is placed in midships.

MIDDLE WALES

The three or four thick strakes worked along each side, between the lower and middle deck ports in three-decked ships. (See WALES.)

Midship Draft

The draft read at the midship markings. This draft can, and often does, differ from the Mean Draft due to hogging or sagging.

MIDSHIP-BEND, or FRAME

That bend which is called Dead-Flat. (See BENDS. See also Midship Section, Plate III.)

MIDSHIPS

The middle of the ship, either with regard to her length or breadth. (See AMIDSHIPS.)

Mission control centre

Part of the Cospas-Sarsat system that accepts alert messages from the local user terminal(s) and other mission control centres to distribute to the appropriate rescue co-ordination centres or other search and rescue points of contact.

MITERED

If two pieces of wood, &c. be joined so as to make a right angle, and the two ends be put together so as to form a line making an angle of 45 degrees, the joint is said to be mitered.

MIZEN-MAST

That mast, in a three-masted vessel, which is nearest the stern. (See Sheer Draught, Plate I.)

MMSI

Maritime Mobile Service Identity number

Mobile Earth Station

The generic name used instead of Ship Earth Station (SES), and applicable to both maritime and land mobi le-sate1l ite com mun ications.

modem

Modulator-dernodulator, a device used to transmit digital data along PSTN lines by converting (modulating) to analogue form at the sending end and re-converting (demodulating) to digital form at the receiving end.

Molded Breadth

The breadth of the hull at the widest part, measured between the outer surfaces of the frames.

Molded Depth

The depth measured between the top of the keel, or lower surface of the frame at the center line, and top of the upper deck beam at the gunwale.

Mole

A breakwater used as a landing pier.

MONKEY

A machine composed of a long pig of iron, traversing in a groove, which is raised by a pully, and let fall suddenly on the head of large bolts, for driving them in when the weight of mauls would be insufficient; such, for instance, as the dead-wood bolts, or the bolts that are driven in the knee of the head. This sort of monkey generally has a frame with handles, with a groove on the underside; it slides upon a ridge of iron fixed in a bed, and is drawn backwards and forcibly forwards by a rope on each side.

Monkey fist

A knot worked into the end of a heaving line (for weight).

Monkey island

A flying bridge on top of a pilothouse or chart house.

Moor (to)

To secure a vessel in a particular place by means of wires or ropes made fast to the shore, to anchors, or to anchored mooring buoys, or to ride with both anchors down

Mooring

Securing to a dock or to a buoy, or anchoring with two anchors.

Mooring Line

Any hawser by which a vessel is secured to a dock or mooring. It may be made of natural materials (manila), synthetics, (polypropylene), or wire. Under certain circumstances the anchor chain is detached from the anchor and a section of that is used to secure the vessel.

MOOTING

Making a treenail exactly cylindrical to a given size or diameter called the moot. Hence, when so made, it is said to be mooted.

MORTISE

A hole or hollow made of a certain size and depth in a piece of timber, &c. in order to receive the end of another piece with a tenon fitted exactly to fill it.

Mother Carey's chickens

Small birds that foretell bad weather and bad luck.

MOTION, &c

Belongs to the chapter on mechanics.

MOULDED

Cut to the mould. Also the size or bigness of the timbers that way the mould is laid. (See SIDED.)

MOULDING

The act of marking out the true shape of any timber from the mould. Also any ornamental projections, as the rails, finishing, &c.

MOULD-LOFT

A place in building yards appropriated for laying off ships to their full size, for the purpose of making the moulds from which the whole frame, &c. is provided. The floor is one large even flat surface, and in general painted black, that the various lines may more easily be discerned. Some in laying off ships rase the lines in with a pointed instrument, while others only chalk them in. The size of mould-lofts are various, those in the royal yards are very large and commodious, but those in merchant yards are generally about 100 feet long and 30 feet wide.

MOULDS

Pieces of deal or board made to the shape of the lines on the mould loft floor, as the timbers, harpins, ribbands, &c. for the purpose of cutting out the different pieces of timber, &c. for the ship. Also the thin flexible pieces of pear-tree or box, used in constructing the draughts and plans of ships, which are made in various shapes; viz. to the segments of circles from one foot to 22 feet radius, increasing six inches on each edge, and numerous elliptical curves with other figures* [*Moulds,&c. of every sort requisite for marine drawing may be had at STEEL'S Navigation Warehouse, Little Tower-Hill, London.]

Mousing

Small stuff seized across a hook to prevent it from unshipping (once hooked, mousing keeps the hook on).

MRCC

Maritime Rescue Co-ordination Centre: land-based authority responsible for promoting efficient organization of maritime search and rescue and for co-ordinating the conduct of search and rescue operations within a search and rescue region

Mud scow

A large, flat: bottomed boat used to carry the mud from a dredge.

MUNIONS or MIMTONS [sic]

The pieces that divide the lights in the stern and quarter galleries. (See Sheer Draught, Plate I.)

Mushroom anchor

An anchor without stock and shaped like a mushroom.

Muster (to)

To assemble crew, passengers or both in a special place for purposes of checking

Muster list

List of crew, passengers and others on board and their functions in a distress or drill

N

N/B

New building.

NAILS

Iron pins of various descriptions for fastening board, plank, or iron work; viz. Deck Nails, or Spike nails, which are from 4 inches and a half to 12 inches long, have snug heads, and are used for fastening planks and the flat of the decks. Weight Nails are similar to deck nails, but not so fine, have square heads, and are used for fastening cleats, &c. Ribband Nails are similar to weight nails, with this difference, that they have large round heads, so as to be more easily drawn. They are used for fastening the ribbands, &c. Clamp Nails are short stout nails, with large heads, for fastening iron clamps. Port Nails, double and single, are similar to clamp nails, and used for fastening iron work. Rudder Nails are also similar, but used chiefly for fastening the pintles and braces. Filling Nails, are generally of cast iron, and driven very thick in the bottom planks instead of copper sheathing. Sheathing Nails [cf. ditto herein below] are used to fasten wood sheathing on the ship's bottom, to preserve the plank, and prevent the filling nails from tearing it too much. Nails of sorts are 4, 6, 8, 10, 24, 30, and 40 penny nails, all of different lengths, and used for nailing board, &c. Scupper Nails are short nails, with very broad heads, used to nail the flaps of the scuppers. Lead Nails are small round-headed nails for nailing of lead. Flat Nails are small sharp-pointed nails, with flat thin heads, for nailing the scarphs of moulds. Sheathing Nails [cf. ditto herein above] for nailing copper sheathing are of metal, cast in moulds, about one inch and a quarter long; the heads are flat on the upperside and counter-sunk below: the upperside is polished to obviate the adhesion of weeds. Boat Nails, used by boat-builders, are of various lengths, generally rose-headed, square at the points, and made both of copper and iron.

Nantucket sleigh ride

A term for what frequently happened to Nantucket whalers when they left the whaling ship in a small boat to go after a whale. If they harpooned the whale without

mortally wounding it, the animal took off with the whaleboat in tow.

Narrow-Band Direct Printing

Part of the Cospas-Sarsat system that accepts alert messages from the local user terminal(s) and other mission control centres to distribute to the appropriate rescue co-ordination centres or other search and rescue points of contact.

NARROWING OF THE FLOOR SWEEPS

(See RISING HALF BREADTH.)

natural resources

May be classified as non-renewable (e.g., coal, oil) and renewable. The latter may be further classified as unconditionally renewable (e.g., solar, tidal or wind energy) and conditionally renewable (e.g., fish, forest products). Conditionally renewable resources will last indefinitely if not over-exploited because that part of the resource that is used can be replaced through natural processes.

NAVAL-HOODS

Broad pieces of oak, from 6 to 10 inches thick, (according to the size of the ship,) worked afore the hawse-holes on the outside of the ship, and likewise above and below them, in those ships which have no cheeks to support a bolster; the naval-hoods thus formed answering the same purpose.

NAVAREA

One of 16 areas into which the world's oceans are divided by the International Maritime Organization for dissemination of navigation and meteorological warnings.

NAVAREA/METAREA

One of sixteen areas of sea as defined by /MO, into which the world's oceans are divided for the dissemination of navigational and meteorological warnings. See also METAREA.

NAVTEX

Telegraphy system for transmission of maritime safety information, navigation and meteorological warnings, and urgent information to ships.

NAVTEX

The low-frequency system developed by IMO for the broadcast and automatic reception of MSI by means of direct-printing telegraphy.

NCS Common Signalling Channel

Also known as the NCS Common Channel. A TDM channel used by the NCS to transmit system information and data to selected SESs.

NECKING

A small neat moulding at the foot of the taffarel over the light. (See Stern, Plate I.)

nematodes

A group of worms, some of which may cause intestinal and other diseases.

Neptune

The mythical god of the sea.

Net Capacity

The number of tons of cargo which a vessel can carry when loaded in salt water to her summer freeboard marks. Also called cargo carrying capacity, cargo deadweight, and useful deadweight.

net economic benefit

The economic value of a measure (or measures) less (i) the value of any benefits foregone as a result of the measure(s) and (ii) the cost of measure(s).

Net Registered Tonnage

The internal capacity of a vessel measured in units of 100 cubic feet less the space occupied by boilers, engines, shaft alleys, chain lockers, officer's and crew quarters and other spaces not available for carrying passengers or freight. Net registered tonnage is usually referred to as registered tonnage or net tonnage.

Net tonnage

The volumetric cargo capacity of a ship expressed on the basis of 100 cubic feet to the ton. On passenger vessels it also includes space used by passengers.

Netting

A rope network.

Network Control Centre

located in the Inmarsat Headquarters in London, U.K., communicates with the NCSs in each Ocean Region, making possible the transfer of information throughout the Inmarsat system.

neurotoxic shellfish poisoning

A disease of neurological system caused by ingestion of biotoxins found in certain shellfish. (see also biotoxins)

NEWELL

An upright piece of timber to receive the tenon of the rails that lead from the breasthook to the gangway.

NOG

A treenail projecting from the bottom of the ship as a stop to the heads of shores. Also a treenail driven through the heels of shores into the slip to secure them.

NOGGING

The act of securing the heels of the shores

non-governmental organisation

An organisation, usually non-profit, that is not part of the central, local, or municipal government.

non-point sources of pollution (also called diffuse sources)

Multiple, not easily identifiable sources of pollution (e.g., agriculture, urban areas).

NORMAN

A square fid of oak, or short carling, fixed through the head of the rudder of East India ships, to prevent the loss of the rudder in case of its being unshipt.

Norske Veritas

Norwegian classification society.

Not under command

Said of a vessel when unable to maneuver.

Not under command

(abbr. NUC): a vessel which through exceptional circumstances is unable to manoeuvre as required by the COLREGs

Not under control

Same as not under command.

Notice of Readiness

Notice served by the Master to inform the terminal/charterer the vessel is ready in all respects to load or discharge cargo.

nutrients (in the context of the present report)

Substances that are essential for the growth of marine organisms that perform primary production (algae, bacteria, and plants). Excess nutrients, especially nitrogen and phosphorous, can be major pollutants.

O

Oakum

Material used for caulking the seams of vessels and made from the loose fibers of old hemp rope.

OAKUM

Old rope, untwisted and loosened like hemp, in order to be used in caulking.

Obstruction

An object such as a wreck, net, etc., which blocks a fairway, route, etc

OBTUSE, BLUNT, or DULL

in opposition to acute or sharp. As an obtuse angle, which is said to be without a square or right angle. Such angles are called by shipwrights standing bevellings. (See BEVELLINGS.)

Ocean Region

The coverage area of an Inmarsat satellite within which an SES may send and receive messages.

oceanic gyre

A very large, more or less circular, pattern of water circulation in an open ocean basin.

OCIMF

The oil companies' international marine forum is an organization of oil companies that own or operate ships.

Off air

When the transmissions of a radio station, etc., have broken down, been switched off or suspended

Off and on

Standing toward the land and off again alternately.

Off station (of buoys)

Not in charted position

Officer of the watch

The officer in charge of the watch.

Oil bag

A bag filled with oil and triced over the side for making a slick in a rough sea (to keep seas from breaking).

Oil clearance

Oil skimming from the surface of the water

Oilskin

Waterproof clothing.

Old man

The captain of the ship.

oligotrophic

Waters with low primary productivity because of limited supplies of nutrients.

omnidirectional antenna

A small antenna fitted to an Inmarsat-C SES capable of line-of- sight communications with a satellite, without pointing.

On Board Quantity

The material remaining in vessel tanks, void spaces, and/or pipelines prior to loading. On-board quantity includes water, oil, slops, oil

residue, oil/water emulsions, sludge, and sediment.

On report

In trouble.

On soundings

Said of a vessel when the depth of water can be measured by the lead (within the 100 fathom curve).

On-scene

The search area or the actual distress site.

On-scene co-ordinator

A person designated to co-ordinate search and rescue operations within a specified area.

On-Scene Co-ordinator

A person designed to co-ordinate search and rescue operations within a specified area

On-scene endurance

The amount of time a facility may spend at the scene engaged in search and rescue activities.

Operational

Ready for immediate use

Operations stage

A period during a SAR incident when SAR facilities proceed to the scene, conduct search, rescue survivors, assist distressed craft, provide emergency care for survivors, and deliver survivors to a suitable facility.

Optimal search area

The search area which will produce the highest probability of success when searched uniformly with the search effort available.

Optimal search factor

A value, based on the amount of relative effort available, which is used to estimate the optimal area to search so the chances of finding the search object are maximized. .

Optimal search plan

A plan that maximizes the probability of success of finding the search object using the available search effort.

Optimal search radius

One-half the width of the optimal search area. Optimal search radius is computed as the product of the total probable error of position (E) and the optimal search factor (fs).Ro = E x Fs.

Ordinary seaman

The beginning grade for members of the deck department. The next step is able bodied seaman.

Ordnance exercise

Naval firing practice

organochlorines

Organic compounds that contain chlorine atoms (e.g., PCBs).

ORLOP

A temporary deck below the lower deck of large ships, chiefly for the convenience of stowing away the cables. There is also a platform in the midships of smaller ships, called the orlop, and for the same purpose.

Out of trim

Not properly trimmed or ballasted (not on even keel; listing).

OUT OF WINDING

Not twisting; as the surface of a timber or plank when it is a direct plane.

Outage (Ullage)

The depth of the space in a tank not occupied by oil. Same as ullage. It is measured from the flange of the ullage hole to the surface of the oil. Also the space left in a petroleum product container to allow for expansion as a result of temperature changes during shipment and use.

Outboard

Towards the sides of the vessel (with reference to the centerline).

OUT-BOARD

On the outside of the ship, as "the out-board works," &c.

OUT-SQUARE

Any obtuse angle or standing bevelling is said to be "out-square." This term is however mostly applied to knee-timber, when the angle the arms make is greater than 45 degrees. (See Knee-Timber.)

Out-Turn Certificate

A document issued by the receivers of cargo indicating the amount of cargo discharged.

Outward Charter

The chartering of a vessel by an affiliate to an outside owner or non-affiliate.

Over-all

The extreme deck fore and aft measurement of a vessel.

Overdue

A situation where a craft has failed to arrive at its intended destination when expected and remains missing.

Overflow

Escape of oil or liquid from a tank because of a twofold condition as a result of overflowing, thermal expansion, change in vessel trim or vessel movement

Overhang

The projection of the stern beyond the sternpost and of the bow beyond the stem.

OVER-HANGING

Projecting over; as over the stern, &c.

Overhaul

Get gear in condition for use; to separate the blocks of a tackle to lengthen the fall (ready for use again).

OVER-LAUNCH, To

To run the butt of one plank to a certain distance beyond the next butt above or beneath it, in order to make stronger work.

Overtaking

Said of a vessel when she is passing or overtaking another vessel.

ozone

A colourless form of oxygen gas with three oxygen atoms in each molecule Stratospheric ozone, which screens out harmful ultraviolet radiation, is generally found between 10 and 50 km above the Earth. Tropospheric ozone is found in lower atmosphere (generally below 10 km above the Earth). Ozone is also commonly found in smog.

P

packet

A self-contained component of a message, typically comprising fifteen bytes of data.

Pad eye

A metal eye permanently secured to a deck or bulkhead (for mooring any blocks and tackle).

Painter

A short piece of rope secured in the bow of a small boat used for making her fast.

PALLETING

A slight platform, made above the bottom of the magazine, to keep the powder from moisture.

PALLETING BEAMS,

are those beams under the flat of the magazine, bread-room, and powder-room, where there is a double palleting. Those of the upper tier are of fir, and rabbets taken out of their edges to form scuttles.

PALLS

Stout pieces of iron, so placed near a capstan or windlass as to prevent a recoil, which owuld overpower the men at the bars when heaving.

Palm and needle

A seaman's sewing outfit for heavy work.

Panamax

The maximum size ship that can fit through the Panama Canal in terms of width, length and draft generally about 80,000dwt.

PANEL

A square or pane of thin board, framed in a thicker one, called a stile, and generally composed of two or more joined together. Such are the partitions by which the officers' cabins are formed on the lower deck; and such likewise are the framings of the great cabin bulkheads, &c. which consist of rails, stiles, and panels.

PAN-PAN

The international radiotelephony urgency signal. When repeated three times, indicates uncertainty or alert, followed by nature of urgency.

paralytic shellfish poisoning

A disease with severe neurological effects, including paralysis and death, caused by eating shellfish that contain the marine biotoxin saxitoxin. (see biotoxins)

PARTNERS

Those pieces of thick plank, &c. fitted into a rabbet in the mast or capstan carlings for the purpose of wedging the mast and steadying the capstan. Also any plank that is thick, or above the rest of the deck, for the purpose of steadying whatever passes through the deck, as the pumps, bowsprits, &c. (See Inboard Works, and Plans, Plates III. and IV.)

Pass a line

To reeve and secure a line.

Pass a stopper

To reeve and secure a stopper (hold a strain on a line while transferring it).

Pass down the line

Relay to all others in order (a signal repeated from one ship to the next astern in column).

Pass the word

To repeat an order for information to the crew.

Passage

A journey from one port or place to another, as distinguished from the term "voyage" which refers to a ballast and loaded passage. Also sometimes called trip.

PA-system

Public address system: loudspeakers in the vessel's cabins, mess rooms, etc., and on deck through which important information can be broadcast from a central point, mostly from the navigation bridge

pathogens

Organisms that cause (e.g., certain bacteria and viruses).

Pay

To fill the seams of a vessel with pitch.

Pay off

To turn the bow away from the wind; to pay the crew.

Pay out

To slack out a line made fast on board (let it out slowly).

PAY, To

To lay on a coat of tar, &c. with a mop or brush, in order to preserve the wood and keep out water, when one or more pieces are scarphed together, as the beams, &c. the inside of the scarphs are paid with tar as a preservative; and the seams after they are caulked are fayed [sic] with pitch to keep the water from the oakum, &c.

Peak Tank

Tanks in the forward and after ends of the vessel. The principal use of peak tanks is in trimming the ship.

PEDESTAL RAIL

A rail, about two inches thick, that is wrought over the foot-space rail, and in which there is a groove to steady the heels of the balusters of the galleries. (See Stern, Plate I.)

pelagic organisms

Free-swimming or floating organisms in the water column of the open sea or above the continental shelf.

Per Calendar Day (Month/Year) Costs

Vessel's costs expressed as $ per day (month/year) for a calendar period during which the vessel was in service. The number of calendar days (months/years) are divided into the total costs incurred during the period.

Per Operating Day (Month/Year) Costs

Vessel's costs expressed as $ per day (month/(year) during which the vessel actually operated. It includes the costs incurred while the vessel was idle for repairs or other non-operating reasons. The number of operating days (excluding non-operating delays) are divided into the total costs.

Period Charter

Refers to consecutive voyage (C/V) exceeding four voyages, time charters (T/C) and bareboat charters. – Note: Loose term may have other connotations.

persistent organic pollutants

A diverse group of chemicals that persist in the environment, bioaccumulate through the food web, and pose a risk of causing adverse effects to human health and the environment. A group of twelve POPs (the "dirty dozen") have been initially selected for international action by the International Programme on Chemical Safety (IPCS).

persistent toxic substances

Substances to which organisms, including humans, have environmental exposures that are of concern because of their potential adverse effects. Thus, in addition to the 12 classes of POPs listed for initial international action, the term encompasses not only all POPs in the generic sense but also less persistent substances to which organisms are chronically exposed over large temporal and spatial scales because of their continuous release by human activities (see also POPs)

Personal Locator Beacon

Personal radio distress beacon for alerting and transmitting homing signals.

pH

A quantitative measure of the acidity or basicity of liquid solutions. A solution with a pH of less than 7 is considered acidic and one with a pH of more than 7 alkaline.

photo-oxidation

Loss of hydrogen or electron from a chemical compound as a result of interaction with light.

Pier head jump

Making a ship just as it is about to sail.

PILASTERS

Flat columns or ornaments, prepared by the joiners, generally of deal, fluted or reeded, with moulded caps and bases, which are placed upon the munions of the ward-room lights, &c. for the purpose of ornamenting the

stern and quarter-galleries, particularly when the walk or balcony does not project aft. They are likewise used on the munions of the bulkheads of captain's cabin and offices.

Pile

A pointed spar driven into the bottom and projecting above the water; when driven at the corners of a dock, they are termed fender piles.

PILLARS

The square or turned pieces of timber erected perpendicularly under the middle of the beams for the support of the decks. (See Midship Sections, Plate III.)

Pilot boat

A power or sailing boat used by pilots (men who have local knowledge of navigation hazards of ports).

Pilot House

The enclosed space on the navigating bridge from which a ship is controlled when underway.

Pilot-in-command

The pilot responsible for the operation and safety of the aircraft during flight time.

Pilot-in-command

The pilot responsible for the operation and safety of the aircraft during flight time.

Pin

The metal axle of a block upon which the sheave revolves.

PINK

A ship with a very narrow round stern; whence all vessels, however small, having their sterns fashioned in this manner, are said to be pink-sterned.

PINNACE

(See BOATS.)

PINS

Short iron rods fixed occasionally in the drumheads of capstans, and through the ends of the bars, to prevent their unshipping. They are confined near their respective places by a chain. Others of a larger size, are driven through the bitts to belay ropes to; and smaller ones are fixed in racks in different parts of the ship to belay the rigging to. The upright parts of the bitts are also commonly called bitt-pins.

PINS AND PLATES

Pins of iron occasionally drawn out to support the palls of the capstan, and fitted in plates.

PINS OF BOATS

Pins of iron or wood, fixed along the gunwales of some boats, (instead of rowlocks,) whose oars are confined by grommets. [single tholepins, thole-pins?]

PINTLES

Straps of mixt [sic] metal or of iron, fastened on the rudder, in the same manner as the braces on the stern-post, having a stout pin or hook at the ends, with the points downwards to enter in and rest upon the braces on which the rudder traverses or turns, as upon hinges, from side to side. Sometimes one or two are shorter than the rest, and work in a socket brace, whereby the rudder turns easier. The latter are called Dumb Pintles. Some are bushed, and others burred. (See Sheer Draught, Plate II.)

piscivorous fish

Fishes that eat other fishes.

Pitch

A tar substance obtained from the pine tree and used in paying the seams of a vessel. Motion of vessel.

PITCH

Tar, boiled to a harder and more tenacious substance.

PITCHING

The inclination or vibration of the ship lengthwise about her centre of gravity; or the motion by which she plunges her head and after part alternately into the hollow of the sea. This is a very dangerous motion, and, when considerable, not only retards the ship's way, but endangers the masts and strains the vessel.

Pitting

Areas of corrosion.

Plait

To braid; used with small stuff.

PLAN

The area or imaginary surface defined by or within any described lines. In ship-building, the Plan of Elevation, commonly called the SHEER DRAUGHT, is a side-plan of the ship, defined by a surface limited by the head afore, by the stern abaft, the keel below, and the upperside of the vessel above. The Horizontal Plan, commonly called the HALF BREADTH PLAN, comprehends all the lines describing the greatest breadth and length of the ship at different heights or sections. This is named half-breadth plan, because both sides of the ship being exactly alike, only one-half is

represented. To the foregoing must be added, the Plan of Projection, commonly called the BODY PLAN, which exhibits the outline of the principal timbers, and the greatest heights and breadths of the same. (See the several Plans in Plate I., and Plans of the Decks, Plates III. and IV.)

PLAN OF THE TRANSOMS, THE

is the horizontal appearance of them, to which the moulds are made, and the bevellings taken.

PLANK

A general name for all timber, excepting fir, which is from one inch and a half to four inches thick. Of less dimensions it is called board.

Planking

Broad planks used to cover a wooden vessel's sides, or covering the deck beams.

PLANKING

Covering the outside of the timbers with plank; sometimes quaintly called skinning, the plank being the outer coating, when the vessel is not sheathed. (See Planking, Plate III.)

PLANK-SHEERS, or PLANK-SHEER

The pieces of plank laid horizontally over the timber-heads of the quarter-deck, forecastle, and round-house, for the purpose of covering the top of the side, hence sometimes called covering boards. (See Sheer Draught, Plate I.)

plankton

Organisms, mostly small, that drift or swim too slowly to oppose ocean currents. Plankton that perform photosynthesis are called phytoplankton, those that do not are called zooplankton.

Planning stage

A period during a SAR incident when an effective plan of operations developed.

plaque forming unit

A unit used in the measurement of the concentration of viruses in an environmental sample.

PLATFORMS

Are a sort of temporary or lighter kind of deck, those foreward [sic] and aft have the store-rooms and cabins on, and the platform in the midships have the cables stowed thereon.

Plating

The steel plates which form the shell or skin of the vessel.

Play

Freedom of movement.

Plimsoll mark

A figure marked on the side of merchant vessels to indicate allowed loading depths. Named after Samuel Plimsoll, English Member of Parliament and maritime reformer.

Plimsoll mark

The mark on the side of a classed vessel which indicates its safe load lines at varying seasonal conditions.

Plug

A wooden wedge fitting into a drainage hole in the bottom of a boat for the purpose of draining the boat when she is out of water.

PLUMB

Perpendicular or upright. The term originates from plumbum, or lead, as the perpendicular is generally ascertained by a lump of lead suspended by a cord, and generally called a Plumb Line.

Point

To taper the end of a rope; one of the 32 divisions of the compass card. To head close to the wind.

POINTERS or BRACES

Timbers sometimes fixed diagonally across the hold, to support the beams, &c.

POINT-IRON, or BRASS

A larger sort of plumb, formed conically and terminating in a point, for the more nicely adjusting any thing perpendicularly fo a given line.

policy failure

The situation when a policy or policies are inconsistent and militate against the success of other policies (e.g., subsidies on agricultural fertilisers and environmental protection policies).

policy process

An iterative activity consisting of: the determination (usually by government or a government agency) of goals; the development of a strategy for achieving these goals that consists of objectives and policies; and the formulation and implementation of plans (usually at the sectoral level) in which objectives are related to measures, human and financial resources, and the time frame to provide the basis for action.

polling

The facility whereby an operational centre sends an instruction (a polling command) to selected SESs to perform a defined task, such as return a preassigned data report, or to perform SCADA.

Polluter

A vessel emitting harmful substances into the air or spilling oil into the sea

polluter-pays principle

The principle, adopted by the OECD countries in 1972, requires that the polluter should bear the costs that pollution damage or pollution control impose upon society.

pollution (marine)

Pollution means the introduction by man, directly or indirectly, of substances or energy into the marine environment (including estuaries) resulting in such deleterious effects as harm to living resources, hazards to human health, hindrance to maritime activities including fishing, impairment of quality for use of sea water and reduction of amenities."3

polychlorinated biphenyls

Highly toxic and durable synthetic organic compounds that accumulate in tissues of organisms.

POOP

The uppermost deck of a ship, abaft, commonly called the Round House.

Poop deck

A partial deck at the stern above the main deck, derived from the Latin "puppio" for the sacred deck where the "pupi" or doll images of the deities were kept.

Pooped

An opening in a ship's side, such as an air port, or cargo port.

POPPETS

Those pieces, mostly fir, which are fixed perpendicularly between the ship's bottom and the bilgeways, at the fore and aftermost parts of the ship, to support her in launching. (See Frontispiece.)

POR

Pacific Ocean Region.

Port

The left side of a vessel when an observer is facing forward looking toward the bow. Also a door on a ship.

Port Charges

General term which includes charges and dues of every nature assessed against the vessel or its cargo in a port. It usually includes harbor dues, tub boat charges, pilotage fees, custom house fees, consular fees, etc.

PORT HOOKS

Iron hooks driven into the side of the ship; and to which the port-hinges are attached.

Port of Registry

The port at which a vessel is registered and to which she is considered to belong. The port of registry is shown on the stern below the name of the vessel.

Port side

The left side of a vessel when looking forward.

Port State

A state that has ports to which ships call. The port state makes regulations the calling ships must adhere to. The port state control is the controlling authority of the port state on shipping such as the coast guard or naval authorities.

Port Time

1) Seabuoy to Seabuoy - The time elapsed between the vessel's passing the port's seabuoy upon entrance to re-passing it upon exit. It includes time for steaming in and out of berth, delays, hose connections, anchorage time, clearing and loading or unloading time. 2) Port to Port - Includes only time for delays, hose connections, anchorage time, clearing and loading or unloading time. Use must be consistent with voyage mileage basis.

Portable Measurement Unit

A device designed to measure the ship's cargo when its tanks are closed to the atmosphere. It is used in conjunction with a vapor control valve.

Portable Sampling Unit

A device designed to sample the ship's cargo when its tanks are closed to the atmosphere. It is used in conjunction with a vapor control valve.

PORT-LIDS

The shutters, hung with hinges, which inclose the ports in rough weather.

PORTS

The square holes or opening in the side of the ship through which the guns are fired. (See Sheer Draught, Plate I.)

Posh

elegant, luxurious. Originally an acronym for Port Over Starboard Home. Created by British travelers to India or Australia,

describing the preferred accommodations aboard ship, which lessened effects of the tropical sun on the cabins during the voyage.

Position

A geographical location normally expressed in degrees and minutes of latitude and longitude.

Position Report (Position Sheets)

A summary of worldwide movements for vessel prepared by the Fleet Coordinators.

Positioning

Process of determining a position which can serve as a geographical reference for conducting a search.

Possibility area

(1) The smallest area containing all possible survivor or search object locations.

POST

The same with Stern Post.

Posted Price (Contract Price)

The price for marine fuel oils which appears on a price list published by marine fuel oil (bunker) brokers.

Pouring oil on troubled waters

Heavy-weather practice of pouring oil on the sea so as to form a film on the surface, thus preventing the seas from breaking. To smooth out some difficulty.

POWDER-ROOM

A convenient apartment, built abaft in large and forward in small ships, with racks, &c. for holding cartridges filled with powder.

ppm

Parts per million.

Pratique

A permit by the port doctor for an incoming vessel, being clear of contagious disease, to have the liberty of the port.

precautionary approach

The essence of the approach is expressed in Principle 15 of the Rio Declaration that states that “Where there are threats of serious or irreversible damage, lack of scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.” The approach is concerned with avoiding risk that has not been assessed, i.e., uncertainty.

Premium

Surcharge over general market rate level to compensate the vessel’s owner for an unusually difficult trade, e.g. Lake/Aruba, or to correct for an imbalance in supply/demand conditions in a given area.

Pressure/Vacuum Valve (P/V Valve)

An automatic dual purpose valve, commonly fitted in the vent lines of tankers. When in the closed position, the function of this valve is to relieve either pressure or vacuum in a tank. When in the open position it allows the passage of air or vapor into and out of the tank.

Preventer

A rope used for additional support or for additional securing, e.g., preventer stay.

PREVENTER-BOLTS

The bolts driven through the lower end of the preventer-plates to assist the chain-bolts in heavy strains. (See Sheer Draught, Plate I., and Midship Section, Plate III.)

PREVENTER-PLATES

Stout plates of iron, bolted through the sides at the lower part of the chains, as an additional security. (See Sheer Draught, Plate I., and Midship Section, Plate III.)

Preventers

Ropes or wires attached to derricks to prevent them from swinging during cargo handling operations

Pricker

Small marlinespike.

primary production

The process in which organisms synthe-sise organic matter from inorganic materials, or the organic matter itself.

Primary swell

The swell system having the greatest height from trough to crest.

Privileged vessel

One which has the right of way.

PRIZING

Lifting or removing a heavy body by means of a lever.

Probability map

A set of grid cells covering a scenario's possibility area where each grid cell is labelled with the probability of the search object being in that grid cell. That is, each grid cell is labelled with its own POC value.

Probability of containment

The probability that the search object is contained within the boundaries of an area, sub-area, or grid cell.

Probability of detection

The probability of the search object being detected, assuming it was in the areas that were searched. POD is a function of coverage factor, sensor, search conditions and the accuracy with which the search facility navigates its assigned search pattern. Measures sensor effectiveness under the prevailing search conditions.

Probability of success

The probability of finding the search object with a particular search. For each sub-area searched, POS = POC 6 POD. Measures search effectiveness.

Probable error (from statistics)

The range on either side of the average or expected value such that the probability of being within that range is 50%.

Proceed (to)

To sail or head for a certain position or to continue with the voyage

PROFILE

The draught or scheme of the inboard works, which is usually described in red lines. (See Inboard Works, Plate IV.)

PROJECTION, PLAN OF, or BODY PLAN

(See PLAN.)

Prolonged blast

A blast of from 4 to 6 seconds' duration.

PRONG

The same as Beam-Arm. (See BEAM-ARM.)

PROOF TIMBER

An imaginary timber, expressed by vertical lines in the sheer-draught, similar to the joints [q.v.] of the square timbers, and used nearly forward and aft to prove the fairness of the body. (See Sheer Draught, Plate I.)

protected area

A geographically defined area that is designed and managed to achieve specified environmental objectives.

Protective Location (of segregated ballast tanks)

These tanks are, in principle, located between the cargo tanks and ship sides/bottom to offer protection in the event of ground-ing or collision.

Protest, Notice of

A letter issued by any participant in a voyage citing any condition with which issue is taken. This serves as a written record that the particular action or finding was questioned at the time of occurrence. For example a declaration made by the Master before a notary public or consular official when through stress of weather, there has been or the master fears that there might have been, damage to the vessel or cargo. Copies are frequently demanded by insurance underwriters in the event of a claim.

Prow

The part of the bow above the water.

PROW

A name very frequently given to the head or foremost end of a vessel, particularly by the French.

PSDN

Packet Switched Data Network.

PSTN

Public Switched Telephone Network.

PTS

Proceed To Select (dial tone).

PUMP

The machine, fitted in the wells of ships, to draw water out of the hold. (See Inboard Works, Plate IV.)

PUMP-CISTERNS

Cisterns fixed over the heads of the pumps, to receive the water until it is conveyed through the sides of the ship by the pump-dales.

PUMP-DALES

Pipes fitted to the cisterns, to convey the water from them through the ship's sides.

Pumproom

An enclosed area on a tank vessel which houses main and stripping cargo pumps, ballast pumps, educators and the associated piping and valves necessary for their operation.

Punt

A rectangular flat- bottomed boat used by vessels for painting the ship's side and general use around the ship's water: line, fitted with oar-locks on each side and usually propelled by sculling.

Purchase

A tackle (blocks and falls).

Put to sea

To leave port.

Q

Quarantine

Restricted or prohibited intercourse due to contagious disease.

Quarter

That portion of a vessel's side near the stern.

Quarter

A side of a ship aft, between the main midship frames and stern. Also a side of the ship forward, between the main frames and stem.

QUARTER

The upper part of the topside abaft. (See Sheer Draught, Plate I.)

QUARTER-DECK

That deck in ships of war which extends from the main-mast to the stern. (See Sheer Draught, Plate I.)

QUARTER-GALLERIES

The projections from the quarters abaft, fitted with sashes and balusters, and intended both for convenience and ornament to the aft part of the ship. (See Sheer Draught, Plate I.)

QUARTERING

Timber under five inches square.

Quartering sea

A sea on the quarter (coming from a side of the stern).

QUARTER-PIECES

Substantial pieces of timber, mostly fir, that form the out-boundary of the stern, and connect the quarter-gallery to the stern and taffarel. (See Sheer Draught and Stern, Plate I.)

QUARTER-RAILS

Rails fixed into stantions from the stern to the gangway, and serving as a fence to prevent any one from falling overboard, &c. or birthing up to the quarters. (See Sheer Draught, Plate I.)

Quarters

Living compartments.

Quarters bill

A vessel's station bill showing duties of crew.

Quay

A cargo-discharging wharf.

QUICKEN, To

To give any thing a greater curve. For instance, "To Quicken the Sheer," is to shorten the radius by which the curve is struck; this term is therefore opposed to straightening the sheer.

QUICKWORK

A denomination given to the strakes which shut in between the spirkettings and clamps. (See Midship Section, Plate III.) By quickwork is also sometimes meant, all that part of a ship or vessel which is below the level of the surface of the water when she is laden.

R

RABBET or REBATE

A joint made by a groove, or channel, in a piece of timber cut for the purpose of receiving and securing the edge or ends of the planks, as the planks of the bottom into the keel, stem, or stern post, or the edge of one plank into another. (See Sheer Draught, Plate I.)

RAFT-PORT

A large square hole framed and cut through the buttock between the transoms, or forward in the bore, between the breasthooks, and through which masts, planks, deals, &c. are taken into store-ships, or merchant-ships, carrying such cargoes which, owing to their great length, cannot be gotten on board in any other way.

RAG-BOLT

A sort of bolt having its point jagged or barbed to make it hold the more securely.

RAILS

The long narrow pieces of fir or oak, with mouldings struck on them, which are fastened or sometimes wrought from the solid plank, as ornaments to the ship's sides, and also at the head and stern. The principal are as follow; the lower rail on the side, named the waist-rail; and the next above it. the sheer-rail, which are generally placed well with the sheer or top timber line, the rails next above the sheer-rail are called drift-rails, and the rails above the plank-sheer the fife-rails. The rails of the head are distinguished by the lower, middle, main, and upper rails; and the rails of the stern take their names from the parts where they are fixed, as tuck-rail, lower counter-rail, upper counter-rail, taffarel-rail, and taffarel-fife-rail. (See Sheer Draught, Plate I.) To these may be added, the thwartship pieces of the framing of the great cabin bulkheads, &c.

Rake

The angle of a vessel's masts from the vertical.

RAKE

The overhanging of the stem or stern beyond a perpendicular with the keel, or any part or

thing that forms an obtuse angle with the horizon.

RAKING-KNEES

(See KNEE TIMBER.)

RAM-LINE

A small rope or line sometimes used for the purpose of forming the sheer or hang of the deck, for setting the beams fair, &c.

RANGES

Horned pieces of oak, like belaying cleats, but much larger, bolted to the inside of the ship, in the waist, for belaying the tacks and sheets. Also those pieces of oak plank fixed between the ports, with semi-circular holes in them for keeping shot in.

RASING

The act of marking by a mould on a piece of timber; or any marks made by a tool called a rasing-knife. [rase]

Rate

The cost, or revenue, for a particular voyage based on a standard of reference, e.g. Worldscale, INTASCALE, ATRS.

RATE

The denomination of the different classes of ships, according to their number of guns. Thus those of 100 guns and all above, are called first rates; those of 98 and 90 guns, second rates; from 80 to 64 guns, third rates; from 60 go 50 guns, fourth rates; from 40 to 32 are fifth rates; and all under are sixth rates; excepting yachts, fire ships, and hospital ships, which are rated as fifth rates.

Ratline

A short length of small rope "ratline stuff" running horizontally across shrouds, for a ladder step.

RAVE-HOOK

A hooked tool used by square-makers, to haul out the small chips when enlarging the butts for receiving a sufficient quantity of oakum.

Receiving point

A mark or place at which a vessel comes under obligatory entry, transit, or escort procedure

RECONCILE, To

To make one piece of work answer fair with the moulding or shape of the adjoining piece, and, more particularly, in the reversion of curves.

RECONCILER OR RECONCILING SWEEP

A curve which reconciles the floor and lower-breadth sweeps together, and thus the shape of the body is formed below the breadth. (See FRAMES.)

Recover (to)

to pick up shipwrecked persons

red tide

Discolouration of surface waters from blooms of phytoplankton. Strictly refers to blooms that produce a reddish-brown colour but often used for blooms of other colours. (see also algal bloom)

Reducer

A short section of pipe, having one end of smaller diameter than the other and having a flange on each end, for connecting a smaller hose or pipe to a pipe of constant diameter.

Reef

To reduce the area of a sail by making fast the reef points (used in rough weather).

REEMING

A term used by caulkers for opening the seams of the planks, that the oakum may be more readily admitted.

REEMING-IRONS

The large irons used by caulkers in opening the seams.

Reeve

To pass the end of a rope through any lead such as a sheave or fair: lead.

Reference line

A line displayed on the radar screens in VTS Centres and/or electronic sea-charts separating the fairway for inbound and outbound vessels so that they can safely pass each other

Refloat (to)

To pull a vessel off after grounding; to set afloat again

Registry

The ship's certificate determining the ownership and nationality of the vessel. Relieving tackle: A tackle of double and single blocks rove with an endless line and used to relieve the strain on the steering engine in heavy weather or emergency.

Registry

A duty imposed on shipowners in order to secure to their vessels the privileges of ships of the nation to which they belong.

Reid Vapour Pressure

Relative effort

The amount of available search effort (Z) divided by the effort factor. The relative effort relates the size of the effort available for a

particular search to the size of the search object's location probability distribution at the time of the search. Zr =Z/fZ.

RELIEVE, To

To make a sett near to another that cannot be sett on any more till it is taken on each side. (See SETT.)

Remain on Board

The material remaining in vessel tanks, void spaces, and/or pipelines after discharge. Remaining on board quantity includes water, oil, slops, oil residue, oil/water emulsions, sludge, and sediment.

Rendez-vous

An appointment between vessels normally made on radio to meet in a certain area or position

RENDS

Large open splits or shakes in timber, particularly in plank, occasioned by its being exposed to the wind and sun, &c.

Replacement Cost

Cost (or value) of a given size vessel as determined by current charter market levels in a particular trade.

Replacement Cost Table

Table showing the cost (or value) of a vessel per day (excluding bunkers and port charges) in a particular trade.

Reported

In navigational warnings: position of object unconfirmed

Reporting point

A mark or position at which a vessel is required to report to the local VTS Station to establish its position

Re-Positioning

The movement of a vessel in ballast to shift it from one trading pattern to another.

Rescue

An operation to retrieve persons in distress, provide for their initial medical or other needs and deliver them to a place of safety.

Rescue action plan

A plan for rescue operations normally prepared by the SMC for implementation by the OSC and facilities on-scene.

Rescue co-ordination centre

A unit responsible for promoting efficient organization of search and rescue services and for co-ordinating the conduct of search and rescue operations within a search and rescue region.

Rescue co-ordination centre First

RCC affiliated with the shore station that first acknowledges a distress alert, and which should assume responsibility for all subsequent SAR co-ordination unless and until responsibility is accepted by another RCC better able to take action.

Rescue sub-centre

A unit subordinate to a rescue co-ordination centre established to complement the latter according to particular provisions of the responsible authorities.

RESISTANCE, OR RESISTING FORCE

(Preceding Chapters.)

Restricted area

A deck, space, area, etc., in vessels where, for safety reasons, entry is only permitted for authorized crew members

Restricted Measurement System

A measurement system designed to measure the ship’s cargo when its tanks to the atmosphere. During measurements a minimum amount of cargo vapors might escape to the atmosphere

Resume (to)

to re-start a voyage, service or search

Retreat signal

Sound, visual or other signal to a team ordering it to return to its base

RHODINGS OF THE PUMPS, &C

The brass cleats on which the axles work.

Rhumb line

Straight line between two points on a Mercator projection chart.

RIBBAND-LINES

The same with diagonal lines.

RIBBANDS

The longitudinal pieces of fir, about five inches square, nailed to the timbers of the square body (those of the same description in the cant body being shaped by a mould and called Harpins) to keep the body of the ship together, and in its proper shape, until the plank is brought on. The shores are placed beneath them. They are removed entirely when the planking comes on. The difference between Cant Ribbands and Square or Horizontal Ribbands is that the latter are only ideal, and used in laying off.

RIBS

A figurative expression for the timbers or frames of a ship, arising from the comparison of it with the human body, as the

keel with its kelson to the back bone, and the timbers to the ribs. For the former unite and support the whole fabric, since the stem and stern frame, which are elevated on the ends of the keel, may be said to be a continuation of it, and serve to connect and inclose the extremities, by the hawse pieces and transoms, as the keel forms and unites the bottom by the floor-timbers. The idea carried further may in a manner represent the muscular parts of the human fabric; for the wales, clumps [sic], and thickstuffs, at the different heads of the timbers, are as so many muscles or strong ligaments to connect the ribs together, while the thinner planking may be compared to the skin or covering wf the whole, and hence planking is often termed skinning. (See Midship Section, Plate III.)

Ride

To lie at anchor; to ride out; to safely weather a storm whether at anchor or underway.

RIDERS

Interior ribs to strengthen and bind the parts of a ship together, being fayed upon the inside stuff, and bolted through all. They are mostly used in ships of war, and are variously situated, as the Floor Riders, which are fayed athwart the kelson, and should be disposed upon the first futtocks of the ship. The next are the lower or first futtock riders, which fay alongside the floor-riders, and give scarph above them. These are completed by cross-chocks athwart their heels, that scarph to each side with hook and butt. The next are second futtock riders, which fay alongside of the first futtock riders, down to the floor riders, and run up to the orlop beams. The third futtock riders fay alongside the second futtock riders, scarph or meet the first futtock ridders, and run up to the gun-deck beams. The whole are bolted together fore and aft-wise. The riders next above the foregoing are called breadth riders, and are placed nearly in the broadest part of the ship (hence their name,) and diagonally so as to partake of two or more timbers, the strength depending much thereon. Lastly, the top-riders are the uppermost; they stand nearly the same as breadth riders, and very much strengthen the topside. Riders are not so much required in merchant ships as in ships of war, excepting floor and lower riders, (which are generally of iron,) because, in merchant ships the cargo being generally stowed low down, the upper works are not liable to strain and labour like those in ships of war laden high up with heavy metal.

Rig

A general description of a vessel's upper: works; to fit out.

Rig move

The movement of an oil rig, drilling platform, etc., from one position to another

Right

To return to a normal position, as a vessel righting after heeling over.

RIMS

Those pieces which form the quarter galleries between the stools. (See Sheer Draught, Plate I.) Also a cast iron frame in which the dropping palls of a capstan traverse and bring up the capstan.

RING and EYE BOLTS

for securing GUNS, &c. have the part that enters into the wood cylindrical. Those for ring-bolts have the rings turned into an eye made at the head of the bolt. The rings are sometimes made angular, to receive many turns of lashing; such are the bolts for lashing the booms and spare anchors. Eye bolts have only an eye made at the head of the bolt, to which the tackles, &c. may be hooked. (See Midship Sections, Plate III.) Some eye-bolts have a shoulder to them, to resist a great strain, as the fish-tackle eye-bolt, which has a plate, or long strap, made under the eye to prevent its burying into the plank. The TOGGLE-BOLT [see Steel's "Art of Mastmaking."] has a flat head and a mortise through it, that receives a toggle or pin. Its use is to confine the ensign staff, &c. into its place, by means of a strap.

Ringbolt

A bolt fitted with a ring through its eye, used for securing, running, rigging, etc.

RING-BOLTS

(See BOLTS.)

RINGS

Circles of iron, or other metal, for lifting things by hand or securing the points of bolts, &c. Hatch Rings are those which are fixed to the hatches or scuttles, to open or shut them with. Port Rings are those which are fixed to the port or scuttle lids to haul them open by, or bar them in.

Rips

A disturbance of surface water by conflicting current or by winds.

Rise and shine

A call to turn out of bunks.

RISING

A term derived from the shape of a ship's bottom in general, which gradually narrows, or becomes sharper towards the stem and the stern post. On this account, the floor, towards the extremities of the ship, is raised or lifted above the keel: otherwise the shape would be so very acute, as not to be provided from timber with sufficient strength in the middle or cutting-down. The floor timbers forward and abaft, with regard to their general form and arrangement, are therefore gradually lifted or raised upon the solid body of wood called the dead or rising-wood, which must, of course, have more or less rising as the body of the ship assumes more or less fullness or capacity. (See DEAD RISING.)

RISING FLOORS

The floors forward and abaft, which, on account of the rising of the body, are the most difficult to be obtained, as they must be deeper in the throat or at the cutting down, to preserve strength.

RISING HALF-BREADTH, OR NARROWING OF THE FLOOR-SWEEP

A curve line, on the half-breadth plan, which determines the distance of the radius of the floor-sweeps from the middle line. (See Sheer Draught, Plate I.)

RISING STRAIGHT,

in whole moulding, is a curve line in the sheer plan, drawn at the intersection of the straight part of the bend mould, when continued to the middle line at each respective timber. (See Long Boat, on Plate IV.)

RISING-LINE

An elliptical line, drawn on the plan of elevation, to determine the sweep of the floor-heads throughout the ship's length, which accordingly ascertains the shape of the bottom with regard to its being full or sharp. (See Sheer Draught, Plate I.)

RISINGS OF BOATS, THE

is a narrow strake of board fastened withinside to support the thwarts.

RISING-SQUARE

A square used in whole moulding, upon which is marked the height of the rising-line above the upper edge of the keel. (See Long Boat, on Plate IV.)

RISING-WOOD

(See DEAD WOOD.)

Roaring forties

That geographical belt located approximately in 40 degrees south latitude in which are encountered the prevailing or stormy westerlies.

Rogue Wave

An ocean wave much larger than the current wave sequence. This wave may also be outside the current wave direction and may be 100 feet or more in height

Roll call

The act of checking how many passengers and crew members are present, e.g. at assembly stations, by reading aloud a list of their names

ROLLERS

Cylindrical pieces of timber revolving on an axis, and so fixed above the deck, either horizontally or perpendicularly, as to prevent the chafing of the cable or hawser, &c. against the jear and top-sail sheet bitts, &c. Those placed forward in the manger are for the use of the voyal or messenger.

ROLLING

That motion by which a ship vibrates from side to side. Rolling is therefore a sort of revolution about an imaginary axis passing through the centre of gravity of the ship: so that the nearer the centre of gravity is to the keel, the more violent will be the roll, because the centre, about which the vibrations are made, is placed so low in the bottom, that the resistance made by the keel to the volume of water which it displaces in rolling, bears very little proportion to the force of the vibration above the centre of gravity, the radius of which extends as high as the mast-heads. But, if the centre of gravity is placed higher above the keel, the radius of the vibration will not only be diminished, but such and additional force to oppose the motion of rolling will be communicated to that part of the ship's bottom as may contribute to diminish this movement considerably. It may be observed that, with respect to the formation of a ship's body, that shape which approaches nearest to a circle is the most liable to roll; as it is evident, that if this be agitated in the water, it will have nothing to restrain it; because the rolling or rotation about its centre displaces no more water than when it remains upright, and hence it becomes necessary to increase the depth of the keel, the rising of the floors, and the deadwood afore and abaft.

ROOM AND SPACE

The distance from the moulding edge of one timber to the moulding edge of the next

timber, which is always equal to the breadth of two timbers, and two to four inches or more. The room and space of all ships that have ports should be so disposed that the scantling of the timber on each side of the lower ports, and the size of the ports fore and aft, may be equal to the distance of two rooms and space. (See Sheer Draught, Plate I.)

ROOMS

The different vacancies between the timbers, and likewise those between the beams, as the MAST-ROOMS, CAPSTAN-ROOM, HATCH-ROOM, &c. Also the different apartments or places of reserve, of which there are a number in a ship, as the Bread-Room, an apartment in the hold abaft for containing the bread for the ship's use. The Fish-Room, an apartment next adjoining, in which cured or dried fish was formerly stored, but which is now generally used as a coal-hole, and to stow spirits in. The Captain's and Lieutenant's Store-rooms, are two apartments built near each other on the starboard side of the after platform, for those officers to store their wine in, &c. Sail-Rooms are built between decks upon the orlop or lower deck to contain the spare sails. The Spirit-Room is built in the hold, next before the fish-room, to contain the spiritous liquors for the use of the ship's company. Besides these, there are several other store-rooms in which the carpenter's, boatswain's, and gunner's stores are kept; with the Steward's-Room, whence most of the provisions are issued, and which is the place appointed for the purser's steward to transact his business in. The Filling Room is a place parted off and lined with lead in the magazine, wherein the powder is started, in order to fill the cartridges.

ROUGH-TREE-RAILS

Rails along the waist and quarters, nearly breast-high, to prevent persons from falling overboard. This term originated from the practice in merchant vessels of carrying their rough or spare-gear in crutch-irons along their waist. (See Sheer Draught, Plate I.)

ROUND STERN

The stern of a vessel whose bottom, wales, &c. are wrought quite aft, and unite in the stern-post. Few English vessels are built on this construction, excepting small vessels, as hoys, &c. (See SQUARE STERNED.)

ROUND-AFT

The segment of a circle that the stern partakes of from the wing-transom upward.

ROUND-HOUSE

That part of the ship abaft, which is above the quarter-deck, fitted up with cabins, &c. for the accomodation of the officers. (See Sheer Draught, Plate I.)

ROUND-HOUSES AT THE HEAD

Conveniencies [sic] or seats of ease for the officers. (See Half Breadth Plan, Plate I.)

ROUND-UP OF THE TRANSOMS

The segment of a circle to which they are sided, or of beams to which they are moulded.

Route

See Deep Water Route, Traffic Route, Two-Way-Route. Means Whichever type is appropriate in the context unless otherwise specified.

Routeing Organization

A company or organization respon- sible to a country’s Administration for the authorization of the commissioning of an SE5 which is registered in that country.

Routing

A complex of measures concerning routes aimed at reducing the risk of casualties; it includes traffic separation schemes, two-way routes, tracks, areas to be avoided, inshore traffic zones, and deep water routes.

ROW PORTS

Square scuttles cut through the sides of frigates, sloops, and small vessels, one between each port in midships, through which the sweeps are worked to row them along in a calm or light wind. In point of utility they are therefore similar to rowlocks along the gunwale of boats.

ROWLOCKS

The scores in the sides of boats wherein the oars or sculls are confined to row them with.

Rudder

The flat or shaped frame hung to the sternpost of a ship, which is used to steer the ship.

RUDDER PENDANTS

Ropes to prevent the loss of the rudder in case of its being unshipped by accident.

Rudder post

That part of a rudder by which it is pivoted to the sternpost.

RUDDER, OR ROTHER

The machine, attached to the stern post, by the pintles and braces, which serve to direct the course of the ship. It is formed of several pieces of timber, of which the main piece is generally of oak, extends the whole length,

and forms the head. The bearding piece, which forms the fore part, is of elm, and derives its name from its shape, because from the middle, each way, it is shaped angle-wise, or bearded to two-fifths of its thickness, or less if the stern-post is bearded back, that the rudder occasionally may form an obtuse angle with the ship's length. The other pieces are of fir. (See Sheer Draught, Plate I.)

RUDDER-CHOCKS

Large pieces of fir, to fay or fill up the excavation on the side of the rudder hole; so that the helm being in midships the rudder may be fixed, and supposing the tiller broken, another might thus be supplied.

RUDDER-IRONS

A name by which the pintles are frequently called. (See PINTLES.)

Rules of the Road

The rules and regulations accepted by international agreement and enforced by law in marine countries which govern the movements of ships when approaching each other under such circumstances that a collision may possibly ensue.

RUN

The narrowing of the ship abaft, as of the floor towards the stern-post, when it becomes no broader than the post itself.

Run down

To collide with a vessel head on.

Rustbucket

Sailors' term for an old ship that needed a lot of paint and repairs.

S

SADDLE

A piece sometimes fayed upon the upper end of the lacing to secure the foremost ends of the main rails.

Safe for Men

A term signifying that the vapor content of a space so certified is less than 0.1 on a gas indicator.

Safe for Men and Fire

A term signifying that the vapor content of a space so certified is 0.1 or less on a gas indicator and that the space contains no oil or sediment which could produce vapors.

Safe speed

That speed of a vessel allowing time for effective action to be taken under prevailing circumstances and conditions to avoid a collision and to be stopped within an appropriate distance

Safe working load

Maximum working load of lifting equipment that should not be exceeded should not be exceeded

Safe working pressure

The maximum permissible pressure in cargo hoses

SafetyNET

Communications service provided via Inmarsat for promulgation of maritime safety information, including shore-to-ship relays of distress alerts and communications for search and rescue co-ordination.

Sag (Sagging)

The condition of a vessel caused by the unequal distribution of cargo. When a vessel loads too heavily in the center it causes a bending downward of the hull at the midships area. This can also be caused by the vessel working in heavy seas with large waves under each end and no support under the center of the ship. Sag is the opposite of Hog.

SAGGING (SEE HOGGING)

In seamanship, SAGGING to leeward, signifies the movement by which a ship makes considerable leeway, or is driven far to leeward of the course on which she apparently sails. But as a phrase applied to the hull of the ship is the very reverse of HOGGING, as then the midship part of the ship by straining arches upwards, whereas in sagging, by a different sort of strain, it curves downwards.

Sailing free

Sailing other than close; hauled or into the wind (wind astern).

SAIL-ROOM

(See ROOMS.)

SAILS

The surfaces of canvas, extended on or between the masts, to receive the force of the wind, and thereby press the vessel through the water.

Salty character

A nautical guy, often a negative connotation.

Salvage

To save a vessel or cargo from total loss after an accident; recompense for having saved a ship or cargo from danger.

Salvage

The property which has been recovered from a wrecked vessel, or the recovery of the vessel herself.

SAMPSON's POST

A large pillar or stantion placed up diagonally on each side against the quarter-deck beam, and next afore the cabin bulkhead, with its lower end tenoned into a chase on the upper deck. It is used to bring the fish-tackle too [sic] when fishing the anchor, &c. This name is also given to the pillar immediately under the hatchways, having scores on each side, as steps, to go up and down by. This pillar is of so much larger scantling than the other pillars, as not to be too much weakened by the scores.

SAR

Search and Rescue

SarNET

A broadcast system between RCCs within the footprint of an individual satellite.

SART

Search and Rescue Transponder

SAWS

The most useful instruments used in carpentry. The hand-saw is the smallest, and is used by one hand. The two-hand or cross-cut-saw is much longer, and is used by two men. The whip-saw is the longest of all, being that generally used in a saw-pit, or for the more laborious purposes. The hack-saw is made of a scythe jagged at the edge, and used chiefly for cutting off iron bolts.

Scale

To climb up. A formation of rust over iron or steel plating.

SCALE

The graduated lines, divided into equal parts, and placed at the bottom of the sheer draught, &c. as a common measure for ascertaining the dimensions by the plan; and for this purpose each of the larger divisions represents a foot, and the subdivisions, inches. (See Sheer Draught, Plate I.)

SCANTLING

The dimensions given for the timbers, plank, &c. Likewise, all quartering under five inches square, which is termed scantling; all above that size is called CARLING.

SCARPHING

The letting of one piece of timber or plank into another with a lap, in such a manner, that both may appear as one solid and even surface, as keel-pieces stem pieces, clamps, &c.

Scenario

A consistent set of known facts and assumptions describing what may have happened to the survivors.

Scene

The area or location where the event, e.g. an accident, has happened

School

A large body of fish.

SCHOONER

A cutter-built vessel, but longer in proportion than a cutter, and having two masts, whose main-sail and fore-sail are spread upon a gaff or boom.

SCREEN BULKHEAD

The after bulkhead under the round-house.

SCREWS, BED OR BARREL

A powerful machine for lifting large bodies; and when placed against the gripe of a ship, to be launched for starting her [punct: sic]. It consists of two large poppets or male screws, having holes through their heads to admit levers, a bed formed by a large oblong piece of elm, with a female screw near each end to admit the poppets, and a sole of elm plank for the heels of the poppets to work on, agreeably to the annexed figure. [illus.] Those used as last described, have an inclined sole so as to stand square to the stem or knee.

SCREWS, HAND

(See HAND SCREWS.)

SCROLL

A spinal ornament fastened at the drifts. (See DRIFTS.) Likewise the finish of the upper part of the hair bracket. (See Sheer Draught, Plate I.) For SCROLL HEAD. (See HEAD.)

SCROLL HEAD, A

signifies that there is no carved or ornamental figure at the head, but that the termination is formed and finished of by a volute, or scroll turning outwards. A FIDDLE HEAD signifies a similar kind of finish, but with the scroll turning aft or inwards.

Scupper

Any opening or tube leading through the ship's side to carry water away from the deck.

Scuppers

Openings in the side of a ship to carry off water from the waterways or from the drains.

SCUPPERS

Leaden pipes let through the ship's side to convey the water from the decks.

Scuttle

To sink a vessel by boring holes in her bottom or by opening sea valves.

Scuttle butt

The container of fresh water for drinking purpose used by the crew; formerly it consisted of a cask.

Scuttle butt story

An unauthoritative story (a tall story).

SCUTTLES

Square openings cut through the decks, much less than the hatchways, for the purpose on handing small things up from deck to deck. There are also scuttles cut through the sides of the ship, some for the admission of air and light into the cabins between decks, and some between the ports, through which the sweeps are used, to row the ship along in calms, and one is cut in each port-lid of two-deck ships to admit air and light between decks.

Sea

Condition of the surface resulting from waves and swells.

Sea anchor

A drag (drogue) thrown over to keep a vessel to the wind and sea.

Sea chest

A sailor's trunk; the intake between the ship's side and a sea valve.

Sea Current

The residual current when currents caused by tides and local winds are subtracted from local current. It is the main, large-scale flow of ocean waters.

Sea dog

An old sailor.

Sea going

Capable of going to sea.

Sea lawyer

A seaman who is prone to argue, especially against recognized authority (big mouth).

Sea painter

A line leading from forward on the ship and secured to a forward inboard thwart of the boat in such a way as to permit quick release.

Sea Trials

A series of trials conducted by the builders during which the owner's representatives on board act in a consulting and checking capacity to determine if the vessel has met the specifications.

SEA-BOAT

A vessel that bears the sea firmly, without straining her masts, &c. is commonly said to be "a good sea-boat."

seagrass beds

Benthic communities, usually on shallow, sandy or muddy bottoms, dominated by grasslike marine plants.

Seamark

A navigational aid placed to act as a beacon or warning

SEAMS

The openings between the edges of the planks when wrought.

Search

An operation, normally co-ordinated by a rescue co-ordination centre or rescue sub-centre, using available personnel and facilities to locate persons in distress.

Search action plan

Message, normally developed by the SMC, for passing instructions to SAR facilities and agencies participating in a SAR mission.

Search and rescue airspace reservation

Temporary airspace reservation to prevent non-SAR aircraft from interfering with SAR operations.

Search and rescue briefing officer

An officer appointed, usually by the SMC, to brief departing SAR facilities and debrief returning SAR facilities.

Search and rescue case

Any potential or actual distress about which a facility opens a documentary file, whether or not SAR resources are dispatched.

Search and rescue co-ordinating communications

Communications necessary for the co-ordination of facilities participating in a search and rescue operation.

Search and rescue co-ordinator

One or more persons or agencies within an Administration with overall responsibility for establishing and providing SAR services and

ensuring that planning for those services is properly co-ordinated.

Search and rescue data provider

A source for a rescue co-ordination centre to contact to obtain data to support search and rescue operations, including emergency information from communications equipment registration databases, ship reporting systems, and environmental data systems (e.g., weather or sea current).

Search and rescue facility

Any mobile resource, including designated search and rescue units, used to conduct search and rescue operations.

Search and rescue incident

Any situation requiring notification and alerting of the SAR system and which may require SAR operations.

Search and rescue liaison officer

An officer assigned to promote co-ordination during a SAR mission.

Search and rescue mission co-ordinator

The official temporarily assigned to coordinate response to an actual or apparent distress situation.

Search and rescue plan

A general term used to describe documents which exist at all levels of the national and international search and rescue structure to describe goals, arrangements and procedures which support the provision of search and rescue services.

Search and rescue point of contact

Rescue co-ordination centres and other established and recognized national points of contact which can accept responsibility to receive Cospas±Sarsat alert data to enable the rescue of persons in distress.

Search and rescue region

An area of defined dimensions, associated with a rescue co-ordination centre, within which search and rescue services are provided.

Search and rescue service

The performance of distress monitoring, communication, co-ordination and search and rescue functions, including provision of medical advice, initial medical assistance, or medical evacuation, through the use of public and private resources including co-operating aircraft, vessels and other craft and installations.

Search and rescue stage

Typical steps in the orderly progression of SAR missions. These are normally Awareness, Initial Action, Planning, Operations, and Mission Conclusion.

Search and rescue sub-region

A specified area within a search and rescue region associated with a rescue sub-centre.

Search and rescue transponder

A survival craft transponder that, when activated, sends out a signal automatically when a pulse from a nearby radar reaches it. The signal appears on the interrogating radar screen and gives the bearing and distance of the transponder from the interrogating radar for search and rescue purposes.

Search and rescue unit

A unit composed of trained personnel and provided with equipment suitable for the expeditious conduct of search and rescue operations.

Search area

The area, determined by the search planner, that is to be searched. This area may be sub-divided into search sub-areas for the purpose of assigning specific responsibilities to the available search facilities.

Search effort

A measure of the area a search facility can effectively search within the limits of search speed, endurance, and sweep width. Search effort is computed as the product of search speed (V), search endurance (T), and sweep width (W). Z = V x T x W.

Search endurance

The amount of ``productive'' search time available at the scene. This figure is usually taken to be 85% of the on-scene endurance, leaving a 15% allowance for investigating sightings and navigating turns at the ends of search legs.

Search facility position error

Probable error in a search craft's position, based on its navigational capabilities.

Search object

A ship, aircraft, or other craft missing or in distress or survivors or related search objects or evidence for which a search is being conducted.

Search pattern

A track line or procedure assigned to an SRU for searching a specified area.

Search pattern

A pattern according to which vessels and/or aircraft may conduct a co-ordinated search (the IMOSAR offers seven search patterns)

Search radius

The actual search radius used to plan the search and to assign search facilities. It is usually based on adjustments to the optimal search radius that are needed for operational reasons.

Search speed

The speed (or velocity) with which a search facility moves over the ground when searching.

Search speed

The speed of searching vessels directed by the OSC

Search sub-area

A designated area to be searched by a specific assigned search facility or possibly two facilities working together in close co-ordination.

SEASONING

A term applied to a ship kept standing a certain time after she is completely framed and dubbed out for planking, which should never be less than six months when circumstances will permit. Seasoned plank or timber is such as has been cut down and sawn out one season at least, particularly when thoroughly dry, and not liable to shrink.

SEAT

The scarph or part trimmed out for a chock, &c. to fay to.

SEAT TRANSOM

That transom which is fayed and bolted to the counter-timbers, next above the deck transom, at the height of the port sills.

SEATING

That part of the floor which fays on the deadwood; and of a transom which fays against the post.

Seaworthiness

The sufficiency of a vessel in materials constructions, equipment, crew and outfit for the trade in which the it is employed. Any sort of disrepair to the vessel by which the cargo may suffer; overloading; untrained officers; may constitute a vessel unseaworthy.

Seaworthiness Certificate

A certificate issued by a classification society surveyor to allow a vessel proceed after she has me with a mishap that may have affected its seaworthiness. It is frequently issued to enable a vessel to proceed, after temporary repairs have been effected, to another port where permanent repairs are then carried out.

Seaworthy

Capable of putting to sea and able to meet sea conditions.

Secondary swells

Swell systems of less height than the primary swell.

SECTION

A draught or figure, representing the internal parts of the ship, at any particular place athwartships. (See Midship Section, Plate III.)

Secure

To make fast; safe; the completion of a drill or exercise on board ship.

Secure for sea

Prepare for going to sea, extra lashing on all movable objects.

Segregated Ballast Tank

Tanks for the carriage of ballast water only. Unlike CBT (see above), SBT require separate pumps and pipes intended for handling ballast water only.

Segregation (of goods)

Separation of goods which for different reasons must not be stowed together

Seize

To bind with small rope.

Semaphore

Flag signaling with the arms.

Sensors

Human senses (sight, hearing, touch, etc.), those of specially trained animals (such as dogs), or electronic devices used to detect the object of a search.

Separation Zone (or Line)

A zone or line separating traffic proceeding in one direction from traffic proceeding in another direction. A separation zone may also be used to separate a traffic lane from the adjacent inshore traffic zone.

Separation zone / line

A zone or line separating the traffic lanes in which vessels are proceeding in opposite or nearly opposite directions; or separating a traffic lane from the adjacent sea area; or separating traffic lanes designated for particular classes of vessels proceeding in the same direction

Set

Direction towards which a current flows

Set the course

To give the steersman the de-sired course to be steered.

Set up rigging

To take in the slack and secure the standing rigging.

SETTING, OR SETTING-TO

The act of making the planks, &c. fay close to the timbers, by driving wedges between the planks, &c. and a wrain-staff. Hence we say, "Set, or set away," meaning to exert more strength. The power or engine used for the purpose of setting is called a SETT, and is composed of two ring-bolts, and a wrain-staff, cleats, and lashings.

Settle

To lower, sink deeper.

Shackle

A U-shaped piece of iron or steel with eyes in the end closed by a shackle pin.

Shackle

(1) Length of chain cable measuring 15 fathoms. (2) U-shaped link closed with a pin used for connecting purposes

SHACKLES

The small ring-bolts driven into the ports, or scuttles, and through which the lashing passes when the ports are barred in.

Shaft alley

Covered tunnels within a ship through which the tail shafts pass.

Shake a leg

An order to make haste.

Shakedown cruise

A cruise of a new ship for the purpose of testing out all machinery, etc. Shank: The main piece of the anchor having the arms at the bottom and the Jew's harp at the top.

SHAKEN, OR SHAKEY

A natural defect in plank or timber when it is full of splits or clefts, and will not bear fastening or caulking.

Shanghaied

The practice of obtaining a crew by means of force. Crews were hard to get for long voyages, and when the unwilling shipmate regained consciousness, he found himself bound for some remote port, such as Shanghai. One who is forced to do something against his will.

SHANK-PAINTER

A chain bolted through the topside, abaft the cathead, to retain the shank and flukes of the anchor when stowed.

Shape a course

To ascertain the proper course to be steered to make the desired point or port. Shark's mouth: The opening in an awning around the mast.

SHEATHING

A thin sort of doubling, or casing, or fir-board or sheet copper, and sometimes of both, over the ship's bottom, to protect the planks from worms, &c. Tar and hair, or brown paper dipt in tar and oil, is laid between the sheathing and the bottom.

Sheave

The wheel of the block over which the fall of the block is rove.

SHEAVE

A cylindrical wheel made of hard wood, moveable round a rim as its axis, and placed in a block, of which there are several in the sides of a ship, let through the side and chest-tree [sic], for assisting to lead the tacks and sheets on board, &c.

Sheer

A sudden change. The longitudinal dip of the vessel's main deck.

SHEER

The longitudinal curve or hanging of the ship's side in a fore and aft direction. (See Sheer Draught, Plate I.)

SHEER DRAUGHT

The plan of elevation of a ship, whereon are described the outboard works, as the wales, sheer-rails, ports, drifts, head, quarters, post and stem, &c. the hang of each deck inside, the height of the water-lines, &c. (See Sheer Draught, Plate I.)

SHEER-RAILS

The narrow ornamental mouldings along the topside, which are parallel to the sheer. They are generally made of deal but are sometimes wrought from the solid plank. (See Sheer Draught, Plate I.)

SHEERS

Two rough masts erected across the building slip, for hoisting the ship's frames, &c. They are lashed together at their upper ends, with tackles depending from the intersection at top; and are kept upright by guys extending forward and aft from the heads. The heels are lashed to prevent their spreading. That some judgement may be formed of the dimensions of sheers, we subjoin the

following, which are sufficient for raising the stern-frame of the largest ship in the English navy. Two masts, each nineteen inches and a half in diameter, and sixty-six feet long, spread at the heels, from out to outside, forty-six feet four inches. The tackles, consisting of four treble blocks, twenty-eight inches long, the sheaves brass coaked. The falls new eight-inch rope. One treble block lashed, so as to be fixed to the aft part of the sheers, and another to the foreside. Shivers to stand nearly athwartships, and fair with the leading-block at the heels of the sheers, to prevent the fall from rubbing against the cheeks of the blocks. One treble block lashed to the back of the stern frame, between the deck and filling transoms, to stand athwartships, and lead to the opposite sheer. To have a double tackle at the head of the stern-post, the fall 3-1/2 inch rope, to bowse the head forward occasionally, with a double tackle at the heel of 4-1/2 inch rope, to ease it forward or bowse it aft as required. One double tackle at each end of the wing transom, called horning tackles, to lead to the standards most convenient to horn or square the frame as wanted. The after treble block at the sheer head is to plumb the after part of the wing transom as nearly as possible, and the guys to steady the sheer-heads, two to lead forward and two aft on each side of the slip, to be seven inch hawsers.

SHEER-STRAKE

The strake or strakes wrought in the topside, of which the upper edge is wrought well with the top-timber line, or top of the side, and the lower edge kept well with the upper part of the upper deck ports in midships, so as to be coutinued whole all fore and aft, and not cut by the ports. It forms the chief strength of the upper part of the topside, and is therefore always worked thicker than the other strakes, and scarphed with hook and butt between the drifts. (See Sheer Draught, Plate I.)

SHEER-WALES, OR MIDDLE-WALES

Those strakes of thick stuff in the topside of three-decked ships which are wrought between the middle and lower deck ports.

Sheet

The rope used to spread the clew of head sails and to control the boom of boom sails.

Shell

The casing of a block within which the sheave revolves.

SHELL-ROOMS

A compartment in a bomb-vessel, fitted up with shelves to receive bomb-shells when charged.

SHIFT

A term applied to disposing the butts of the planks, &c. so that they may over launch each other without reducing the length, and so as to gain the most strength. The planks of the bottom, in British-built ships of war, have a six-feet shift with three planks between each butt, so that the planks run twenty-four feet long. In the bottoms of merchant ships they have a six-feet shift with only two planks between each butt; making but eighteen-feet planks in length. The shift of the timbers are more or less according to the contract. (See Disposition of the Frame, and Planking expanded, Plate III.)

SHIFTING

The act of setting off the length of the planks of the bottom, topside, &c. that the butts may over-run each other, in order to make a good shift. (See Planking, Plate III.) Replacing old stuff with new is also called shifting.

Shifting cargo

Transverse movement of cargo, especially bulk cargo, caused by rolling or a heavy list

Ship

To enlist; to send on board cargo; to put in place; to take on board.

Ship Chandler

Particular merchants handling ship's stores, supplies, and sundries, etc. Sometimes handles spare parts as accommodation to ship operators.

Ship Earth Station

An Inmarsat terminal carried on board a ship

Ship's Agent

A person or firm who transacts all business in a port on behalf of shipowners or charterers. Also called shipping agent; agent.

Shipbreaker

A company that demolishes or cuts up vessels which are obsolete or unfit for sea. The steel is used for scrap.

Shipper

The person for whom the master of a ship agrees to carry cargo. Also called consignor.

Ships time

Ships time was counted by the half hour, starting at midnight. A half hour after twelve was one bell; one o'clock, two bells; and so on until four o'clock, which was eight bells.

The counting then started over again, with 4:30 being one bell.

SHOLES

Pieces of oak or plank, placed under the soles of the standards; or under the heels of the shores, in docks or slips where there are no groundways, to enable them to sustain the weight required without sinking. Old hanging port-lids are particularly suitable and useful for this purpose.

SHORES

Those pieces of timber fixed under the ribbands, or against the sides and bottom of the ship to prop her up whilst building.

Short stay

When the scope of chain is slightly greater than the depth of water.

Short Ton

A unit of measurement equal to 2,000 pounds.

Shorthanded

Without sufficient crew.

Short-Handed

Said of a vessel inadequately manned or without the regular number of men.

Shot

A short length of chain, usually 15 fathoms (90 feet). (Method of measuring chain.)

SHOT-LOCKERS, OR GARLANDS

Apartments built up in the hold to contain the shot. Also pieces of oak plank, fixed against the head-ledges and coamings of the hatch and ladderways, or against the side between the ports to contain the shot; for which purpose they are hollowed out to near one-third of its diameter, so that the balls lie in them about one inch asunder. It is the latter that are termed garlands.

Shove in your oar

To break into a conversation.

SHRINKING

The contraction or loss of substance in timber as it gets dry.

Shrouds

Side stays from the masthead to the rail..

SHROUDS

The range of large ropes extended from each side of the ship to the mast-heads for the support of the masts.

SIDE COUNTER TIMBER

The stern timber which partakes of the shape of the topside and heels upon the end of the wing transom. (See Disposition, Plate III.)

Side lights

The red and green running lights, carried on the port and starboard sides respectively, of vessels under-way.

SIDING, OR SIDED

The size or dimensions of timber the contrary way to the moulding, or mould side.

SILLS, OR CELLS

The pieces of plank, or timber, let in horizontally between the frames to form the lower and upper sides of the ports, and between the timbers for scuttles, &c.

siltation

The settling of fine mineral particles to the sea bottom.

Sing out

To call out.

SIRMARKS

The different places marked upon the moulds where the respective bevellings are to be applied, as the lower sirmark, floor sirmark, &c.

Sister hooks

Two iron flatsided hooks reversed to one another.

Sister Ships

Ships built on the same design.

Situation report

Reports, from the OSC to the SMC or the SMC to interested agencies, to keep them informed of on-scene conditions and mission progress.

SKEG

The after part of the keel, or that part whereon the stern-post is fixed.

SKEG-SHORES

One or two-pieces [sic] of four-inch plank, put up endways under the skeg of the ship, to steady the after part a little when in the act of launching. They are confined to the bottom of the ship by a hinge. The upper part is rounded, and they should be so carefully fixed as to fall readily when the ship starts; for the writer hereof once saw a seventy-four-gun ship detained from launching by her skeg-shore only.

Skids

Beams sometimes fitted over the decks for the stowage of heavy boats or cargo.

SKIDS

Pieces of oak plank, formed to the topside of the ship, and extending vertically from the wales to the top of the side. Their use is, to preserve the ship's side from being injured by weighty bodies, when hoisted into or lowered out of the ship, but as they are seldom wanted, for the reason heretofore given under the article FENDERS, their tendency to conduce to the decay of the sides ought to explode them.

Skin

The plating of a ship.

SKINNING

A term often used for planking. (See RIBS.)

Skipper

The captain.

Sky pilot

A chaplain.

Skylight

A covering, either permanent or removable, to admit air and light below decks.

Slack

The part of a rope hanging loose.

Slack water

The condition of the tide when there is no horizontal motion.

SLEEPERS

Pieces of compass timber fayed and bolted upon the transoms and timbers adjoining, withinside, to strengthen the buttock of the ship.

SLICES

Tapering pieces of plank, used to drive under the false keel, and settle the ship upon.

SLIDING PLANKS,

are the planks upon which the bilgeways slide in launching.

SLIDING-KEELS

An invention of the ingenious Captain Schank, of the Royal Navy, to prevent vessels from being driven to leeward by a side wind. They are composed of plank of various breadths, erected vertically, so as to slide up and down, through the keel.

Slings

Ropes, nets, and any other means for handling general cargoes

Slip

To let go by unshackling, as a cable.

SLOOP

According to the general acceptation of the word, a small merchant or coasting vessel with one mast. But all ships of the Royal Navy carrying less than twenty guns, and being above the class of gun-vessels, are denominated sloops, excepting bomb-vessels and fire-ships.

SLOP-ROOM

The place appointed for the purser to keep the ship's slops in. (See ROOMS.)

Slops

A mixture of petroleum and water normally arising from tank washings.

Sludge

A mixture of petroleum and water, usually semi-solid, frequently containing sand and scale.

Slush

White-lead and tallow used on standing rigging.

Smart

Snappy, seamanlike; a smart ship is an efficient one.

Smothering lines

Pipe lines to a compartment for smothering a fire by steam or by a chemical.

SNAPE, TO

To hance or bevel the end of any thing so as to fay upon an inclined plane.

Snatch block

A single block fitted so that the shell or hook hinges to permit the bight of a rope to be passed through.

SNOW

A vessel similar in construction to a brig, but the largest of vessels fitted with two masts. It has a square foresail and mainsail, with a trysail abaft, resembling the mizen of a ship, and hoisted by a gaff upon a small mast, close abaft the main-mast, which is called the trysail mast.

Snub

To check suddenly.

Sny

A small toggle used on a flag.

SNYING

A term applied to planks when their edges round or curve upwards. The great sny occasioned in full bows or buttocks is only to be prevented by introducing steelers. (See STEELERS.)

SOLAS

Safety of Life at Sea Convention.

SOLE

A sort of lining to prevent wearing or tearing away the main part to which it may be attached; as the rudder, bilgeways, &c. (See Sheer Draught, Plate I.)

Sortie

Individual movement of a resource in conducting a search or rendering assistance.

Sound

To measure the depth of the water with a lead. Also said of a whale when it dives to the bottom.

Sound out a person

To obtain his reaction to something.

Southwester

An oil-skin hat with broad rear brim.

space segment

Consists of the communication satellites operated by Inmarsat.

SPALING

Keeping the frames of a ship to their proper breadths by the cross-spales, which should so remain till some of the deck knees are bolted. (See CROSS-SPALES.)

Span

A wire rope or line between davit heads.

Spanner

A tool for coupling hoses.

SPANSHACKLE

A large bolt driven through the forecastle and upper deck beams, and forelocked under each beam. It has a large square ring at the head, for the purpose of receiving the end of the davit. It has however been long since disused in the Royal Navy, as the davits are more commodiously fixed in the fore-channels.

Sparks

The radio operator.

SPARS

Small firs used in making staging.

Speak

To communicate with a vessel in sight.

Special Drawing Right

A nominal currency used by CESs and Accounting Authorities to calculate communication charges incurred by an SES. A fixed rate of exchange exists between the SDR and the nominal currency the Cold Franc (GF): 1 SDR = 3.061 GF.

Special Survey

The survey requirement of a classification society that usually takes place every four years. At the special survey vital pieces of equipment are opened up and inspected by the classification surveyor.

Speed of advance

The speed at which a storm centre moves

SPILES

Small wooden pins, which are driven into nail-holes, to prevent leaking, &c.

SPILINGS

The dimensions taken from a straight line, a mould's edge, or rule-staff, to any given line or edge.

Spill

Oil getting into the sea in any amount for any reason.

Spill

The accidental escape of oil, etc., from a vessel, container, etc., into the sea

Spill control gear

Anti-pollution equipment for combating accidental spills of oils or chemicals

SPIRIT ROOM

A place built abaft the after-hold to contain the spirits. (See ROOMS.)

SPIRKITTING [SIC; SPIRKETTING, SPIRKETING]

A thick strake, or strakes, wrought within side upon the ends of the beams or waterways. In ships that have ports the spirkitting reaches from the waterways to the upperside of the lower sill, which is generally of two strakes, wrought anchor-stock fashion; in this case, the planks should always be such as will work as broad as possible, admitting the butts be about six inches broad. (See Midship Section, Plate III.)

SPLA-BOARDS

Boards or plank fixed to an obtuse angle, to throw the light into the filling room of a magazine.

Splice

To join two ropes together by tucking strands.

Spot (Voyage) Charter

A charter for a particular vessel to move a single cargo between specified loading port(s) and discharge port(s) in the immediate future. Contract rate (spot rate) covers total operating expenses such as port

charges, bunkering, crew expenses, insurance, repairs, and canal tolls. The charterer will generally pay all cargo-related costs.

Spring line

Usually of the best wire hawsers; one of the first lines sent out in mooring. "Springs in and springs out" a vessel.

SPRUNG

A term indicating that a plank, &c. is strained so much in the working as to crack or fly open and so as to be nearly broken off. To SPRING, is to quicken or raise the sheer.

SPURN WATER

A channel left above the ends of a deck to prevent water from coming any further.

SPURS

Large pieces of timber, the lower ends of which are fixed to the bilgeways, and the upper ends fayed and bolted to the ship's bottom. They are used in some of the Royal Yards, although not by merchant builders, as an additional security to the bilgeways in case any other part should fail in launching the ship.

SPURS OF THE BEAMS, OR BEAM-ARM

(See BEAM-ARM.)

Squall

A sudden and violent gust of wind.

SQUARE BODY

The figure which comprehends all the timbers whose areas or planes are perpendicular to the keel, which is all that portion of a ship between the cant-bodies. (See BODIES.)

SQUARE MAKER, A

A shipwright who cuts the butts to receive the oakum, and prepares the work ready for the caulkers.

SQUARE RIBBANDS

The same as horizontal ribbands. (See RIBBANDS.)

SQUARE TIMBERS

The timbers which stand square with, or perpendicular to, the keel. (See SQUARE BODY.)

SQUARE TUCK

A name given to the after part of a ship's bottom when terminated in the same direction up and down as the wing-transom, and the planks of the bottom end in a rabbet at the foreside of the fashion piece; whereas ships with a buttock are round or circular, and the planks of the bottom end upon the wing-transom.

SQUARE, A

An instrument formed by a stock and a tongue, fixed at right angles. To SQUARE is to horn or form with right angles; and to STAND-SQUARE is to stand or be at right angles relatively to some object.

SQUARE-STERNED

A term applied to ships whose wing-transom is at right angles, or nearly at right angles, with the stern-post, and towards the upper side of which the upper planks of the bottom butt, or finish, in a rabbet formed by the tuck-rail; the other part of the plank stopping at the side counter timbers, by which means the stern may be commodiously fitted with sashes, walks, &c. All British ships are now built upon this principle, whilst many of other nations are still constructed by the ancient methods; hence we so fraquently hear the prhase of "square-sterned and British built," as our practice in this respect justly claims the superiority over that of all nations.

Squeegee

A deck dryer composed of a flat piece of wood shod with rubber, and a handle. Stanchions: Wooden or metal uprights used as supports (posts).

STABILITY

That quality which enables a ship to keep herself steadily in the water, without rolling or pitching. Stability in the construction, is only to be acquired, by fixing the centre of gravity at a certain distance below the meta-centre, because the stability of the vessel increases with the altitude of the meta-centre above the center of gravity. But when the meta-centre coincides with the centre of gravity, the vessel has no tendency whatever to remove out of the situation into which it may be put. Thus if the vessel be inclined either to the starboard or larboard side, it will remain in that position till a new force is impressed upon it; in this case, therefore, the vessel would not be able to carry sail, and is consequently unfit for the purposes of navigation. If the meta-centre falls below the common centre of gravity, the vessel will immediately overset.

As the meta-centre, or its determination, is of the utmost importance in the construction of ships, the student who wishes to make himself more particularly acquainted therewith, may see the subject more fully illustrated in the "Elements and Practice of Naval Architecture." [also by Steel, 1805]

Stack

The ship's funnel or smokestack.

STAGES

The platforms on which the shipwrights work.

stakeholders

Individuals, groups of individuals and non-governmental and government entities that have either a direct or indirect interest or claim which will, or may, be affected by a particular decision or policy.

Stand by

A preparatory order (wait: be ready).

Stand by (to)

To be in readiness or prepared to execute an order; to be readily available

Stand clear (to)

to keep a boat away from the vessel

Stand on (to)

To maintain course and speed

Standard compass

The magnetic compass used by the navigator as a standard.

STANDARDS

Large knees, of oak or iron, fayed on the deck and against the side. The arm upon the deck is bolted through the beams and clenched beneath, and the other arm through the ship's side. Their use is, for strengthening the sides, and resisting any violent or sudden shock. (See Midship Section, Plate III.)

There is also a standard fayed on the gun-deck against the apron forward, another against the transoms abaft, and one in the head upon the knee, when the piece against the stem does not run high enough for the hole of the main-stay collar.

STANDARDS

are also large poles, set up endways at certain distances round the slips, and to which the spars are hung to support the staying. They have cleats nailed along the fore and after sides, at about two feet distance, in nearly the whole length.

STANDING

A term applied to a bevelling which is obtuse, or without a square, to distinguish it from an acute or under bevelling, which is within a square.

Standing orders

Orders of the Master to the officer of the watch which he/she must comply with

Standing part

That part of a line or fall which is secured.

Standing rigging

That part of the ship's rigging which is permanently secured and not movable, such as stay, shrouds, etc.

standing stock

see biomass

STANTIONS OR STANTIENTS

The upright pieces of quartering in a bulkhead, breastwork, &c. Likewise the iron uprights, fixed round the quarters for the netting, and along the waist, to ship the rail in, &c.

STAPLES

Crooked fastenings. KEEL-STAPLES are generally made of copper, from six to twelve inches long, with a jagged hook at each end. They are driven into the sides of the main and false keels to fasten them.

Starboard

The right side of a vessel when an observer is facing forward looking toward the bow.

STARBOARD-SIDE

The right hand side of the ship when looking forward from the stern.

Station

The allotted place or the duties of each person on board

Station bill

The posted bill showing stations of the crew at maneuvers and emergency drills.

Staunch

Still, seaworthy, able.

Stay

A rope of hemp, wire or iron leading forward or aft for supporting a mast.

STAYS

Large ropes to support the masts which are extended towards the forepart of the ship counteracting the effort of the shrouds which mostly lead abaft, and thereby keeping the mast in a steady position.

Steady

An order to hold a vessel on the course she is heading.

STEELER [STEALER]

A name given to the foremost or aftermost plank, in a strake which drops short of the stem and stern-post, and of which the end or butt nearest the rabbet is worked very narrow, and well forward or aft. Their use is, to take out the snying edge occasioned by a

full bow, or sudden circular buttock. (See Planking Expanded, Plate III.)

Steerage way

The slowest speed at which a vessel steers.

Steering wheel

The wheel operating the steering gear and by which the vessel is steered.

STEERING-WHEEL

The wheel on the quarter deck to which the tiller rope is connected; and by turning of which, the helm is moved or kept in any fixed position. (See Inboard Works, Plate IV.)

Stem

The timber at the extreme forward part of a boat secured to the forward end of the keel.

Stem

(1) The upright post or bar of the bow. (2) To order or arrange for, e.g bunkers.

STEM

The main timber at the fore-part of the ship, formed, by the combination of several pieces, into a circular shape, and erected vertically to receive the ends of the bow planks, which are united to it by means of a rabbet. Its lower end scarphs or boxes into the keel, through which the rabbet is also carried, and the bottom unites in the same manner. (See RIBS. See Sheer Draught, Plate I.)

Stem the tide

Stemming the tide or sea means to head the vessel's bow directly into the current or waves. Overcome adverse circumstances.

STEMSON

A piece of compass timber, wrought on the aft part of the apron withinside, the lower end of which scarphs into the kelson. Its upper end is continued as high as the middle or upper-deck; and its use is to succour the scarphs of apron, as that does those of the stem. (See Inboard Works, Plate IV.)

STEP FOR THE CAPSTAN

A solid lump of oak, fixed on the beams, in which the heel of the capstan works. (See Inboard Works, Plate IV.)

STEPPING

A rabbet sunk in the dead-wood, at the bearding-line, whereon the heels of the timbers rest. (See BEARDING LINE. See also Sheer Draught, Plate I.)

STEPS FOR THE SHIP'S SIDE

The pieces of quartering, with mouldings, nailed to the sides, amidships, about nine inches asunder, from the wale upwards, for the convenience of persons getting on board. (See Sheer Draught, Plate I.)

STEPS OF THE MASTS

The steps into which the heels of the masts are fixed, are large pieces of timber. Those for the main and fore masts are fixed across the kelson, and that for the mizen mast upon the lower deck beams. The holes or mortises into which the masts step, should have sufficeint wood on each side to accord in strength with the tenon left at the heel of the mast, and the hole should be cut rather less than the tenon, as an allowance for shrinking. (See Inboard Works, Plate IV.)

Stern

The after part of the vessel (back of).

Stern

The after most part of a vessel. The stern will house the steering gear room and various stowage areas. It is that section of a vessel over the rudder and propeller.

STERN

The after part of the ship extending from the wing-transom upwards, being terminated above by the taffarel, below by the counters, and on the sides by the quarter-pieces. It therefore comprehends the lights or windows of the captain's cabin, &c. (See Sheer Draught, Plate I.)

Stern anchor

An anchor carried at the stern.

Stern board

Progress backwards.

STERN-BRACKETS

are carved ornaments on the munions, under the taffarel, at the arch of the cove, and sometimes under the balcony, &c.

STERN-FRAME

The strong frame of timber, composed of the stern-post, transom and fashion-piece, which form the basis of the whole stern.

STERN-POST

The principal piece of timber in the stern-frame, on which the rudder is hung, and to which the transoms are bolted. It therefore terminates the ship below the wing-transom, and its lower end is tenoned into the keel. (See Sheer Draught, Plate I.)

Stevedore

A professional cargo loader and unloader.

STEWARD'S ROOM

An apartment built on the larboard side of the after platform, whence the purser's steward issues the provisions to the ship's

company, and where he makes up his accounts, &c.

STIFF

Stable or steady. (See STABILITY.)

STILES

The upright pieces of the framing of the great cabin bulkheads, &c. which comprehends the panels.

STIRRUP

An iron or copper plate, that turns upwards on each side of a ship's keel and dead-wood, at the fore-foot, or at her skeg, and bolts through all. This can only be necessary when the dead-wood bolts are driven short, or are supposed to be insufficient.

STIVING

The elevation of a ship's cathead or bowsprit; or the angle which either makes with the horizon. (See Sheer Draught, Plate I.)

STOOLS

Pieces of plank, bolted to the quarters, for the purpose of forming and erecting the galleries. (See Sheer Draught, Plate I.) Also ornamental blocks for the poop lanterns to stand on abaft. (See BACKSTAY STOOLS.)

Stopper

A short length of rope secured at one end, and used in securing or checking a running rope, e.g., deck stopper, boat fall stopper, etc.

STOPPER-BOLTS

Large ring-bolts, driven through the deck and beams before the main-hatch, for the use of the stoppers. They are carefully clinched on iron plates beneath.

STOPPERS

Short ropes, with a knot at one end, and the other end turned round a thimble into the ring of the stopper-bolts, by which, and its laniard, the cable is confined.

STOPPINGS-UP

The poppets, timber, &c. used to fill up the vacancy between the upper-side of the bilgeways and the ship's bottom, for supporting her when launching. (See Frontispiece.)

store-and-forward messaging

The protocol used by the InmarsatrC system to transfer text or data in data packets to a receiving equipment. Error-correction information may be contained in the packets to enable the receiver to perform ARQ.

Storeroom

The space provided for stowage of provisions or other materials.

STORE-ROOMS

The several apartments built upon the platform to contain the different officers' stores. (See ROOMS.)

Stores

A general term for provisions, materials, and supplies used aboard ship for the maintenance of the crew, and for the navigation, propulsion and upkeep of the vessel and its equipment.

Storm warning

An announced warning of an approach of a storm.

Stove

Broken in.

Stow

To put in place.

Stowaway

A person illegally aboard and in hiding.

STRAIGHT OF BREADTH

The space before and abaft dead-flat, in which the ship is of the same uniform breadth, or of the same breadth as at ['+' surrounded by a circle] or dead-flat. (See DEAD FLAT.)

Strake

A continuous planking or plating fitted out to and from stem to stern of a vessel's side.

STRAKE

One breadth of plank wrought from one end of the ship to the other, either within or without board.

Strand

A number of yarns, twisted together and which in turn may be twisted into rope; a rope is stranded when a strain is broken; rope may be designated by the number of strands composing. Rope is commonly three-stranded. A vessel run ashore is said to be stranded.

Strap

A ring of rope made by splicing the ends, and used for slinging weights, holding the parts of a block together, etc. A rope, wire or iron binding, encircling a block and with a thimble seized into it for taking a hook.

stratosphere

The layer of the atmosphere 15-50 km above the Earth’s surface in which ozone prevents most ultraviolet radiation from reaching the Earth’s surface.

STRING

One or two strakes of plank withinside, next under the gunwale, answering to the sheer-strake withoutside, scarphed in the same manner as the sheer-strake, giving shift to the scarphs of the sheer-strake, and bolted through the ship's side into the sheer-strake between the drifts, to give greater strength; as this part requires all the security that is possible to be given in order to assist the sheer. (See Midship Section, Plate III.)

Stripping

Final pumping of tank's residues

strobe light

a high-intensity flashing light on an EPIRB or SART.

Strongback

A light spar set fore and aft on a boat, serving as a spread for the boat cover.

submarine groundwater

Underground fresh water that has flowed beneath the sea floor.

Submarine Loading Terminal

A terminal where loading is carried out by means of an offshore hose run along the sea bottom.

Suezmax

The maximize size ship that can sail through the Suez canal generally considered to be between 150-200,000 DWT depending on ships dimensions and draft.

SUPERNATANT PART OF THE SHIP

That part which when afloat, is above the water, anciently expressed by the name of Dead Work.

Superstructure

Any structure built above the uppermost complete deck such as a pilothouse, bridge, accommodation house etc.

SUPPORTERS

The circular knees placed under the catheads for their security and support. (See Sheer Draught, Plate I.)

Surface drift

Vector sum of total water current and leeway. Sometimes called Total Drift.

Surface picture

A list or graphic display from a ship reporting system of information about vessels in the vicinity of a distress situation that may be called upon to render assistance.

Surface position

The position of the search object on the earth's surface at the time of initial distress, or its first contact with the earth's surface.

Surge

To ease a line to prevent it from parting or pulling, meanwhile holding the strain.

SURGE

The tapered part of the whelps, between the chocks of the capstan, upon which, when judiciously hollowed, the messenger may surge itself without any other incumbrance.

SURMARKS

(See SIRMARKS.)

Survivor

A person who continues to live in spite of being in an extremely dangerous situation, e.g. a shipping disaster.

sustainable development (in the context of the present report)

There are many dimensions to sustainability. First it requires the elimination of poverty and deprivation. Second, it requires the conservation and enhancement of the resource base which alone can ensure that the elimination of poverty is permanent. Third, it requires a broadening of the concept of development so that it covers not only economic growth but also social and cultural development. Fourth and most important, it requires the unification of economics and ecology in decision making at all levels."4 The essence of sustainable development is to ensure that society meets its present needs without compromising the ability of future generations to meet their own needs; this implicitly requires that development should not compromise the ecological integrity of the environment.

Swab

A mop.

Swamp

Sink by filling with water.

SWEEP OF THE TILLER

A semi-circular plank, fixed up under the beams near the fore-end of the tiller, which it supports. On the foreside of the sweep is a groove for the tiller rope, in which groove rollers are fixed to enliven the rope. On the aftside is a ledge or rabbet defended with iron plate, on which the goose-neck of the tiller traverses.

Sweep width

A measure of the effectiveness with which a particular sensor can detect a particular

object under specific environmental conditions.

SWEEPS

The various parts of the bodies shaped by segments of circles. Such are the floor-sweeps, lower breadth-sweep, upper breadth-sweep, and back-sweep, or toptimber-hollow. (See FRAME. See also Body Plan, Plate I.)

Swell

Condition of the surface caused by a distant wind system. The individual swell appears to be regular and smooth with considerable distance between rounded crests.

Swell

A large wave.

Swell direction

The direction from which a swell is moving. The direction toward which a swell is moving is called the down swell direction.

Swell face

The side of the swell toward the observer. The backside is the side away from the observer. These definitions apply regardless of the direction of swell movement.

Swell velocity

Velocity with which the swells advance with relation to a fixed reference point, measured in knots.

Swing ship

The evolution of swinging a ship's head through several headings to obtain compass errors for the purpose of making a deviation table.

Swinging over

Swing of the boom from one side of the ship to the other when the tack is changed.

SYPHERED

A mode of joining, by over-lapping the edge of one plank upon another, with a bevelling edge, instead of rabbetting, in such a manner that both planks shall make a plain surface, though not a flat or square joint. (See HARRIS-CUT.)

T

TABLING

Letting one piece of timber into another by alternate scores or projections from the middle, so that it cannot be drawn asunder either lengthwise or sidewise. (See Beams of the Lower Deck Plan, Plate IV.)

Tackle

Any combination of ropes and blocks that multiply power. The equipment on a vessel used to perform working tasks on the vessel.

TACKLE

An assemblage of two or more blocks connected by a rope called the fall reeved through their mortises, and used for lifting or removing weighty bodies.

TAFFAREL, OR TAFF-RAIL

The upper part of the ship's stern, usually ornamented with carved work or moulding, the ends of which unite to the quarter-pieces. (See Sheer Draught, Plate I.)

Taffrail log

The log mounted on the taffrail and consisting of a rotator, a log line and recording device (to measure distance run through the water).

Tail shaft

The after section of the propeller shaft.

TAIL, TO, OR DOVE-TAIL, TO

To let one piece of timber into another, when the lap forms a sort of wedge, so that it cannot come asunder endwise. (See the Stern in Plate I.)

Take a turn

To pass a turn around a belaying pin or cleat.

Take in

To lower and furl the sails.

Take off (to)

To lift off from a vessel's deck (helicopter)

TAKE-IN, TO

To come up with a set and make it fast again closer to the plank, as it works nearer to the timbers. (See Set.)

Taking on more than you can carry

Loaded with more cargo than a ship can safely navigate with. Drunk.

Tanker

A ship designed to carry various types of liquid cargo, from oil and gasoline to molasses, water, and vegetable oil.

Tanker Sizes and Uses

Tankers and barges come in all sizes from the small harbor/lake variety to the biggest things ever built by man that move. The size of any particular tanker depends on many factors. Use, cargo type, amount and demand, passage length and port restrictions at both loadport and the discharge port are among the most important

of these. Tankers were classified in 1974 by AFRA for freight purposes as follows:

Under 16,500 DWT - Coastal, Small, Harbor/Lake Tankers

16,500 - 24,999 DWT - General Purpose Vessels

25,000 - 49,999 DWT - Medium Range Vessels

50,000 - 79,999 DWT - LR1 (Large Range 1)

80,000 - 159,999 DWT - LR2 (Large Range 2)

160,000-320,000 DWT - VLCC (Very Large Crude Carrier)

320,000 DWT & above - ULCC (Ultra Large Crude Carrier)

TAR

The juices of the pine or fir-tree boiled to a thick consistence, and used to pay the joints between scarphs of beams, &c. and also the outside of the ship; because, by filling up the pores of the wood, it prevents the sun from splitting, and the wet from rotting it.

Target

The echo generated, e.g. by a vessel, on a radar screen

Tarpaulin

Heavy canvas used as a covering.

Taut

With no slack; strict as to discipline.

TDM channel

The Inmarsat-C system uses different TDM channels, each trans- mitted on a unique frequency. The TDM channels are used for system control and message transfer to SESs. See NCS Common Signalling Channel.

TEACH, TO

A term applied to the direction that any line, &c. seems to point out. Thus we say, "let the line or mould teach fair to such a spot, rase," &c.

Tender (to)

A master tenders his vessel when he advises the charterer or supplier that he is ready to load.

TENON

The square part at the end of one piece of timber diminished so as to fix in a hole of another piece, called a mortise, for joining or fastening the two pieces together.

Tension winch

A winch which applies tension to mooring lines to keep them tight

TERMS OR TERM-PIECES

Pieces of carved work placed under each end of the taffarel, upon the side stern-timber, and reaching as low down as the foot-rail of the balcony.

thalassogenic diseases

Diseases caused by polluted or contaminated sea water or edible marine products.

That's high

An order to stop hoisting.

The Global Navigation Satellite System

provides three- dimensional positioning, velocity and time measuring information, available for civilian use and recognized by IMO, using satellites of the Russian Federation

THICKSTUFF

A name for sided timber, exceeding four inches, but not being more than twelve inches, in thickness.

Thieving

Determining the amount of water at the bottom of a tank of oil.

THOLES

The battens or pins which form the rowlocks of a boat.

Three sheets to the wind

Sailing with three sheet ropes running free, thus making the ship barely able to keep headway and control. Drunk.

THROAT

The inside of knee timber at the middle or turn of the arms. Also the midship part of the floor timbers and transoms.

Throwing a Fish

Saluting

Thwart

The athwartships seats in a boat on which oars-men sit.

THWARTS

The benches in a boat whereon the rowers sit to manage their oars.

Thwartships

At right angles to the fore and aft line (across the ship).

TIER

A regular row of any thing, as of carlings, of shores, of ships, &c. (See Lower Deck Plan, Plate IV.)

TILLER

A piece of timber (which should be straight grained and free from knots) fitted into the head of the rudder as a lever for the purpose of moving it from side to side, in order to steer the ship. (See Inboard Works, Plate IV.)

TIMBER AND ROOM, OR ROOM AND SPACE

(See the latter.)

TIMBERS

A name generally given to the pieces of timber which compose the frame of a ship, (See Plate III.), as floor-timbers, futtock-timbers, and toptimbers (See Midship Section, Plate III.); as also the stem or head-timbers, and the stern-timbers. (See Sheer Draught, Plate I.) Sometimes those carved ornaments upon the munions, in the stead of pilasters, are called stern-timbers.

Time Charter

A charter for varying periods of time, usually between two and ten years, under which the owner hires out the vessel to the shipper fully manned, provisioned, stored and insured. The charterer is usually responsible for bunkers, port charges, canal tolls and any crew overtime connected with the cargo. The charter rate (hire) is quoted in terms of a cost per month per deadweight ton.

Time Division Multiple Access

the process by which SESs communicate with a CES or NCS. The Inmarsat-C system uses two types of TDMA channels -a message channel for pre- assigned TDMA and a signalling channel for random access.

Time Division Multiplex

the process by which multiple signals can share the same communication channel, each using a different time slot.

Time of closest approach

Time during a satellite pass when the satellite is closest to a signal source.

time slot

Basic unit into which one time-frame of a TDM channel is divided.

Time-Charter

A form of charter party wherein owner lets or leases his vessel and crew to the charterer for a stipulated period of time. The charterer pays for the bunkers and charges in addition to the hire.

To Fix A Charter

To reach final agreement on the terms of a charter party.

Ton

Typical unit of weight measurement used on tankers. See LONG TON, METRIC TON, SHORT TON.

TONGUE

A long tapered end of one piece of timber made to fay into a scarph at the end of another piece. This method is used to gain length, and is called tongueing. (See Tonguing.)

TONGUE OF A BEVEL

The moveable part by which the angles or bevellings are taken.

TONGUE, CALVES [in the orig: CALVES TONGUE]

is a sort of moulding usually made at the caps and bases of turned or round pillars to taper or hance the round part into the square.

TONGUING,

is lengthening the main-piece of timber by another piece generally shorter. The one piece is fitted into the other by a long tapering tenon or tongue, and both are bolted and sometimes hooped together.

Tonnage

DEADWEIGHT, GRT and NRT.

TONNAGE

The cubical content, or burthen of a ship in tons; which is commonly estimated by a fantastical rule, given hereafter, producing what is denominated the builder's tonnage. The real burthen a ship is to carry, when brought down in the water to the load draught of water intended in the construction, may be found by the rules given in the subsequent part of this work.

The word is derived from a ton, or weight of water equal to 2000 pounds; for it appears that anciently, a cubic foot of water, weighing 62-1/2 pounds, was assumed as a general standard for liquids. This cubic foot, multiplied by 32, gives 2000, the original weight of a ton. Hence 8 chbic feet of water made a hogshead, and 4 hogshead a ton, in capacity and denomination as well as weight.

Tonnage tax

Taxes, fees, harbor dues etc. paid on the vessel based on a tonnage calculation.

Tonne

Metric ton.

Tons Per Inch Immersion

The number of tons required to change a vessel's draft one inch in the water. TPI varies with the draft and it's values can be found on a vessel's deadweight scale.

TOP AND BUTT

A method of working English plank so as to make good conversion. As the plank runs very narrow at the top clear of sap, this is done by disposing the top-end of every plank within six feet of the butt end of the plank above or below it, letting every plank work as broad as it will hold clear of sap, by which method only can every other seam produce a fair edge. (See Planking, Plate III.)

TOP-HAMPER

Any unnecessary weight aloft, either on the topside of the ship or about its tops and rigging.

Top-heavy

Too heavy aloft.

Topping-Off

1) the operation of completing the loading of a tank to a required ullage. 2) Filling up cargo tanks which were only partially filled at the loading port because of port or canal draft restrictions. The filling up occurs outside the loading port via lightering activities, or at another loading port.

TOPSIDE

A name given to all that part of a ship's side above the main-wales.

TOP-TIMBER HALF-BREADTH

A section containing one half of the ship, at the height of the top-timber line, perpendicular to the plane of elevation.

TOP-TIMBER LINE

The curve limiting the height of the sheer at the given breadth of the top-timbers.

TOP-TIMBER SWEEP

(See FRAMES.)

TOP-TIMBERS

The timbers which form the topside. The first general tier which reach the top are called long top-timbers, and those below are called the short top-timbers. (See Frames. See also Disposition, Plate III, and Midship Section, Plate III.)

Total drift error

Sum of the individual drift errors from the time of the incident until datum. Used when determining Total Probable Error (E).

Total probable error

The estimated error in the datum position. It is the square root of the sum of the squares of the total drift error, initial position error, and search facility position error.

Total water current

The vector sum of currents affecting search objects.

TOUCH

The broadest part of a plank worked top and butt, which place is six feet from the butt-end, or, the the middle of a plank worked anchor-stock fashion. Also the sudden angles of the stern-timbers at the counters, &c.

Tow

To pull through water; vessels towed.

Track

The path of the vessel.

Track

The recommended direction or path to be followed when proceeding between pre-determined position.

Track

The path followed, or to be followed, between one position and another

Track spacing

The distance between adjacent parallel search tracks.

Trades

The practically steady winds blowing toward the equator, N.E. in the northern and SE. in the southern hemisphere.

Traffic

Movement of shipping.

Traffic clearance

VTS authorization for a vessel to proceed under conditions specified

Traffic Lane

An area within definite limits inside which one-way traffic is established.

Traffic lane

An area within defined limits in which one-way traffic is established

Traffic Separation Scheme

A scheme which separates traffic proceeding in opposite or nearly opposite directions by the use of a separation zone or line, traffic lanes or by other means.

Traffic Separation Scheme

a routeing measure aimed at the separation of opposing streams of traffic by appropriate means and by the establishment of traffic lanes

TRAIL-BOARDS

A term for th carved work, between the cheeks at the heel of the figure.

Transhipment (of cargo)

the transfer of goods from one vessel to another outside harbours

Transit

the passage of a vessel through a canal, fairway, etc.

Transit speed

Speed of a vessel required for passage through a canal, fairway, etc.

TRANSOM-KNEES

Knees bolted to the transoms, and the side of the ship in the direction of the transoms. These knees when they cross the transoms are called SLEEPERS.

TRANSOMS

The thwartship timbers which are bolted to the stern-post, in order to form the buttock; and of which the curves, forming the round aft, are represented on the horizontal, or half-breadth plan of the ship. (See Sheer Draught, Plate I.)

transponder

A piece of equipment that responds to some type of interrogation, such as a SART.

TRANSPORTING

Moving a ship from one situation to another by hawsers only.

TRANSPORTING-BLOCKS

Two snatch blocks, fitted one on each side above the taffarel to admit a hawser, when transporting the ship from one place to another.

TRANSVERSE SECTION

A thwartship view of any part of the ship; but may be more properly applied when the section is not strictly athwartships. (See Midship Section, Plate III.)

TREAD OF THE KEEL

The whole length of the keel upon a straight line.

TREENAILS

Cylindrical oak pins driven through the planks and timbers of a vessel to fasten or connect them together. These certainly make the best fastenings when driven quite through, and caulked or wedged inside. They should be made of the very best oak split out near the butt, and perfectly dry or well seasoned.

Triage

The process of sorting survivors according to medical condition and assigning them priorities for emergency care, treatment, and evacuation.

tributyl tin

A very toxic organic compound containing tin. It is used in antifouling paints on vessels and fixed marine structures.

Trice

To lash up.

TRICING BATTENS

Battens about two inches thick and four inches broad, nailed up under the deck between the beams, and which the sailors trice up the middle of their hammocks out of the headway.

Tricing line

A line used for suspending articles.

Trick

The period of time during which the wheelsman remains at the wheel.

trillion

1,000,000,000,000

Trim

The angle to the horizontal at which a vessel rides.

Trim

The condition of a vessel with reference to it's longitudinal position in the water. It is the difference between the forward and after drafts expressed in feet/inches or meters/centimeters. Trim forward is called 'by the head' and trim aft is called 'drag'.

Trim By The Head (By The Stern)

A vessel is said to trim by the head (or stern) when its draft forward (or aft) is greater than aft (or forward).

TRIM, TO

To work or finish any piece of timber or plank into its proper form or shape.

Trip

To let go.

Tripping line

A line used for capsizing the sea anchor and hauling it in.

trophic levels

Successive stages of nourishment as represented by the links of the food chain. According to a grossly simplified scheme the primary producers (i.e., phytoplankton) constitute the first trophic level, herbivorous

zooplankton the second trophic level, and carnivorous organisms the third trophic level.

Truck

The flat circular piece secured on the top of the mast.

True air speed

The speed an aircraft is travelling through the air mass. TAS corrected for wind equals ground speed.

TRUSS

Short pieces of carved work, mostly in small ships, fitted under the taffarel in the same manner as the term-pieces.

TUCK, THE

The aft part of the ship where the ends of the planks of the bottom are terminated by the tuck-rail, and all below the wing-transom when it partakes of the figure of the wing-transom as far as the fashion-pieces. (See SQUARE TUCK.)

TUCK-RAIL

The rail which is wrought well with the upper side of the wing-transom, and forms a rabbet for the purpose of caulking the butt ends of the planks of the bottom. (See Sheer Draught, Plate I.)

Tug boat

A small vessel fitted for towing.

TUMBLING HOME, OR FALLING HOME

The inclination of the top-side from a perpendicular towards the centre or the middle of the ship. The top-sides of three-decked ships have the greatest tumbling home, for the purpose of clearing the upper works from the smoke and fire of the lower guns. The advantages and disadvantages of tumbling home sides will be found discussed hereafter.

Turn in all standing

Go to bed without undressing.

Turn to

An order to commence ship's work.

Turn turtle

To capsize.

Turn-buckle

A metal appliance consisting of a thread and screw capable of being set up or slacked back and used for setting up on rigging.

Twenty Foot Equivalent Unit

Standard container dimension

twin-track (in GESAMP)

A management process in which the setting of objectives and implementation of policies and plans is devolved to the optimum degree. There is a flow of information to policy-makers from the bottom used to revise strategies, policies and plans and in the design of policy instruments and legislation.

Two blocks

When the two blocks of a tackle have been drawn as close together as possible.

type-approval by Inmarsat

This is the official approval given by Inmarsat to an SES model produced by an independent manufacturer, when the SES is proved to meet technical standards set by Inmarsat. Only models which have been granted type-approval (or case- approval) are permitted by Inmarsat to access any Inmarsat com m un ication system.

U

Ullage

See OUTAGE

Ullages

Measurements taken with a steel tape from the lip of the ullage hole to the to the surface of the liquid; usually read to the nearest 1/8 inch.

Ultra High Frequency

Ultra High Frequency (300-3000 MHz)

Ultra Large Crude Carrier

320,000 DWT and above. Because of their huge sizes these vessels have been almost exclusively only used for the carriage of crude oils. Only the smallest of this category has carried any type of refined products. Several of these ULCC classed vessels were over 500,000 and the biggest of these ships had a deadweight of 564,939 tons.

Umbrella

The cone-shaped shield at the top of the smokestack.

Unbend

To untie.

Uncertainty Phase

A situation wherein doubt exists as to the safety of an aircraft or a marine vessel, and of the persons on board.

uncompanded

A transmission method that does not use companding techniques. See companded.

UNDER

A term applied to any bevelling that is within a square, or forming an acute angle. (See BEVELLING.)

Under below

A warning from aloft (heads up).

Undermanned

Insufficient number of crew; shorthanded.

Undertow

A subsurface current in a surf.

Underway

Said of a vessel when not at anchor, nor made fast to the shore, or aground.

Underway

Describes a vessel which is not at anchor, or made fast to the shore, or aground

Underwriter

In marine insurance one who subscribes his name to the policy indicating his acceptance of the liability mentioned therein consideration for which he receives a premium.

Union purchase

A method of cargo handling by combining two derricks, one of which is fixed over the hatch, the other over the ship's side

Universal Co-ordinated Time

a term which, for practical purposes, has the same meaning as Greenwich Mean Time (GMT)

Unlit

When the light of a buoy or a lighthouse are inoperative

Unnecessary SAR alert

A message sent by an RCC to the appropriate authorities as a follow-up when the SAR system is unnecessarily activated by a false alert.

Unreported

A situation where a craft has failed to report its location or status when expected and remains missing.

Unseaworthiness

The states or condition of a vessel when it is not in a proper state of maintenance, or if the loading equipment or crew, or in any other respect is not ready to encounter the ordinary perils of sea.

Unship

To take apart or to remove from its place.

UNSHIP, TO

To remove any thing from its place, or the situation in which it is generally used. Thus, to unship the tiller, is to take it out of the rudder-head.

Unwatched

Said of a lighthouse not tended.

Up anchor

Hoist or haul in the anchor.

UPPER BREADTH-SWEEP

(See FRAMES.)

UPPER HEIGHT OF BREADTH

(See HEIGHT OF BREADTH.)

UPPER STRAKE OF BOATS

A strake thicker than those of the bottom, wrought round the gun-wales.

UPPER WORKS

A general name given to all that part of the ship above the wales; or all that part which may be considered as separated from the bottom by the main-wale. (See Sheer Draught, Plate I.)

UPPER-DECK

The highest of those decks which are continued throughout the whole length of a ship, without falls or interruption. (See Inboard Works, Plate IV. and its Plan, Plate III.)

UPRIGHT

The position of a ship when she neither inclines to one side nor the other. Hence any thing is said to be upright when square with, or perpendicular to, the keel. As the ship when building lies with a declivity for the purpose of launching, it is evident, that every thing within her intended to be perpendicular or upright, when afloat, must be set so much farther aft as its upper part or head inclines from a plumb or perpendicular in its length, according to the angle made by the declivity of the ship in the same length.

upwelling

The slow upward transport of cold, nutrient-rich water masses to the surface from depth. Coastal upwelling is usually induced by surface winds.

US CALLS

Letter begin with "K". Liberian begin with numbers "A" or "E" or a numeral. Call letter must be used in cables after a vessel's name.

Used Laytime

The amount of lay time that was taken by the vessel for loading and discharging on a voyage.

UTC

Universal Time Co-ordinated (GMT)

valuation

The attachment of monetary value to an object through a consideration of both internalised and externalised costs.

Value-added Service Provider

A private organization which provides services such as weather forecasting etc. to vessels using the Inmarsat and other networks.

Vapor Control Valve

This valves is used in conjunction with closed and restricted measurement equipment to allow measurements in ship's tanks that are closed to the atmosphere. Once a portable measurement unit (PMU) is attached to the VCV, the valve is opened and the PMU's probe is dropped into the tank to perform the required measurements.

Vapor Recovery System

Procedures and equipment for the collection of hydrocarbon vapors from vessel's tanks and the transfer to shoreside recovery equipment.

Variable (of winds)

A wind that is constantly changing speed and direction

Vast

An order to cease (stop).

Vector

A graphic representation of a physical quantity or measurement, such as wind velocity, having both magnitude and direction.

vector organisms

Organisms that transmit certain diseases.

Veer

To slack off or move off; also said of a change of direction of wind, when the wind shifts to a different direction.

Veer out (to) (of anchors)

To let out a greater length of cable

Veering (of winds)

Clockwise change in the direction of the wind; opposite of backing

Ventilator

A wooden or metal pipe used to supply or to exhaust air.

Ventilator cowl

The swiveled opening at the top of a ventilator.

Very Large Crude Carrier

160,000-320,000 DWT.

Vessel

A maritime craft.

Vessel constrained by her draft

A vessel severely restricted by her draught in her ability to deviate from the course followed in relation to the available depth and width of navigable water

Vessel Crossing

A vessel proceeding across a fairway/traffic lane/route.

Vessel Experience Factor

A factor based on the compilation of the history of the total calculated volume (TCV) vessel measurements, adjusted for on-board quantity (OBQ) or remaining on board (ROB), compared with the TCV shore measurements. This factor if developed according to the latest industry standards may be used to obtain a better ship shore comparison of volumes.

Vessel Leaving

A vessel which is in the process of leaving a dock, pier, quay or anchorage. When she has entered the navigable fairway she will be referred to as an outward, inward crossing or turning vessel.

Vessel Outward

A vessel which is proceeding from harbor or dock to seawards.

Vessel Traffic Services

services designed to improve the safety and efficiency of vessel traffic and to protect the environment

Vetting

The general process of approving a vessel for use. (From old English "To Vet" - to look at or review again.) Note: actual procedure varies from company to company.

VHF

Very High Frequency (30-300 MHz)

Vibrio cholerae

Pathogenic microorganism causing cholera.

Visual flight rules

Rules governing procedures for conducting flight under visual meteorological conditions. In addition, used by pilots and controllers to indicate type of flight plan.

Visual meteorological conditions

Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling equal to or better than specified minima.

vitellogenin

A variety of primary lipoproteins produced by egg-laying vertebrates, including fish.

voice-band data

Data which are transmitted by modem over the bandwidth and channels normally used for voice transmission.

VOYAL

A large rope, used to unmoor, or heave up the anchor, by communicating the effect of the capstan to the cable.

VTS area

Area controlled by a VTS Centre or VTS Station

W

Waist

The portion of the deck between the forecastle and quarterdeck of a sailing vessel.

WAIST

A name given to that part of the top-side above the upper deck, between the main and fore drifts. (See Sheer Draught, Plate I.)

Wake

A vessel's track through the water.

WALES

The principal strakes of thickstuff wrought on the outside of the ship upon the main-breadth, or broadest part of the body, and which are called the main-wales. Also those that are wrought between the ports, which are called the channel-wales and middle or sheer-wales. The main-wales are the lower wales, which are generally placed on the lower breadth. (See the respective Articles. See also Sheer Draught, Plate I.)

Walk back (to) (of anchors)

To reverse the action of a windlass to ease the cable (of anchors)

Walk out (to) (of anchors)

To reverse the action of a windlass to lower the anchor until it is clear of the hawse pipe and ready for dropping

Wall Wash Test

The procedure of introducing an appropriate liquid into a vessel’s tank to test for hydrocarbon, color and other contaminants. This test is done by physically pouring the liquid down vessel’s tank bulkheads and trapping a portion on filter paper. This test is also done on vessel’s steam coils and sumps.

WALL-SIDED

A term applied to the top-sides of a ship when the main-breadth is continued very low down and very high up, so that the top-sides appear straight and upright like a wall.

WARD-ROOM

The apartment in which the officers mess, &c. next under the captain's cabin.

WASH-BOARD

A shifting strake along the top-sides of a small vessel, used occasionally to keep out the sea. (See Long Boat, Plate IV.)

Waste

Cotton yarn used for cleaning purposes.

Watch cap

A canvas cover secured over a funnel when not in use. Sailor's headwear, woolen type, capable of covering the ears in cold weather.

Watch officer

An officer taking his turn as officer of the watch.

Water breaker

A small cask carried in ship's boats for drinking purposes.

WATER LINES, OR LINES OF FLOATATION

Those horizontal lines, supposed to be described by the surface of the water on the bottom of a ship, and which are exhibited at certain depths upon the sheer-draught. Of these, the most particular are those denominated the Light Water Line and the Load Water Line; the former, namely, the light-water line, being that line which shews the depression of the ship's body in the water, when light or unladen, as when first launched; and the latter, which exhibits the same when laden with her guns and ballast or cargo. (See Sheer Draught, Plate I.) In the half-breadth plan these lines are curves limiting the half-breadth of the ship at the height of the corresponding lines in the sheer-plan.

WATER WAYS

The edge of the deck next the timbers, which is wrought thicker than the rest of the deck, and so hollowed to the thickness of the deck as to form a gutter or channel for the water to run through the scuppers. (See Upper Deck Plan, Plate III. and Midship Section, Plate III.)

Water/Cut Measurement

The procedure of locating the oil/water interface for the purpose of determining the volume of free water in a shore tank or vessel compartment. It is also used to refer to the line of demarcation of the oil/water interface.

Waterline

The line painted on the side of the vessel at the water's edge to indicate the proper trim.

Water-logged

Filled with water but afloat.

Water's edge

The surface of the water.

Watertight

Capable of keeping out water.

Watertight Door

A door so constructed that, when closed, it will prevent water under pressure from passing through.

Waterway

The gutter at the sides of a ship's deck to carry off water.

Wave (or Chop)

The condition of the surface caused by local wind and characterized by irregularity, short distance between crests, whitecaps, and breaking motion.

Waypoint

A position a vessel has to pass or at which she has to alter course according to her voyage plan

Weather eye

To keep a weather eye is to be on the alert (heads up).

WEDGE

A triangular solid, much used in the construction of a ship, and too well known to need description. It is one of the mechanic powers, the most simple and of the greatest force. (See MECHANICS.)

Wedge Formula

A mathematical means to approximate small quantities of liquid and solid cargo and free water on board prior to loading and after discharge based on cargo compartment dimensions and vessel trim. The wedge formula is to be used only when the liquid does not touch all bulk heads of the vessel’s tanks.

Wedge Table

A pre-calculated vessel table based on the wedge formula and displayed much like the vessel’s usual innage/ullage tables. These tables, however, are for small quantities (on-board quantities, remaining on board) when the cargo or free water does not touch all bulkheads of the vessel tank.

Weigh

Lift anchor off the bottom.

WELL

(1) The apartment formed in the middle of the hold, by bulkheads erected to inclose the pumps, and protect them from injury, which might otherwise accrue from the lading and ballast, and also to give ready admittance for examining the state of the pumps, &c. (See Inboard Works, Plate IV.)
The well in a fishing smack is a strong apartment to contain live fish, built water-tight in the middle of the hold, with a number of holes through its bottom, by means of which the fish are continually supplied with water, and preserved alive.

(2) also implies in the same range or even with a surface.

Well enough

An order meaning sufficient (enough).

WELL-GROWN

This term implies that the grain of the wood follows the shape required, as in knee timber, &c.

WHELPS

The brackets or projecting parts of a capstan from the barrel. (See CAPSTAN.)

Where away

A call requesting direction in answer to the report of a lookout that an object has been sighted.

Whipping

A method of preventing the ends of a line from unlaying or fraying by turns of small stuff, stout twine or seizing wire with the ends tucked.

White cap

The white froth on the crests of waves.

WHOLE-MOULDED

A term applied to the bodies of those ships which are so constructed, that one mould made to the midship bend, with the addition of a floor-hollow, will mould all the timbers below the main-breadth, in the square-body. Before the art of ship-building was brought to its present perfection, the method of whole-moulding was in great repute, and was much practised by the unskilful; as, however, the art improved, this method became less approved of in the construction of ships, whose form of the midship bend was

required to be such, that if they were whole-moulded nearly forward and aft, they would not only be incapable of rising in a heavy sea, but be deprived in a great measure of the more advantageous use of the rudder; for, by whole-moulding, no more is narrowed at the floor than at the main-breadth; nor must the rising line lift any more than the lower height of breadth, which according to the form of some midship-bends, would make a very ill constructed body.
How far whole moulding may be used without injury may be seen by the Long Boat treated of hereafter; boats being now the only vessels in which this method is practiced.

Wide berth

At a considerable distance.

Wildcat

A sprocket wheel on the windlass for taking links of the chain cable.

Winch

An engine for handling drafts of cargo secured on deck and fitted with drums on a horizontal axle.

WINCH

A small windlass, with an iron axis, hung in rhodings or gudgeons, with a conical piece of timber at each end without the cheeks. It is heaved round by two iron handles, formed by cranks or winches, from which it takes its name.

Wind current

The water current generated by wind acting upon the surface of water over a period of time.

Wind current

The water current generated by wind acting upon the surface of water over a period of time.

Wind-corrected heading

The actual heading an aircraft is required to fly to make good an intended course.

WINDING

Twisting or curving. Hence the expression "winding" is used in opposition to "out of winding." (See OUT OF WINDING.)

WINDING-BOARD

is a piece of deal on which the windings of the side counter timber is marked, and from which the outside of the said timber is trimmed by a batten kept out of winding by the marks on the board, and a mould made to the shape of the topside.

Windlass

An anchor engine used for heaving in the chain cable and anchor.

WINDLASS

An horizontal machine, composed of timber, and used in merchant ships for heaving up their anchors in lieu of a capstan. (See Inboard Work, Plate IV. and Upper Deck Plan, Plate III.)

WINDLASS-CHOCKS

Pieces of oak or elm, fastened to the sides of small vessels, and by which the ends of the windlass are suspended.

Windward

The general direction from which the wind blows; opposite of leeward

Wing Tanks

Vessel tanks located to the port or starboard of the centerline and designated port or starboard wings or wing tanks.

WINGS

The places next the side upon the orlop, usually parted off in ships of war, that the carpenter and his crew may have access round the ship, in time of action, to plug up shot holes, &c.

WING-TRANSOM

The uppermost transom in the stern-frame, upon which the heels of the counter timbers are let in and rest. It is by some called the main-transoms. (See Sheer Draught, Plate I)

Wipe Test

The procedure of physically wiping random interior areas and steam coils of vessel's tanks with absorbent white rags. This procedure is used to test the tank's coating for possible color contamination.

Wiper

A general handyman in the engine room.

WITHIN-BOARD

Within the ship.

WITHOUT-BOARD

Without the ship.

WOOD AND WOOD

This term implies that when a treenail, &c. is driven through its point is directly even with the inside surface, whether plank or timber.

WOOD-LOCK

A piece of elm or oak, closely fitted, and sheathed with copper, in the throating or score of the pintle, near the load-water line; so that, when the rudder is hung, and the wood-lock nailed in its place, it cannot rise,

because the latter butts against the underside of the brace and butt of the score. (See Sheer Draught, Plate I.)

WRAIN BOLT, A

is a ring bolt, with two or more forelock holes in it, occasionally to belay or make fast towards the middle. It is used, with the wrain staff in the ring. for setting-to the planks.

WRAIN-BOLTS

Ring bolts, used when planking with two or more forelock holes in the end for taking in the sett, as the plank, &c. works nearer to the timbers.

WRAIN-STAVES

A sort of stout billets of tough wood, tapered at the ends so as to go into the ring of the wrain-bolt to make the sets necessary for bringing-to the planks or thickstuff to the timbers.

Wreck

A vessel which has been destroyed, sunk or abandoned at sea

WRING-HEADS

An ancient name given to that part of the ship near the floor-heads and second futtock heels, which, when a ship lies aground, bears the greatest strain.

X

X25

The communication protocol used on ,the national international PSDN networks to exchange digital data between terminals connected to the network.

X400

A message-handling protocol used on the national international X.25 (PSDN) networks by electronic mail (E-mail) services around the world to exchange messages and electronic files between subscribers.

Y

YACHT

A vessel of state or pleasure, usually employed to carry noble personages, and accordingly fitted with convenient apartments and suitable furniture.

YARDS

The long cylindrical pieces of timber, suspended upon the masts to extend the sails to the wind.

Yaw

To steer wildly or out of line of course.

YAWL

(See BOATS.)