

DIRECTIONS FOR KEEPING THE SHIP'S LOG.

JOSET BRUNSWICK YAN GETTY USTH MUNICIPALITY
POINT OF EYTALE

Date entries in chronological order to indicate when observations were made and when record begins to begin when continuing to same column and from right to left.

(18) Log Book is to be kept by CIVIL TIME. No watch will be started.

The several blanks in the heading of each opening of the Log Book are to be correctly filled—

(1) By the name and official rate of the vessel.

(2) By the position of the vessel, as "At Navy Yard, Boston, Mass."²¹ or, "At Hampton Roads, Va."²² or, "En route, Boston, Mass., to Hampton Roads, Va."²³ or, "At Sea, English Channel;" or, "En route, New York, N. Y., to Key West, Fla."²⁴ etc.; then the day of the week, day of the month, and the year, and zone description of the time being kept.

(3) By the rank and full name of the officer commanding the vessel.

(4) In the first blank column is to be entered the "all shaft" average R. P. M. for each hour and in the second and third columns, the corresponding distance in nautical miles and tenths for each hour as obtained from the latest approved speed—R. P. M. table. The reading of the log will be noted in the fourth and fifth columns every hour, and when the course is changed.

(5) In the sixth blank column are to be entered the actual courses by compass made good during the respective hours while at sea, or the ship's head while in port. State whether compass used was gyro or standard magnetic.

(6) In the seventh blank column, under the heading "Wind,"²⁵ "Direction,"²⁶ are to be entered the true direction from which the winds blow during the respective hours, both at sea and while in port, or at anchor.

(7) In the eighth blank column, under the heading "Wind,"²⁷ "Force,"²⁸ is to be entered the estimated force or strength of the wind for the respective hours, according to the table, both at sea and while in port, or at anchor. Check with anemometer where one is available.

(8) In the ninth blank column, headed "Barometer," is to be entered the reading of the barometer, in inches and hundredths, for the respective hours at all times.

(9) In the tenth, eleventh, twelfth, and thirteenth columns, headed "Ther. At,"²⁹ "Air, Dry Bulb,"³⁰ "Air, Wet Bulb,"³¹ and "Water at Surface,"³² are to be entered hourly, as indicated, the temperature of the air by the thermometer attached to the barometer; the temperature of the air by the dry-bulb thermometer which is not attached to the barometer; the temperature of the air by the wet-bulb thermometer, and the temperature of the water at sea taken from alongside of the vessel.

(10) In the fourteenth blank column, headed "Weather by symbols," are to be entered the distinctive characteristics of the weather for the respective hours at all times, in conformity with the table of weather symbols.

(11) In the fifteenth blank column, headed "Clouds,"³³ "Form,"³⁴ are to be entered the distinctive characteristics of the clouds for the respective hours at all times, in conformity with the abbreviations employed to represent the nomenclature of the primary and secondary forms of clouds, as set forth in the table.

(12) In the sixteenth blank column, headed "Clouds,"³⁵ "Moving from," is to be entered direction from which the clouds are moving.

(13) In the seventeenth blank column, headed "Clouds,"³⁶ "Amount," is to be entered, for the respective hours at all times, the proportion of cloudy sky in parts from 1 to 10; thus, 0 will represent "entirely clear," while 3 will represent "1/3 of the heaven obscured;" 7 will represent "7/10 of the heaven obscured," etc.

(14) In the eighteenth blank column, headed "Visibility,"³⁷ is to be entered the numeral indicating the degree of visibility in accordance with the visibility table.

(15) The state of the sea is to be recorded in the nineteenth blank column, under the heading "Sea," for the respective hours at sea and at exposed anchorages, by the numerals employed to represent the several terms used in the table.

(16) In the twentieth blank column will be entered the direction from which the swell is running when swell is observed.

(17) The blanks in the lines between the 12 (noon) and 1 p. m. hours are to be carefully and correctly filled, as far as applicable, daily, either by numbers or by the word "none," or "no observation."

The record of astronomical observations for latitude, longitude, and variation of the compass should indicate the heavenly bodies observed, by their proper abbreviations, S., M., St., both at sea and in port, and the time and ship's heading (p. c.), when observations for compass error and variations are taken, should be recorded.

(18) On the pages on the right-hand side of each opening, headed "Remarks," is to be entered daily, in the regular order of time, in plain language, every official transaction (which has not been entered in the proper column at the left side) that takes place on board of the vessel, and in view of, as prescribed by the U. S. Navy Regulations.

The record of the weather, etc., "as per column," under these remarks is not to be allowed, but in addition to the records made by the proper symbols in the respective columns, headed "State of the Weather," "Clouds," and "State of the Sea," the general character and appearance

of the atmosphere, including the state of the clouds, the direction in which they move, the kind of clouds, and the directions from which they move, and the state of the sea during each watch, will be recorded in the general miscellaneous remarks in popular and professional language, as is indicated in the synopsis of words and phrases appended.

The remarks are to be written for each watch, and not for 24 hours, either in port or at sea.

(19) Any other data called for by the established blank log forms shall be entered.

(20) Logs are often found deficient in information relating to injuries, accidents, and casualties happening among officers and crews. The large number of claims for pensions submitted by persons who have served in the Navy, alleging injury received while in the Naval Service, renders this information of great importance to the Government, both to protect it from false claims and to furnish a record for honest claimants; therefore entries shall be made in the log of any and every injury, accident, or casualty, however slight, among the officers, crew, or passengers on board, giving the particulars of such injury, accident, or casualty.

(21) The Smooth Log shall be regarded as the ship's official log book. It is to be a correct certified copy of the Deck Log.

FORCE OF WIND	VELOCITY		
BEAUFORT'S SCALE	Miles per hour (statute)	Miles per hour (nautical)	Terms used in U. S. Weather Bureau forecasts
0.—CALM. Full-rigged ship, all sail set, no headway.	Less than 1	Less than 1	
1.—LIGHT AIR. Just sufficient to give steerage way.	1-3	1-3	Light.
2.—LIGHT BREEZE. Speed of 1 or 2 knots, "full and by."	4-7	4-6	
3.—GENTLE BREEZE. Speed of 3 or 4 knots, "full and by."	8-12	7-10	Gentle.
4.—MODERATE BREEZE. Speed of 5 or 6 knots, "full and by."	13-18	11-16	Moderate.
5.—FRESH BREEZE. All plain sail, "full and by."	19-24	17-21	Fresh.
6.—STRONG BREEZE. Ship "full and by" can just carry topgallant sails.	25-31	22-27	
7.—MODERATE GALE. Ship "full and by" can just carry whole upper topsails.	32-38	28-33	Strong.
8.—FRESH GALE. Ship "full and by" can just carry upper topsails and whole foretopsail.	39-46	34-40	
9.—STRONG GALE. Ship "full and by" can just carry lower topsails and reefed foretopsail.	47-54	41-47	Gale.
10.—WHOLE GALE. Ship "full and by" can only carry main lower topsail.	55-63	48-55	
11.—STORM. Ship can only carry storm staysail or trysail.	65-75	56-65	Whole gale.
12.—HURRICANE. No canvas can stand.	Above 75	Above 65	Hurricane.

STATE OF WEATHER.	
(Symbols to be used in recording the weather.)	
b.—Blue sky, cloudless.	p.—Passing showers of rain.
bc.—Blue sky with detached clouds.	q.—Squally weather.
c.—Sky mainly cloudy.	r.—Rainy weather, or continuous rain.
d.—Drizzling, or light rain.	s.—Snow, snowy weather, or snow falling.
e.—Wet air, without rain.	t.—Thunder.
f.—Fog, or foggy weather.	u.—Ugly appearance, or threatening weather.
g.—Gloomy, or dark, stormy-looking weather.	v.—Variable weather.
h.—Hail.	w.—Wet, or heavy dew.
i.—Lightning.	z.—Hazy weather.
m.—Misty weather.	
o.—Overcast.	

(Numerals to be used in recording visibility in thousands of yards. Range finder readings of known landmarks should be used as scale.)

0.—Prominent objects not visible at 50 yards.	
1 to 4.—Prominent objects not visible at 100 to 900 yards.	
1.—Prominent objects not visible at 1,000 yards.	
2.—Prominent objects not visible at 2,000 yards.	
50.—Prominent objects not visible at 50,000 yards.	
51.—Prominent objects visible beyond 50,000 yards.	

(Numerals to be used in recording sea condition.)

0.—No swell.	Calm or slight sea.
1.—Moderate swell.	
2.—Heavy swell.	
3.—No swell.	
4.—Moderate swell.	Moderate sea.
5.—Heavy swell.	
6.—Rather rough sea.	
7.—Rough sea.	
8.—Very rough sea.	
9.—Mountainous sea.	

NOTE.—When swell is observed, the direction from which it is moving will be recorded.

CLOUD FORMS

(Description and abbreviations to be followed in recording clouds)

The following cloud forms are arranged according to a general descending scale of altitude, observation having shown that there are five main cloud levels, viz, cirrus (highest), cirrocumulus, alto-cumulus, cumulus, and stratus (lowest).

1. CIRRUS (Cl).—*Detached clouds of delicate and fibrous appearance, often showing like structure, generally of a whitish color.*—Cirrus clouds take the most varied shapes, such as isolated tufts, thin filaments on a blue sky, threads spreading out in the form of feathers, curved [or straight] filaments ending in tufts, sometimes called *Cirrus uncinus*, etc.; they are sometimes arranged in parallel belts which cross a portion of the sky in a great circle, and by an effect of perspective appear to converge toward a point of the horizon, or, if sufficiently extended, toward the opposite point also. (Cl-St. and Cl-Cu., etc., are also sometimes arranged in similar bands.)

2. CIRRO-STRATUS (Cl.-St.).—A thin, whitish sheet of clouds sometimes covering the sky completely and giving it only a milky appearance (it is then called *Cirro-nimbus*), at other times presenting, more or less distinctly, a formation like a tangled web. This sheet often produces halos around the sun and moon.

3. CIRRO-CUMULUS (CI.-CU.), MACKEREL SKY.—Small globular masses or white flakes without shadows, or showing very slight shadows, arranged in groups and often in lines.

4. ALTO-STRATUS (A.-St.)—*A thick sheet of gray or bluish color, sometimes forming a compact mass of dark gray color and fibrous structure.* At other times the sheet is thin, resembling thick Cl.-St., and through it the sun or the moon may be seen dimly gleaming as through ground glass. This form exhibits all changes peculiar to Cl.-St., but from measurements its average altitude is found to be about one-half that of Cl.-St.

5. ALTO-CUMULUS (A.-Cu.), GREAT WAVES.—Large globular masses, white or grayish, partially shaded, arranged in groups or lines, and often so closely packed that their edges appear confused. The detached masses are generally larger and more compact (resembling St.-Cu.) at the center of the group, but the thickness of the layer varies. At times the masses spread themselves out and assume the appearance of small waves or thin slightly curved plates. At the margin they form into fine flakes (resembling Cl.-Cu.). They often spread themselves out in lines in one or two directions.

6. STRATO-CUMULUS (St.-Cu.).—*Large globular masses or rolls of dark clouds often covering the whole sky, especially in winter.* Generally St.-Cu. presents the appearance of a gray layer irregularly broken up into masses of which the edge is often formed of smaller masses, often of wavy appearance resembling A.-Cu. Sometimes this cloud-form presents the characteristic appearance of great rolls arranged in parallel lines and pressed close up against one another. In their centers these rolls are of a dark color. Blue sky may be seen through the intervening spaces which are of a much lighter color. (Roll-cumulus in England, Wulst-cumulus in Germany.) St.-Cu. clouds may be distinguished from Ns., by their globular or rolled appearance, and by the fact that they are not generally associated with rain.

7. NIMBUS (Nb.), RAIN CLOUDS.—*A thick layer of dark clouds, without shape and with ragged edges, from which steady rain or snow usually falls.* Through the openings in these clouds an upper layer of Cl.-St. or A.-St. may be seen almost invariably. If a layer of Nb. separates up in a strong wind into shreds, or if small loose clouds are visible floating underneath a large Nb., the cloud may be described as *Fracto-nimbus* (Nr.-Nb.) ("Scud" of sailors).

8. CUMULUS (C.U.), WOOL-PACK CLOUDS.—*Thick clouds of which the upper surface is dome-shaped and exhibits protuberances while the base is horizontal.* These clouds appear to be formed by a diurnal ascensional movement which is almost always noticeable. When the cloud is opposite the sun, the surfaces facing the observer have a greater brilliancy than the margins of the protuberances. When the light falls oblique, as is usually the case, these clouds throw deep shadows; when, on the contrary, the clouds are on the same side of the observer as the sun, they appear dark with bright edges.

True cumulus has well-defined upper and lower limits, but in strong winds a broken cloud resembling Cumulus is often seen in which the detached portions undergo continual change. This form may be distinguished by the name *Fracto-cumulus* (Fr.-Cu.).

9. CUMULO-NIMBUS (Cu.-Nbr.), the THUNDER-CLOUD; SHOWER-CLOUD.—Heavy masses of cloud rising in the form of mountains, turrets, or anvils, generally surmounted by a sheet or screen of fibrous appearance (*false Cirrus*) and having at its base a mass of cloud similar to nimbus. From the base local showers of rain or snow (occasionally of hail or soft hail) usually fall. Sometimes the upper edges assume the compact form of Cumulus, and form massive peaks around which delicate "false Cirrus" floats. At other times the edges themselves separate into a fringe of filaments similar to Cirrus clouds. This last form is particularly common in spring showers.

The front of thunder clouds of wide extent frequently presents the form of a large arc spread over a portion of a uniformly brighter sky.

10. STRATUS (*St.*).—*A uniform layer of cloud resembling a fog but not resting on the ground.* When this sheet is broken up into irregular shreds in a wind, or by the summits of mountains, it may be distinguished by the name *Fracto-stratus* (*Fr.-St.*).

NOTE.—The attention of mariners is especially called to the value of observations of cirrus as this form of cloud is often closely connected with barometric depressions. If the cirrus occurs in radiating bands crossing the sky, the point of convergence of these bands should be noted; if in the form of a cloud bank, or sheet, upon the horizon, the center, or point of greatest density of this bank, at this point will sometimes serve to indicate, in a general manner the direction of the center of any cyclonic disturbance.

Abbreviations to be used in recording observations for latitude, longitude, and variations of the compass

Altitude of the sun	S
Altitude of the moon	M
Altitude of a star	St
Altitude of a polar star	PSt
Double altitudes	DA
Equal altitudes	EA
Lunar distance	SM or MSt
Variation of the compass, W. or E. after	S or St

SYNOPSIS

Showing the entries that are to be made in the log book.

- Showing the entries that are to be made in the log book*

 1. The data called for in the columns and tables, duplicating in the remarks only where necessary for proper interpretation of the columns. All courses and bearings shall be marked to show whether they are true, magnetic, or by the standard compass, and in the last case the ship's head "per standard compass" must be stated and the deviation on that heading given. Signs of approaching bad weather shall be noted and recorded.
 2. All peculiar or extraordinary appearances of the sea, atmosphere, or heavens, preceding or following sudden changes of wind, heavy squalls of wind, or of heavy gales.
 3. All unusual appearance of the sea, tide rips, discolored water, extraordinary luminousness of the sea, strange birds, fishes, icebergs, driftwood, seaweed, etc.
 4. All unusual meteorological phenomena, extraordinary refractions, waterspouts, meteors, shooting stars, auroras, halos, fata morganas, iceblinkers, corposantos, etc.
 5. All sudden changes in temperature of the air or water, and sudden rising or depression of the barometer.

6. The behavior of the vessel under different circumstances of weather and sea, such as pitching, rolling, weatherly qualities,

7. The sighting of vessels, land, lighthouses, lightships, and of all dangers to navigation, with time, bearings and distances.
 8. The bearing and distance of the object taken for a departure.
 9. Any soundings, the record of which is important, with character of the bottom.
 10. After anchoring, record bearings and angles such as to enable the exact position of the ship to be located on the chart.
 11. After anchoring in unfrequented ports, roadsteads, or on strange coasts, the bearings of all prominent objects on shore, adjacent points, islands, rocks, or dangers, and the depth of the water within the distance required for working ship.
 12. When at anchor, the commencement of flood and ebb, the time of slack water, and the time the vessel swings to her anchor upon a change of tide.
 13. When at anchor in heavy weather, the strain upon the cables, etc.
 14. A SUMMARY of the ORDERS UNDER WHICH THE SHIP MOVES, quoting the authority for the orders, etc. In general, this entry should show the character of the duty on which the ship is engaged and the reasons for her movements, in order that it may be of historical value in future years.
 15. In fleet or squadron at sea, the formation and distance of the force at the end of each watch, and the time of any change in same during the watch.
 16. In convoying, the position of the convoy at the end of each watch.
 17. The time when any particular evolution, exercise, or other service was performed (receiving a pilot, preparing to enter port, or to anchor, anchorage, depth of water, bearings, etc.; getting under way, discharging pilot, securing anchors, securing battery, preparing ship for sea, making any changes in the disposition of engines or boilers, and the like).
 18. Major speed changes, such as "one-third," "standard," new "standard speeds," etc., and the times thereof.
 19. Time taken to hold collision drill.
 20. All occurrences of importance and interest, including official visits, salutes fired, and flags displayed, meetings of courts-martial on board, etc.
 21. The publication of general orders issued by the Department, or the commander in chief.
 22. All alterations in rations or allowance of fresh water per man, with reasons, etc.
 23. Full particulars of every injury, etc., however slight, among the officers, crew, or passengers on board.
 24. All accidents resulting in loss of any kind. The loss or serious injury of any boats, spars, rigging, and STORES OF ANY KIND, with the attendant circumstances.
 25. After an action, a full, detailed account of every occurrence and remarkable incident, all damage to hull, rigging, and machinery, all killed and wounded, etc.
 26. All prisoners by an enemy.
 27. The grounding of the ship, with all the attendant circumstances.
 28. The name, rank, or rating and service number of all persons who may join or be transferred or discharged from the vessel.
 29. All persons absent without leave or over leave, and the date and hour of their reporting return on board.
 30. All desertions.
 31. A full account of all public punishments.
 32. All cases of the confinement and release of prisoners.
 33. All deaths on board, with a statement as to exact time and cause of death.
 34. The names of all passengers, with the time of coming on board or leaving.
 35. Periodical inspections and tests, such as daily inspections of magazines and weekly tests of flood cocks, periodical examination of the steering gear, monthly test of submarine signaling apparatus, examinations made when ship is docked.
 36. The beginning and completion of an inventory of equipage or supplies.
 37. The quantity of water and fuel on hand, reported in the columns, will be as of midnight closing the day.
 38. The quantity of water carried in double bottoms other than those specially fitted for carrying reserve fresh water.
 39. The exact quantity of each article of provisions delivered on board by a contractor, with contractor's name and name of officer making the inspection.
 40. A full account of all hired vessels, embracing dimensions, description, tonnage, crew, name of master or owner, rate of charter, duty to perform, etc.
 41. A copy of the hull board's report in cases where the ship is docked elsewhere than at a United States navy yard.

NOTE.—A signal and its meaning shall never be entered together in the ship's log or other record.

EXTRACTS FROM THE UNITED STATES NAVY REGULATIONS, 1920, RELATIVE TO THE LOG

24. All punishments inflicted by the commander, or by his order, except reprimands, shall be fully entered upon the ship's log.

824. (2) He [the officer about to be relieved] shall sign the log books, * * * and all other papers requiring his approval, up to the date of his relief.

830. * * * All general orders issued by the Secretary of the Navy or the commander in chief which may in any degree affect the crew shall be read to the officers and crew by an officer, under the direction of the commanding officer, at the first quarters after their receipt and the fact entered in the log book. * * *

841. (1) In case of the loss of the ship, her commanding officer shall remain by her with officers and crew as long as necessary and save as much Government property as possible. Every reasonable effort shall be made to save the log book, muster roll, accounts of officers and crew, and other valuable papers.

861. (2) The names of all passengers and the dates of arrival on board and departure shall be entered in the log book and reported to the Bureau of Navigation.

880. (1) The commanding officer of a ship shall, immediately before leaving and as soon as practicable after entering port, require the navigating officer to ascertain the draft of the ship, forward and aft, and enter it in the log book.

884. (1) The commanding officer shall select a safe place to anchor. After anchoring he shall have such bearings and angles taken and entered in the log book as will enable the exact position of the ship to be located on the chart.

(2) He shall, if the ship is anchored at a place not surveyed, and if practicable, have the depth of water and character of the bottom examined for at least three cables' length around the ship. The result shall be entered in the log book.

908. (1) The commanding officer shall cause to be entered in the log book the name and rank or rating of any person who may die on board, with a statement as to the exact time and cause of death.

997. (4) The engineer officer shall furnish to the navigating officer daily the data concerning the engineer department required by the ship's log book.

1019. (4) All courses and bearings that are entered in the log book, as well as bearings for computation, shall be marked to show whether they are true, magnetic, or by the standard compass, and in the last case the ship's head "per standard compass" must be stated, and the deviation on that heading given.

1022. (1) The navigating officer shall have charge of the preparation and care of the ship's log. It shall be his duty, subject to orders from the commanding officer, to see that the watch officers receive instructions relative to the correct manner of keeping the log as may be necessary to insure the proper preparation of same.

(2) When the ship is commissioned he shall begin the log book by entering and signing the remarks describing that part of the ceremony which takes place previous to the setting of the watch.

(3) He shall carefully examine the deck log book, see that it is prepared in accordance with the Navy Regulations and the instructions issued from time to time, and call attention of the watch officers to any inaccuracies or omissions in their entries. He shall then have it accurately copied in the smooth form and placed before the watch officers daily for signature.

(4) He shall enter each day in the log the ship's position, the error of the gyro compass in use, the magnetic variation, the deviation of the standard magnetic compass, the amounts of fuel and water expended during the day and the quantity of each remaining on hand at midnight closing the day, and such other data as may be required.

(5) He shall immediately before leaving and as soon as possible after entering port, cause the draft of the ship, forward and aft, to be carefully taken and entered in the log.

(6) The smooth log shall be regarded as the ship's official log. It is to be a correct, certified copy of the deck log book; it shall be typewritten when practicable, and shall be prepared in duplicate. The original of the smooth log shall be forwarded to the Bureau of Navigation at the end of each calendar month by registered mail. The carbon copies shall be retained on board and shall be turned in to the commandant of the navy yard, when the vessel is placed out of commission. The foregoing sentences of this paragraph refer particularly to cases where the loose-leaf type of log is used. In special cases where a vessel has been authorized by the Chief of the Bureau of Navigation to use some other type of log the foregoing principles shall govern only as far as is applicable to the particular type of log used.

(9) A signal and its meaning shall never be entered together in the ship's log or other record.

(10) When a ship is docked on a foreign station or elsewhere than at a United States navy yard, a copy of the hull board's report shall be entered in the log.

(11) The results of periodical examination of steering gear and a brief statement of steps taken to remedy defects shall be entered in the log.

(12) A copy of a report of action or other report which may be of historical interest shall be entered in the log.

(13) The meeting and adjourning or recessing of courts-martial sitting on board vessels of the Navy shall be entered in the ship's log. The name and rank of the president or senior member shall be entered.

(14) The name of any person whose signature appears in the log shall likewise be typewritten or stamped.

1030. Once a month the navigating officer shall test the submarine signal-receiving apparatus and shall enter the results of the test in the ship's log. * * *

1031. (6) Ship's log books and records in which times are given must include a statement of the "zone description" of the time being kept.

1078. (1) In addition to the entries in the log required by Navy Regulations, the established forms, and by special instructions the officer of the deck shall see that every circumstance of importance or interest occurring during his watch is noted in the deck log book. (See Art. 1022.) Upon being relieved he shall sign his name at the conclusion of his remarks.

(2) He shall exercise particular care that the meteorological observations are carefully taken and entered in the deck log, in accordance with instructions, and that the signs of approaching bad weather are noted and recorded.

(3) He shall enter the following particulars in the deck log:

(a) The name and rank, or rating, and service number, of all persons who may join or be detached from the ship; all enlistments, transfers, discharges, deaths, and desertions; the names of all persons made prisoners by an enemy, and of all absent without leave; the names of all passengers, with times of coming aboard and leaving; courses steered and distances sailed; the time when any particular evolution, exercise, or any other service was performed; the nature and extent of all punishments inflicted, with the name of the offender and his offense; when at sea, the sighting of land, lighthouses, lightships, and of all dangers to navigation.

(b) Any accident to the ship, including all cases of grounding, and the loss or injury of boats, spars, sails, rigging, and stores, with all the attendant circumstances and the extent of the injury.

(c) Full particulars of any and every injury, accident, or casualty, however slight, among the officers, crew, or passengers on board.

(d) All alterations made in the daily allowance of provisions of fresh water per man with the authority and reasons therefor.

(e) A mention of the employment of any hired vessel, with a statement of her tonnage, the name of her master or owner, the number of her crew, for what purpose she is employed, and the authority therefor.

(f) Every occasion upon which fires in the furnaces are lighted, hauled, or allowed to die out, with the hour of each change. If the engines are in operation, the all shaft average revolutions per minute for each hour, and the corresponding distance run in nautical miles and tenths.

(g) The reading of all draft marks before leaving and after entering a port. The draft shall also be entered before and after fueling, and if fuel is taken from a collier, the corresponding drafts of the fuel ship.

(h) The dates of commencement and completion of each inventory of equipage and supplies taken under the requirements of articles 1222 and 1393 (8).

(i) Daily report by ordnance gunner of temperature of magazine. Weekly report of tests of flooding systems and inspection of ammunition spaces. (Art. 1333.)

(j) The state of the weather and the sea will be entered in the columns of the log, but will not be duplicated in the watch officer's remarks unless circumstances render it necessary to a proper interpretation of the columns. Watch officers will carefully supervise the entries in the columns, for which they are responsible.

(k) Punishments inflicted. (See Art. 1079.)

(l) Weekly examination of shell rooms containing loaded shell, test of flood cocks, with appropriate remarks as to conditions.

(m) Bearings and angles taken after anchoring.

(n) Whenever provisions are delivered on board by a contractor, the exact quantity of each article delivered, the contractor's name, and the name of the officer making the inspection.

(o) All cases of confinement and release of prisoners.

(p) Time taken to hold collision drill.

(q) Summary of orders upon getting under way and duty performed, when directed by commanding officer. (See Art. 1317 (2).)

(r) Amount of water carried in double bottoms not specially fitted for carrying reserve feed water.

(s) Result of soundings taken in accordance with article 888 (2).

1079. Entered in the log regarding punishments shall include the name, rank, or rating, and service number of the offender, the date and nature of the offense, and the kind and degree of punishment. The date of every suspension, arrest, confinement, and restoration to duty shall also be entered upon the log book.

1214. (2) Whenever provisions are delivered on board by a contractor, an entry shall be made on the ship's log showing the contractor's name, the exact quantity of each article delivered, and the name of the officer making the inspection prescribed in the preceding paragraph.

1222. (3) The dates of commencement and of completion of each inventory shall be entered in the ship's log.

1277. (6) The master-at-arms shall keep a record of punishments involving confinement, and shall report to the officer of the deck, for entry in the log book, all cases of confinement and release of prisoners.

1304. Exercises at collision drill and at closing water-tight doors and hatches shall be held without warning at other than routine times, and the officers and crew shall be required to observe the signal with the utmost dispatch, and the commanding officer shall determine by careful inspection that all water-tight doors and hatches have been properly closed and secured, and that on vessels supplied with collision mats, the mat is ready to be put in place, gear rove and mat stretched. There shall be entered on the log book the time required fully to perform the foregoing requirements. Where doors are not closed properly or gaskets are found in bad condition, special reports from those responsible shall be required.

1317. (1) The commanding officer shall examine the deck log, communication files (except aboard flagships), and engine-room log daily, the electric log, and all expenditure books as occasion may require, and shall approve them on the last day of every month, when they are filled out, and upon the day of relinquishing command. He shall have corrected any inaccuracies or omissions he may observe. After they have been examined by the commanding officer no change or addition shall be made without his permission or direction.

(2) Upon getting underway, the commanding officer shall cause to be entered in the log a brief summary of the orders under which the ship moves, quoting the authority for the orders, and, if written, the number and date thereof; or, if not acting under specific orders, a statement of the reasons for the move. In general, the ship's log should show the character of the duty on which the ship is engaged and the reasons for her movements, in order that it may be of historical value in future years. The commanding officer should, therefore, cause to be entered in the log, from time to time, such brief statements of duty performed and of the conditions surrounding it as may be practicable and advisable. If the orders referred to above are confidential in their nature, the abstract of their contents shall be omitted from the log, the entry then consisting simply of a note of the office of origin, number, and date thereof, by which it will be possible to find the original orders in the files of the issuing office.

(3) Any change or addition to the deck log must be made by the officer in whose watch the event under consideration occurred. An officer of the watch shall not decline to make a change in or addition to his log, when his attention is called to an inaccuracy or omission by the commanding officer or navigating officer, unless he believes the proposed change or addition to be incorrect; in which event he shall, if required, explain in writing to the commanding officer his reasons for this opinion. The commanding officer may then make any remarks concerning this particular inaccuracy or omission that he may deem proper, entering them at the bottom of the page over his own signature.

(6) The carpenter shall take the draft of the ship when entering and just before leaving port, and report it to the navigating officer and to the officer of the deck for entry in the log.

1333. (1) The gunner assigned to ordnance duty shall inspect the magazines daily, and the fact that such inspection was made shall be noted in the ship's log. This inspection shall be made personally by the gunner (if there be one on board) unless he is incapacitated for duty.

(2) * * * The temperature shall be taken daily and the fact noted in the ship's log book, using the term "normal" for normal conditions and entering the maximum temperature found in any magazine and the minimum temperature found. When abnormal conditions are found, the actual temperatures will be recorded. * * *

(4) The ordnance gunner shall inspect the ammunition stowage spaces and test all of the flood cocks once a week, reporting the result to the executive and gunnery officers and furnishing to the officer of the deck a memorandum report of such test for entry in the ship's log.

1361. (1) Whenever the ship is docked, the engineer officer of the ship shall examine all outboard valves (including the muzzles of submarines) in any way connected with the engineering department, also the propellers and shaft tubes, and the result shall be entered in the engineering and ship's logs. The first lieutenant shall examine all other outboard valves, and also the rudder and other underwater fittings, and enter their condition in the ship's log.

1364. (1) Under ordinary conditions all compartments of the double bottom, except those specially fitted for carrying reserve feed water and fuel oil, shall be kept dry; they may, however, be utilized for carrying fresh water for steaming purposes whenever, in the opinion of the commanding officer, it may be necessary, and the amount of water so carried shall be entered in the ship's log, and before sailing a special report of same shall be made to the Bureau of Construction and Repair.

1367. (1) The result of the periodical examination of the steering gear and a brief statement of the steps taken to remedy any defects that may be found therein shall be entered in the ship's log.

1393. (8) Inventories of all equipage in use shall be taken at least once a year, by the respective heads of departments and shall be transmitted to the ship's supply officer. * * * The dates of commencement and completion of each inventory shall be entered in the ship's log.

1692. (6) The commanding officer shall cause the proper entries of the facts, of which he shall be the judge, to be made in the log and on the supply officer's pay rolls. On desertion no entry of any kind will be made on a continuous-service certificate. It will be forwarded incomplete with the service record to the Bureau of Navigation.