

1-1

TORPEDO DEPARTMENT

ANSWER EACH QUESTION IN A FEW WORDS.

1. What is the name of the part which supports the pendulum?
Pendulum hangs on knife edge bearings
2. What vertical clearance is permitted the pendulum?
.005" Clearance
3. What is the clearance between the bosses on the forward and after inboard parts of the pendulum and the stops on the immersion casing?
.250 full swing, .125" half swing
4. What is the clearance between the diaphragm lever and its stops?
.015" Clearance
5. What prevents excessive thwartship motion of the pendulum in event of heavy rolling?
Guide on bottom of pendulum which bears against case harden rollers on heel of 45° of torpedo
6. How tell by a glance the difference between transportation pin and replacement screw?
Transportation pin movement larger, replacement screw brooch shorter
7. Where is the plate adjusting screw located?
on port pendulum arm
8. How is the diaphragm lever connected to the depth spring?
Lower depth spring socket steel pivoted on
9. How is depth spring secured to its upper and lower sockets?
10. How is depth spring connected to diaphragm?
11. What is effective area in square inches of the hydrostatic diaphragm?
12. What is the pendulum lever?

TORPEDO DEPARTMENT

13. What is the purpose of the pendulum tension rod?

14. Why is pendulum tension rod secured to pendulum via buffer springs instead of rigidly connected?

15. At what angle of fore and aft trim will the pendulum act?
At what angle will it act fully?

16. What moving parts are connected by the valve operating lever?

17. At what point is the valve operating lever pivoted?

18. With normal air pressure on the steering engine what force must move the control valve?

19. What is the purpose of having the depth spring surrounded by water during a run?

20. When depth is set upon depth spring is it placed under tension or compression?


21. As the pressure of the water acts, is the tension or compression lessened or increased?

22. If a torpedo were fired with a broken depth spring what would be the effect on depth during the run?

23. What air pressure is in the air chamber?

24. What is the purpose (3 reasons) for the plug at the bottom of the air chamber?

25. If torpedo were fired with a leaky diaphragm or air chamber what would be the effect on depth during the run?



1-3
26. How adjust control valve for mid-position?

27. What is purpose of 10 lbs. weight test?

28. What are the maximum up and down throws of the horizontal rudder.

29. What is the reading of the depth rudder when control valve is mid-position?

30. What is the purpose of the valve stop on the steering engine?

31. How tell whether or not there is any tension on depth spring?

32. How tell if transportation screw is bent?

SPRINGFIELD RIFLE

It is a standard service rifle, cal. 30 model 1903. It is a bolt operated, shoulder weapon. Magazine capacity five, weight eight and sixty nine hundredths lbs., weight of bayonet 1 lb., maximum effective range 600 yds., penetration force at 600 yds. one quarter inch steel plate or 15 inches of timber. Trajectory on level ground maximum height of head of man, shots per man per minute - 10. If bayonet is used in hand to hand combat efficient handling of bayonet in combat is by steadying and keeping breech in near body, shoulders are used for lunges, left hand half way up to muzzle for aiming and defending.

BOLT - NOMENCLATURE

Extractor - bolt sleeve assembly.
 Gas escape hole - bolt sleeve.
 Bolt assembly - bolt sleeve, lock.
 Bolt - bolt sleeve, lock pin, bolt handle.
 Bolt sleeve lock spring.
 Extractor collar safety lock assembly.
 Striker - safety lock thumb piece.
 Firing pin sleeve - safety lock spindle.
 Main Spring - safety lock spring.
 Firing pin assembly, safety lock plunger, firing pin rod.
 Cocking piece.

CARE AND CLEANING OF RIFLE

The accuracy and proper functioning is due only by the care given it. The deposit left in bore by combustion of premixer potassium chloride, causes moisture collected from air, and therefore rust will form. To remove from barrel, use boiling water and soap or soda solution by putting muzzle end of barrel into water and pumping with cleaning rod up and down in barrel, and rinse out after cleaning with clear hot water, and dry with clean cloth or wire brush, rubbing rapidly. This procedure takes about one minute. The rifle must be cleaned not later than evening of day of firing. It must be wiped out and oiled if not fired, every three days. The stock must be taken care of by rubbing with raw linseed oil. This prevents moisture from rotting the wood and prevents wood from drying out which would cause split or warp.

TORPEDO DEPARTMENT

ANSWER EACH QUESTION IN A FEW WORDS

-
1. Where is thrust of after propeller taken up?
The after side of the spindle casing.
 2. Same for forward propeller? *against the after side of the crosshead.*
 3. In what manner is the drag of propellers taken up when torpedo is being towed? *By the engine frame strut bearing.*
 4. Which is No. 1 turbine? *the lower one the one next to nozzle*
 5. What and where are driving pinion gears? *pinion gears are on turbine spindles trans. motion from the turbine to the main drive gear.*
Where are the following thrusts taken up?
-
6. Upward of No. 1 turbine? *By top bearing*
 7. Downward of No. 1 turbine? *By middle bearing*
 8. Upward of No. 2 turbine? *bottom half of bottom bearing*
 9. Downward of No. 2 turbine? *top half of bottom bearing*
 10. Radial of No. 1 turbine? *By top + middle bearing*
 11. Radial of No. 2 turbine? *Bottom + top bearing*
 12. Radial of after propeller shaft? *crosshead + tailshaft bushings*
 13. Radial of forward propeller shaft? *thrust bearing strut bearing*
 14. Of the main driving gears? *main driving gear washers on "A" frames and crosshead washers*

15. How tell if No. 1 turbine is warped? *by use of dial indicator*
16. Same No. 2 turbine? *by use of dial indicator*
17. What warp is permissible? *.005 of an inch*
18. What is H.P. of main engine? *100 to 105 in low power
300 to 330 in high power*
19. What is engine working pressure? *487 low power
430 high power*
20. What is R.P.M. of turbines at 45 knots? *12, 123*
21. At how many R.P.M's does governor act? *there is no governor*
22. What is nozzle clearance? *60,000*
23. Clearance between turbines? *.006"*
24. What vertical clearance is obtained by moving a bearing in spindle casing one notch? *.006"*
25. What main sections of the main engine are served by oil pump?
spindle casing, crosshead, no. 2 turbine top bearing
26. What drains oil pump? *There is no drain*
27. How is oil pump secured to frame? *by four holding bolts*
28. What type pump is oil pump? *gear type*
29. By what visual inspection can you determine how to install crosshead? *note, surface of crosshead marked forward
is forward*
30. Same for engine strut? *bearing face forward.*

31. How are bearings locked to prevent turning? *three locking levers and clamp bolts*
32. Why is exact lining up of propellers necessary? *propellers must be lined up to balance engines*
33. By what means adjust clearance between turbines? *by moving bottom bearing.*
34. By what means adjust nozzle clearance? *move top and middle bearings same number of notches in same direction*
35. How determine approximately position of middle bearing of spindle casing? *by use of 'T' gauge tool no. 232*

WHEN THIS PAPER HAS BEEN RETURNED TO YOU RETAIN IT FOR
YOUR OWN INFORMATION.

BORESIGHTING PROCEDURE

DEFINITION - Boresighting is the adjusting of gun sights, when the sight bar is set for zero range and the azimuth head for zero deflection, so that the lines of sight of the pointing telescopes will intersect the geometrical axis of the bore produced at the mean range at which it is expected to fire.

STEPS TAKEN BEFORE BORESIGHTING

1. Anchor ship at the boresighting range from an object which has a distinct horizontal line and a distinct vertical line.
2. Carefully wipe the telescopes before placing in holders removing all grit from bearing surfaces.
3. In setting up the securing nuts on the holders, set up gradually upon each one in succession. Never set one screw or bolt of a bearing up taut independently of the others. In setting up, use the wrench supplied with the sight for this purpose as the jaws of this wrench will give before the threads on the nuts will strip.
4. After the telescope is in place the sight bar and deflection drum are moved through a complete throw to insure there being no freezing of parts.
5. The range scale is placed on zero and the deflection scale at mid point.
6. The breech plug is lashed back to prevent its accidentally being closed against the telescope in the breech disc.
7. The breech bar, boresight telescope and muzzle disc are shipped.
8. The boresight telescope cross wires are properly adjusted to intersect holes in muzzle disc and parallax is removed.
9. Turn muzzle disc through 180° and check alignment of horizontal and vertical wires.
10. Remove muzzle disc.
11. Boresight gun.

METHOD OF BORESIGHTING.

1. In boresighting the gunnery officer is stationed at the breech telescope, a regular pointer at the elevating telescope and a regular trainer at the training telescope.
2. It must be remembered that with yoke sights a movement of the pivot bar moves both telescopes. The pointing (elevating) telescope is generally moved by the sight bar and azimuth head. However, small adjustments can be made by the tangent screws.
3. The elevating telescope is adjusted first, then the training telescope. Either the horizontal or the vertical wire of the telescopes may be adjusted first.
4. The gunnery officer at the breech and coaches in elevation and train until his horizontal wire rests upon the horizontal surface, being used for the boresight. He then calls out, "Mark! Mark!" so long as his horizontal wire remains in that position.

BORESIGHTING PROCEDURE - Cont'd

5. The man at the elevating telescope notes how much his horizontal wire is off, and by moving the sight bar (or tangent screw if necessary change is small) to coincide with that of the breech telescope.

6. The man at the training telescope notes how much his horizontal wire is off and after the elevating pointer has made his adjustment, the trainer brings his on by means of the tangent screw. When his wire is on, all three horizontal wires are on.

7. The observers change places and check.

8. The same procedure is carried out for the adjustment of the vertical wires.

9. The observers change places and check.

10. If the sight bar and deflection drum have been moved, the range scale is placed on zero and the deflection scale at the mid point.

11. The boresight is checked by another group.

12. Place muzzle disc in muzzle and check to see if boresight telescope is still properly located. Remove muzzle disc.

STEPS TAKEN AFTER BORESIGHTING.

1. Remove boresight telescope and breech bar and close breech.

2. Place covers on telescopes.

3. Place a sign, "This Gun Has Been Boresighted" on gun.

MARK 18.

This publication contains a complete description and instructions for the care, operation and adjustment of the Mark 18 torpedo.

GENERAL DESCRIPTION

The Mark 18 is an electrically propelled torpedo. Propulsion power is supplied through a direct current series wound motor which is fed from an electric storage battery. The gyroscope and other control mechanism is air driven similar to that of the Mark 15 torpedo, excepting the gyroscope which is only subjected to an initial spin impulse and is the "Run Down" type: The constant spin feature being made inoperative.

The Mark 18 is the first electric storage battery torpedo manufactured for the United States Navy, Bureau of Ordnance, and it is designed primarily for use as a submarine torpedo.

The complete torpedo is composed of the following units:

War Head (or exercise head)
Battery Compartment
Afterbody
Tail
Gyroscope

The designation Mark 18 applies to the complete torpedo and to the War Head, Battery Compartment, Afterbody and Tail. The Exercise Head and the Gyroscope have individual designations which are given over their respective descriptions.

CHARACTERISTICS OF CONSTRUCTION

The torpedo is constructed in four major exterior sections (Drawing 350331) each detachable as a unit from the adjoining sections, namely:

- (A) War Head or Exercise Head
- (B) The battery Compartment
- (C) The Afterbody
- (D) The Tail

PRINCIPAL DIMENSION, WEIGHTS AND CHARACTERISTICS

1. Torpedo	Mark 18
2. War Head	Mark 18
3. Exploder	Mark 4 Mod. 2
4. Detonator	Mark 8
5. Booster	Mark 2
6. Exercise Head	Mark 34
7. Gyro	Mark 12 Mod. 3

DIMENSIONS

Diameter - - - - -	21"
Length over all with war head - - - - -	20' 6"
Length over all with exercise head - - - - -	20' 6"
Length of war head to joint line - - - - -	47.282"
Length of exercise head to joint line - - - - -	47.282"
(Including towing eye)	
Length of battery compartment. Joint- - - - -	125.906"
(Joint to joint line)	
Length of afterbody joint line to joining line.	53.625"
Length of tail, end to joint line - - - - -	19.188"
Length forward end of guide stud to tail	141.438"

WEIGHT

2 1/2 times more powerful than TN

Explosive Charge <i>Torpedo</i>	600-500	lbs.
War head, empty without attachments	136	118 lbs.
War head loaded with exploder	736	618 lbs.
Exercise head, ready for run	496	390 lbs.
Battery compartment, without battery		1239 lbs.
Battery box, and battery assembly		1629 lbs.
Battery compartment, including battery		677 lbs.
Afterbody & tail cone complete with motor		
Ballast, solution for exercise shot -- add salt water (sea) SP. G. 1.024 to which 5.8 lbs. of Sodium Chloride have been added. Total solution is approximately 57.6 gals. and weighs		500 lbs.
Torpedo, ready for war shot		2920 lbs.
Torpedo, ready for exercise shot		2920 lbs.

BUOYANCY, TRIM AND STABILITY

Displacement (water 1.026 SP. GR.)	2580	lbs.
Buoyancy, ready for war shot	401	lbs.
Buoyancy, exercise head blown	100	lbs.
Weight water expelled (480 lbs. fresh water approximately 37.6 gals.)	500	lbs.
Center of buoyancy to end of tail	136.3	lbs.
Center of gravity to end of tail (Ready for war or exercise run)	138.4	lbs.
Pull around	3600	in. lbs.

CAPACITY

Air flasks (three flasks), total cu. ins.	630	cu. ins.
Air flask pressure, lbs. for sq. in.	3000	

POWER PLANT CHARACTERISTICS

Storage battery, rate	4.4	KWH
Open circuit battery voltage	168-172	
Motor, direct current, series wound (H.P. at 140 volts, 1660 RPM)	84-HP	
Motor Speed	1660	RPM
Gear ratios, motor to propellers	1 to 1	
Forward propellers:		
Diameter	17.0624	.062
Pitch	Variable, 2"	Rise
After propellers:		
Diameter	16.1874	.062
Pitch	Variable, 2"	Rise
Propeller R.P.M. at 30 knots	1660	
Pressure, air flasks working, lbs per sq. ins.	3000	
Pressure, reducing valve, low pressure, lbs. per sq. ins.	400	
Pressure, gyro nozzle, initial spin	3000	lbs.

RANGE CHARACTERISTICS

Normal power, acceptance yards	3000	
Normal speed, acceptance and service	30	knots

INTERCHANGEABILITY

All assembled units and mechanisms are interchangeable as such; and in general all detail parts are also interchangeable except for lapping, dowelling, etc.

PARTS CARRYING NUMBERS

The Register Number is the torpedo identifying number. All other numbers are serial numbers which identify some part of unit assembly.

The Register Number of the torpedo is stamped in three places On the battery compartment near the forward joint line, on the after body near the forward joint line, and on the tail.

67

SUBMARINE SCHOOL
UNITED STATES SUBMARINE BASE
NEW LONDON, CONNECTICUT

PRELIMINARY ADJUSTMENTS.
MARK X - MOD. 3

Torpedo No. _____ Exercise Head No. _____ Gyro No. _____

CHECK:

- ...1. OVERHAUL THE TAIL: REMOVE TAIL CONE. CLEAN AND LUBRICATE ALL PARTS THEREIN. EXAMINED PROPELLERS AND REMOVE DENTS. TEST EXHAUST VALVES FOR CONDITION OF SPRINGS. SEE THAT SINKING GEAR IS REMOVED (INSTALLED FOR A TAIL SLOT.) RE-INSTALL ALL PARTS AND CONE.

Reason: See exhaust valve springs seat valve properly. See sinking gear inoperative. Insure all tail connections properly made.

- ...2. TURN PROPELLERS OVER BY HAND TO SEE THAT SHAFING IS PROPERLY ASSEMBLED AND THAT ALL PARTS TURN FREELY. PUT ON PROPELLER LOCK.

Reason: Propeller lock always kept on to protect

personnel.

- ...3. FILL LEAD, VERIFY WEIGHT AND CONDITION, SECURE IN PLACE ON FLASK, MAKE THE AIR FLOW CONNECTION. TEST BLOW VALVE. CALIBRATE TO OPERATE AT 550 POUNDS.

Reason: To see that head is not over or under weight, and has no large dents which would cause erratic deflection of depth control. Air blow connection is necessary to allow passage of air from air flask to blow valve. Test to prevent loss of air at this point. Head is filled so torpedo will balance properly and head can be tested for water tightness. Blow valve is calibrated so head will blow when pressure in air flask reaches 550 pounds. Valve is secured in place to prevent loss of water when torpedo is turned for other adjustments.

- ...4. FILL OIL TANKS, OIL CUPS, GREASE TAIL BEARING, AND PRIME OIL PUMP GREASE AFTERBODY BEARING.

Reason: To supply lubrication to various working parts of torpedo; pot must be filled completely as great damage can be done by running torpedo without oil. Prime pump to insure good suction.

- ...5. ROTATE DISTANCE INDEX TILL STARTING PISTON SEATS, NOTING POSITION NEAR ZERO WHERE STARTING PISTON SEATS (LISTEN FOR THE CLICK WHEN THE DISTANCE TRIP RELEASES THE STOP PLUG.)

Reason: To insure starting piston is seated. When distance gear is left on zero starting piston will reset immediately if it is accidentally lifted.

...6. PLACE SAFETY EDGES BEHIND STARTING LEVER.

Reason: To prevent accidental lifting of starting piston; for protection of personnel.

...7. REMOVE WATER COMPARTMENT PLUG AND FUEL PLUG. PUT FUEL PLUG IN GYRO BOX.

Reason: In case of air leak to prevent pressure from building up during charge. This might rupture fuel or water compartments. Fuel plug is put in gyro box so it will not become lost.

...8. REMOVE CHARGING VALVE PLUG. BLOW AIR THROUGH WING NUT. INSERT WING NUT OF CHARGING LINE (USE SAFETY STRAP). OPEN STOP VALVE WIDE AND CHARGE TO 1500 POUNDS.

Reason: So wing nut of charging line can be screwed in its place to facilitate charging; moisture is removed from line by blowing air through wing nut. Safety strap is used to prevent injury to personnel. 1500 pounds pressure is necessary for tests.

...9. CLOSE STOP VALVE. REMOVE WING NUT AND SAFETY STRAP. REPLACE WASHER AND CHARGING PLUG.

Reason: This valve isolates air flask. Charge has been completed; no further use for charging line.

PREPARE FOR TEST OF RUDDER TROCS.

...10. REMOVE, EXAMINE, AND CLEAN AIR STRAINER. INSTALL TOOL 223 IN AIR STRAINER BODY. PUT A FEW DROPS OF GYRO OIL IN THE AIR STRAINER TO OIL THE ENGINES. CONNECT LOW PRESSURE LINE FROM TEST SET.

...11. EXAMINE SPEED RING AND SET UP ON REDUCING VALVE SPEED SCREW (SPEED RING IN PLACE).

Reason: The speed ring thickness must conform with the record book for reducer calibration for 36 knots which thickness allows a limited travel of speed screw against spring button which takes up against the reducer spring and pressure is applied on the reducer spring to the equivalent air pressure. The speed screw must be set up tight to insure this travel.

...12. SEE THAT TRANSPORTATION SCREW IS IN. REMOVE AFTERBODY HANDHOLD PLATES.

...13. WITH LOW PRESSURE AIR (500 POUND GAUGE) FROM TEST SET PROCEED AS FOLLOWS:-

...(a) Check horizontal rudder in neutral position $1\frac{1}{2}$ down.

Reason: With transportation screw in the depth engine control valve should be on fifth graduation and rudders on $1\frac{1}{2}$ down.

...(b) Remove transportation screw check position of horizontal rudders with zero line on tail cone.

...(c) Level torpedo.

Reason: To keep pendulum action neutral.

...(d) Remove test plug from atmospheric chamber in depth gear, place 16 pound weight on depth spring (Screw rod to nut and hang weight on it).

Reason: 16 pound weight corresponds to 10 foot depth setting for this installation.

...(e) Turn depth index till marking on depth engine valve stem indicates midtravel.

Reason: To calibrate depth spring.

...(f) Move pendulum fore and aft a few times and note if valve comes to rest in proper position.

Reason: To check calibration.

...(g) If depth index does not read 10 feet, set it by disengaging spring sleeve from socket. Upon completion be sure spring sleeve fully engages socket again; turn spindle slightly if necessary.

Reason: To complete calibration.

...(h) Set depth index on zero and remove test weight.

...(i) Swing pendulum by hand all the way aft and all the way forward. Read the up and down rudder throws when the pendulum is against its tops and adjust the horizontal rudders so the throws will agree with the record book (LU-4D for this torpedo).

RECORD READINGS: U. _____ D. _____

...(j) Move the gyro steering engine valve and read the rudder throws, using Tool 44. The throws should agree with the record book entries:

RECORD READINGS: UPPER R. _____ L. _____
LOWER R. _____ L. _____

..14. REMOVE TESTING SET AND TOOL 223.

..15. REPLACE CHARGING VALVE PLUG AND WASHER: ALSO AIR STRAINER AND PLUG.

..16. REPLACE WATER COMPARTMENT FILLING PLUG AND CRACK STOP VALVE.

REPAIR TO TEST FOR PROPER GYRO CONTROL.

..17. PUT IN TRANSPORTATION SCREW AND TURN TORPEDO UPSIDE DOWN

..18. REMOVE ATMOSPHERIC CHAMBER UNDER DIAPHRAGM OF THE DEPTH MECHANISM, EXAMINE DIAPHRAGM FOR CONDITION, REPLACE IF NECESSARY (DEPTH SPRING SHOULD HAVE NO LOAD DURING THIS OPERATION), REINSTALL ATMOSPHERIC CHAMBER. REPLACE TEST PLUG IN ATMOSPHERIC CHAMBER. DO NOT FORGET THE WASHER THAT GOES UNDER THIS PLUG AND MAKE SURE THE WASHER IS IN GOOD CONDITION.

6-7
REMOVE BOTTOM PLATE ON GYRO POT; WIPE INSIDE OF POT CLEAN AND DRY.

Reason: Gyro pot must be clean and dry to prevent oil from getting on gyro and causing it to precess. If pot is not on zero at the initial launching of torpedo it will cause pallet to be thrown to right or left as the case may be when the cam pawls come in contact with cam and concentric ridges of gyro cam plate on the after stroke of pallet slide and causing pallet to strike left or right pallet pawl on the forward stroke until torpedo finds its center with plane of gyro from center line of tube maintaining that left or right deflection throughout the run; if balls do not move freely in upper and lower bearings this would cause poor gyro control particularly on angle shots.

NOTE THAT GYRO OUTSIDE SETTING SOCKETS ARE ON ZERO; ALSO THE GYRO POT ITSELF.

NOTE SPINNING GEAR RELEASED AND TURN THE POT 90 DEGREES RIGHT AND 90 DEGREES LEFT FROM EACH OUTSIDE SETTING SOCKET TO INSURE THERE IS NO INTERFERENCES IN THE AFTERBODY; RETURN TO ZERO AND CHECK AGAIN FOR MID-POSITION.

Reason: If spinning gear when released hits any part of torpedo improper gyro control will result.

~~LOCK AND RELEASE SPINNING MECHANISM TO LIMBER IT UP.~~

SEE THAT CAM PAWL IS IN EXTREME FORWARD POSITION AND INSTALL GYRO (IF THE PAWL IS NOT ALL THE WAY FORWARD REMOVE PROPELLER LOCK, TURN PROPELLERS TILL IT IS, AND REPLACE PROPELLER LOCK).

Reason: This is necessary to prevent striking cam pawls with gyro cam plate, injuring same or bending pallet shaft; spinning mechanism is locked and released to insure it is functioning properly.

LOCK AND UNLOCK THE GYRO BY HAND A FEW TIMES. EACH TIME CAREFULLY EXAMINE THE FINGER TRIP TO SEE THAT IT IS AGAINST THE POT WALL; IF NOT, THE GYRO IS NOT FULLY LOCKED, SO RELEASE THE SPINNING GEAR AND TURN IT BY HAND ABOUT ONE AND ONE HALF REVOLUTIONS (CLOCKWISE VIEWED FROM AFT) THEN IT SHOULD BE POSSIBLE TO FULLY LOCK THE GYRO (AS INDICATED BY THE FINGER TRIP BEING AGAINST THE POT WALL).

PLACE GYRO ENGINE VALVE IN APPROXIMATELY MID-POSITION BY HAND. REMOVE PROPELLER LOCK CAUTIOUSLY AND TURN PROPELLERS BY HAND, WATCHING THE GYRO ENGINE VALVE MEANWHILE. IF THE VALVE MOVES, THE GYRO POT IS NOT PROPERLY INDEXED FOR A STRAIGHT SHOT. IT SHOULD BE PROPERLY CENTERED BY THE OUTSIDE SETTING SOCKET. NOTING THE RESULTING DISCREPANCY.

- ...26. TAKE ADVANTAGE OF THIS OPPORTUNITY TO EXAMINE ALL PIPING IN THE AFTERBODY FOR TIGHTNESS.
- ...27. REPLACE AIR SCREEN AND CLAMP PLATE. BE SURE NOTHING HAS BEEN ACCIDENTLY LEFT IN AFTERBODY AND PUT ON HANDHOLE PLATES.
- ...28. TURN TORPEDO RIGHT SIDE UP AND PUT ON A SECOND PROPELLER LOCK LASH BOTH SECURELY.
- ...29. SLING AND HOIST TORPEDO SO IT CAN BE TURNED AT WILL IN THE AIR WHILE THE GYRO AND ENGINE ARE RUNNING ON THE TEST TO FOLLOW. IF ADJUSTABLE STAND IS AVAILABLE ITS USE IS PREFERABLE.
- ...30. FIX CENTERING MARKS ON DECK FOR NOTING CREEP OF GYRO ON TEST TO FOLLOW. (REMEMBER THAT SHIP ITSELF MAY SWING DURING THE TEST).
- ...31. REMOVE THE TRANSPORTATION SCREW.
- ...32. REMOVE SAFETY WEDGE FROM BEHIND STARTING LEVER AND WITH STOP VALVE CLOSED AND DISTANCE INDEX OFF ZERO, THROW STARTING LEVER TO THE REAR. OPEN STOP VALVE SMARTLY, THUS SPINNING GYRO.
- ...33. CLOSE STOP VALVE AND REMOVE PROPELLER LOCKS.
- ...34. KEEP CLEAR OF PROPELLERS AND OPEN STOP VALVE SUFFICIENTLY TO OPERATE VERTICAL STEERING ENGINE AND MAIN ENGINES BY AIR.
- ...35. SWING THE TORPEDO IN AZIMUTH AND NOTE OPERATION OF VERTICAL RUDDERS BY THE GYRO AS THE TORPEDO IS SWUNG FROM SIDE TO SIDE.
- ...36. TILT TORPEDO ALTERNATELY ABOVE AND BELOW THE HORIZONTAL ABOUT 3 DEGREES. RUDDERS SHOULD HAVE FULL THROW AT 3 DEGREES AND SHOULD BEGIN TO MOVE WHEN TORPEDO IS INCLINED ABOUT 1/2 DEGREES.
- ...37. TURN DISTANCE GEAR TO ZERO STOPPING TURBINES.
- ...38. CLOSE STOP VALVE AND PUT ON PROPELLER LOCK.
- ...39. THROW BACK STARTING LEVER TO RELIEVE PRESSURE ON STARTING PISTON.
- ...40. ROTATE DISTANCE INDEX TO ZERO.
- ...41. INSTALL SAFETY PLATE BACK OF STARTING LEVER.
- ...42. LOWER TORPEDO ON TRUCK OR RACK.

43. PUT IN TRANSPORTATION SCREW AND TURN TORPEDO UPSIDE DOWN.
44. REMOVE GYRO; REPLACE BOTTOM PLATE, AIR SCREEN, AND CLAMP PLATE.
45. REMOVE PLUG FROM AFTERBODY SIPHON (INSTALL FOR WAR SHOT).
46. TURN TORPEDO RIGHTSIDE UP.
48. REMOVE AND OIL CHECK VALVES AND TEST OPERATION BY HAND.
49. REMOVE FUEL AND WATER STRAINERS AND BLOW THROUGH BY MOUTH. NOW DO THE SAME WITH A STRAINER KNOWN TO BE IN GOOD CONDITION. A CLOGGED STRAINER WILL BE DETECTED AT ONCE BY THIS METHOD.
50. CHECK UP ON ALL JOINT SCREWS TO SEE THAT THEY ARE PROPERLY SET UP.
51. SET UP ON AFTER PROPELLER SHAFT LOCKING NUT.
Reason: To insure nut did not work loose when main engine was operated.

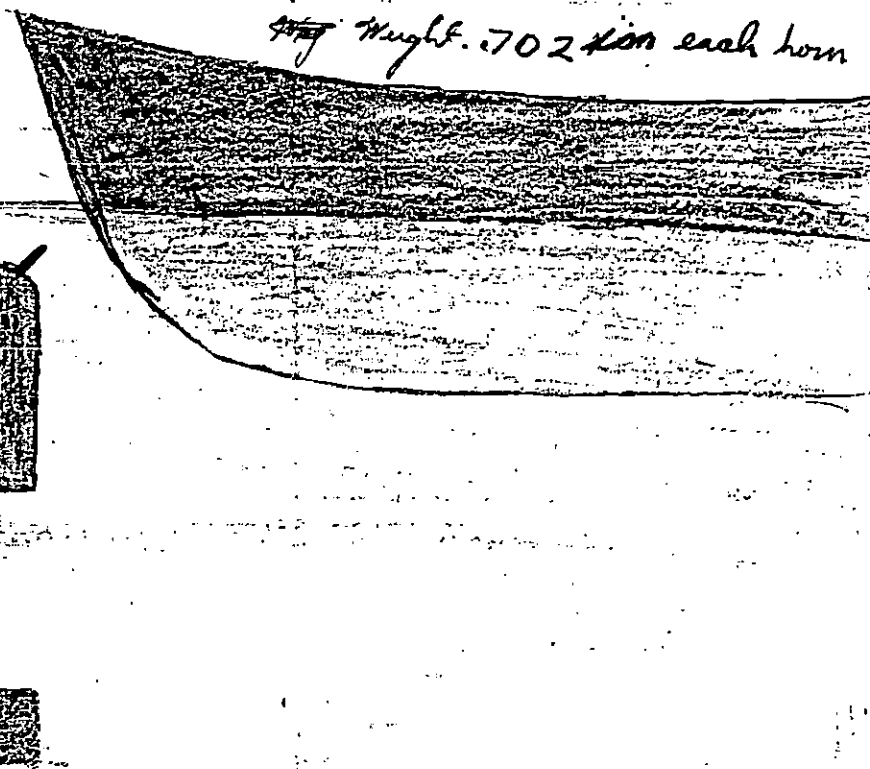
52. CHECK UP ON SECURING OF ALL ACCESSIBLE STUDS, NUTS, AND FITTINGS, WITH THE ABOVE ADJUSTMENTS MADE THE TORPEDO IS NOW READY FOR FINAL FIRING ADJUSTMENTS.

I CERTIFY THAT ALL THE STEPS ENUMERATED ABOVE HAVE BEEN CARRIED OUT.

(Firing Officer) USN.

Mk. I MODRED MINE

Total Weight - (crated) — 1750 lbs.
Mines Diameter — $20\frac{13}{16}$
Mine Length — 10 ft. 1 inch
Weight of anchor — 950 - 980 lbs.
Weight of case — 725 - 745 lbs.
Weight of charge — 300 lbs.
Case of Positive Buoyancy — 275 lbs
Length of anchor cable — 550 ft.
Electrolyte — S.P. G.R. 1300
~~Net~~ Weight. 702 lbs each horn



ANSWER EACH QUESTION IN A FEW WORDS

1. How tell if gyro is fully locked? *When hand trips lever is flush against sidewall of pot.*
2. What do if you have apparently locked gyro but test of (1) above indicates that it is not fully locked? *unlock and turn gyro turbine $1\frac{1}{2}$ turns in direction of spin*
3. How many turns of spinning turbine prior to release? What is time of release? *60 turns $\frac{1}{5}$ of sec.*
4. What type of gyro installed in Mark ~~3~~¹⁹¹ torpedo? *MK XII-3 air sustained.*
5. What is approximate speed of gyro upon initial spin? *20,000 R.P.M. and it settles to 13,800*
6. Which engages first, centering pin or gear? Which disengages first? *They engage together, gear disengages first*
7. Why is rapid equilization of pressure between after-body and gyro pot necessary? *To insure rapid release of the spinning mechanism*
8. When an angle is set on a torpedo what parts of the gyro mechanism turn? *Top of gyro pot + gyro pallet mechanism*
9. What is precession? *an unbalanced moment in the gyro*
10. What would happen in event sea water entered gyro pot? *It would cause an erratic run*
11. What drives the pallet slide aft? Forward? *The cam on the bevel gear and pallet slide a cam on lower end of bevel gear*
12. How vary the total rudder throw of the vertical rudder? *by changing the spacer washer in the gyro steering engine*
13. Are the upper and lower vertical rudders the same size? *No the upper is larger*
14. What steps are taken to prevent dirt in the air reaching the steering engine? *by allowing air to pass through the 100 mesh bronze shainer at each engine*
15. If the rudder throws are found to be unequal how may they be made equal? *by adjusting screw at the yoke of the rudder in the tail*

16. At the commencement of adjustment of the pallet mechanism how should the gyro pot be set? *On zero "0"*
17. How should the cam pawls be placed vertically with respect to cam plate? *flush with the underside of the cam plate*
18. What is the clearance between cam pawls and cam plate? How is it obtained? *50,000 by adjusting screw on pallet holder (1 1/4 notches)*
19. How is pallet centered? *Pallet full forward, Cam Pallet flush against cam plate, center pallet by eye on shaft between stop pin, move pallet, with feeler obtain .004 to .005 between pallet & plate on each side*
20. Your pallet is properly centered with clearance of only .001 on each side. What do? *Stone down pallets*
21. What clearance should exist between pallet and its stop pin when pallet is thrown fully toward stop pin? *.010*
22. Is the adjustment of question 21 a separate adjustment or a check on and the result of another adjustment? *result of another adjustment*
23. With engine valve thrown fully to one side what clearance should exist between the scoring engine body and the valve stop? *valve forward note clearance between connecting spool and pallet stop cam. Valve aft. note clearance between connecting spools and cam screw gear. clearance should be the same.*
24. How obtain clearance of question #23? *By adjustment rock shaft.*
25. At how many degrees roll of torpedo will the inner gimbal of the Mark XII-3 gyro strike the outer gimbal ring? *None, it will not strike*
26. How may forced precession be imposed upon the gyro in order to counter balance uncontrolled moments? *by the balance to nut.*
27. To what is the cam plate secured? *Top of outer gimbal ring*
28. How is gyro secured in the gyro pot? *by bottom plate held by six screws.*

29. With pot set on zero does axis of locked gyro lie in the longitudinal axis of the torpedo or at right angle to it? *Longitudinal*

30. Is there one setting sockets for outside gyro setting on the afterbody of a torpedo or two? *answer*

31. What is creep? *is apparent movement of the gyro axis ~~with respect~~ ^{azimuth} in ~~azimuth~~ with respect to a fixed position ~~on~~ the earth's surface do to earth's influence alone*

WHEN RETURNED TO YOU RETAIN THIS SHEET FOR INFORMATION

9

it became brighter, it became apparent that our contact was a huge submarine.

It turned out to be the I-401, a submarine over 400 feet long, displacing 5,500 tons and equipped to carry aircraft. In fact, the I-401 was an extremely unusual craft. She was originally built for a single mission, to destroy the Panama Canal. But the events of the war made it impossible for that operation to ever be undertaken. The boat was designed to handle two seaplanes but had been modified in that the deck hanger space had been enlarged to handle three seaplane bombers. Compared to her, the 1,800 ton, 311 feet long SEGUNDO was a lightweight.

When the sun came up it was decided to board the I-boat. Several round trips were made by rubber liferaft, with representatives of both boats going back and forth. It was agreed that the Japanese would surrender and allow a prize crew to go aboard. Members of that group included our Execuc., Lieutenant J. E. Balson, USNR; our COB, E. A. Russell, CTM(SS), USN; R. S. Austin, MoMM1c(SS), USN; C.M. Carlucci, QM3c(SS), USNR; K. W. Diekmann, EM1c(SS), USN, and J. V. Walton, TM2c(SS), USN. As a symbol of surrender, the Japanese captain gave two swords to Lieutenant Balson.

We then escorted the I-401 into Sagami Wan, the body of water just south of Yokohama and Yokasuka.

There we were relieved of our charge by the USS GATLING, and proceeded into Tokyo Bay where we moored in a nest alongside USS PROTEUS (AS19), which had arrived from Guam shortly before. On board was Vice Admiral Charles Lockwood, USN, Commander, Submarines, Pacific, plus dozens of other high-ranking submarine officers. The war was over and preparations were being made for the signing aboard USS MISSOURI.

SANITY IN SUBS

(From San Francisco Clean Sweep)

For World War II's submarine fighters, undersea combat duty touched off peculiarly harrowing mental and emotional experiences. The heat, the tension from strictly enforced silence, and the helplessness against enemy depth-charge attacks often strained the sanity of the soundest men. An average of one out of the 75-man crew would break, at least

temporarily, during a battle.

Sometimes, half a crew could not eat or sleep for days after a heavy bombing or a close squeeze with enemy sub-chasers. Occasionally a sailor grew hysterical and had to be held down and muffled by his mates. Some men, lapsing into silence, would develop paralysis, breathe heavily, and stare with glazed eyes at nothing. One developed the habit, during tense moments, of gazing through binoculars at each of the crew members. Several tried to slash their own throats during depth-charge attacks. At least one committed suicide.

To avoid just such cases, which obviously had a demoralizing effect on the rest of the crew, the submarine service worked out a tightly meshed screen to sift out the men most susceptible to mental collapse. Some years back, Captain C. W. Shilling, wartime head of the U. S. Naval Research Laboratory at the Naval Research Base, New London, Conn., described the formula.

First, the Navy doctors agreed, the emotionally mature volunteer made the most level-headed submarine man. After interviewing thousands of volunteers, they drew up a list of danger signals which invariably pointed to instability. Then they designed tricky tests to ferret them out. The symptoms were: abnormal shyness or sensitivity; difficulty in school, truancy, and dislike of

teachers; abnormal fear of lightning, the dark, elevators, and crowded spaces (the usual indications that an individual is suffering from claustrophobia); shunning of girls after puberty, abnormal attachment to mother, sulkiness under discipline, failure to play competitive games that involve risk of injury; stammering; obsessions and religious fanaticism.

Mothers often put heavy pressure their sons to withdraw from training. In some cases, mothers were interviewed by the Navy doctors, and if they found the son was being unduly influenced by her fears, he was usually dropped from training. Navy psychiatrists found that teenagers often could not measure up to the maturity requirement of the service. Finally the Navy refused to take a submarine candidate under 19.

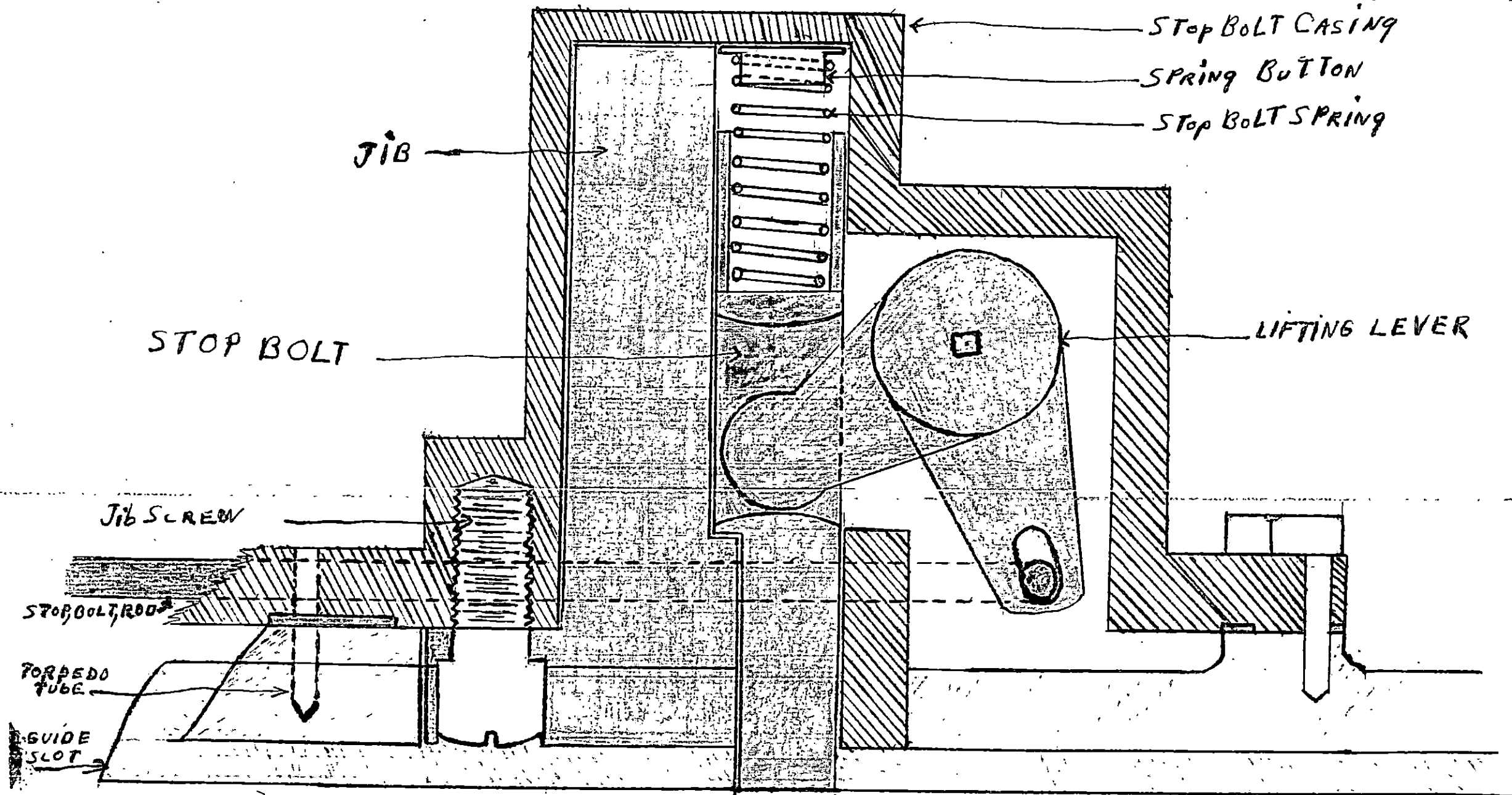
Sub-service men were picked from the top half of the Navy's intelligence scale and from men in top physical condition. Despite this pre-screening, however, up to 30 percent were turned away after careful psychiatric examination. Once in action, submarine crews were given liberal rest periods to recover from strain.

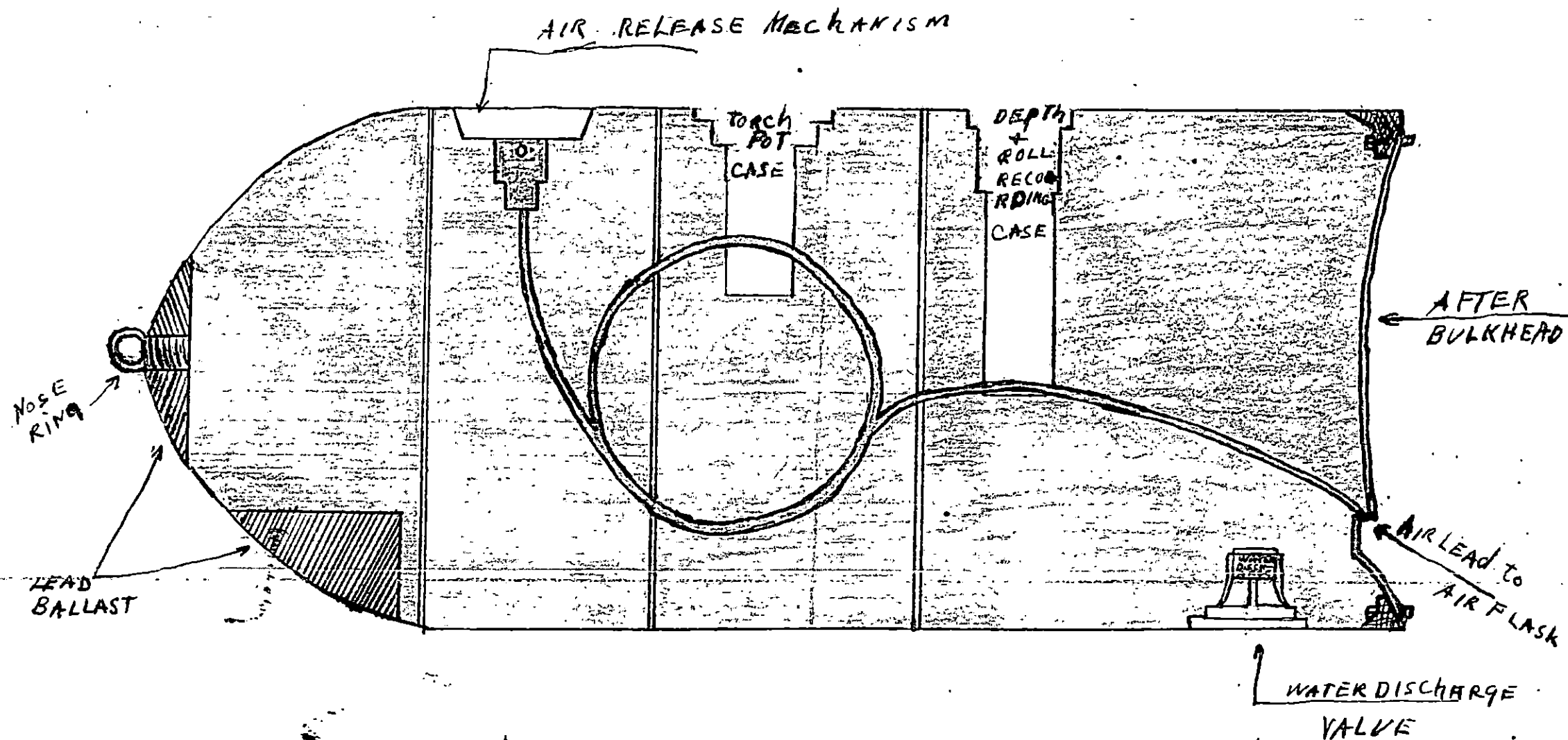
With this businesslike program the submarine service ended with one of the lowest psychiatric rates in the armed forces. Out of 1,520 war patrols, only 62 serious psychoneurotic cases developed. Of these, five were psychotic.



Crew of USS HOE (SS 258) (Photo submitted by Vande Kerkhoff)

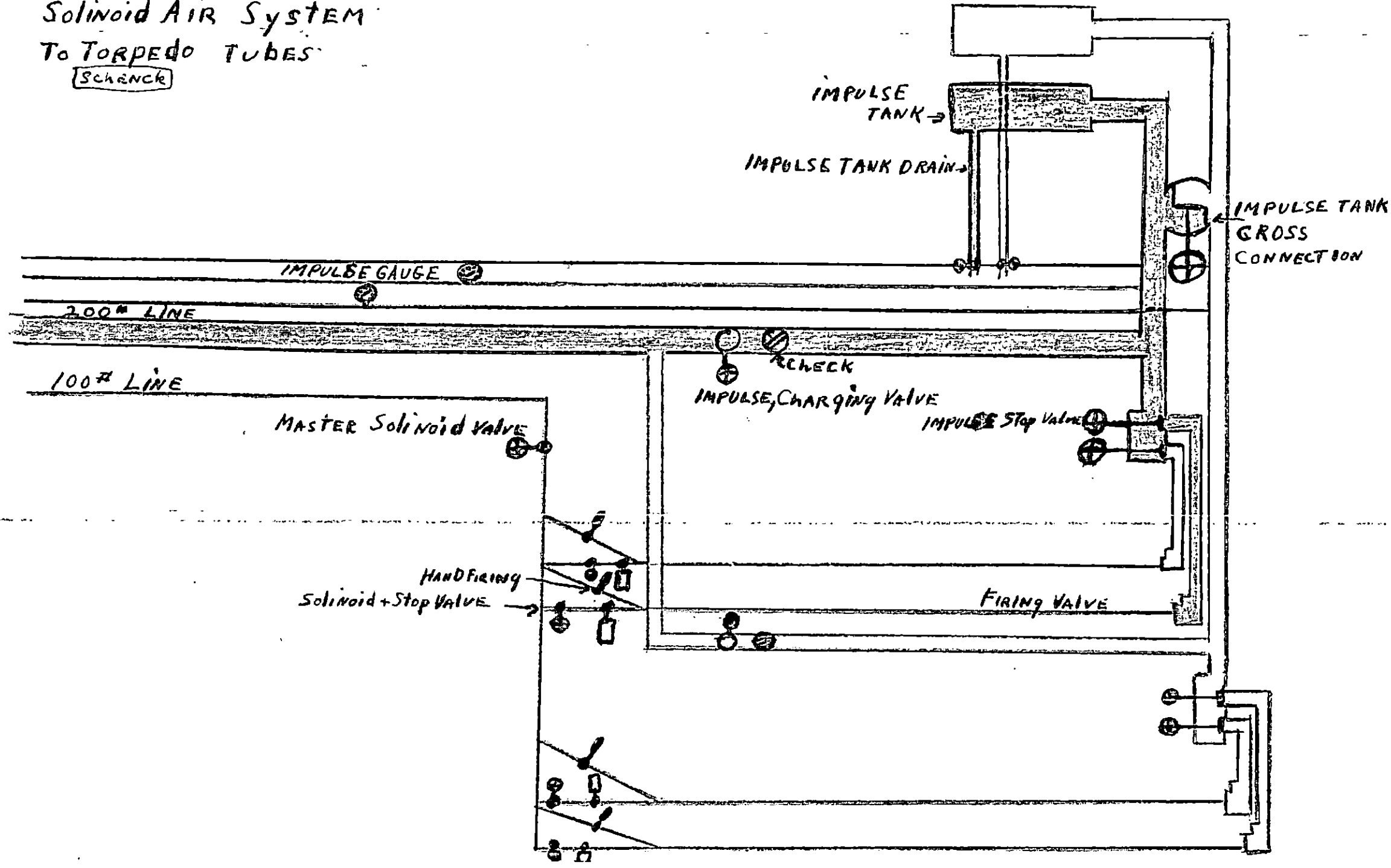
Torpedo Tube Stop Bolt
Schenck





MK. XXII AIR BLOWING EXERCISE HEAD
[Schenck]

"O" BOAT IMPULSE AND
SolinoiD Air System
To TORPEDO TUBES
SCHENCK



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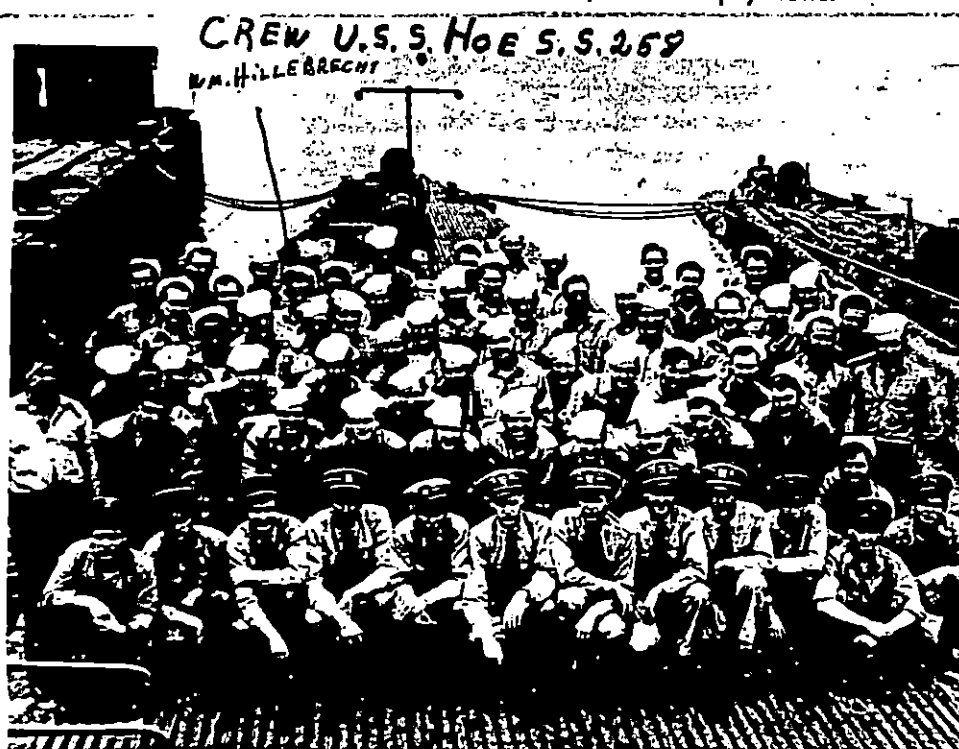
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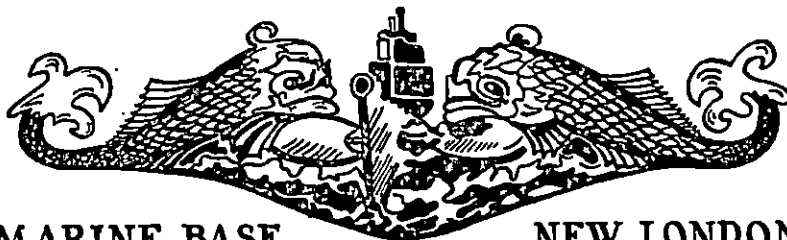
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SUB=BASE GAZETTE

A WEEKLY PUBLICATION



U.S. SUBMARINE BASE

NEW LONDON, CONN.

Vol. III

SATURDAY, JUNE 19, 1943.

No. 25

MARINES IN NORTHERN IRELAND

The United States marines marked the first anniversary of their landing in northern Ireland on May 12 with day-long ceremonies at Londonderry, which included presentation of a plaque to town officials.

The marines in full battle dress paraded from their camp to Guildhall Square, where their commanding officer made the presentations. The first marine bagpipe band ever organized made its first public appearance, and a Navy Seabee band also participated.

Then the marines were honor guests at a tea at the Guildhall, and a "birthday" cake was cut. In the evening there was a smoker and boxing show.

The marines, since their arrival there a year ago, have been guarding the base there.

CHINESE HOLDING

Encouraging is the news that the Chinese Army is more than holding against the Japanese attacking beyond Ichang. Five divisions of Japs have been repulsed on the Hupeh front, and the Chinese are pushing their successes to the utmost. Airpower, furnished by the United States, has played an important role in this fine achievement. This should dispel the contention that we have forgotten the Chinese in their war efforts. Uncle Sam is doing the best he can for all of his allies—everything considered—and this "best" has been of no small factor in the reverses the Axis powers have been experiencing of late.

C'MON GET BEHIND THE SUB BASE NINE

Considerable laxity in backing up the Sub Base baseball team has been evidenced by the scanty number cheering for the local nine at Morgan Park. Only a handful was present at Friday evening's contest in which the Sub Base was shutout by the Coast Guard Bears, 3-0. Certainly a club that has been right at the top of the heap all season deserves more rabid followers and especially in the crucial games as was the case last Friday evening. The next league game is next Tuesday when the Sub Base encounters the Trojans. C'mon you sailors, let's trek over to Morgan Park and give the club the necessary moral support! Is it a date?

Sierra Leone

Location—British West Africa.
Area—27,925 square miles.
Population—1,768,480.
Capital—Freetown (greatest seaport in West Africa).
Government—Crown Colony and Protectorate. Administered under a Governor assisted by a nominated Executive Council and a Legislative Council consisting of Governor, 12 official members, three elected unofficial members, seven nominated unofficial members.
Governor—Sir Douglas James Jardine.

Education—Christian and Mohamadan primary schools assisted from public funds and Government primary schools. Also assisted secondary and industrial schools. Fourah Bay College.

Products — Ginger, palm kernels, gold, diamonds, kola nuts, palm oil.

NOTHING NEW ABOUT BLITZKRIEG

In German, "blitz" means lightning and "Krieg" means war—"Blitzkrieg" "Lightning war." The principle of lightning war is to drive through or around an opposing army and cut off its lines of communication and supply thus rendering it unable to continue effective offense or even defense.

Alexander the Great, who conquered practically all of the world of his time in his 33 years of life, used fast moving cavalry for his lightning attacks on victims which he had first "cased" by a thorough-going spy system. He attacked without warning, as do most great conquerors. Ghengis Kahn and Tamerlane developed the finest cavalry horses and riders which the world had ever seen. Both men used "blitz" tactics, one to conquer and destroy, the other to conquer and rule wisely and well. Napoleon, whom Hitler admires immensely added artillery to fast moving cavalry to execute his lightning assaults. Nap also used spies and propaganda to inform against and soften his opponents.

The only things new about the Nazis' and the Japs' "blitzkriegs" were the technological advances made in the twentieth century—the perfection of the internal combustion engine and its adaptation to submarines, airplanes, tanks and other mechanized war equipment. There is nothing new about their spy systems, their propaganda and their treacherous and unheralded attacks. Conquerors and would-be conquerors have never themselves believed in the ways of chivalry, although outwardly professing their adherence to sportsmanship.

EDITORIAL

The place to prepare for this war is right here at home—and the time is now, not tomorrow, or the next day, or the next. If we are going to win this war in a hurry, those of us who are still under training, still enjoying the luxury of comparative peace and safety, should take advantage of the opportunity to fit ourselves into better fighters, who will stand the test when once we get to the front lines and find ourselves face to face with the enemy. For when action starts, it's too late to find out how the job is to be done. We've got to depend upon what we already know and can do, and if that isn't enough we're sunk. The enemy will not only win, but he will annihilate us in the process.

Our boys on the fighting fronts are doing a splendid job, but they could be doing better if all of them had a background of rigid discipline and hard training which goes to make up a good sailor or a good soldier. If the deficient ones were equal to those who are truly qualified, there would be no stopping us anywhere.

The trouble lies in the fact that too many of our service personnel are not military-minded. This situation is to be expected in a peace-loving nation such as ours. And that is why we must work that much harder in order to fit ourselves into better sailors and soldiers; to make ourselves by sheer force the best fighters in the world. We can do it, too, if we put our minds to it, trying with perseverance and determination.

It means strict attention to leadership among all officers, and non-commissioned officers, too, not just by a few of them. It means that these officials must gladly and willingly accept this responsibility, and abide and adhere to the program of instruction and indoctrination. It means ironclad control, without letup. It means autocratic rule of the highest order. It means acceptance and compliance from the ranks.

There is no proper training when men are allowed to furlough too much, miss classes and work, waste food and clothing, avoid regulations which appear for the moment unnecessary and irksome, allowed privileges which ease the mind and body. There is no proper discipline when soft words are used, when "hard-boiledness" is no longer a virtue, when civilians complain about there being too many court-martials. There is no proper military standard when the routine is poor, when the men perform their duties lackadaisically, when speed and precision are lacking. We can't expect an Army and Navy worth their salt if the life in these two arms of national defense is not tough, exacting, and strictly military.

Perhaps the officers and men are getting too much money. Compare the present salaries of the Navy, for instance, with the salaries of the Navy of 1812. A captain in 1812 received \$100 a month, a lieutenant \$60 a month, a midshipman \$19 a month, an ordinary seaman \$10 a month, and a private of Marines \$6 a month. Although a dollar then would buy much more than it does today, the pay then is still far short of what service men are receiving today.

We must stop babying and pampering our American youth who are in or are joining the armed forces. This is not only necessary for the good of the country in its hour of need, but it is also essential for the good of the boys themselves. If we expect to remain the hardy, progressive nation which we have been noted for, remain free and independent, a leader among the family of nations, we must stop this softening-up and pussy-footing now before it is too late. We must be just as totalistic in war as any of our enemies, enemies who have made aggression and slavery their sole business, enemies who know how to attain the highest in military efficiency.

—R.H.B.

DIVINE SERVICES
at Sub Base Theatre

SUNDAY

0645 Catholic Mass.
0930 Catholic Mass.
1030 Protestant Morning Worship.
WEDNESDAY and FRIDAY
1630 Catholic Mass.

FRIDAY

2015 Jewish Service at Congrega-
tional Beth - El, 60 Blackhall
Street, New London.

SATURDAY

1630 Confessions—Chaplain's Office.
1800 Confessions—Chaplain's Office.
Chaplain G. B. Owen, (Protestant).
Chaplain E. C. Labbe, (Catholic).

SUB BASE CHORUS

1615 Tuesday and Saturday — re-
hearsals in the Base Theatre.

THE CHAPLAIN'S SERMON

TEXT: "Be strong in the Lord and
in the strength of his might.
Put on the whole armour of
God." —Ephesians 6:10,11.

We sing the National Anthem fre-
quently and with fervor, but do we
pause often enough to catch the
theme of its words? Francis Scott
Key has caught the challenge and in-
spiration in the glimpse of the flag
still flying above the ramparts as a
night of battle and anxious waiting
gives way to a new dawn.

Christians have a somewhat similar
anthem called "Onward Christian
Soldiers" in which we gather courage
and inspiration from "the Cross of
Jesus going on before." Our Chris-
tain hope in these perilous days is
that after the noise of battle has died
away we may still catch the vision of
this symbol of our Christian faith
leading us on to a better world, more
and more like the kingdom of God.

The full might of our Armed
Forces strengthened with both de-
fensive and offensive equipment is
our present guarantee that the Star
Spangled Banner will continue to
wave "o'er the land of the free and
the home of the brave." For a Chris-
tian victory over the powers of evil
which confront us, we need an equally
strong organization of our spiritual
resources. To assure us of maintain-
ing the attitudes and making the sac-
rifices which are necessary to guar-
antee brotherhood and lasting peace
among all nations we must make sure
that our Spiritual Armaments are as
modern and effective as the machines
of war with which we now fight.

COAST GUARD TIPS SUB BASE

Playing a tight defensive game but unable to hit the offerings of Norman "Red" Branch, the Sub Base nine lost its second league game in six starts by dropping a close 3-0 game to the Coast Guard Bears Friday, June 11, at Morgan Park.

Johnny Walker, pitching for the losers, allowed the Bears only seven hits, struck out four and walked three but Branch, erstwhile New York Yankee hurler, gave up only three scattered blows, walked two and whiffed eight.

Campbell, Bere, and Ganns collected the only hits for Sub Base. Sproill of Coast Guard drove in the first run in the first with a single while Magee tripled to score two in the third. Walker blanked the Bears during the last four innings. Bruce Williams, hard-hitting Sub Base left fielder, was again stopped without any hits although Magee, left fielder of the Bears, robbed him of a possible triple in the fourth by spearing his hard liner to deep left field.

Next league game is Tuesday, June 22, against the Trojans. Sub Base defeated them in the season opener, 6-4.

BOX SCORE

Sub Base (0)	AB	R	H	E
Campbell, lf	3	0	1	0
St. Peter, rf	2	0	0	0
Bere, lb	1	0	1	0
Ganns, lb	2	0	1	0
Williams, cf	3	0	0	0
Osborne, 2b	2	0	0	0
Riggins, 3b	1	0	0	0
Derby, 3b	2	0	0	0
Bochenko, c	2	0	0	0
Walker, p	2	0	0	1
*Bucknum	1	0	0	0
Totals	21	0	3	1

*Batted for Bochenko in seventh.

Coast Guard (3)	AB	R	H	E
Weber, 3b	2	1	0	0
Carlile, ss	4	1	1	0
Sproill, 2b	4	0	1	1
Shetleski, cf	2	1	1	0
Magee, lf	3	0	1	0
Wrobel, rf	3	0	1	0
Condon, lb	3	0	0	0
Burrs, c	3	0	0	0
Branch, p	3	0	2	0
Totals	27	3	7	1

Coast Guard 102 000 0—3-7-1
Sub Base 000 000 0—0-3-1

SCHOOL CHATTER

TWO AND A HALF STRIPES —

Parting with shoulder boards, collar devices and other insignia of a lieutenant to don the marks of his new rank, Student Officer Instructor J. H. Davis celebrated this week his promotion to lieutenant commander which was followed by congratulations of his School colleagues. Lt. Comdr. Davis, who is a popular professor among student officers, observed his promotion in traditional form by passing out cigars to all comers.

RADIOMAN'S JOB—Who in a submarine crew plays a more important roll than the radioman? With a submarine thousands of miles away from its home port while plying deep into enemy waters, the radioman is often the only connection pig-boat sailors have with the "folks back home." But in spite of his vital importance there is sometimes a deplorable lack of appreciation for "Sparks'" talent. Guarded as it is from the unknowing by a maze of intricate and technically arranged tubes, wires, knobs, and mysterious gadgets, the radio is plainly not a novice's plaything. It is by no stroke of luck that a radioman acquires a knowledge of his work.

Lt. Comdr. T. L. Greene can verify that. Head of the communications department of the Submarine School, he has a first-hand knowledge of the involved instruction necessary to make a good radioman. In four weeks of concentrated study, using the most modern equipment matching that of fleet submarines, the radioman acquires a skill which enables him to "take over" and efficiently pursue his duties on any of Uncle Sam's newest underseas craft.

The Radio Class is not available to just anyone, however. A student must already have had sufficient experience afloat or ashore or must be a graduate of a Navy class "A" radio school to justify his enrollment. Part of his course in the Radio Class consists of instruction in the assembly and disassembly of a radio, he must improve his ability to send and receive code messages, and he is required to keep a neat log sheet. Upon his graduation the submarine radioman is an accomplished technician, fully capable of taking his place on the big-time Navy circuit.

Without these trained experts American submersibles would incur danger through deafness. As the periscope is the submarine's eyes, so the

radio is its ears. Neither without a man qualified in its use is of any value.

BONDS FOR SUB MEN — Lt. Comdr. B. E. Wiggin, assistant enlisted personnel officer of the School, this week announced that the drive recently inaugurated to secure War Bond pledges had not been discontinued, but that the opportunity to purchase Bonds by allotment is still being given to students enrolled in the School. Addressing his remarks particularly to men who reported to the School in recent weeks, he observed that an objection prevalent among enlisted men was that the purchase of Bonds could not be afforded. Lt. Comdr. Wiggin countered this viewpoint by asserting that Bonds may be secured through the allotment plan for as little as \$6.25 per month, a sum which would be missed only by those men in the lowest pay brackets who were married and heads of families.

SATIN AND WHITE LACE—Forsaking all the good-humored, though uncalled-for, advice of fellow yeomen and instructors of the Blow and Vent College, E. F. Begley, Y2., tread the center aisle last Saturday and took the life-long vows of marriage. His boss, Chief Instructor L. H. Burdette, CTM, reports that Begley, in an aftermath of the event, finds concentration difficult, seems to walk on air, or day dreams out the window. Someone suggested that all he needs is a dose of sulphur and molasses!

"THE WOLF"

If he parks his little flivver
Down beside the moonlit river
And you feel him all a-quiver
Baby—He's a wolf.

If he says you're gorgeous looking
And your dark eyes set him a cooking
But your eyes ain't where he's looking
Baby—He's a wolf.

If by chance when you're a kissing
And you can feel his heart a missing
And you talk and he won't listen
Baby—He's a wolf.

If his arms are strong as sinew
And he stirs the gypsy in you
And you want him close agin you
Baby—You're a wolf.

Half rate bus tickets purchased by Ship's Service Welfare Fund to New London, Norwich, etc., are available in Ship's Service.

SID SEZ:

Well sir fellers onkle Heyudi walked inter the office of the Federal Houseing. Project down hume sum time ago and asked ifn any one could tell him who his land lord wuz. One uv the clerks told him his land lord wuz the man he paid his rent ter. But sez Onkle Heyudi I don't pay no rent. "Youall see—bout 9 yars ago I found me a house vacant and moved in. I been there ever since and ain't never paid no rent." "Well, then," sez the clerk, what fer are ye wur-ring? Ye an't got no complaint. Yassuh, I knows dat sez onkle Heyudi, but ifn sum body don' fix dat roof—I'm gwan ter move out. Seeing all these yere signs hangin around about keeping yer tatter trap shut minds me uv my onkle Moe, weens wuz down town in Looville one day a setin in a hotel lobby and a feller I knew cums by—he sez ter me Sid who's that thar close-moufed feller yer settin with? Heck I says thats onkle Moe and he an't close-moufed, he's jest waitin fer the janiter ter bring back the spittoon. One ov the fellers which jest cum back from the South Pacific was a yarin' tother day and he sez—Am-munition, food and whisky had run out and we were fairly parched with thirst. Another feller spoke up and sez—wasn't there any water? Oh, sure he sez, but it wuz no time to be thinkin of takin a bath. Heerd at the desk in the E&R office—Yes Sir, I would like to have 2 days leave ter git married. The Per. Off. says: but, you just had fifteen days leave; why didn't you get married then? No Sir! I couldn't get married then. I didn't want ter spoil my leave. Met a feller tother nite I hadn't seen in a long time—during the course of our atalkin he asked me, well Sid is your wife as pretty as she used ter be? Yep, I sez, only it takes her much longer. So I will leave you this week with this thought—He is not only idle who does nothin, but he is idle who might be better employed.

Yers,

—SID.

Post War Figures

The top figure for post-war employment has been set at 55,000,000. Production of goods to maintain the payrolls for this army of workers must reach \$155,000,000,000. Can America accomplish this? Economic experts say, yes.

THINGS TO DO THIS WEEK

Athletic Gear—Gear of all types may be secured at the gear locker off gym, 0800-2000 daily, building 83.

Badminton—Gear may be procured at gear locker. Played out-of-doors or indoors in gym.

Baseball—Gear available at Athletic Field, north end of upper base. Base team plays Willets, Tuesday, June 22, and Dolphins, Friday, June 25. Both games at Morgan Park in New London at 1815.

Bowling—Five alleys are provided, four in Recreation Building and three off Ship's Service. Ten cents per line, 1600-2030.

Boxing—Group meets daily, 1600-1730.

Dancing—Juke dance, Tuesday in Recreation Building, 2000-2145.

Goal-Hi—Outdoor courts. Gear at gear locker.

Handball—Courts in gym. Secure gear at gear locker.

Horseshoes—Courts outside Recreation Building. Shoes at gear locker.

Library—Complete selection of books, fiction and text. Open daily.

Movies—Base Theatre. Evenings 1830 and 2030. Sunday matinee, 1430.

Orchestra Rehearsal—Daily, 1600-1830. New members desired.

Pistol Range, (Also rifles)—Class in instruction daily. Voluntary practice 1200-1300 and 1600-1800 daily.

Swimming—Pool and also at Rock Lake (1600-2100 daily).

Tennis—Courts for everyone available on Base. All gear may be secured at any time at gear locker.

Volleyball—Courts out of doors and in gym, gear available at gear locker.

Workout Rooms—Adjoining B.O.Q. and gym in Building 83. Gear available in rooms, punching bags, weights and pulleys, bar-pulls, medicine balls, bicycle and rowing machines. Handball equipment, etc.

Medals—Silver Submarine Base medals may be earned by those qualifying in various sports, such as swimming, bowling, pistol shooting, league winners, etc. See athletic officer for details. Inquiries and suggestions—Athletic Office, basement of Building 83, just north of Ship's Service.

Recreation Rooms—Tables, games, etc. Large rooms with pool tables and table tennis games in Recreation Building. Recreation rooms in each barracks.

SOFTBALL

Only six teams remain undefeated out of the 32 in the three leagues. These six are Cuttlefish, Semmes, Torpedo Shop, Electric Shop, Barracks 134 and Marines. On Tuesday the Cuttlefish meets the Semmes in the feature game of the week with the leadership of the Boat League at stake.

Many close games featured play during the past week. Among those were the following: Barracks 131 edged out Barracks 136, 5-4; Comsublant nosed out the Boat Shop, 11-10, and Outside Machine Shop won a thriller from First Lieutenant, 15-14. Interest is running high and many close contests are anticipated before the winner and runnerup of each league meet later in the summer to determine the base champion.

SOFTBALL SCHEDULE

Mon., June 21, Field 1 — Boat Shop vs. First Lieutenant, 1615.

Tues., June 22, Field 1—Electric Shop vs. Metalsmith, 1615.

Tues., June 22, Field 2—Comsublant vs. Carpenter Shop, 1800.

Wed., June 23, Field 1—Optical Shop vs. Inside Machine Shop, 1615.

Thurs., June 24, Field 1—Marine Railway vs. Outside Machine Shop, 1615.

Fri., June 25, Field 1 — Torpedo Shop vs. Boat Shop, 1615.

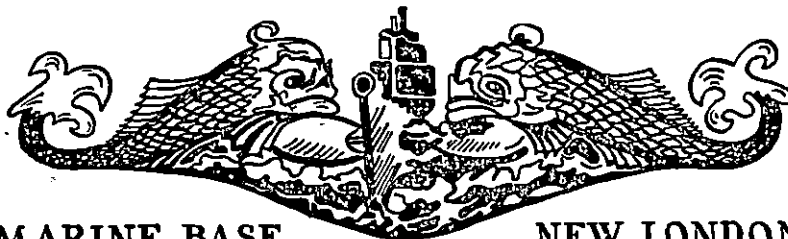
HONOR-ROLL

The following named men have completed the BuNav. Training Course with a mark of 3.5 or better:

Name	Rate	Course Completed
Gondorchin, G. V.	S2c	TM3c
Krippendorf, A.	S2c	TM3c
Mattson, J. E.	S2c	TM3c
Mihal, V. J.	S2c	TM3c
Muth, L. C.	S2c	TM3c
Trofford, H. L.	S2c	TM3c
Daugherty, H. C.	S1c	Cox
Greenwell, P. R.	S1c	EM3c
Hazer, B. T.	S1c	Cox
Krol, J. J.	S1c	GM3c
Rush, W. F.	S1c	GM3c
Smith, R. D.	S1c	Cox
Bell, Q. R.	F3c	F2c
Wheeler, F. W.	Cox	BM2c
Ball, R. H.	TM3c	TM2c
Bonk, J. C.	TM3c	TM2c

SUB-BASE GAZETTE

A WEEKLY PUBLICATION



U.S. SUBMARINE BASE

NEW LONDON, CONN.

Vol. III

SATURDAY, JULY 3, 1943

No. 27

LIFE ON A RAFT

Eighty-three days on a raft. Basil Dominic Izzi, Navy gunner, pulls through. To the tales of courage at sea, add this one:

On January 24, a United States Navy patrol boat on duty off the Brazilian coast sighted a speck on the horizon. Approaching warily because of a possible trap, the United States ship found an 8x10 foot life raft riding on two oil drums. Aboard were three men, whose merchant vessel had been sent to the bottom by a German submarine on November 2, 83 days earlier. Originally there were five men on the raft. Only three, one an American Navy gunner, survived the long, hot days under a relentless sun, the cold nights, the storms, the other dangers of the sea. Reduced to skin and bones by hunger, thirst, and exposure, the men had existed on what few raw fish they could catch, 25 or 30 blackbirds which they caught with their hands, and rain water. The two who died, including the commanding officer of the Navy gun crew, first developed pains in their stomachs, then began to go blind and turn deaf. They were buried at sea.

The men ran out of chocolate, hard tack after 16 days. They fished for sharks, wiggled their toes for bait, caught a shark in a noose. On the 20th day they saw their first ship; on the 21st another. They burned flares but were not sighted. On the 23d day they ran out of water. Later they caught rain in a makeshift canvas trough. On the 42d day they sighted another ship, but their only remaining flare was wet. When the ship disappeared over the horizon they began to wonder how far off death was. On the 67th day, George Beazley, Ham-

HONOR ROLL

The following named men have completed the BuNav. Training Course with a mark of 3.5 or better:

Name	Rate	Course Completed
Cuny, R. B.	S2c	TM3c
Huster, G. B.	S2c	QM3c
Otto, J. R.	S2c	EM3c
Johnson, L. M.	S2c	EM3c
Crowder, J. B.	F3c	F2c
Bell, Q. R.	F2c	F1c
Loftus, P. J.	F2c	F1c
Muscarella, J. J.	F2c	F1c
Stack, S. J.	F2c	F1c
Hadden, J. F.	F1c	MM2c
Paulson, P. E.	EM2c	EM1c&CEM
Potter, E. A.	MM2c	MM1c&CMM
Wright, W. T.	EM2c	EM1c&CEM

THANKS!

In the attractively-printed program for the Annual Ladies' Night Dinner and Dance held by the United States Naval Reserve Officers Association of the First Naval District, the Sub-Base Gazette was conspicuously mentioned. We take a bow. Also, we are thankful for a copy of a full-page picture of "Future Radiomen."

bleton, Mo., a gun crewman, died. On the 77th day, Lt. James D. Maddox, Lafayette, Ind., gunnery officer aboard the torpedoed merchant ship, died.

Planes were sighted on the 82d day; next day came the rescue. After food and rest.

BUY WAR BONDS! BUY WAR STAMPS!

They are on sale at the
Submarine Base Post Office

ULTIMATUM

A lone lieutenant wearing four decorations, who had "gone through hell" as a bombardier in North Africa, recently visited the capital on a furlough. After reporting to his superiors in the War Department, he made a beeline to the headquarters of John L. Lewis here.

On his arrival at the luxurious office of the United Mine Workers in what was formerly the University Club, John L.'s bodyguards tried to bar him from the august presence. But he swept them aside, banged open the door and sat down opposite the boss.

"Listen," he declared to the astonished labor chief, "we guys overseas are all in favor of unions. We believe with you that your men should have a decent wage. But we are giving our lives, some of us, for \$50 a month. We think that you should back us up.

"And if you don't, when we come home we will put you and your whole gang out of business. Because, on our return, believe it or not, we're going to run congress and the country. And there will be, perhaps 12,000,000 of us."

The officer, explaining that he was acting as a spokesman for the troops abroad rather than as an individual, did not wait for Mr. Lewis' reply or reaction. Upon delivering his military ultimatum, he turned on his heel in barracks style and left the room.

—News Behind The News.

Sailor—"Shay, listen lady, you're the homeliest woman I ever saw."

Lady—"Well, you're the drunkest man I ever saw."

Sailor—"I know lady, but I'll get over it in the morning."

★ ★ ★ ★ ★ ★ ★ ★

EDITORIAL

The Declaration of Independence was signed 167 years ago on the 4th of July. It was a declaration made jointly by thirteen little colonial nations in a common desire for deliverance from oppression. These little nations then united into one single nation to give them greater strength in attaining their objective. That they succeeded is a monumental stepping-stone in man's eternal fight for freedom.

What did this concerted action prove? It proved that through unity the chance for success is far better than where there is none. Division or disunity will only gain poor results no matter what the goal may be—unless, of course, poor results is the goal sought. It is, therefore, of utmost importance to us in our present plight to know what we want and be united in our efforts.

Legend has it that a husbandman who had a quarrelsome family, after trying in vain to reconcile them with kind words, thought he might more readily prevail by example. He called his sons together and taking several small sticks he tied the sticks into one bundle. Then he bade each boy to take hold of the bundle and try to break it. But try as they might, they tried in vain. Then, untying the bundle, the father gave them the sticks to break, one by one. This they did with the greatest ease. Whereupon the father said: "Thus, my sons, as long as you remain united, you are a match for all of your enemies; but differ and separate, and you are undone."

Is America worth saving? The best answer to that question, if there is any doubt, is to try living in another country for awhile. America is still the only land in which man has realized his greatest ambition—the right to develop and live every freedom he has ever envisioned. This not only includes the four freedoms, which President Roosevelt has made internationally famous, but others, too. Principally, America stands alone as the one nation wherein man has experienced the greatest of liberty without lowering any of the standards in art, culture, education, and the sciences. In fact, America, in its happy democracy, has led the world in progressive action toward the better way of life. No other nation stands above our country in invention and modern accomplishments.

If America is worth saving, it stands to reason that it is worth fighting for. Therefore, it is our bounden duty to give our best, yes, even our lives, if necessary, defending our native soil. No one should have any other desire than complete devotion for the good of our United States. We should rejoice that we now have the great opportunity to prove that we have the right to live in the land of our forefathers.

Let's not forget the reasons for which we fight. Let's not forget that it takes a united people, each doing his or her part, on all fronts, to make us strong and unconquerable. Let's remember that together we can gain a glorious victory and that our enemies will learn by our might, our righteousness, and our unity, of our strength and indestructability. We are the haven for freedom-loving and God-fearing men, and by our combined will and vigor we can continue the existence of our priceless heritage.

—R.H.B.



DIVINE SERVICES at Sub Base Theatre

SUNDAY

0645 Catholic Mass.
0930 Catholic Mass.
1030 Protestant Morning Worship.

WEDNESDAY and FRIDAY

0645 Catholic Mass in Base Library.

FRIDAY

1830 Jewish Service in New Construction classroom, over the Base swimming pool.

SATURDAY

1630 Confessions—Chaplain's Office.
1800 Confessions—Chaplain's Office.
Chaplain G. B. Owen, (Protestant).
Chaplain E. C. Labbe, (Catholic).

THE CHAPLAIN'S SERMON

TEXT: "O Lord, how long shall I cry, and thou wilt not hear?" —Habakkuk 1:2

Few men who have prayed at all earnestly have escaped the feeling, expressed by Habakkuk, that God refuses to answer them. There are, however, some real helps for us whenever we feel this way about prayer.

In the first place, true prayer is not just telling God what we want and asking him to say "yes". When God says "no" that is just as much an answer, and the fault is always ours if we refuse to take "no" for an answer from God.

And when we pray for our physical safety, let us remember that this is not the most important kind of safety in the eyes of God. He is more interested in the salvation of our souls than of our bodies. Here again, we are at fault if we expect God to provide for our physical welfare and safety when, according to His plan, we may need physical deprivation and danger to make us pay attention to the welfare of our spirits.

Furthermore, if our prayers are all petitions, if we talk with God only to ask for things, we miss the greatest benefits of prayer. If you joined the Navy only for what you could get out of it, you're probably disappointed.

RECREATIONAL ACTIVITIES FOR SUBMARINE SCHOOL OFFICERS

"Welcome" to the new student officers of the Submarine School.

There are a number of facilities and services at the Base in which you might want to participate. Gear for the following activities is available at the gear locker off the gymnasium in Building 83: Badminton, basketball, boxing, goal-hi, handball and volleyball. The pistol range in the Recreation building is open for officers only from 1200 to 1300 and for general recreational shooting from 1800 to 2000. Horseshoe courts are located outside the Recreation building and shoes are available within.

A special workout room, located at the north end of BOQ, is available at all hours. Bicycles and rowing machines, medicine balls, etc., are in the room. Tennis courts are located along side the Officers' and CPO's clubs. Racquets and balls are available at the Officers' club. Membership in the Officers' club is open to all student officers for a monthly fee of \$3.00 and includes all privileges including golf.

The "welcome mat" is out at all of these activities, fellows, so get out and enjoy yourselves.

Singers and Musicians Desired

Do you play any musical instrument or sing (even under the shower) in any fashion? If you do you are just the man desired for the Base Orchestra and Glee Club. During the past few days a half dozen new men have affiliated themselves with one of these two groups in response to an appeal made through the departments. More members are desired, so if you have any ability come on out, Monday, Wednesday or Friday at 1600 to the stage of the Base theater. Here is your chance to have some fun and get into the two most recent Base activities.

Your relation with God may be of the same sort. But join up with Him for what service you may render and your life means more to you and to all of us. Then your prayers come to include praise, worship, confession and petitions for others. Your attitude changes from that of a selfish beggar to that of a willing helper seeking ways and means of helping all causes of righteousness, justice and mercy.

SCHOOL CHATTER

Picking Sub. Men:

No one department of the Base is more fascinating and important to hopeful candidates for the Submarine School than the Medical Research Laboratory. Here, under the guidance of Comdr. C. Shilling, (MC), is located a staff of medical personnel whose ultimate hope is the better and still better selection of candidates for the submarine service. This department has designed an intricate series of tests which reflect the qualities and inequalities, either physical or mental, of a candidate to aid it in choosing potential submariners. Each man must run the gauntlet of these tests before being enrolled as a student in the School. In the words of Ensign Neil R. Bartlett, research psychologist and assistant to Comdr. Shilling, the tests may be envisaged as a huge fish net with openings only large enough to permit qualified candidates to pass through. Men hopeful of becoming submariners, but who have disallowed physical or mental deficiencies, are caught in the net and sent to other duty.

All of these tests are designed to reflect natural ability rather than education. Thus, a man who may not have had the advantage of normal scholastic training may be considered for submarine duty if he obtains a satisfactory mark in the various tests.

Some of the tests look to be so simple that indeed they appear to be little more than child's play. But the careful candidate does not discredit any of them, for each has a definite value and a definite purpose. Nearly all Navy men are familiar with the conventional I. Q. test, which here at the Research Laboratory is just one link in a long chain of tests. Being one in many, however, does not lessen its importance.

A significant part of the battery tests prospective submariners are subjected to is the neuro-psychiatric interview conducted by Dr. C. Stein. The questions he asks may seem unimportant, or at times even objectionable, but they all have a clear bearing on the most vital problem of picking the best men for submariners.

Eye and hand coordination is tested by a machine with two handles that regulate a tiny metal disk over a second, moving disk about the size of a 5-cent piece located in a slot on a rotating circular metal plate. The candidate's task is to keep the two

disks next to one another. A special clock records the total amount of time which he has been successful. It looks simple—only it isn't!

Lt. Dean Farnsworth, (MC), a noted authority in his field, conducts a test for color blindness. The very latest color cards are used to detect poor perception. Unfortunately, Lt. Farnsworth says, color blindness is a permanent thing; it is like your finger prints, once you have it there's no getting rid of it. This officer is currently experimenting with color perception to better determine what degree of color vision normally is required aboard submarines. In this experiment a group of 10 men, all with color blindness of various degrees, is to be used in identifying the different lights and signals used on submarines. The results of the experiment are expected to make for improved selection of candidates.

The growth of the Research Laboratory during the past year has been little short of remarkable; new and larger quarters have been occupied, additional personnel has been added, new means of examining candidates have been devised. That the Navy Medical Corps has looked to the findings of this department with increasing interest is a noteworthy tribute, both to the Research Laboratory and to the men of submarines.

TUESDAY EVENING DANCES

Have you dropped into the Tuesday night dance in the Recreation Building lately? If you haven't you're missing a lively evening of dancing and entertainment, mates!

Topnotch music is provided through the latest and most popular recordings and you are free to stomp to your favorite melodies simply by requesting the same of Red Munroe and Bruce Williams, two experienced hands who have been handling this weekly shindig in capable fashion. They have also added a tune, "If You Build a Better Mousetrap" to their wide variety of comedy stunts that help fill out an enjoyable evening. Enough comely damsels are available for all and you are also free to "drag" your own gal if you wish.

Dancing begins promptly at 2000, "rug-cutting" activities lasting until 2145. It's "Yours for the Asking" every Tuesday evening for all you jitterbug artists and here's hoping those wall flowers come out of their stuff.

COAST GUARD DOLPHINS TRIM SUB. BASE TEAM

Snapping out of their recent hitting slump by banging out 10 solid blows including three doubles and a homer, but falling apart in the field, Sub. Base lost to the Coast Guard Dolphins at Morgan Park, Friday, June 25, by a score of 13-5.

Four costly errors, nine walks, and eleven hits gave the Dolphins their total, six of them scoring in a big fourth inning after the Sub. Base scored two in the third to trail only by 2.

Kish with three out of five including a home run, Young with two out of three, a double and a triple, and Jaeger with a triple were the leading hitters for the Dolphins. Deversa and Dedman for Sub. Base got two out of three, while Williams, Daversa and Shine hit doubles and Osborne hit a home run for extra base blows for Sub. Base.

Sub. Base meets the Coast Guard Dolphins, Wednesday, July 7, in their next Morgan Park league game.

SWIMMING SPLASHES

With the Connecticut sun beating down and the mercury in the thermometer threatening to break out of the top, the popularity of swimming is soaring to new heights. Enlisted men are swimming at 0930-1530, 1730-2000, and 2000-2100 daily, Monday through Friday.

It isn't the bathing beauties or palm trees but good old refreshing water that is the drawing card.

Officers who swim during their period, 130-1730, are really enjoying it. Chiefs and their families may use the pool Saturday evenings, at 1800-1000 and 1400-1700, Sundays. Enlisted men use the pool at 1300-1400 and 1700-2100 on Sundays.

Two sweet young things were reporting for their first day in the war plant, when one stopped short and stared in amazement at a miniature fellow in overalls.

"What's the matter," asked her friend, "that's only a midget."

"Thank goodness," sighed the relieved one. "I thought they were rationing men."

A "blaboteur" is a sailor who talks too much — especially blabbers at times when enemy agents can hear.

MSS 1163
(3), F11

SID SEZ:

Well sir fellers I reckon ye all seed that thar list of silly worn out excuses ter get leave or an extension of leave that wuz published in The SUB-BASE GAZETTE last week? Sum day I'm agoin' to write a book entitled "Excuses I Have Heard and Read". This sure has been a hard year on Grandmas—seems ter me we bury one down here on the average of twice a week. hit looks like hits time the supply wuz running out or should be rationed. A feller sent in one the other day which went like this—I have some money left, have 2 days leave left, am having a heck of a good time — request 3 days extension—PS he got hit. Down in the hills two uv of my cuzons called on a gal one nite and arrived on her porch at the same time, wishing ter be polite 'fore they broke out their shootin irons they sez—Well cuzon Lance, I see we is done arrove simultaneously: dis evenin—Yessuh Cuzon Jeb we sho is contemporary on dis momentary occasion ain't we?—Then the shootin started. Onkle Dud, thats my ball-headed onkle, done found out he can get his latest marriage annuuald, hit seems hit warent legal on account of the gals Pa did'nt have no license to carry a gun. Well, well, sez the old sailor trying ter cheer up the new recruit—don't feel so bad son, somewhere behind the klouds the sun is shining—Maybe so, sez the sea-sick recruit and under the sea is land, but that doesn't help a guy a bit when he falls overboard. Ant Beckie's little gal wuz prone ter make use uv swear words so ant Beck after trying ter break her ov the habit, told the kid the next time she used a bad word she would have ter leave home. Everything wuz OK the first day but late in the second day ant Beckit heard her giving her doll quite a blessing out. So ant Beckit packed a toy suit case and told the kid she would have to take hit and go. As the gal wuz sittin on the porch thinkin—one of the neighbors kids come by, is yore mother home? she asked—Damn if I know. I don't live here any more wuz the prompt reply. Well fellers I'll leave ye this week with the following thought: A woman looks in a man's eyes for love, but a man looks around ter see if the coast is clear.

as ever,

Allways,

Yers,

—SID.

PING PONG TOURNAMENT

Beginning Monday, July 5, the Sub Base table tennis tournament will get underway. The tournament is open to all comers, and the winner, who will have to survive keen competition, in the single elimination tournament, will be recognized as the Base champion. Entrants have until 1200 Saturday, July 3, to sign up at the Recreation Office in Building 83 or at the Recreation Hall itself. Chief Specialist Bucknum, who has a lot of fancy English on the pill, and Kopus, Y2c, master of the tricky serve, are preliminary favorites in the coming tournament.

A list will be drawn up and posted Sunday and play will get underway Monday. Each player will be notified in advance of his match and will be required to play it off when scheduled. The matches will be played every evening at the Recreation Hall from 1900 to 2100. Chief Specialist Esposito, who is conducting the tournament, will be on hand to supervise the matches and see that tournament rules are followed. It is required that in order to win a match it is necessary to best the opponent two out of three games. When the quarter-finals are reached, it will be three out of five.

BOWLING

There will be an Enlisted Men's Open Singles Tournament starting Monday, August 2, to determine the Singles Champion of the Base. All games will be over a five-game route, excepting the finals to determine the champion which will be ten games total pins.

So let's go sailors! You have a whole month to practice. All those wishing to enter, turn in your name, rate and department to the Recreation Office yeoman. The alleys are open seven days a week from 100 to 2030. The closing date for entries will be July 29.

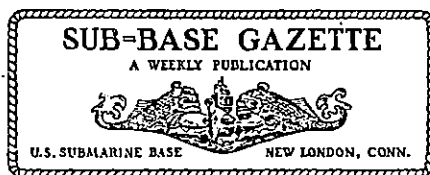
Card of Thanks

The family of the late Lt. William J. Murphy, who was attached to the Communication Department of this Base, wish to express their sincere thanks for the many kind expressions of sympathy received during their bereavement.

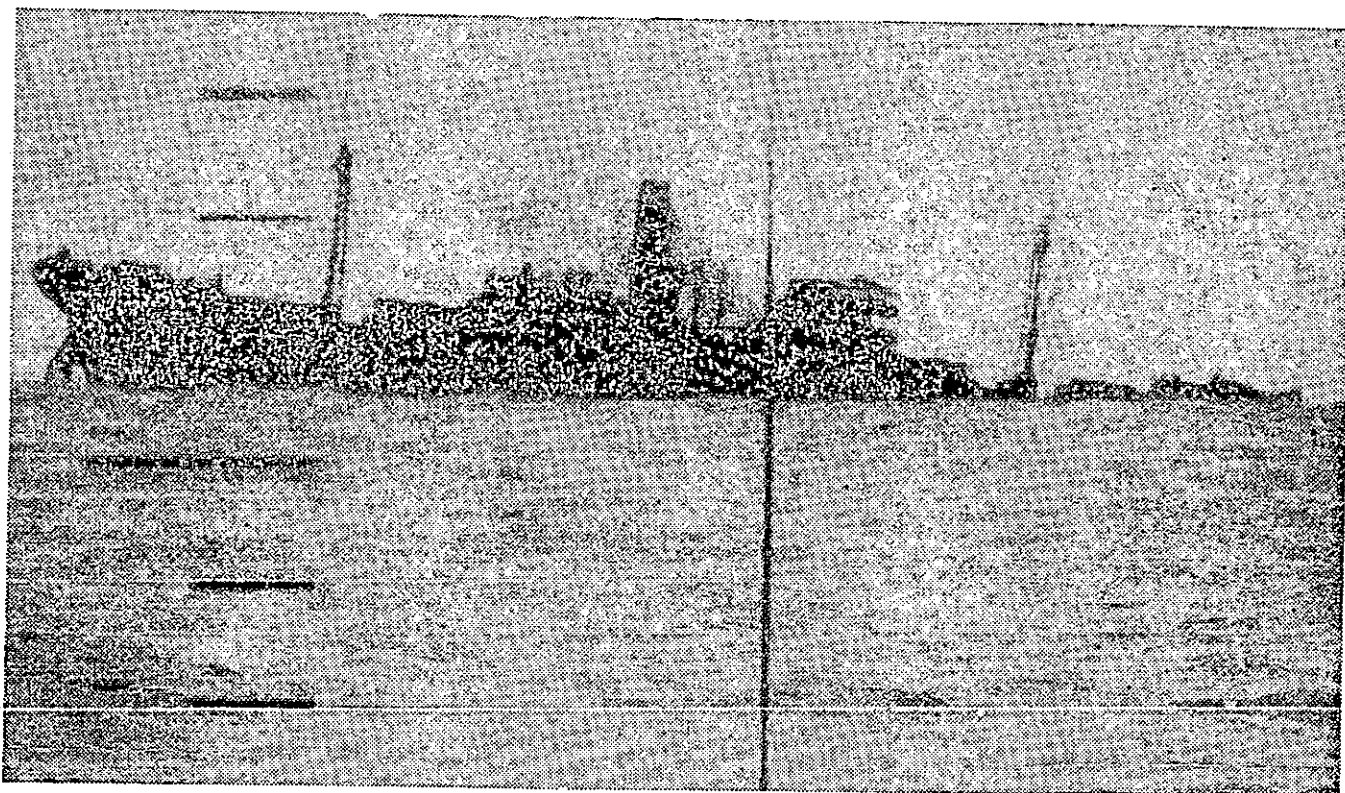
How Many War Bonds Do You Own?

Supplement Section

Saturday, July 3, 1943.



16
Buy Another
WAR BOND
Today!



TORPEDOED TRANSPORT — This periscope picture shows the 7,000 ton Japanese transport as she sinks after being struck by torpedoes from the submarine WAHOO, commanded by Lt. Comdr. Dudley W. Morton, USN, of Miami, Fla. With her bow already under water the transport sank quickly taking with her from 1,500 to 6,000 enemy troops. She is one of the four ships of the convoy which the WAHOO destroyed north of New Guinea. Lt. Comdr. Morton's submarine also sank a Japanese destroyer on the same patrol.



CLIP, CLIP, CLIP — His whiskers too thick and long to be removed at the outset by razor. H. H. Howard, MM2c, uses a clipper to remove the first layer of face foliage upon his return to port from a successful submarine patrol in the South Pacific. Howard served as night lookout on his sub which torpedoed and sent to the bottom four Japanese ships—two warships and two merchantmen.

OFFICIAL
U. S. NAVY
PHOTO-
GRAPHS



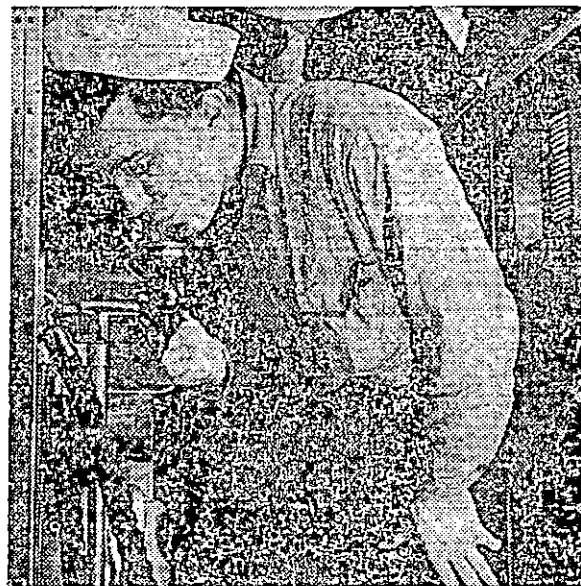
GALLEY — Ship's cook prepares turkey for dinner. The Submarine Service has a reputation throughout the Navy for feeding well.

Win With Submarines!

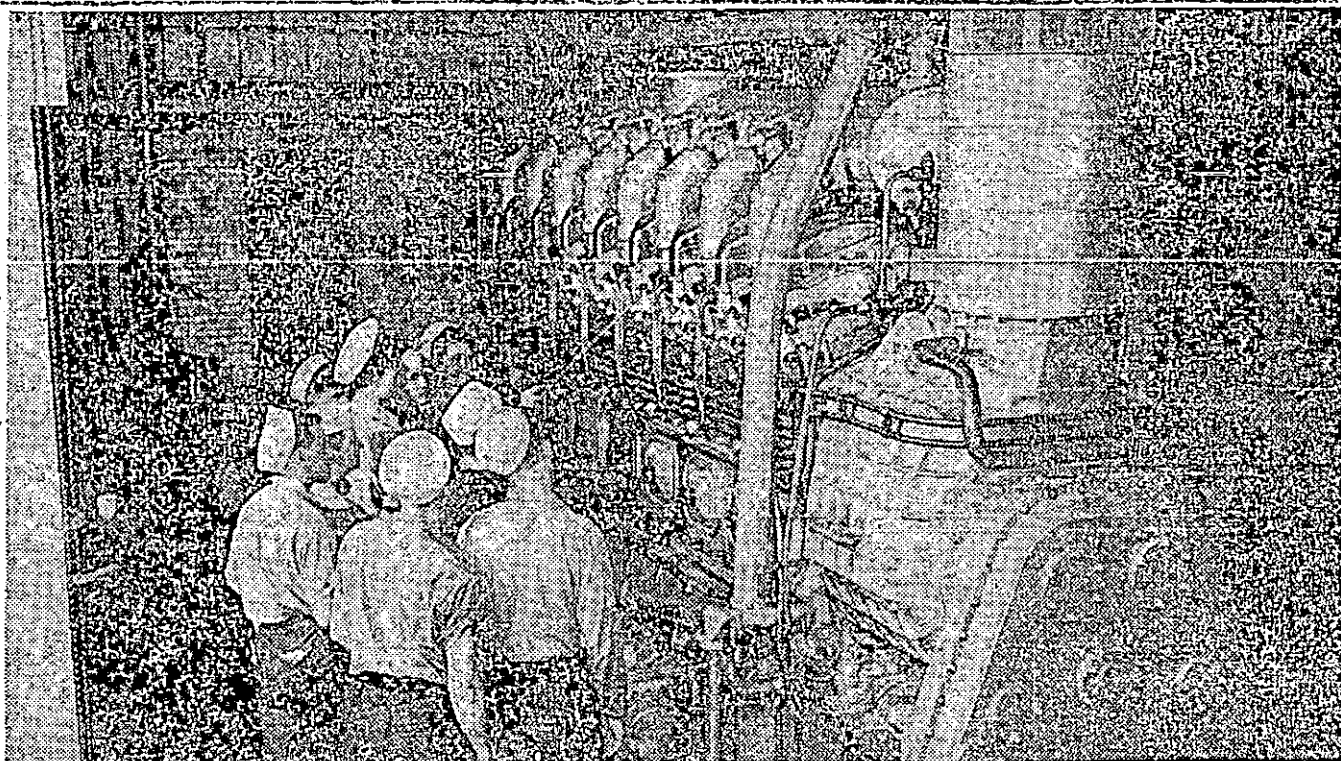


CONNING TOWER — Lookout on the bridge.

OFFICIAL
U. S. NAVY
PHOTO-
GRAPHS



CREW'S MESSROOM.— Fresh drinking water is plentiful on board.



SUBMARINE SCHOOL AT NEW LONDON, CONNECTICUT

Each man learns the fundamentals of the Diesel engine. He must know enough about the mechanics and its operation to make any type emergency repair.

LIST OF NAVAL PERSONNEL RECEIVING AWARDS FOR SUBMARINE DUTY IN WORLD WAR II — December 19, 1942 to June 10, 1943.*

SILVER STAR

Boston, William G., TM1c.
Cheek, John M., CTM.
Davis, Harry O., CTM.
Gault, Harry D., Jr., TM1c.
Guynup, Chester A., CY.
Herrmann, Thomas W., CTM.
McIntire, Raymond K., CTM.

Morales, Gonzalo, CTM.
Nash, Jack K., CTM.
Nelson, Ivan O., Gunner.
North, Sylvester F., TM2c.
Oliver, McKenley, CTM.
Owens, Samuel R., TM2c.
Perry, Joseph, Jr., TM1c.
Prelip, Donald M., TM1c.

Thorpe, Thaddius, Gunner.
Voll, George W., TM1c.
Birchard, Mervale B., GM1c.
Engebretsen, Edward M., CQM.
Kossert, "C" "B," CQM.
Porterfield, Floyd T., CBM.
Wood, Harold Edwin, CQM.

(Continued on Page Three)

Stegall, Albert H., CRM.
 Little, Kenneth J., CGM.
 Barton, Edward J., CTM.
 Ballou, William E., CEM.
 Ball, Donovan O., CMoMM.
 Saunders, Raymond O., CTM.
 Waddel, Lloyd W., CTM.
 Anderson, Robert, CTM.
 DeMuth, Lester J., CMoMM.
 Duncan, Theodore, CMoMM.
 Crowe, Audly L., CGM.
 Eller, Dock M., CMoMM.
 Larson, Theodore, CTM.
 Otto, Delbert R., CMoMM.
 Vaughan, Donald O., RM1c.
 Heist, James S., CMM.
 Roll, James L., CEM.
 Cravens, Jack B., CEM.
 Epps, John H., CMoMM.
 Gwinn, Kenneth L., CTM.
 Shaver, Ralph W., CRM.
 Warren, John W., SM1c.
 McRae, Duncan C., SM1c.

NAVY AND MARINE CORPS MEDAL

Barnett, Willie R., CPhM.

Barbero, Frederick J., CEM.
 Piekos, Stanley T., CTM.
 McCabe, Leonard C., CSM.
 Coggin, John D., CEM.
 Jones, Euin M., CEM.
 Wagner, William, CQM.
 Porterfield, Gloyd R., CBM.
 Killgore, Ross S., MM1c.
 Daniel, Robert Clay, CTM.
 Beck, William Horace, CTM.
 Turner, Laurence H., CMM.
 Holdway, Carl Francis, CEM.
 Beck, Claude I., Jr., CTM.
 Edmondson, Oscar T., TM1c.
 McWaters, Curtis E., CGM.
 Roby, Harry B., CPhM, USNR.
 Munne, A. R., Elect.
 Poyner, Charles F., RM2c.
 Frazier, Leonard D., QM3c.
 Ward, William A., MoMM1c.
 Klimosewski, Johnny P., MoMM1c.
 Woodward, Lamar L., CMoMM(AA).
 Carr, William K., CEM (AA)
 Solomon, Elma G., CEM.
 Armstrong, Kenneth G., CGM.
 Pyle, Clarence L., TM1c.

Rich, Jack M., MoMM2c.
 Ryan, Joseph E., CMoMM.
 Beecher, Thomas D., CRM (AA)
 Morton, Paul C., CTM.
 Stiles, Sam R., CMoMM.
 Ferro, Einar J., S1c.
 Korn, Ralph E., Y1c.
 Ledford, William E., TM1c.
 McMurtrey, Emerial A., PhM1c.
 Struzynski, Joseph, CMoMM.
 Miller, Paul, CEM.
 Smith, Roger, F. CEM.
 Harmon, Charles E., CEM.
 Hamlett, Aubrey G., CMoMM.
 Hale, Forest D., CMoMM.
 Severns, Chesley V., CCStd.
 Allen, Benjamin F., CMM.
 Röhner, Harold J., TM1c.
 Homewood, Charles H., TM1c.
 Baxley, Ben, CRM.

*Previous awards were published in Supplement Section, SUB-BASE GAZETTE, Saturday, January 9, 1943.

WHAT PROMINENT AMERICANS HAVE TO SAY ABOUT OUR SUBMARINES

PRESIDENT ROOSEVELT'S

Annual Message to Congress 1-7-43:

..... During this period we inflicted steady losses upon the enemy — great losses of Japanese planes, naval vessels, transports and cargo ships. As early as one year ago, we set as a primary task in the war of the Pacific day-by-day and week-by-week destruction of more Japanese war material than Japanese industry could replace. Most certainly that task has been and is being performed by our fighting ships and planes. A large part of this task has been accomplished by the gallant crews of our American submarines who strike on the other side of the Pacific at Japanese ships — right at the very mouth of the Harbor of Yokohama.

H. V. KALTENBORN'S

Radio Broadcast, Monday, June 14, 1943, 7:45-8:00 p. m.

Good evening, everybody:

American submarines have sunk twelve ships, including a destroyer; probably sank another and damaged three others. This is the largest bag by our undersea raiders which the navy has announced at any one time. It follows immediately after the navy's announcement of the loss of two of the United States submarines engaged in patrolling Japan's Pacific sea lanes. Our submarines have become our most effective weapon in

the battle of attrition against Japanese shipping. Submarines now have accounted for 181 or fifty per cent of the Japanese ships and auxiliaries sunk by American forces since Pearl Harbor. Comparing our submarine tonnage with the tonnage of the rest of the navy, this is a remarkable showing. In this war every ton of submarine is worth 100 tons of battle-ships. In addition to the Jap ships definitely sunk by our submarines, 28 other Jap ships were probably sunk and 47 others were damaged. We accomplished all this at a cost of six submarines and their crews. This means that we destroyed at least 30 Jap warships, transports and merchant ships for every submarine we lost. It also means that we owe a great debt of gratitude to the men of the submarine fleet. They get little publicity because their operations must be secret. But they spend weeks at a time at a post of danger under the most difficult conditions. The submarine insignia on a naval uniform is a badge of honor. . . .

ADMIRAL WILLIAM V. PRATT'S

Article in Newsweek, page 27, 6-14-43:

It is to be hoped that the shroud of secrecy now covering American submarine operations may be partially lifted and the public be better informed about a branch of our Navy which, day and night, fair weather or foul, is always on the job performing tasks no other sea or air forces can perform, and in places no other operatives can reach. . . . In European waters — owing to geography, the

very inferior status of Axis surface naval craft, and the comparatively short distances, which can be covered by air reconnaissance — submarine operations have settled into a fixed pattern of interrupting enemy lines of communication and sinking ships.

The Pacific presents quite a different picture and calls for a diversified strategy which we hear little about. . . . Japan's fleet, which played a prominent role in her Pacific expansion program, is still a force to be reckoned with. Its movements must be tracked, and as most of them can occur far beyond the range of our air power, reliance upon tracking these movements must be placed upon our submarines, the one sea arm capable of giving constant reliable information. Troop movements of any size must be spotted and destination determined if possible. . . . Hence it is a matter of pride to our submarine personnel, and a test of the efficiency of their operations that, in spite of the magnitude of the reconnaissance job they are doing, they can also bring in a bag, which latest reports put at 169 definitely sunk, with added probables. To be noted also is the fact that these sinkings represent important tonnage hard to replace, cramping Japanese ability to carry out extensive long-range amphibious operations, even though for the shorter inter-island work Japan still has innumerable smaller craft fit for the purpose. These operations constitute a sort of guerrilla warfare waged on the broad oceans.

(Continued on Page 4)

WHAT PROMINENT AMERICANS HAVE TO SAY ABOUT OUR SUBMARINES

(Continued from Page 3)

MAJ. GEORGE FIELDING ELIOT'S Blue Network Speech, 6-14-43:

A Navy communique announces the sinking by our submarines of 12 more enemy vessels and damage to four others. Of this total of 16 ships put out of action, two were destroyers and nine large or medium sized merchant vessels. . . . Everything the Japanese are doing, outside of their own home island, depends on shipping. We are attacking that shipping by air wherever we can get at it. We are attacking it by submarines in many places where our planes cannot yet reach it. Our submarine crews are making war patrols of thousands of miles, spending weeks away from their bases under the most trying conditions and under constant strain. They are turning in a fine job of work, those boys. I'm not giving away any secrets when I say that our constant hammering at Rabaul . . . suggests that this place may be the next objective of operations in the southwest Pacific. If we can get this place and turn it into a submarine base, we'll save our submarine crews many days of cruising on their way to the vital Japanese sea lanes. . . .

FLETCHER PRATT—

"U. S. Navy Subs Top All Records in This War," 9-12-42:

It's not merely a case of touching wood for a remarkable piece of good luck, although it might have seemed so a month or so back when it first began to show up. The fact is that of all the military services engaged in this war none has a record that can compare with the accomplishments of the United States Navy submarines.

If the Germans think they are good at using this arm just let them take a glance at our record: . . . This is, in a way, a pleasant surprise. Most naval men would have agreed before the war that our submarine service was good in its training, equipment and traditions, but relatively few would have set it down as the outstanding submarine service of the world, so far ahead of the German that there was really no comparison.

MAXWELL HAWKINS,

"War Comes Right to Tokio," in Detroit Times, 1-4-43:

At the start of the war in the Pacific, while most of the United Nations forces on land, sea and air were reeling before the sudden but long-prepared blows of the Japanese,

one arm of the service came out of its corner swinging.

The smoke of the raid on Pearl Harbor had scarcely drifted away before United States submarines were out punching. They were taking the war straight to the enemy. They carried it even to the front door of Tokio.

THE EVENING STAR,

Washington, 8-12-42:

Submarines operate continuously in enemy waters. They have penetrated literally into Tokio Bay, they prowl in the Java Sea, the Bay of Bengal and along the Indo-Chinese and Philippine coasts. The effect of their operations, aside from direct damage inflicted, is to force the Japanese to keep many warships engaged in convoy duty on their far flung supply lines.

JACKSON CLARION-LEDGER, (D), 5-27-43:

Mention submarines, and the average American citizen thinks of the German U-boats. Most of the publicity had concerned Axis submarines and their depredations, and these have been and still are the major menace to the Allies. But American submarines have set impressive records since Pearl Harbor, mostly in the Pacific and in waters all around Japan, and the partial official and public recognition given these achievements in recent months has made more of us aware of their constant services. Even so, many persons probably will be surprised by the statement that the American submarine campaign against Japan's ships and supply lines in the Pacific has been at least as efficient as the Axis submarine campaign in the Atlantic, and is as much a worry to Japan as the Axis submarine depredations are to us. They have taken heavy toll of the Japs.

JACK BEALL,

New York Herald Tribune, 6-15-43:

American submarines in the Pacific have sunk twelve more Japanese vessels and damaged four others in recent actions, the Navy Department announced in a communique. One transport was either badly damaged or probably sunk. This score helps to avenge the submarines Grampus and Amberjack, whose loss was reported by the Navy on June 12. It is even possible that some of the Japanese ships listed as sunk or damaged were accounted for by the Grampus or the Amberjack and not previously announced. . . . (Navy's) communique brought to 256 the number of enemy

ships sunk, probably sunk or damaged by American submarines operating in the Pacific. Of these, 181 have been sunk, 28 probably sunk and 47 damaged. One weak spot of Japan is in her shipping, according to the Board of Economic Warfare, which has revealed that there is severe shortage of Japanese vessels for carrying on military and naval operations in the wide theater of operations in the Pacific. Japan has not the facilities for replacing losses which the United States has created, it is believed.

NEW YORK TIMES,

(ID) 6-15-43:

Without a word of how they fared, two more American submarines, the Amberjack and the Grampus, have reached the Port of Missing Ships. We know that brave men took them there. Both commanders wore the Navy Cross for extraordinary heroism. Both crews had made their record of enemy craft destroyed. This brings our submarine loss to eight. It can be considered remarkably light after nearly nineteen months of warfare. . . . (Our submarines) are credited with having sunk or probably sunk or damaged 256 enemy ships, including 16 reported in last night's Navy communique. In tonnage this represents more than the annual pre-war production of Japan's shipyards. But sinking ships is by no means the only duty of our submarines in the Pacific. They serve as eyes and ears for our surface fleet. . . . It is believed to have been these half-submerged sentinels that revealed the advance of the Japanese armada on Midway and the last descent of the enemy fleet from Truk. We now get little more than these broken glimpses of our submarines at work. Some day the full story of their exploits will be told.

COMRADES IN ARMS

I watched your slender craft submerge

As the gold of dawn broke through,
I dipped my wings and breathed "God Speed"

To your ship, to your men and you.

Comrades in arms, we are today,
Though the sea between us rolls,
I mount the clouds, beneath the waves
You pilot the dangerous shoals.

One purpose, one duty, one goal is ours

In the air or on the sea,
To keep our flaming torch a-light
Until, all the world is free.

—Olive Reese Chase.