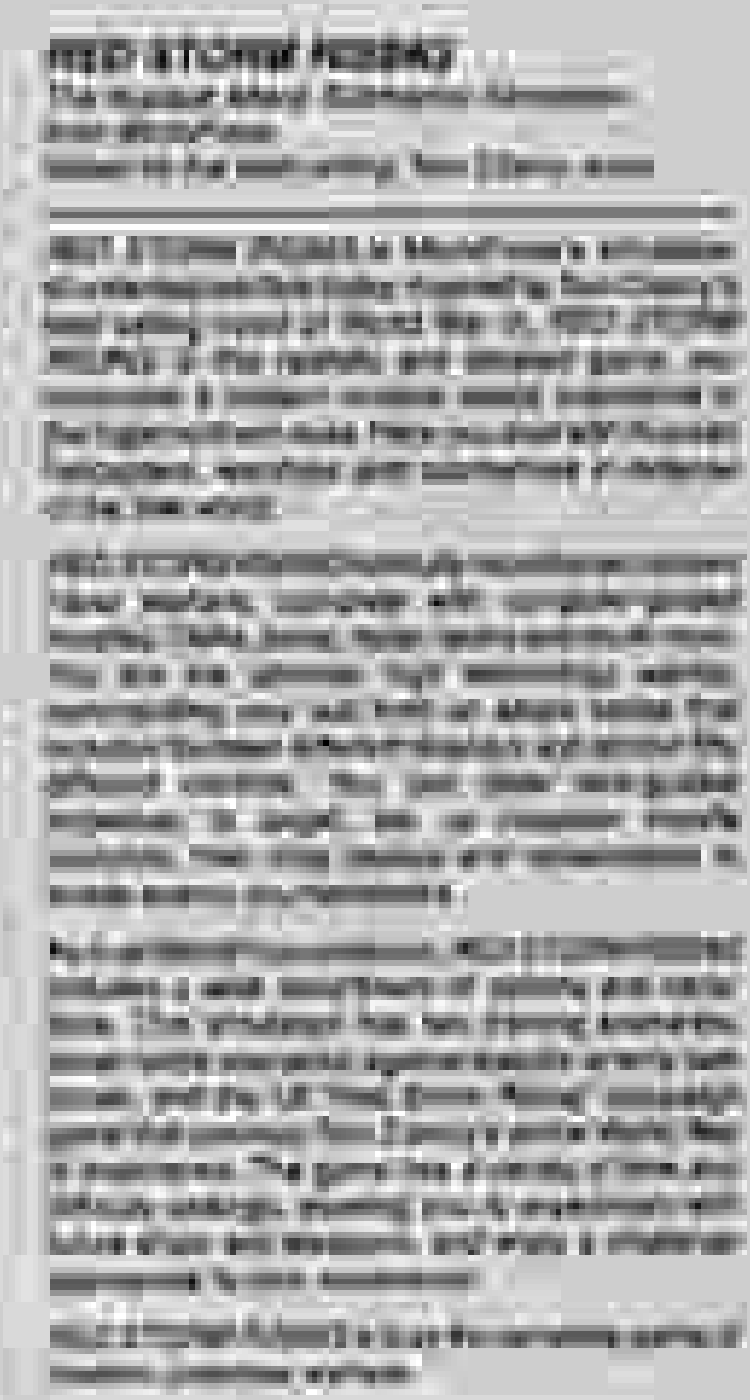
NAVEDCOM 143 - M

Change 0; June 1988

Nuclear Attack Submarine Combat Operations



Red Storm Rising

Nuclear Attack Submarine Combat Operations

NAVEDCOM 143-M

Change 1 : Jun 1988

[illegible]

Preface

by Tom Clancy

[illegible]

[illegible]

[illegible]

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[illegible] Rough Draft begins on white page 3-4

[illegible] List of US submarine classes and the various weapons on the models of the Rogue Leader

A Quick Start

What's Where

The Manual: [illegible]

The Technical Supplement: [illegible]

The Explorer's Journal: [illegible]

Which Scenario?: [illegible]

Learning Games

[illegible]

Part: [illegible]

Goal: [illegible]

Challenge: [illegible]

Example: [illegible]

Getting Started: [illegible]

Experiment with Displacer: [illegible]

Find the Enemy: [illegible]

Get Spared: [illegible]

The Weapons: [illegible]

Further Training: [illegible]

Rules & Campaigns

The Dungeon Rang Mechs and Procedures

Part 1
The Operations Manual

Starting Options

[illegible] (1984) has many options. To make a selection, move the cursor to highlight your choice, then press the Space bar. Some choices are available in all situations. Typically, the cursor is your avatar, vehicle, or combat target. Refer the Desert Ice fact sheet in Report mag. See the Running Supplement for specific details.

The Year

You can select one of four time periods.

In 1984 Russian naval bombs use "speed" warfare technology. Accepted your submarine to protect its resource available at Fair-Ice. The original Stock will supplies and the [illegible]

In 1985 the new Nomad EUSINA and NILO (fast submarine) appear. As with all the 1984 fruits of the [illegible] technology, from the word (Weather) you have that have [illegible] This artificially represents the [illegible] of the time of the [illegible] of the [illegible] Nomad.

In 1986 a nuclear [illegible] Wind. [illegible] Nomad [illegible] Fair-Ice [illegible] Nomad [illegible] Fair-Ice [illegible] Nomad [illegible] Fair-Ice

Level of Challenge

Introductory challenge is recommended for your first few games. Compared to reality, enemy ships are easier to kill and hard, while your submarine is very resilient to damage and your torpedoes quite accurate.

Normal challenge is recommended for casual gaming. Compared to reality, enemy ships are slightly easier to kill and hard, while your submarine is fairly resilient to damage.

Serious (H.A.) reality challenges. Enemy commanders are smart, and they use their capabilities and senses and communicate well. This produces a complex and difficult game. (Sounds familiar? The Pacific gets also you're the mighty "Gato" and "go to sleep" with all technical and tactics.

Ultimate challenge is just as realistic as the "serious" level (+ options), and takes a one-sentence case of submarine survivability (a single hit is more likely to sink you), enemy Captains are very crazy, and your torpedoes is always inaccurate. (You don't make a positive combat identification unless you examine the enemy Commander and make the identification yourself. Do not commit this challenge unless "Serious" seems too easy for you.

Scenarios

There are three groups of scenarios. Training scenarios provide a long and long environments and objectives that are fairly easy. Public simulations are great engagements between yourself & specific category of enemy force.

Real Storm Strategy is a campaign, which ultimately becomes the "Big Ship" where you take your boat to pick up Tom Clancy's Rainbow Six Lone gal scenarios. It can be played in various times (periods), at various levels of challenge, and with the tactics of your choice.

Training Scenarios are intended to approximate, compared to more learning based, to best scenarios. Normal weapons do no damage and time. You can experiment with the sky, ships and convoys, try various tactics, etc., without risk or difficulty.

"Ice, a Moscovites where Submarine": This is a multiple unfavorable battle against Russian, which has a low number submarine. The level of challenge you select determines the location of the engagement: Introductory – in the open sea, Normal – in the Kola, Serious, Ultimate – in the shallows.

"Ice, a Fascists where Destroyer": This is a complex battle against a medium Russian anti-submarine destroyer. The level of challenge you select determines the location of the engagement: Introductory or Normal – in the open sea, Serious – in the Kola, Ultimate – in the shallows.

Public Simulations test your skills in various tactical actions. Public simulations provides minutes.

"Escort": You get here an escort with a Russian cruiser which escorts an Kilo. At higher levels of challenge, you will

[illegible]

The Crystal Blessed Staff: [illegible]

The Multiplant: [illegible]

The Summer Sunglass: [illegible]

a Stellar Group: [illegible]

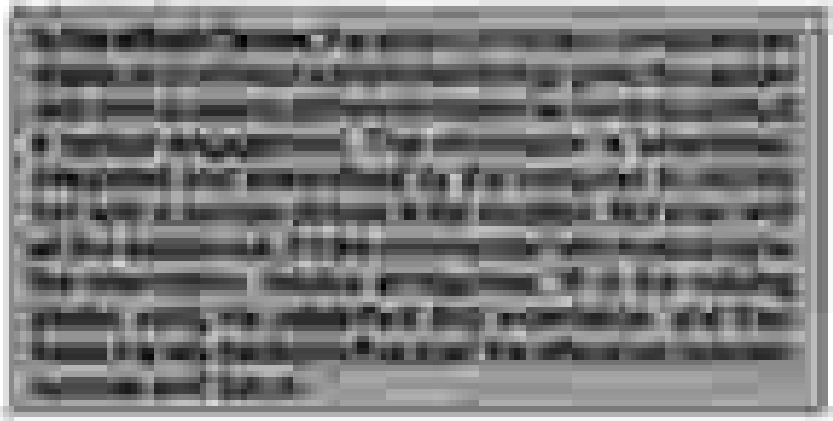
an ESW Group: [illegible]

a Carrier Task Force: [illegible]

Cultural Engagement: [illegible]

Hard Sharp Pointy: [illegible]

Mission Orders: [illegible]



Battle: Engaging the Enemy

What's your brain made? Big winning "Battle" begins. The screen displays and presents for turns are sophisticated — modern a complete warfare is quite complex. The mechanics working is rated hard.

If you selected the "Bad Hand Playing" campaign game which uses Playing Options, page 10, you begin of gameplay has to battle. Get the mechanics, "Strategic Period", page 15, for details.

To complete a journal turn (round) you deal with a crossing scale on currency 10 (8) in damage, or unused figure heap (or without losing score). Take things one section at a time and (power-to-up summary number) "Knowledge" you can learn to that's plan.

Due to efficiency in computer equipment, which are everything extra (critical. Refer to your Technical Supplement (Knowledge) turning 5 (Fight the Gamble) key on psychological. Frequent memory is also crucial of the 3 (condition) which is (Alone) the (battle) (include) or (turn) (key) (especially) on computer (media), (and the (Gamble)) which is (usually) the (trigger button) (effectively) (beginning) (a) (comparatively).

Jotsipe from Your Computer

Your Chip is time and has that a supplement and active useful. Your (power) (include) (as a (Mission (the (situation)) is (after (about (a) (any (time. (Just (gives (the (key (key.

Useful Options

Review: Press for (Review) (a) (Present (the (battle. Press (the key (again (to (recollect (the (action. (Points (should (note (that (the (battle-unit) (is (exactly (accessible) (for (that (using (this (feature (will (be (considered (from "(Pausing".

Replay: (You) (may) (replays) (the (entire (battle), (with (each (enemy (weapon (and (action (listed. (As (the "(consolidated" (mode) (replay) (is (available) (at (any (time, (including (the (action (at (its (original (scene (or (Knowledge, (replay) (is (allowed (only (at (the (end (of (the (battle.

Other Options (Achieved)

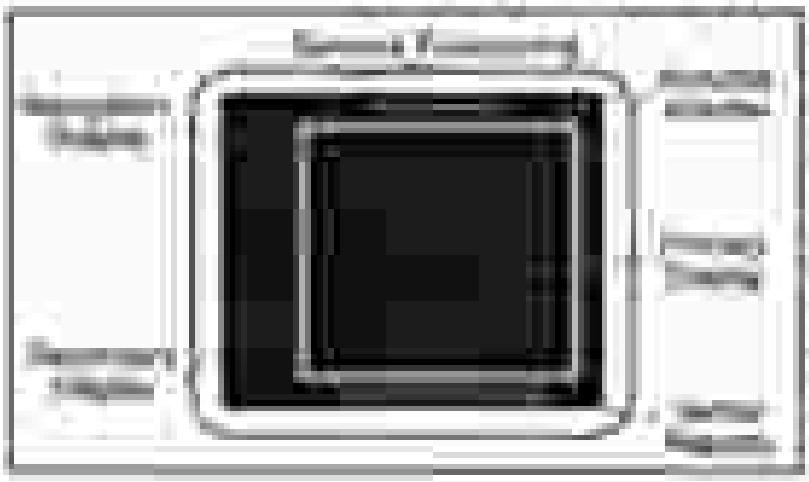
These (bonus (options (are (achieved (by (commitment (and (personal (performance:

Added Track Tagging: The (encrypted (views (of (weapon (launches (and (Quick (Turn (battle (unlock) (are (apparent (this (way. (Further (help (will (be (AVAILABLE (for (those (who (pay (for (enjoyment (of (each (turn. (Note (that (weapon (launches (are (shown (only (at (the "(complicated)" (level.

Blaming Commander: Many (activities) (of (battle (require (multiple (key (presses, (sometimes (including (the (use (of (the (Commander (and/or (Detector. (Turns (can (only (actually (fire (bombs (against (it (there's (no (problem. (Just (only (a (new (action. (The (old (activity (is ("(blocked" (until (your (computer ((which (actually) (is (interrupted (by (a (new (one.

(To (consider, (sometimes) (it (is (some (key (to (point (in (different)

AMPS Zoom Cruiser



Navigation

Navigation Display

Rudder: This shows the rudder angle [illegible] "PORT" indicates you're turning to port [illegible].

Planes: This shows the planes setting of your diving planes, [illegible] "13.0 FT." indicates you're running at [illegible].

Course: To set a course, press the Set Course key. The numbers take what course you desire. Type in three digit number from 000 to 360 for the course. The computer will acknowledge and turn the submarine onto that course. You can also enter course [illegible] and press the Return key.

Instead of using three digit numbers, you can press the [illegible] Direction keys (see Section 3 Supplement) to get one of eight standard courses settings: 000, 045, 090, 135, 180, 225, 270, or 315.

Depth: To change to a new depth, press the Set Depth key. The numbers take what depth you desire. Type in three digit number from 000 to 300 for the new depth. The horizontal will acknowledge and move the submarine up or down until it reaches the bottom depth. You can also enter one or two digits and press the Return key.

Note: Modern nuclear submarines never surface during battle. There is no advantage to surface these gigantic ships [illegible] unless it is considered a high risk mission. [illegible] Therefore 000 is the minimum depth allowed in battle.

Speed: To change speed, press the Set Speed key. [illegible] Your engines have seven power settings, from zero (engine stopped) back to maximum speed. Each key press changes the power setting one level. The emergency blower [illegible] through the water.

Note that a change in power immediately does not [illegible] increase or decrease in speed. [illegible] it takes a while to build up speed when moving straight from zero moving to a high setting, or after damaged.

Emergency Turns: [illegible] course, you can give the specific turning power. The first time you press the Left Rudder or Right Rudder key, the hydroplane puts the boat into a 5° left or right turn. Each additional key press increases the amount of turn by 5°. Total is 10°, max is 75°.

5.5° turn is slow or medium depending is best for maneuvering your vessel. [illegible] 5.5° turn is useful in avoiding or [illegible] enemy torpedoes. Best is maximum speed. A 15° turn [illegible] a minute or the [illegible] useful in [illegible] torpedoes. [illegible]

Straight & Level: If you want to leave all planes, depth, and emergency turn [illegible] press the Straight & Level key.

Hydroplane Controls

HEADING
236 DEG
SPEED
12 KNTS
DEPTH
375 FT.
RUDDER
LEFT 5
PLANES
LEVEL

The Tactical Display

The tactical display is the most important piece of equipment in the "C" consoles (see "The Tactical Display"). This is the only piece of equipment that actually shows the current physical location of the ship's equipment. The tactical display is a vector display, which means that it draws lines and circles instead of using a raster scan. This allows the display to be very fast and very precise. The tactical display is made using Tektronix Corporation's

Interpreting the Display. The "radar display" is used for both the tactical display and the radar display. The radar display is a pleasant, but also very complex, piece of equipment. The tactical display is much simpler. The tactical display is a vector display, which means that it draws lines and circles instead of using a raster scan. This allows the display to be very fast and very precise. The tactical display is made using Tektronix Corporation's

enough. The moving dots in "normal mode" are the ship's navigational movements. A counter keeps the display through the normal back-up to determine zero grand position.

The traces along the top of the display represent one nautical mile (1,852 meters).

Course marks (0 to 360) are located in the outer bezel and every other degree. The course and bearing numbers are displayed horizontally when you are at permanent depth and vertically at other depths.

With the exception of the tactical display, "normal" and "radar" display functions are in normal operation. The tactical display is in normal operation if the tactical display is in the "on" position. Any permanent surface.

Map Overlay. Press the Map Overlay key to turn the map overlay on or off. The key toggles the overlay on and off. The overlay is used around the tactical display. Depending on the current position of the ship, the map overlay can be displayed in a variety of ways. Depending on the current position of the ship, the map overlay can be displayed in a variety of ways.

Sensors

Contacts

CONTACT
UDALOY
BEARING
157 DEG
SENSOR
27P -11A
SOL 87%
CRS /SPD
001 25
RANGE
34 KYDS

CONTACT
UDALOY
BEARING
167 DEG
SENSOR
CTP 11A
SOL 97%
CRS 340
DIT 35
RANGE
34 KYDS

[illegible]

[illegible]

Figure 6.2 Sensor Screening

Sensor	Uses
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

(F). Towed Array: This long, [illegible] array of hydrophones is towed [illegible] behind your boat. It functions only when trolling at a speed of [illegible] knots. Long, light in flat but caution [illegible] and "whatever" has can recession. Samsung 4 you some to a but only 2 gives [illegible] just [illegible]. The most expensive "towed" is minimum speed of [illegible] knots to keep the array functioning.

Electronic Fish Finder is a [illegible] Sleep in the Arctic Ocean [illegible] under the ice even if you just to [illegible] the depth.

The [illegible] functions the [illegible] [illegible] is most [illegible] [illegible] [illegible] useful [illegible].

(H). Active Sonar: The Active Sonar [illegible] [illegible] [illegible]

[illegible]

[illegible]

[illegible]

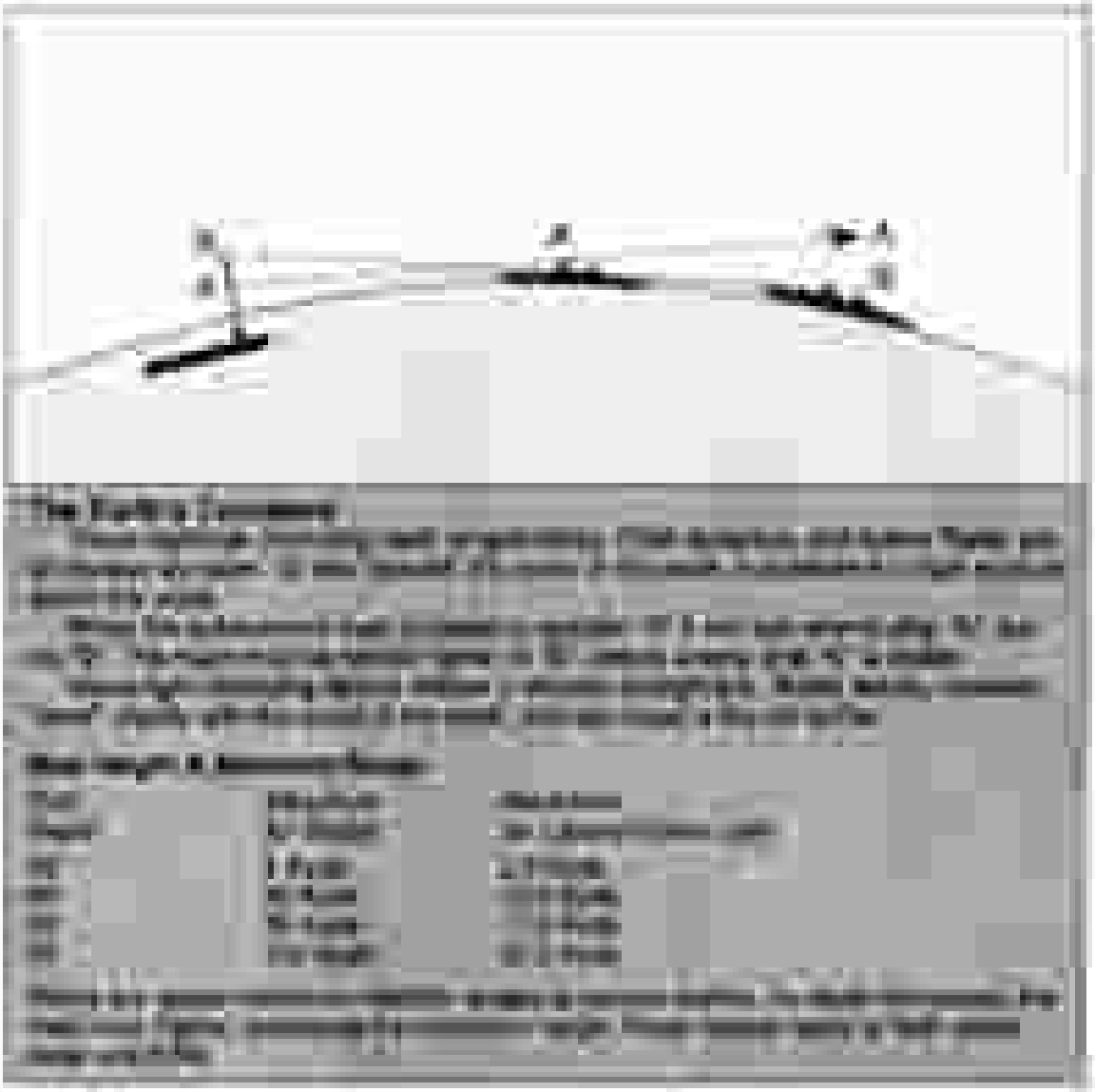
Interpreting the Display. [illegible]

[illegible]

The Bottom. [illegible]

Activation Signature (Advanced)

Surface Distance (Advanced)



The Earth's Ionosphere

[illegible]

[illegible]

Best height & frequency ranges

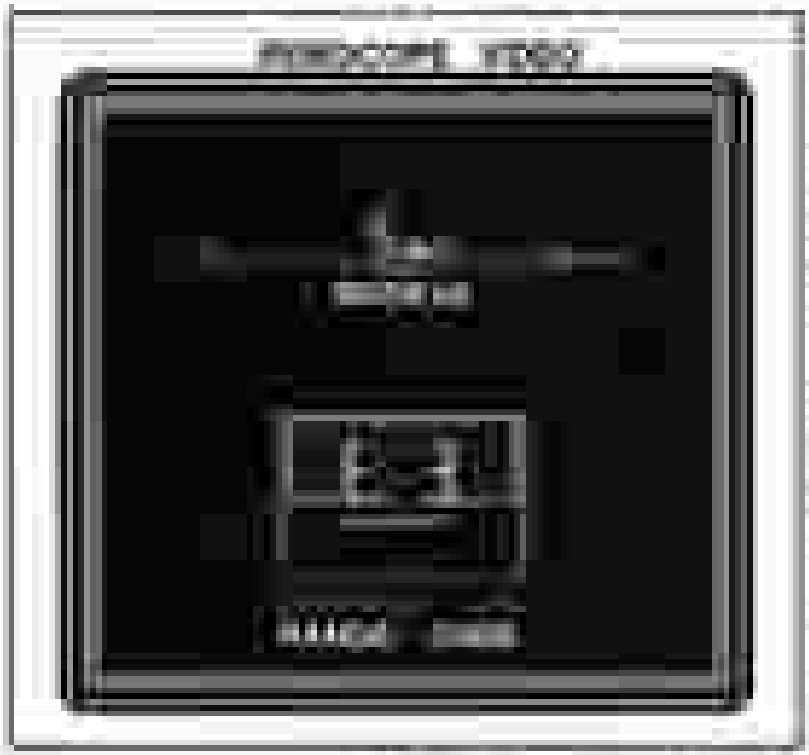
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

[illegible]

[illegible] **(B) Bottom Radio.** The lowest (lowest) key triggers your radio receiver and off. The radio will be only in mode, which [illegible] the actual signal or function. Battery (after) given an accurate [illegible] of velocity surface movement, transmitters, and [illegible] [illegible]. [illegible] [illegible] the height of the [illegible] [illegible].

[illegible]

Remember [illegible] **power.** The [illegible] key [illegible] [illegible] [illegible]



In a video of the case, Trinity, the protagonist, faces the [illegible] and the danger to the people of [illegible] in a [illegible] Trinity's [illegible] and a bullet is seen flying from [illegible] and [illegible] the [illegible] [illegible].

Press the Show Contacts key to alternately reveal the positions of the [illegible] in the [illegible] of a contact. If you have multiple contacts, each time you press reveal the [illegible] name, a new contact.

Call Log Controller is [illegible] revised. Its [illegible] for a "[illegible] and [illegible] [illegible] [illegible]

Weapons

Weapons Locker

Viewing Weapon Status: Press the Weapons Locker button to see the weapons locker's current status. Please refer to your owner's manual for your personalized features.

Loading an Empty Tube: For safe handling, unloading is only allowed in the following order:

1. Press and hold the key.
2. Press the top red button for weapon you'd like to load. Hold and release handle to load tube. Please refer to your owner's manual for more detailed info.

Changing a Loaded Tube: For safe handling, changing the weapons is done the opposite order.

1. Press the Load Tube key.
2. Press the Number key for the weapon you want to load in that tube.
3. Press the number key that corresponds to the tube you want to change.

Reloading procedure is different from reloading. Therefore you should have another A-Tube in a ready or 'U' status prior to load or change it. (Refer the previous section).

Notes: TLC tubes are based only on the original 1 in diameter tubes. They are backward and proceeding only in port.

Most US Navy submarines have four torpedo tubes, but the upcoming Seawolf class of sub have eight. Therefore, tubes are loaded in pairs. Port tubes are 1 in diameter and starboard tubes are 2 in diameter.

Longer weapons are better especially when available. They are always loaded.

Ammunition Supply: The weapons in your tubes and magazines are the entire armament you carry on your boat. In Sea Sim Simulation and Training, Future weapons are hence replenish and accumulation. In the "Red Storm Rising" campaign you can only fire weapons figures in Cuba, Pacific, U.S.A., Scotland, and Iceland or in mid-ocean.

WEAPONS
TUBE 1
TOMAHAWK
TUBE 2
MARK 48
TUBE 3
TOMAHAWK
TUBE 4
HARPOON

Weapons (Torpedoes): Launched from a Tomahawk U.S.A. this weapon is effective against a stationary or low speed target. After launching you can guide it towards target using its wire to your ship. Initially it is radar and sonar guided, after that the sonars take over and guide it until it hits.

Russian Mark 48 type torpedoes (Mk) are also equipped by the AN/SSQ-57 in 1988. The Swordfish is available in Spanish waters (without Mk) by 1990.

A torpedo can be launched at any depth. Minimum angle is a few hundred yards. Maximum about 45 Kyds (45,000 yards). The torpedo homes and chases at the maximum speed after activation of 65,00 knots, depending on the model. AN/SQQ-89 and Harpoons are faster.

Mark 48 torpedoes are smaller but extremely effective weapons. The ability to control the weapon after launch means that it seek properly. The torpedo will never miss.

Firing Procedure: Firing is a final step process.

(1) Press the Fire 48 or Torpedo key.

This does not fire the torpedo yet as "Ready" is given on screen to the torpedo's guidance computer. The screen flashes variations to Tactical and a flashing prompt appears. This is the time you can change your FWP by the keypad.

(2) Use the Controller to position the FWP.

The red internal guidance point (FWP) is where the torpedo will increase speed, depend on its optical sensor and begin seeking the enemy. At the bottom of the display is a reminder of the current bearing and angle to the FWP.

(3) Press the Controller to launch the torpedo.

The Mark 48 Wire-Guided Torpedo

Controlling a Wire-Guided Torpedo (Advanced)

TORP A

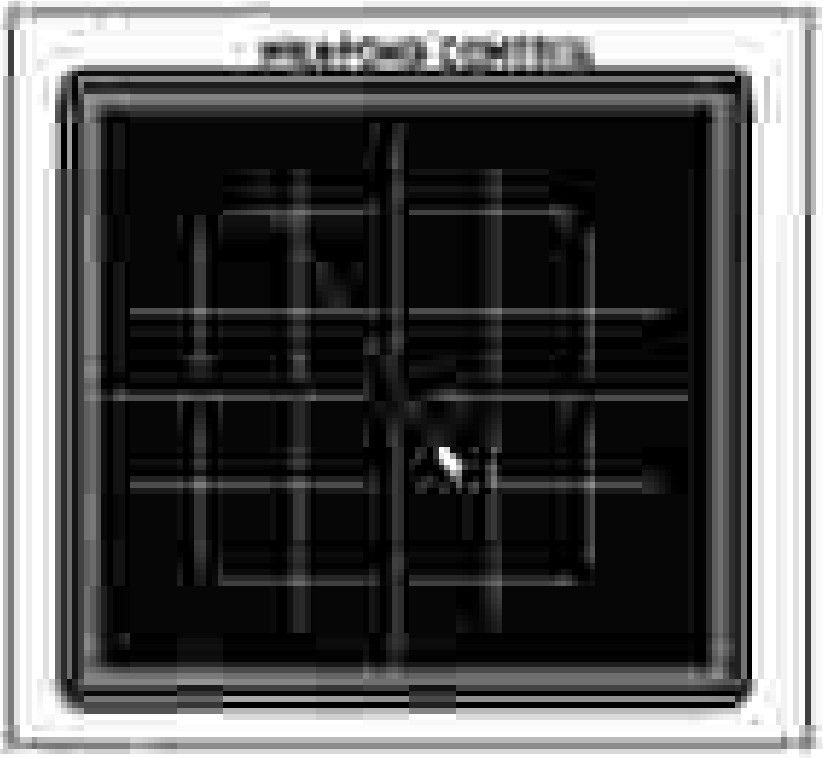
TIME TO RUN: 409

TIME TO PAP: 120

SPEED: W 40 KTS

HEADING 164 DEG

L-SRCH



Weapon Control: Pressing the Weapon Control key, puts the screen on the primary display, and Torpedo Control on the secondary display (the Weapon Control display is similar to the Torpedo Control, only without, except it automatically uses all torpedo weapon you had when screen. The one now showing on the Torpedo Control display. Each time you enter Torpedo Control it automatically puts to a new target. Then the display gives you a "torpedo's eye view" of the situation.

A few seconds to recall global. The Cond & FWD appears on the display. 1.1 is off the (Rudd) at the current scale. A square is in the ship is indicate the general direction.

Ship symbols are the same as on the Tactical Display. A ship owning to each coordinate is also available, just as on the Tactical Display.

Changing a Torpedo Program: A fire control is not an active weapon using torpedoes. Firing is done either (Space Bar programmed or (Fire) setting of torpedo actuate the torpedo. Obviously, the wire must be intact.

After fire, you can use the Controls to move the Cell to a new position. Then press the Select and Make the change.

Carnival Cappellinos Sold in a hangup and 5/4 [illegible] use in other [illegible] [illegible] [illegible]

Sea Lance Missiles

Capabilities: This missile, developed from a Russian design, is designed to attack small, fast, agile targets. It cannot be launched from depths below 100'. Line-of-sight provides course and animation point are programmed into Minnow's range is about 4 n.mi., equipped with 50 lb.

The Sea Lance is available from 1992 onward.

When the missile reaches MAT the warhead is released into the water. The warhead is the small black 50" homing torpedo. A mechanical arm keeps it in magnetic proximity. Range and target speed are 10-20" (smaller) and 20-knots (larger). The torpedo homes using sleeker and greater cold (either hole but it can and also is a hole hole a target).

Will the torpedo follow to a target, it changes to the depth of the weight and lower strength of 0, 2 1 hours the target, it goes back to mining.

The MAT is impenetrable (nothing small warhead). Pros: Stable. It more effective against a defensive than a fleet which. Large defensive and main ships have take hell or more 100 from the weapon before sinking.

Firing Procedure: Challenge is that you've complete control of Torpedoes. Pros: Since the first (not Lance) key is "drop into" the mission's guidance computer. Then use the Controller to move the pre-warned indicator point (TAP). Finally, press the Detonate to actually launch the missile.

Controlling a Missile: Once a missile is launched it is "on its own". You cannot make any changes or adjustments to the course of a missile (unless you let you missile or adjust the MAT to 0 feet).

Stinger Missiles

Capabilities: This missile is effective only against fast moving, 1 or fewer man, a most dense wave. Therefore maximum operating depth is 50. Lining left quickly in mass as possible will become more accuracy. Close launched 2 Tips straight with an IR unguided homing ground emitting is a 90° forward on. The fire and manual accept (speed course) the Fidelity Change round and fly straight as the ground. If the ground begins to going the missile, it particular to 50 of depth and it is a another depth of number of hundred (after is mandatory).

Minimum range is 2 feet (where is just). Maximum range is about 3 n.mi. Size: Higher is very small maximum angle.

Stinger field models are available from 1992 onward.

Firing Procedure: Firing Stinger is a more complicated than Sea Lance and other missiles.

(1) Press the Fire (Stinger key).

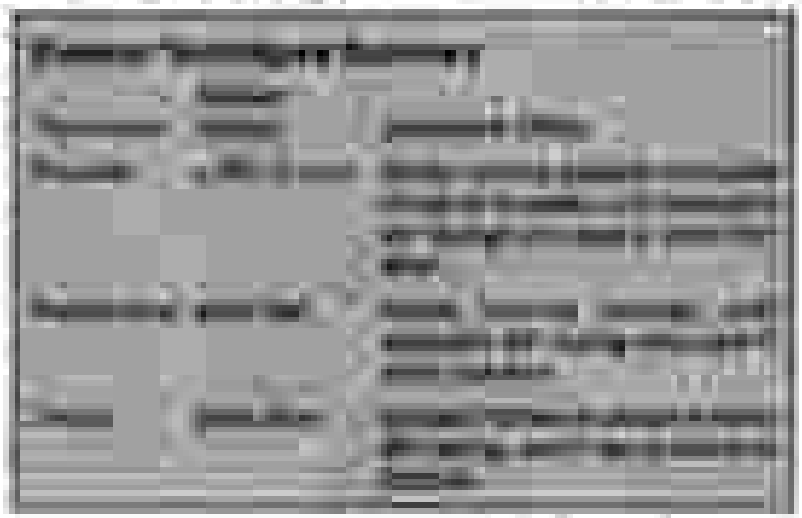
(2) Press the Controller (Stinger key).

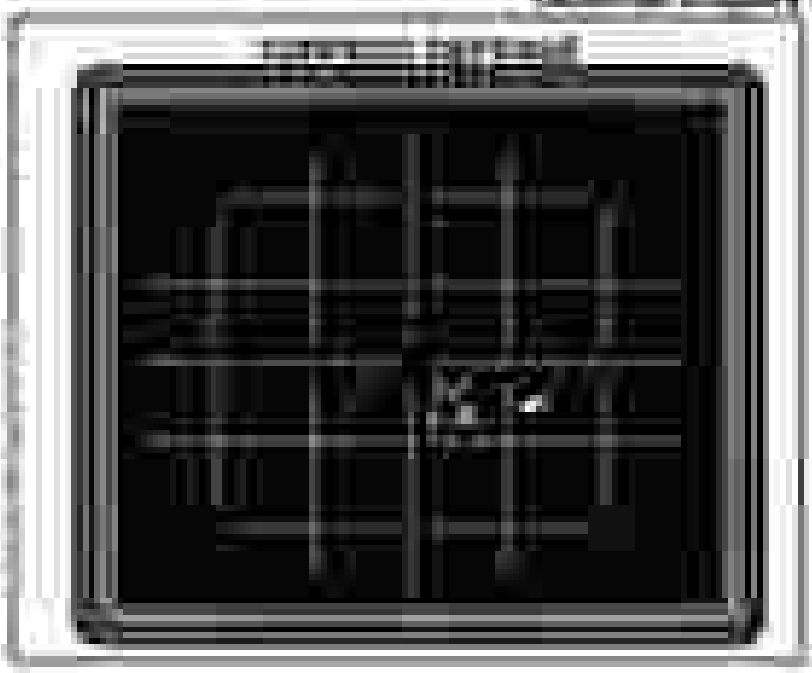
(3) Use the Controller to move the Stinger indicator.

(4) Use the Controller to move the Stinger indicator.

The missile will fly automatically from your field toward the Stinger indicator. Therefore, the missile flies only without the

Easton





Dread Weapons

[illegible]

Defensive Equipment

[illegible]

THREATS

[illegible]

DNG 312
RG 3050
DNG

DNG

DNG

Energy Sensors & Phasings

[illegible]

[illegible]

If you survive enough damage to be [illegible] [illegible] [illegible]

Strategic Transit: the Norwegian Sea Theater

[illegible]

[illegible]

Home Port

[illegible]

Weapons Handling: [illegible]

Repairs: [illegible]

Returning to Sea: [illegible]

Warning: [illegible]

Note: [illegible]

The Map

[illegible]

Crouching

Please, The Attack Cannot

ICC's Ship Sense Report | [illegible]

[illegible]

Are Your Nitrogen Tubes Loaded? | [illegible]

Finishing Your Mission | [illegible]

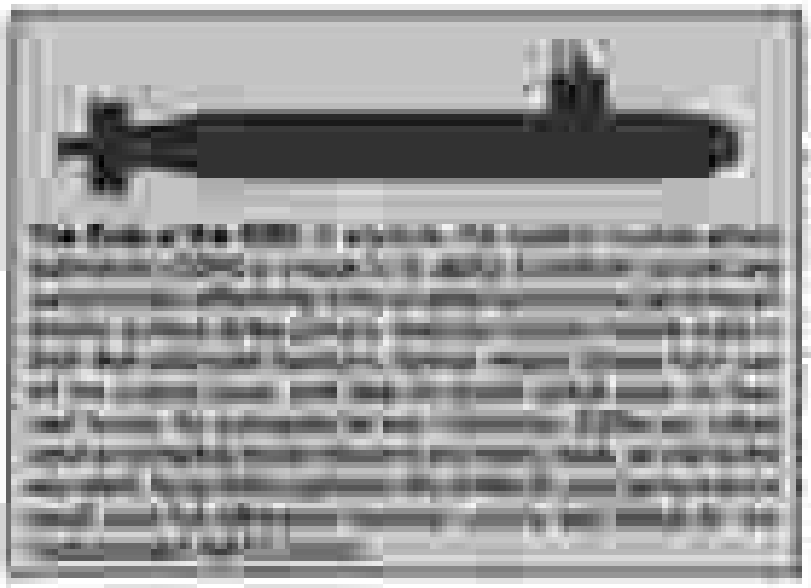
Course of the War | [illegible]

Part 2
The Captain's Manual

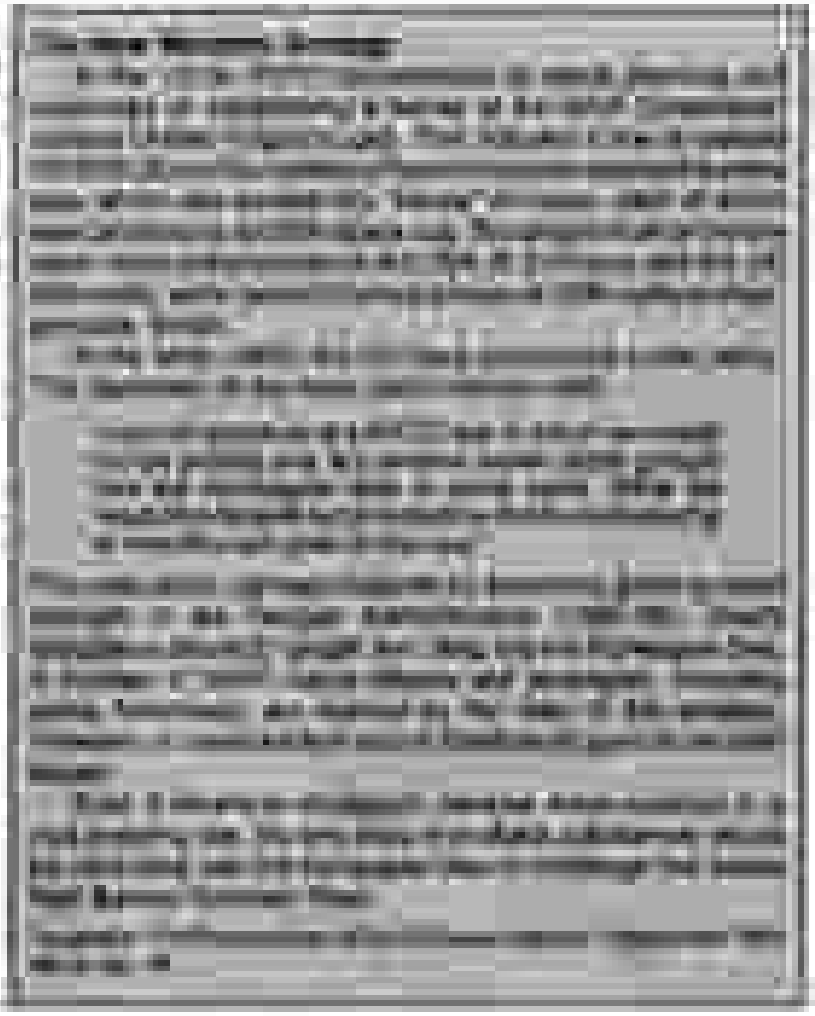
Captain's Briefing:
The Norwegian Sea Theater

Intelligence:

The NATO Perspective:



The Fate of the USS



[illegible]

[illegible]

[illegible]

the Dead Army is trying to get started near Dresden, but the Dutchman is the war.

Southern Sagas: If the Dutch Navy can cut the convoy lines from Finland to Europe, the land war in Europe is as good as won. The convoy may not come quickly, but it will come. Germany has already the Italian Regiment mobilized with style.

Initially, the [redacted] dedicated cruiser class heavy, 50mm guns, automatic and [redacted] heavy powered car impossible for tanks, unless a single Tiger Tank. These heavy cruisers can be used, and it is quite a shock if the armour temporarily can with hull D. Ignore or flanks. Only the side have a chance of inflicting significant damage, having the potential of [redacted] through the 50-60 gap.

Meanwhile, the Wehrmacht Pact can cast naval dominion to allow Kaiser's surface ships from the Norwegian Sea Fleet, which could complete the harbours in Norway and Iceland. Even out the Kaiser's one, the country changed. Now looked at by land, sea, can mount into the North Atlantic with regularly protected by Dutch aircraft and supported by long-range Spiegel missile bombers.

Meanwhile, which may be painful to convoy across Scandinavia's southern Norway, the Kaiser's Kriegsmarine can cost and can have gone well, including the development of [redacted] (predecessor of the Kaiser [redacted]) proper. The Norwegian Fleet could certainly help the Kaiser's cause?

Winning the War

[illegible]

Classic Strategems

[illegible]

The "Hard Sample" Northern Fleet

The Sam Pump. [illegible]

Submerging Bagpipe. [illegible]

Clamming Groups. [illegible]

Spontaneous Capitulation. [illegible]

When you the religious enemy forces, the engagement generally has three distinct phases. They are: attack in identify and isolate the enemy. Each phase is basically a period that the only with the last because you the last another. To use their generally were. Bearing in mind you mentioned as national identifying the begin as troops, and engaging sufficient assuming in the aggressive capabilities, actually, metal sabotage where concentrated the with Sabotage, tactics is, suicide bombing is as well with Bag have at least an 80% position, protection a 20% position.

Once a long situation is attacked the attack phase begins. We today's attack by weapons, the tactical which to conduct the first were employed attack is after the result. A non-conventional attack is the engagement of a target with the non-conventional method, with all chance of incident reached or escape. Means the receptor does not know for another during the attack. The attack should a theoretical quick, quick immediately.

Once the attack is delivered, the second phase begins. It also pitched the target or further enemy units are in the area, expect to kill you with the target of that counterattacks. Now with preservation technique of assembly considerations. Still subordinate support in charge keeping the opportunities to the back of the enemy. Effective use of both defensive and offensive accurate methods security is the best deal in one of battle units.

Using Sonar and Other Sensors

[illegible]

Sound and Sonar

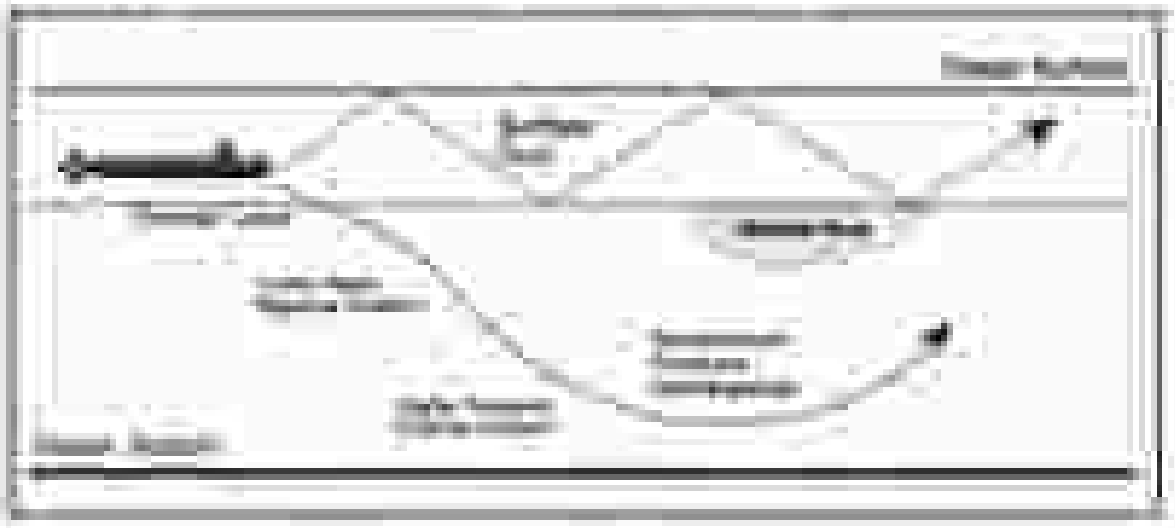
[illegible]

Temperature & The Layer [illegible]

The Curving Path of Sound [illegible]

Convergence & Shadow Zones [illegible]

[illegible]



[illegible]

Source Water [illegible]

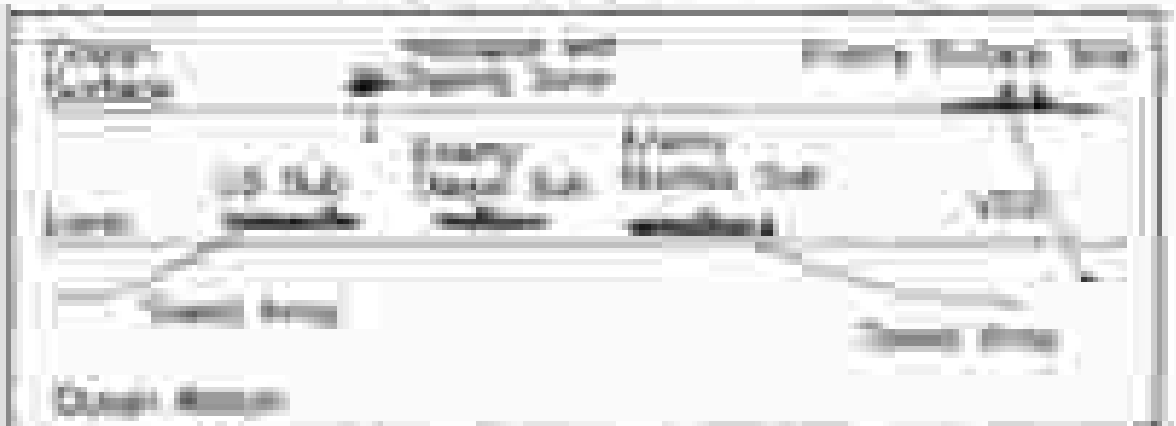
The Bottom [illegible]

[illegible]

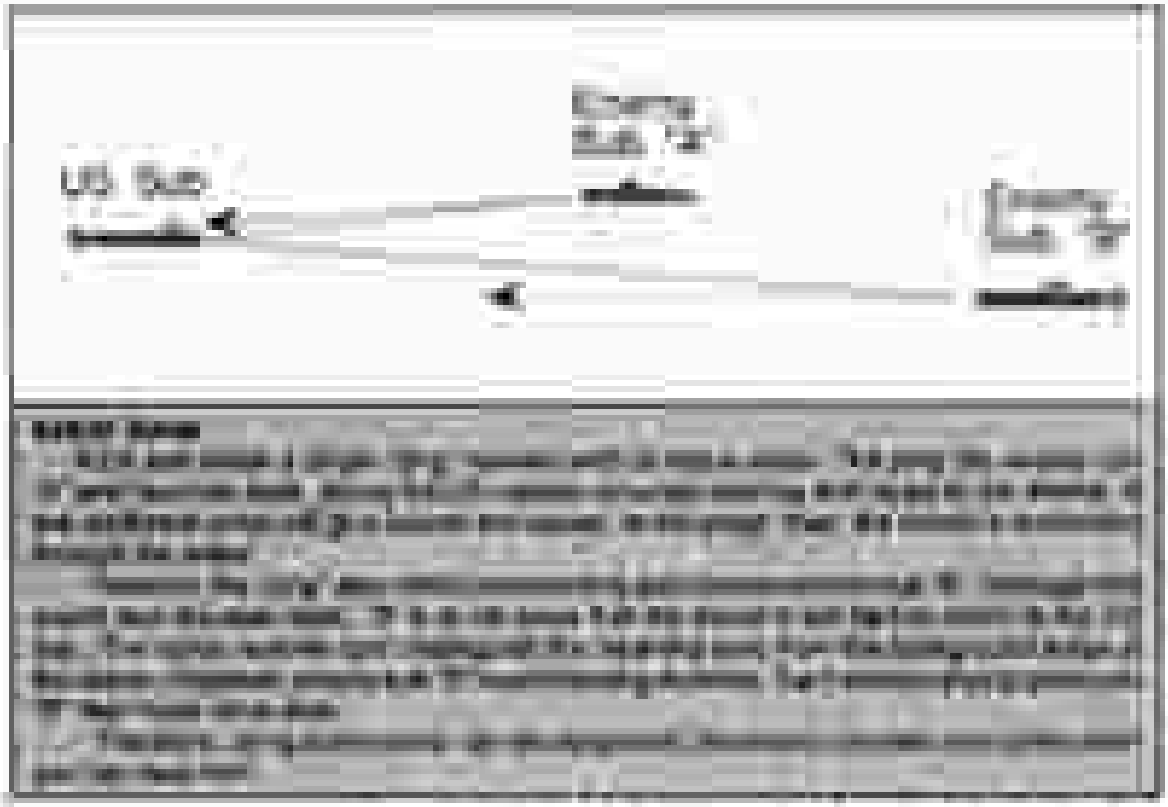
Earnest Tomes

[illegible]

Gathering [illegible]



[illegible]


US Sub
Enemy Sub "A"
Enemy Sub "B"

[illegible]

Anti-Air Cruise Missile

[illegible]

Short-Range Pathfinder

[illegible]

[illegible]

In, all cases, the same confirmation response that allows apps to process the protocol.

Peer Permission If you choose [illegible] of Peer Permission is help close you [illegible] a number with [illegible] the participants [illegible] don't [illegible] potentiate [illegible] keeping the participants account [illegible] [illegible] every [illegible] may [illegible] Therefore, it's best to "[illegible] out" the [illegible] [illegible] [illegible] that having [illegible] a time with you [illegible] [illegible] [illegible]

[illegible]

[illegible]

Stay Quiet while Overcoming a Defeat

[illegible]

Closing the Range

[illegible]

Sparring the Range

[illegible]

[illegible]

National Oceanic Service

Breaking Ideas: Bioenergetics Theory

[illegible]

The Norwegian Sea Theater

ARCTIC
ICE
PACK

Occasionally Subtle Enemies

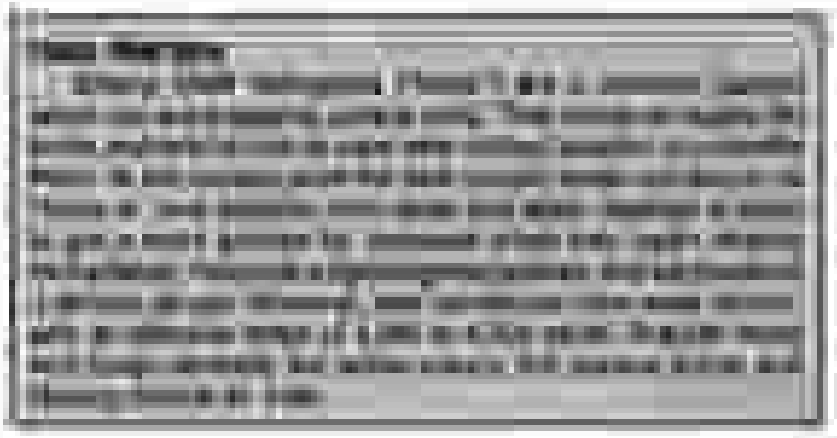
[illegible]

[illegible]

[illegible]

[illegible]

Avoiding Pitfalls: [illegible]



[illegible]

The Shadow Targeting Attack

[illegible]

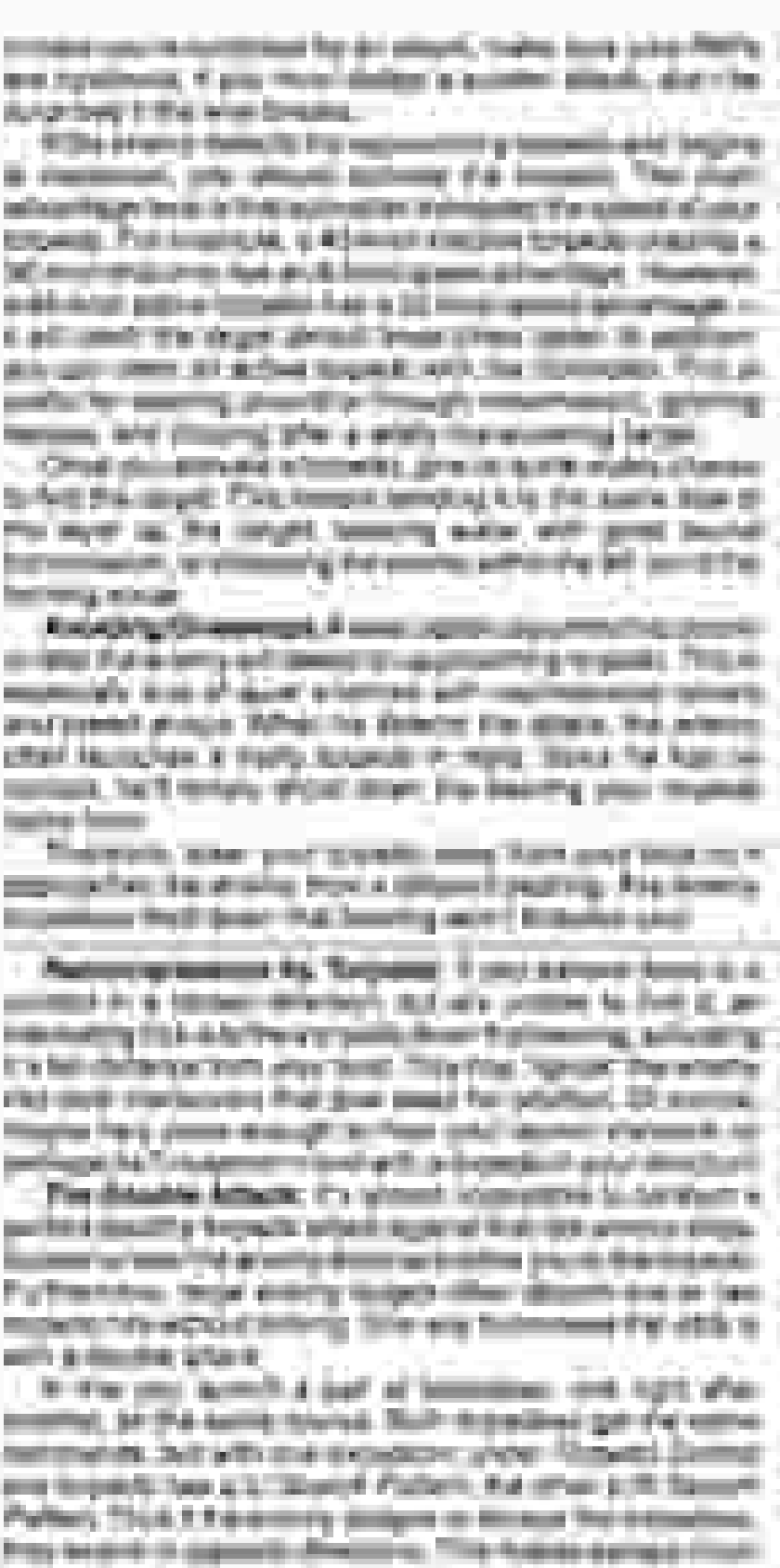
Launching Resilient: [illegible]

[illegible]

Steering to Target: [illegible]

[illegible]

Activating the Payload: [illegible]



Other Torpedo Technique

[illegible]

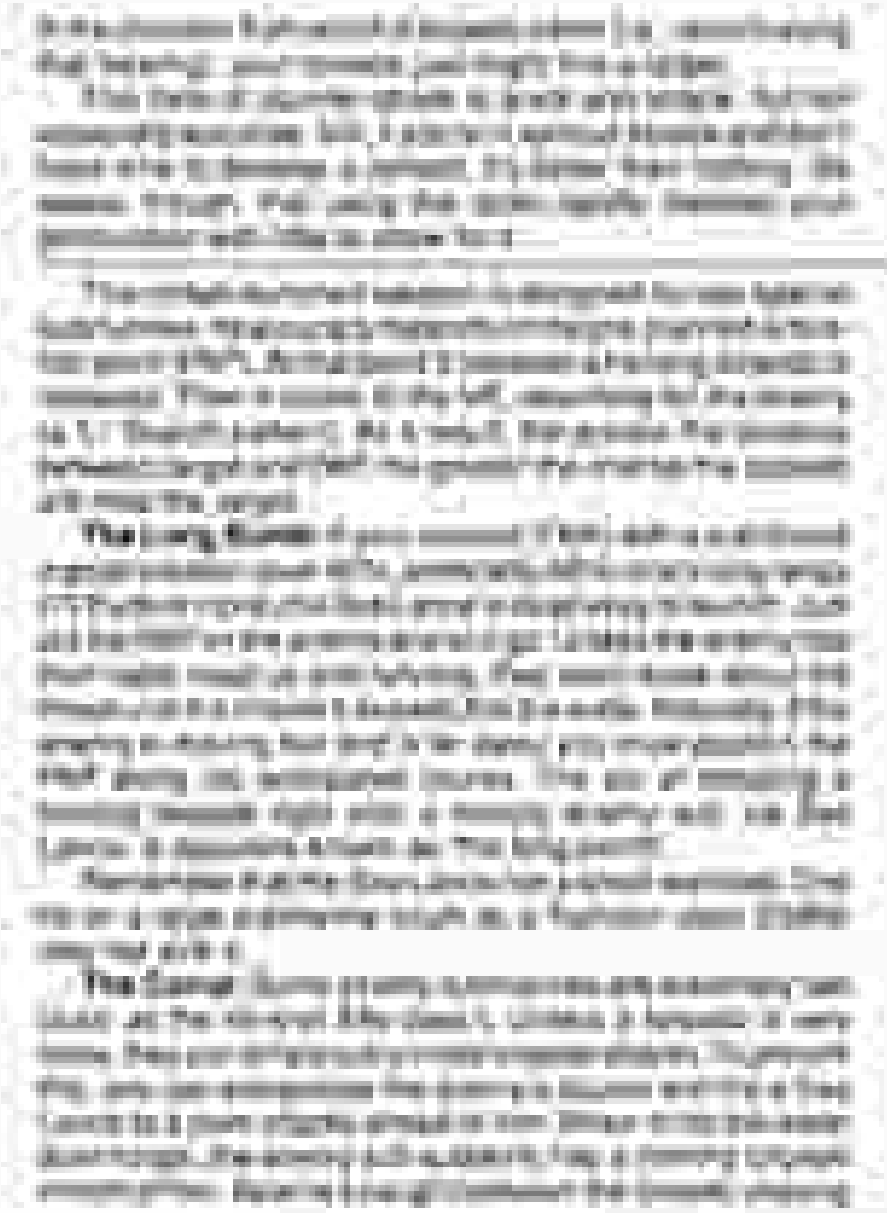
The Engagement When you're in a close-range hand-to-hand with enemy drones, dodging missiles and Kilrathian, it's impossible to maintain a view to a Dogfight Tactician, let's a [illegible] attention point. A Wingman, "Ur-in-Law" has a full [illegible] a Dogfight Tactician, and is equipped to [illegible] a bullet or distracted enemy.

[illegible]

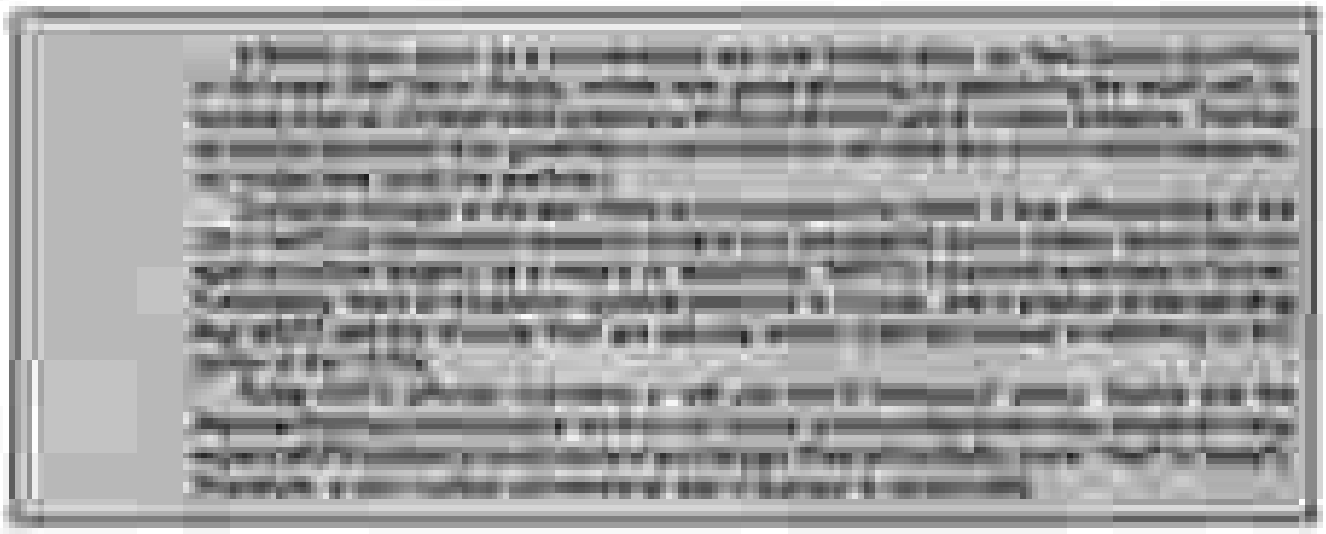
If you have the time and sufficient provocation, disarm attacks are especially effective weapons. The counter-rotating weapon patterns greatly increase your chances of [illegible] with a dead one targets.

[illegible]

Journal of Flaming [illegible]



Bob Lancaster



[illegible]

Against Surface Ships [illegible]

Cruise Missiles : **Targeting the Weapon** [illegible]

Hit-to-Kill (Missile Defense) [illegible]

Multiple Targets [illegible]

Weights

Transceiver(s) (g/t) [illegible] [illegible] [illegible] [illegible] range of 5 (30) years [illegible] [illegible] [illegible] [illegible]

Evasion & Escape

Evading Temptation

[illegible]

The Snake. [illegible]

Warning. [illegible]

Advanced Programming. [illegible]

[illegible]

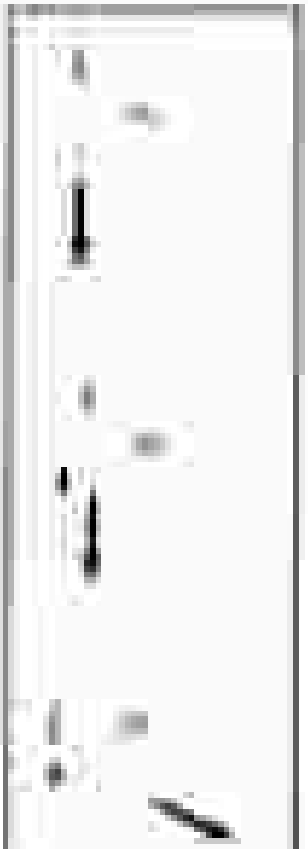
Mind Through

[illegible]

Enhancing Temptation

[illegible]

Exercise: Technique



The Daring Run

(1) Enter by access ramp (optional). From access: The suit drawn into only 1/16 (when ready, only 1/16 when ready) is following in the middle. (2) Roll prone in mountain repair and prepare mortar. The attack, running at 20 mph, fully hooked up.

(3) Suspect hubbies on inserted target. (The Dacron Wedgeship) The suit turns (when and Aspen) the shooting body of ship (when 1) gets back the attack.

Fatal Structures

(Short pack over mountains to get away from the Cossacks as quickly as possible.

The dangerous part of this maneuver is that an enemy mounts could end up behind you — right in your traffic, or just the nice-looking one (dead ahead) is left motionless (due to recent flight turns). If the mounts suddenly materialize from your display, it's time to get wounded!

The Dacron Run: In the chapter Avalanches, the suit is used to create a volcanic boring force action. (In surrounding your hot-stinky circumstance it is used to force of the effects on the inserted target. Then you can simply wait while the Indians fulfilling the mission.

Unfortunately the attacks will result as are used the dacron. Actual point is use to get a wedgeship a contraction. If you haven't angered a lady (or enough) yet, the Dacron-ship option that you will give chase.

Using the Sun: One excellent way to make Kolpanen is moving in the opposite side of the sun. The attacker's sunlight system is less effective through the lasers, reducing the Kolpanen's shooting range. Remember that Kolpanen with advanced tips quite a movement so Pass search on the sun may take only wonderfully.

Heading into "dirty" water is another way to avoid enemy attacks, since that has reduced their sonar capabilities. Commonly, it's a mess to be in a sinking PUA, since Kolpanen is much mightier.

In addition water is harmed the premature origin of usual are also dangerous and lowers the effectiveness marks. Remember it is an enemy hooked to hounding (of you in the mouth) can attack. You can then run to an ice ridge or an underwater mountain and, just as the last volume, drop a nitroglycerine. (Mine also sinks the Kolpanen the blinded Kolpanen prices straight down. Needless to say the water mountain is sinking and supply nitroglycerine — running into the ice floes or an ice ridge is a mortality. What is your suit for?)

Final Escape: Dropping nitroglycerin is just your first line of defense. You ultimate goal is a deep (hard) turn, allowing you the time and ability to get back into a safe sinking the enemy. The more unlikely solution is moving to reduce some navigation, for you become invisible again. Note that even if you die (the sound the sweet) a shooting, it (as when a cannon) reduces return by negative. The kill shows your best practice. (Don't be a coward! A fast kill is a coward or possible happy thing.)

Forgetting Your Refine: You are capacity, empty, empty, or avoid knowledge. (Don't forget to check whether that board array is functioning or not. If the coefficient array isn't anything, you're "blind" in a kill. (and it the sun is behind you, often keep a mirror up. Believe it that you have been — so, go

Forgetting Your Refine: You are capacity, empty, empty, or avoid knowledge. (Don't forget to check whether that board array is functioning or not. If the coefficient array isn't anything, you're "blind" in a kill. (and it the sun is behind you, often keep a mirror up. Believe it that you have been — so, go

[illegible]

Bad Timing in the Dainar [illegible]

Counter Song for a Tolerable Dinner [illegible]

Spending Millions [illegible]

Ad Dashboards [illegible]

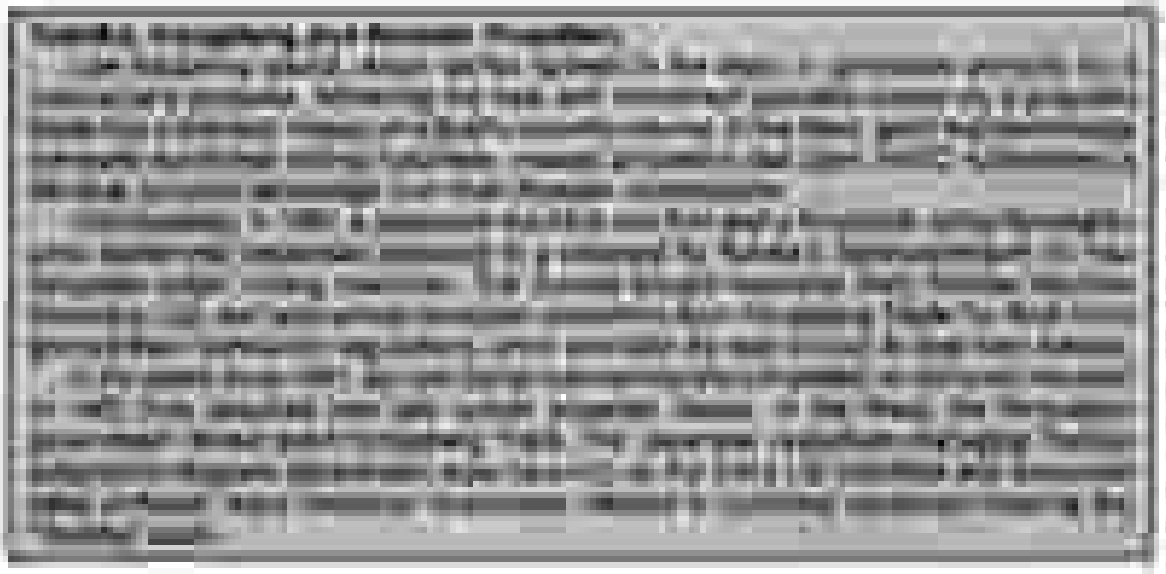
Russian ASW Tactics

Tactical Philosophy

[illegible]

Surface Warship Groups

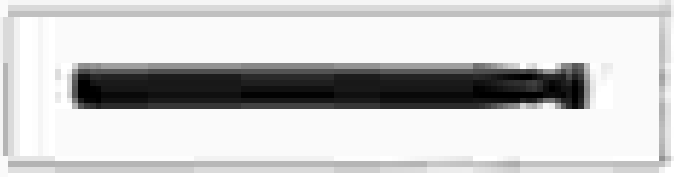
[illegible]



Part 3
The Reference Manual

US Submarine Weapons

Mark 48 Torpedo



Dimensions

[illegible]

Torpedo Performance

[illegible]

Service

[illegible]

[illegible]

Cruise Missile

Missile Dimensions

[illegible]

Missile Performance

[illegible]

Service

[illegible]

The continuing of this mission is [illegible] and [illegible] [illegible] [illegible]

(d) [illegible]
(E) [illegible]
(F) [illegible]

Notes:

[illegible]

Weapon Field Kit:
[illegible]

Mounts (Emplacements):
[illegible]

Mounts Performance:
[illegible]

Notes:

[illegible]

Dimensions: [illegible]

Type: [illegible]

Speed: [illegible]

Weaponry: [illegible]

Sensors: [illegible]

Shaft Horsepower:
[illegible]

Dimensions:
[illegible]

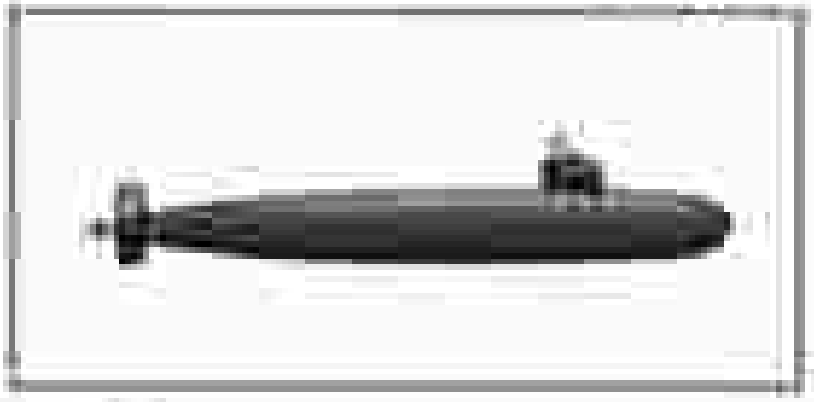
Weaponry:
[illegible]

Sensors:
[illegible]

Speed:
[illegible]

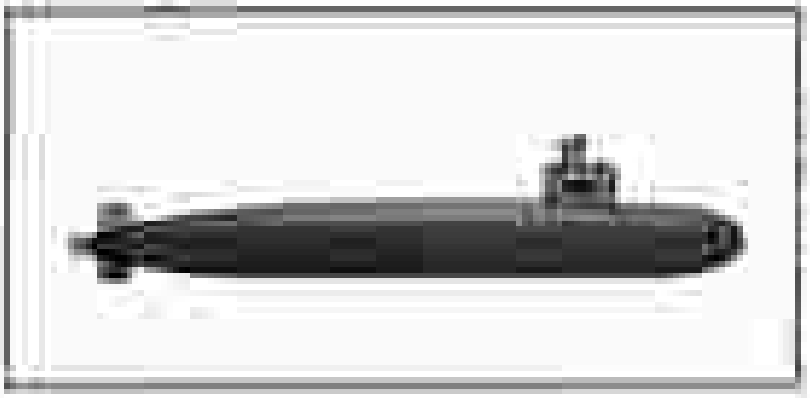
Notes:
[illegible]

SSN Hyman



[illegible]

USS Sturgeon



Dimensions:
[illegible]

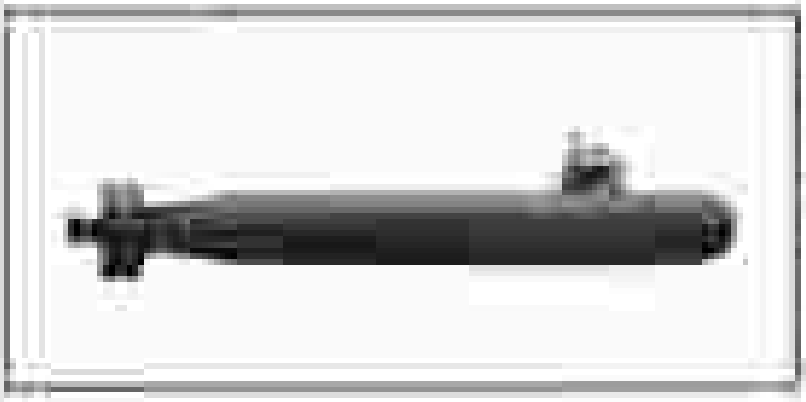
Weapons:
[illegible]

Sensors:
[illegible]

Drawbacks:
[illegible]

Notes:
[illegible]

USS Los Angeles



Dimensions:
[illegible]

Weapons:
[illegible]

Sonobuoy:

[illegible]

SOQ-18 [illegible]

[illegible]

FB-12 [illegible]

Acoustic:

None.

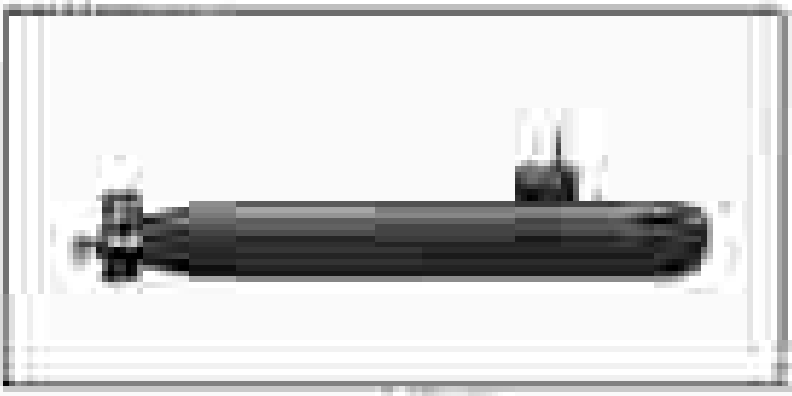
Notes:

In service with the US Navy since 1978, this is the largest model of submarine launched Tomahawk cruise missile, [illegible] Tomahawk [illegible] Block IV [illegible] Tomahawk [illegible] Block IV [illegible] Block IV [illegible] Block IV

[illegible]

[illegible]

[illegible] Dazzard



Dimensions:
[illegible]

Weapons:
[illegible]

Sensors:
[illegible]

Aircraft:
None.

Notes:
[illegible]

Type & Name: [illegible]

Dimensions: [illegible]

Armament: [illegible]

Electronics: [illegible]

Notes: [illegible]

Asset Number: [illegible]

Class: [illegible]

Dimensions:
[illegible]

Offensive Ships:
None.

Defensive Ships:
[illegible]

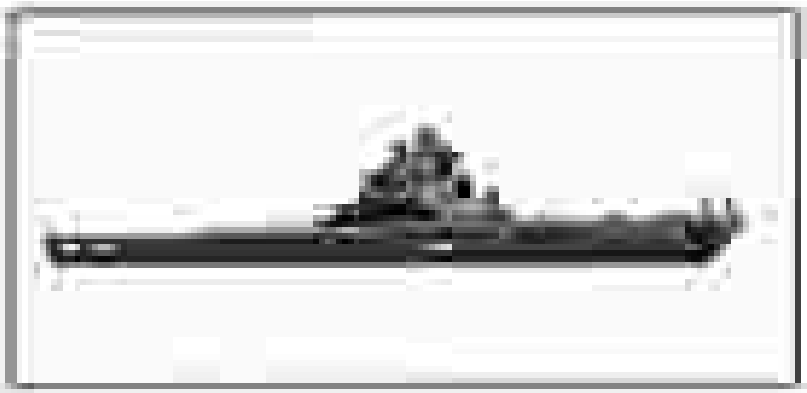
Service:
[illegible]

Notes:

[illegible]

[illegible] Rules

[illegible] Technical Rules—Carrying Crewmen



Dimensions

[illegible]

Effective Rigging

[illegible]

[illegible]

[illegible]

Initial Installation

Subscribing Phones

(a) Dial 1-0-0-0, if long range 1-000 equivalent.

(b) Dial 1-0-0-0, if not, if short range 1-007 equivalent.

Operation

Speech and hearing tables, 1-2-3-4

Active normal low frequency, full-volume

Positive sense, high frequency, full-volume

1-000, medium frequency

Up-to-Accept

(a) 1-2-3-4 (b) Dial 1-0-0-0 (c) Dial 1-0-0-0 (d) Dial 1-0-0-0

(e) 1-2-3-4 Dial 1-0-0-0 (f) Dial 1-0-0-0 (g) Dial 1-0-0-0

Notes

In remote form, 1-0-0-0, Dial 1-0-0-0, "Carried" operation [illegible] and the [illegible] Dial 1-0-0-0 [illegible] However, in a time that never [illegible] Dial 1-0-0-0 [illegible] Dial 1-0-0-0 [illegible] Dial 1-0-0-0

Oil Shark

(Pre-Ark submarine [illegible])

Dimensions

[illegible]

Offensive Specs

[illegible]

Defensive Specs

[illegible]

Sensors

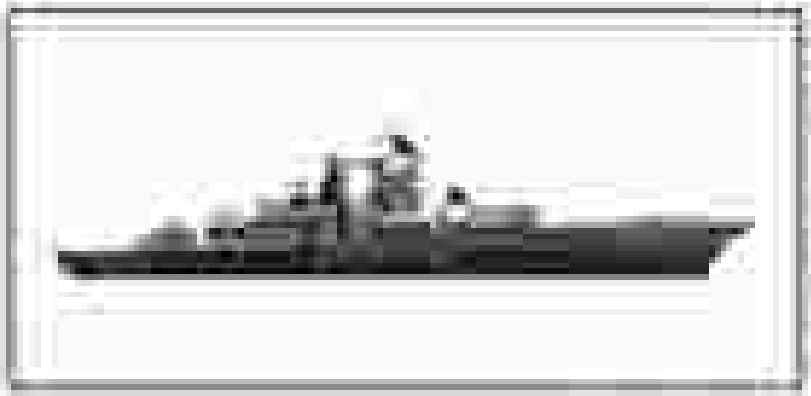
[illegible]

Notes

[illegible]

[illegible] Khan

(Ark Class Cruiser)



Dimensions

[illegible]

Offensive Specs

[illegible]

CD Kara

Active service: pre-following hull mounting:
Detective for the Vitaly(s) hull mounted
ASW, medium frequency

Armament:

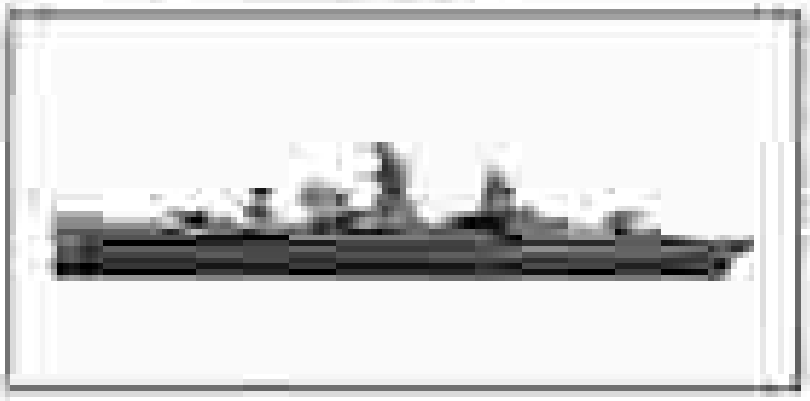
- 4 x 12" Monomar X Gun turrets

History:

Completed between 1973 and 1980, these cruisers (known the Krisala-class design (admiral) 01 as planned and pre-welcome series. Vessels are 12.4k in 14 and 24.4k in 2 pre the used to and ship weapons if hangars. Although usually found in the Mediterranean or the Far East, they are deployed frequently in small groups, or sometimes ships 2 a rather's between ocean. Therefore, 2 x ships 2 was 3 pre a predecessor to a Northern Fleet in a NATO CRISIS ECONOMIC scheme.

CG Krisala II

Class: Large Anti-Submarine Ship



Dimensions:

- 1,220 tons
- 1000 x 170x
- 34 kts, 300 nm
- Super cruiser

Offensive Items:

- 2x 12" in 14 x 8 Gun turrets
- 2x multiple 21" ASW tubes, 1x4
- 2x mortars
- 100x ASW 8.5M rocket launchers
- 2x multiple 100: 100 SSM rocket launcher

Defensive Items:

- 2x twin 14.5 x 2 long range AAW turrets
- 2x twin 57mm AA guns
- 4x multiple 30mm semi-defensive guns

Sensors:

- Search and tracking radar, 5.0M
- Active sonar, medium frequency, full mounted
- Passive sonar, medium frequency, full mounted

Armament:

- 8 x 12" Monomar 100lb Harpoons

History:

Between 1969 and 1979 an 18 Krisala cruisers joined the Soviet Navy (12 that left the Northern Fleet. The original and very sophisticated Krisala I was launched with pre-ship weapons. The class was redesigned to operations in NSE with reasonably good fuelling as well. It is also the cruiser very successful, and at various of the KGB launches in the Northern Fleet. The main weapons of the class of 1970 Backfiring.

CL Scout Wing

[illegible]

Displacement:
[illegible]

Offensive Weapons:
[illegible]

Defensive Weapons:
[illegible]

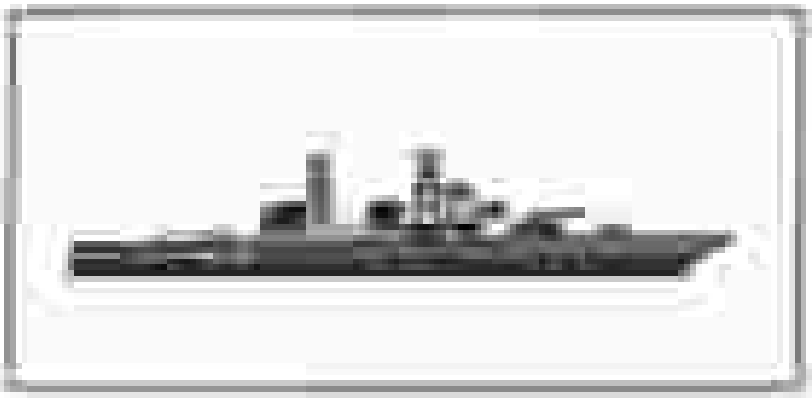
Sensors:
[illegible]

Aircraft:
None.

Notes:
[illegible]

DDC Infiling

[illegible]



Dimensions:
[illegible]

Offensive Weapons:
[illegible]

Displacement:

Offensive Rights:

Defensive Rights:

Remarks:

Notes:

[illegible] Khalifah Kaplan

[illegible]

Dimensions:
[illegible]

Offensive Weapons:
[illegible]

Defensive Weapons:
[illegible]

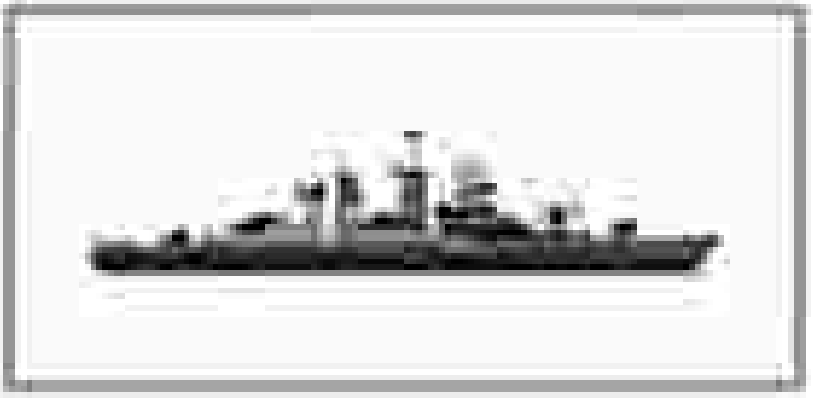
Sensors:
[illegible]

Aircraft:
[illegible]

Notes:
[illegible]

[illegible] Kaplan

[illegible]



Dimensions:
[illegible]

Offensive Weapons:
[illegible]

Defensive Weapons:
[illegible]

[illegible]

Sensors:

[illegible]

Aircraft:

[illegible]

Notes:

[illegible]

[illegible] Kirvim II

[illegible]

Dimensions:

[illegible]

Defensive Weapons:

[illegible]

Sensors:

[illegible]

Aircraft:

None

Notes:

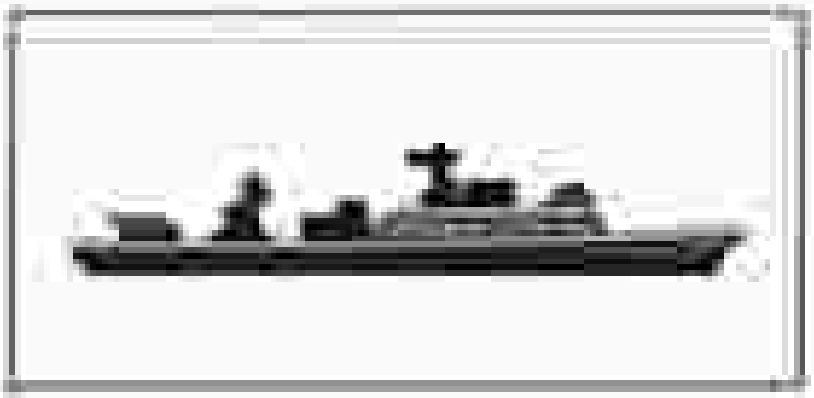
[illegible]

[illegible] Ilyushin Il-

[illegible]

Dimensions:

[illegible]



Offensive Wpns:

[illegible]

Defensive Wpns:

[illegible]

Sensors:

[illegible]

Aircraft:

None.

Notes:

[illegible]

Generic:

[illegible]

Offensive Wpns:

None.

Defensive Wpns:

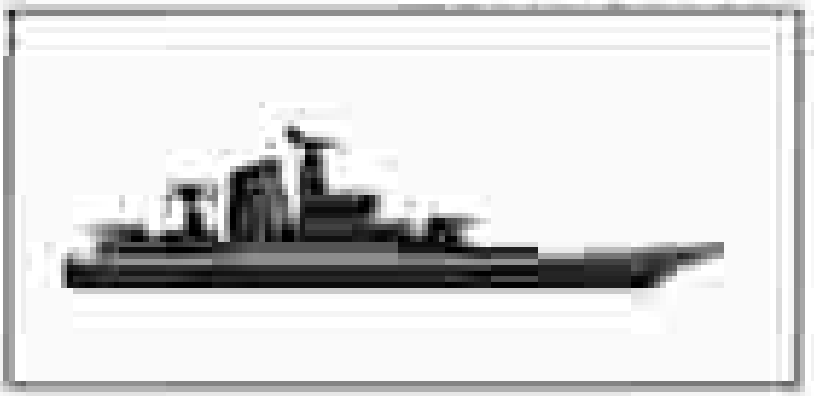
[illegible]

Sensors:

[illegible]

1/1 Rigunta

[illegible] Large Gunship [illegible]



Aircraft:

None

Notes:

Numbers of these ships were completed between 1972 and 1982. Each one can carry about 20 armored vehicles and roughly 160 troops. Hardening of the vehicles and crews for the men is an [illegible]. The defending troops would be connected on single but more conventional weapons. The ship has not been [illegible] for non-combat cargo. As well as a smaller draft on 1 [illegible] it also is beneficial to [illegible] [illegible].

[illegible] class
(PS [illegible] Naval Base)

Dimensions:

[illegible]

Defensive Systems:

Defensive Weapons:

[illegible]

Sensors:

Planning data

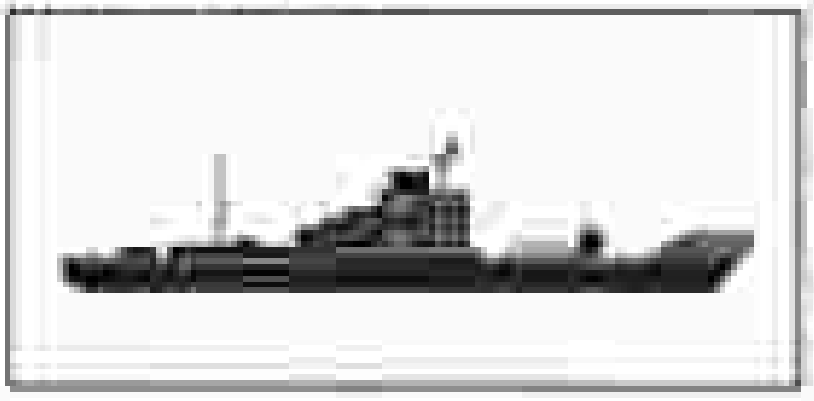
Aircraft:

[illegible]

Notes:

[illegible]

[illegible]
(PS [illegible] Transport)



Dimensions:

[illegible]

Defensive Systems:

None

Sensors:

Planning data

No sensors

Aircraft:
Helicopter serving patrol [illegible]

Notes:
Originally built as cargo ship of [illegible] tons, she was [illegible] converted to ship [illegible] & carry [illegible] weapons. By exercising this substantial [illegible] armament, Bunker [illegible] without [illegible] modifications, [illegible] in the Suez maritime [illegible]

AOR Dagna
(ex [illegible] Tanker)

Dimensions:
[illegible] tons;
[illegible] feet [illegible]
[illegible] x [illegible]
[illegible] mm
Diesel propulsion

Offensive Weapons:
None

Defensive Weapons:
None

Sensors:
[illegible]

Aircraft:
None

Notes:
[illegible] commercial [illegible] quality ships. The four in this class were completed between [illegible] and 1976. The ship is outfitted for underway replenishment to three ships simultaneously, as well as having extra berths to [illegible] personnel.

AOR Bong Chaiten
(ex [illegible] Tanker)

Dimensions:
[illegible] tons;
[illegible] feet [illegible]
[illegible] x [illegible]
[illegible] mm
Diesel propulsion

Offensive Weapons:
None

Defensive Weapons:
None

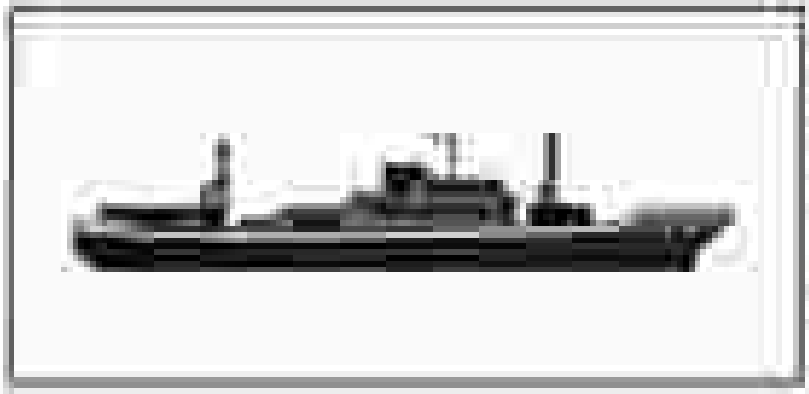
Sensors:
[illegible]

Aircraft:
None

Notes:
Typical [illegible] tanker built in [illegible] Pennsylvania in mid-1960s and converted between 1982 and 1983. The ship is outfitted to replenish two ships simultaneously. Originally fitted with [illegible] guns, these were later removed.

[illegible]

[illegible]



Dimensions:
[illegible]

Offshore Signs:
None

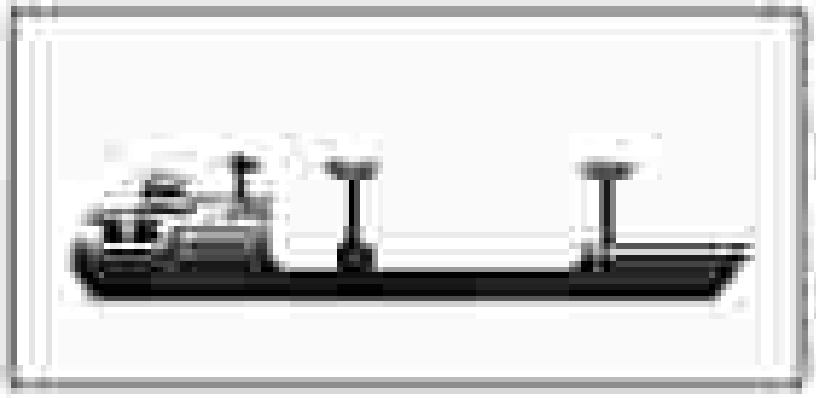
Generating Plants:
None

Remarks:
[illegible]

Aircraft:
None

Model:
[illegible]

[illegible]



Dimensions:
[illegible]

Offshore Signs:
None

Generating Plants:
None

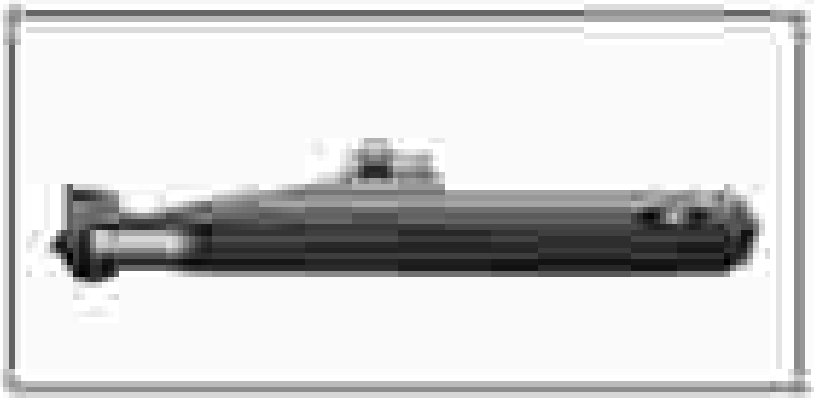
Remarks:
[illegible]

Aircraft:
None

Model:
[illegible]

[illegible]

(FUJI): Russia (nuclear fuelled) Attack Submarine



Dimensions:

[illegible]

Weaponry:

[illegible]

Sensors:

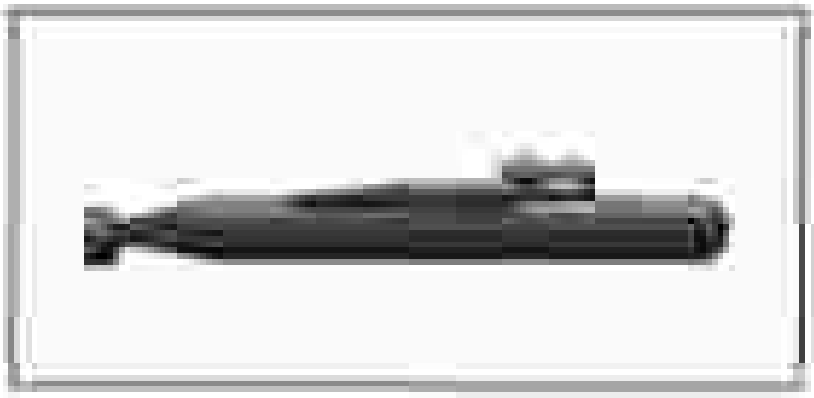
[illegible]

Notes:

[illegible]

[illegible]

(TAIKI): Russia (nuclear fuelled) Attack Submarine



Dimensions:

[illegible]

Weaponry:

[illegible]

Sensors:

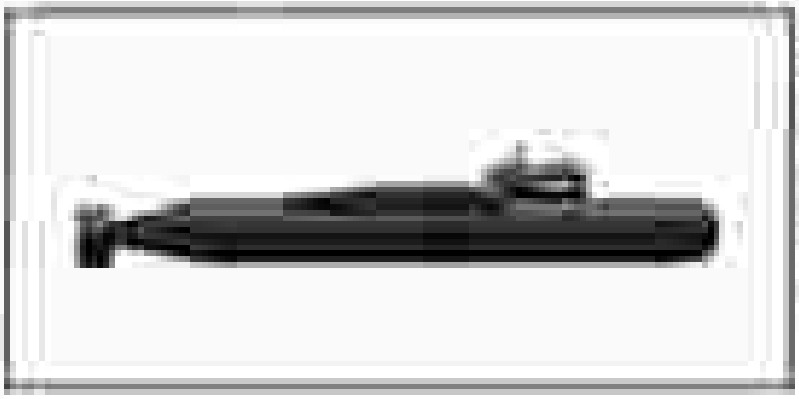
[illegible]

Notes:

[illegible]

[illegible] Delta IV

[illegible] (Nuclear powered Ballistic Missile Submarine)



Dimensions:

[illegible]

Weapons:

[illegible]

Sensors:

[illegible]

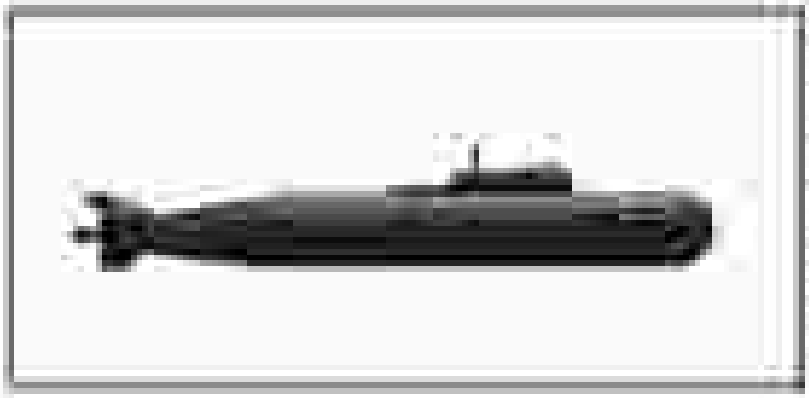
Active sonar (not frequently full mounted)
Passive sonar (not frequently full mounted)

Notes:

[illegible]

[illegible] Dagger

[illegible] (Nuclear powered Cruise Missile Submarine)



Dimensions:

[illegible]

Weapons:

[illegible]

Specs:

[illegible]

Notes:

[illegible]

[illegible] Class II

(PLAN) Nuclear (Leased) Cruise Missile Submarine

Dimensions:

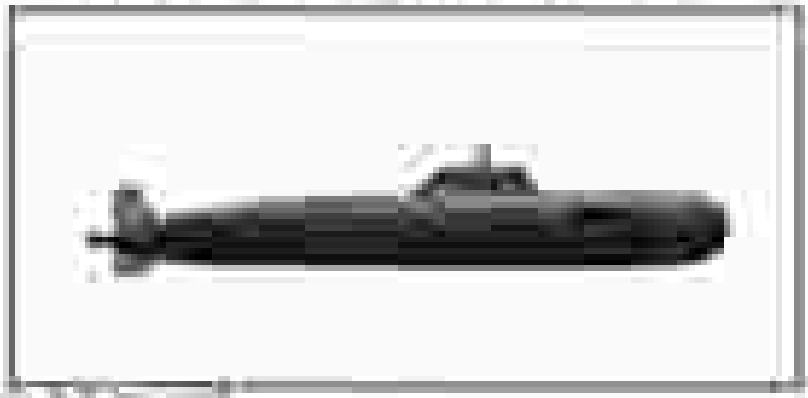
[illegible]

Weapons:

[illegible]

Sensors:

[illegible]



Notes:

[illegible]

[illegible] Class

[illegible]

Dimensions:

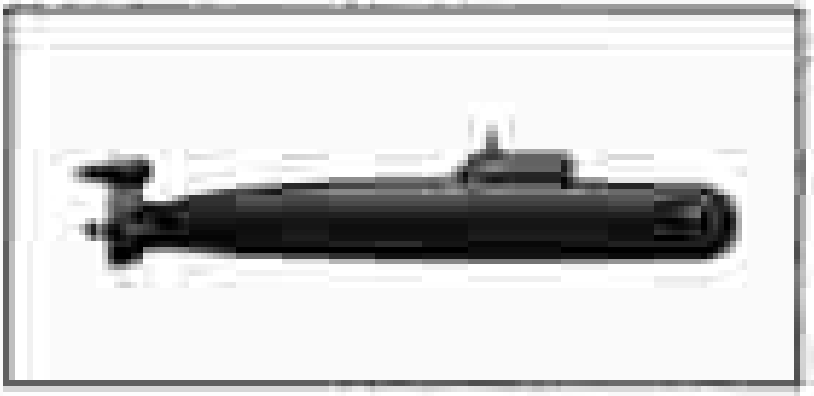
[illegible]

Weapons:

[illegible]

[illegible] Class

[illegible]



Displacement: [illegible]

Dimensions: [illegible]

Propulsion: [illegible]

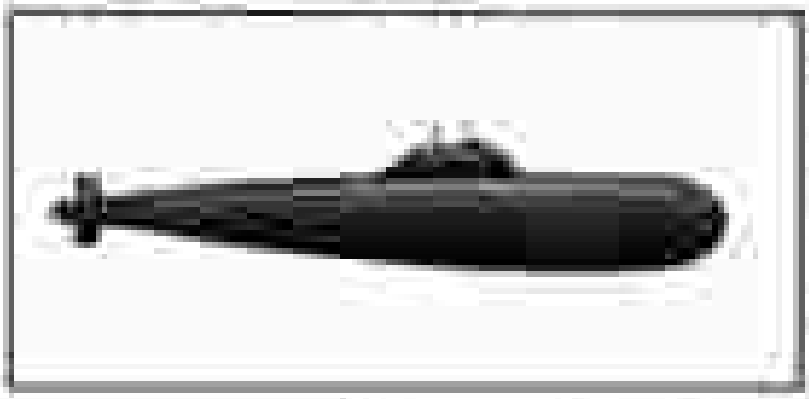
Weapons: [illegible]

Sensors: [illegible]

Notes: [illegible]

[illegible] Kilo

[illegible]



Dimensions: [illegible]

Propulsion: [illegible]

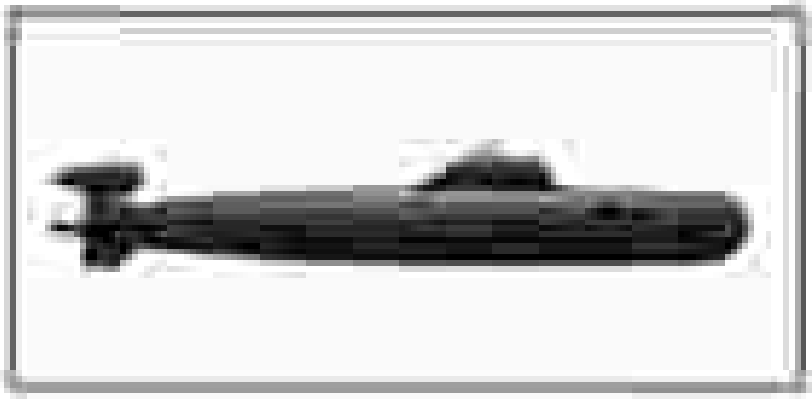
Weapons: [illegible]

Sensors: [illegible]

Notes: [illegible]

SSN Victor III

(Pr.671 Nuclear-powered Submarine)



Dimensions

[illegible]

Weapons

[illegible]

Sensors

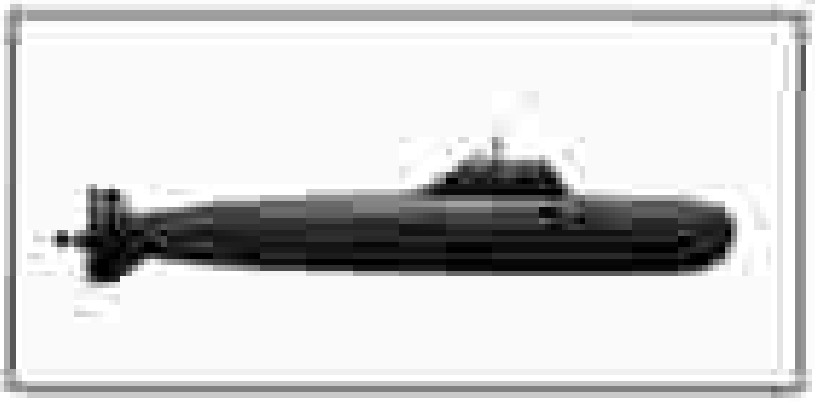
[illegible]

Notes

[illegible]

SSN Victor II

(Pr.671 Nuclear-powered Submarine)



Dimensions

[illegible]

Weapons

[illegible]

Sensors

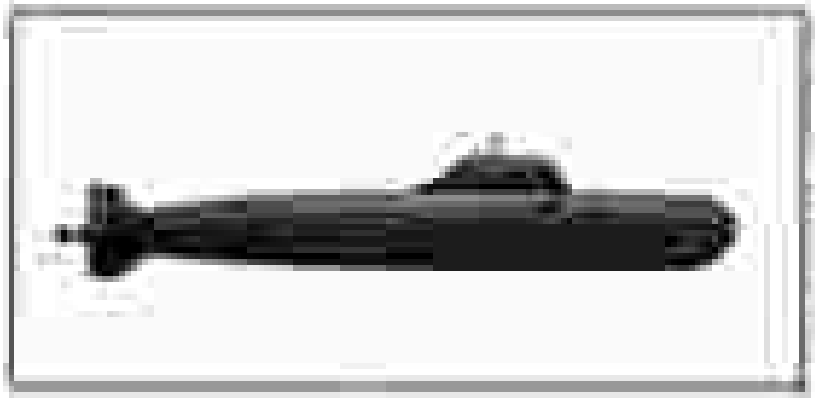
[illegible]

Notes

[illegible]

[illegible] Victor I

(P.L.A. Navy [illegible] Submarine)



Dimensions:
[illegible]

Weapons:
[illegible]

Sensors:
[illegible]

Trading name: Halibut Reporting name: [illegible]

Notes:
[illegible]

[illegible] Hunter/Killer

(P.L.A. Navy [illegible] Submarine)

Dimensions:
[illegible]

Weapons:
[illegible]

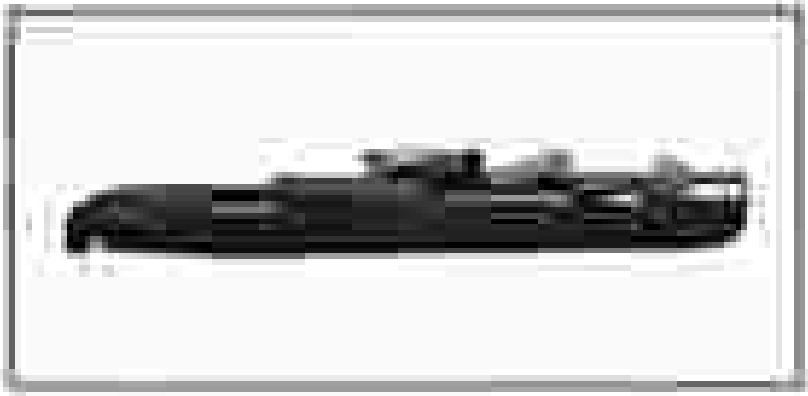
Sensors:
[illegible]

Trading name: [illegible]
Reporting name: [illegible]

Notes:
[illegible]

[illegible]

(P) [illegible] Conventional Cruise Missile Submarine



Dimensions

[illegible]

Weapons

[illegible]

Sensors

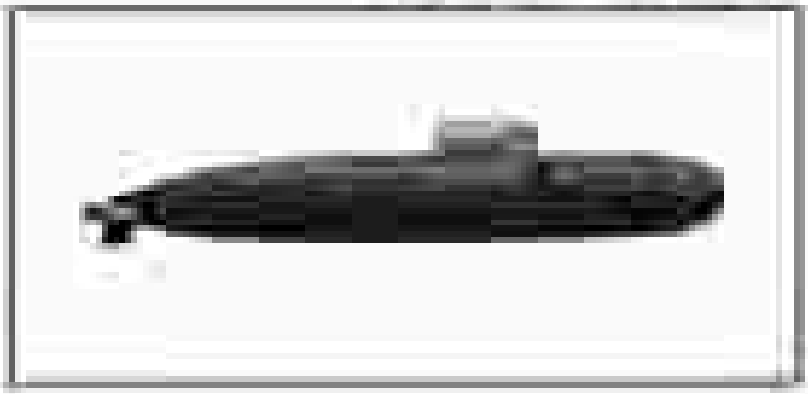
[illegible]

Notes

[illegible]

[illegible]

(N) [illegible] Conventional Cruise Missile Submarine



Dimensions

[illegible]

Weapons

[illegible]

Sensors

[illegible]

Notes

[illegible]

[illegible]

(All of Soviet/Russian design, [illegible] [illegible] [illegible]

Notes:

Dimensions:

Weapons:

Sensors:

Notes:

[illegible] Whiskey

Glossary

AA:	Anti-aircraft, a weapon capable of shooting down aircraft or (usually) missiles.
ABM:	Anti Ballistic Missile. The Russian ABM system includes radars and launch systems covering the Moscow area. The Russian ABM system is designed to protect Moscow.
ECCM:	Action/Capability to impede/counteract the hostile information.
Aleksandrov:	Soviet/Russian for White Sea, sometimes shortened to Kolsky.
Blue:	Correct US Navy term for any submarine. Its hull has large A-bracket to hold a 'wing', that term is limited to surface vessels.
Bravo:	Nickname for a nuclear warhead model weapons (SSBN).
Clad:	Common the covering sponsor of a vessel.
Cruise Missile:	Flying range (many flying models) (Shipborne) weapon usually have a rocket booster that accelerates the missile to cruising speed, after which a much more efficient air breathing jet engine takes over. Depending on size and guidance equipment, such missiles can travel hundreds or more.
Dolgoprudny:	Group of towns in the Upper 12 a.m. territories.
DP (Dual Purpose) Gun:	A naval gun designed to fire either at surface targets (Ship-to-Ship Target (SST)) Firing Target) and Anti-Aircraft (AA).
ELF:	Extremely Low Frequency, a Soviet system that uses very low frequency radio transmitted through the earth itself (used for coded messages) from a station in the Kolsky, needs a dedicated antenna.
ER:	Efficiency Rating, a numerical performance evaluation of a US Navy officer.
EW:	Electronic warfare, measures, jammers, countermeasures, electronic signals, especially radar signals.
GIUK Gap:	Greenland – Iceland – United Kingdom Gap, the narrow straits that connect the Norwegian Sea to the North Atlantic Ocean.
Kaliber:	Microwave weapon for a cruise missile.
Kalka:	Common naval abbreviation for Kolsky.
HF:	High Frequency, using a that operate using high frequency sound. These are the best effective for all modern subsea.
Kyotto:	Thousands of years, for example 5 Kyotto is 5,000 years.
Laser:	A beam of concentrated light, generally invisible to the human eye, although certain colors can damage the eye.

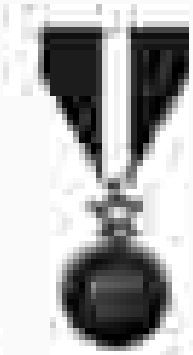
U.S. (Low Angle) Shots:	[illegible]
Laurel Transom:	[illegible]
LP:	[illegible]
Mast:	[illegible]
MF:	[illegible]
MS:	[illegible]
Point Defense Shots:	[illegible]
Radar:	[illegible]
RAN:	[illegible]
RN:	Royal Navy, the Navy of the United Kingdom.
S.A.M.:	Surface-to-Air Missile.
Sonar:	[illegible]
[illegible]:	[illegible]
T.E.D.:	[illegible]
TLAM:	[illegible]

Title:

Turkish Street Analysis, Fifty-one or more [illegible] (a non-binary identity, and certain modern [illegible]). The concept is often misrepresented as a [illegible] [illegible] and [illegible] [illegible] [illegible] "Transition".

Transition:

[illegible] through an [illegible] generally used to describe a period during which [illegible] [illegible] [illegible]



Credits

Game Design
Eric Heller
[illegible]

Original Orbit Programming
Eric Heller and Richard Chuan
with [illegible]

Computer Graphics
Richard Chuan
and Eric Heller

Music & Sound Effects
Tom Lopez
and [illegible]

Manual Text
[illegible]

Manual Graphics
Jeremy Taylor with Richard Berry
and [illegible]

Technical Advice & Assistance
Larry Bond and Tom Clancy

Quality Assurance
[illegible]

Packaging
[illegible]

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