

- Reinforce Alert -

***Weapons
Guide***

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PreView Version

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--- TORPEDOES ---

Mk 48 ADCAP Torpedo

ADCAP stands for Advanced Capability. This weapon can be used against both surface and submarine targets and can be wire-guided.

Diameter: 533 mm (21 in)

Length: 5.84 m (19.1 ft)

Weight: 1565 kg (1.7 tons)

Warhead: 295 kg (650 lb) PBXN-103 /Polymer Bonded Explosive /

Speed: 40 kts min / 55 kts max

40-45 Kts Passive Search Mode / 50 Kts Passive Attack Mode

40-55 Kts Active Search Mode / 55 Kts Active Attack Mode

Ranges:

27 Nmi at 40 kts

21 Nmi at 55 kts

Max Depth: 2,499 ft (762 m)

Frequency of Active Search Mode – 20000 Hz.

After Acquired, In Attack Mode a worked sensor with 25000 Hz.

The programs of Mk 48 ADCAP guide:

Mk 48 ADCAP torpedo uses a direct mode of movement, however sensors discretely scan a cone between 270 and 90 degrees on a course of a torpedo in Passive Mode and 300 and 60 degrees in Active mode [If Heading torpedo at 000 degrees].

The program of management of sensor controls and circle move mode is based on assigned in a field of appointment FLOOR value.

(The option is designated in weapons preset as “Floor/Mode:”)

SNAKES MODE:

MODE: 0 (ZERO) – DEFAULT (SEARCH PATTERN - SNAKE) : STARPORT SIDE INIT SEARCH.

By default, after enabled of sensors the review of the starport side sectors on a course of a torpedo begins.

For activation of this mode follow such steps:

Establish Value FLOOR as **01000**. (This Mode Preset As Default)

First digit in the category (Red Designated)- will establish number of a mode – Mode Number ZERO.

The following four digits **1000** - is FLOOR in which the torpedo works.

MODE: 1 (ONE) - SEARCH PATTERN – SNAKE : PORT SIDE INIT SEARCH.

The following mode, provides viewing the port side sectors after enabled of sensor controls.

For activation of this mode follow such steps:

Establish first Digit in Value FLOOR as **11000**. (Or as it is necessary - for example **10800** – for floor 800 feet.)

First digit in the category (Red Designated)- will establish number of a mode – Mode Number ONE.

The following four digits **0800** - is FLOOR in which the torpedo works.

* - It is necessary to note, that these modes are not half-cut. Review will begin with the starport or port side , but as a whole, the sensor controls will carry out the complete review of sectors -

both with right and from the left side. It simply sets an INITIAL phase of work - from what side to first to make search scanning.

MODE: 2 (TWO) - SEARCH PATTERN – SNAKE: TOWARD SEARCH.

The following mode is stipulated for inclusion ONLY of directly focused sensor control.

* - All time only forward focused sensor control works - lateral sectors ARE NOT LOOKED THROUGH.

For activation of this mode follow such steps:

Establish Value FLOOR as **21000**.

First digit in the category (Red Designated)- will establish number of a mode – Mode Number TWO. The following four digits **1000** - is FLOOR in which the torpedo works.

CIRCLES MODE:

Mode ZERO and ONE also preset the side began of performance turn in a mode a CIRCLE.

In a mode ZERO, the torpedo will begin to carry out a circle in the STARPORT side. In a mode ONE - the circle will begin in the PORT side.

* - In CIRCLE mode, ONLY the directly focused sensor control works.

MODE: 0 (ZERO) – DEFAULT (SEARCH PATTERN - CIRCLE) : STARPORT SIDE TURN MONOUEVRE.

Establish Value FLOOR as **01000**

MODE: 1 (ONE) - (SEARCH PATTERN - CIRCLE) : PORT SIDE TURN MONOUEVRE.

Establish Value FLOOR as **11000**

Torpedo has Decoy Logic Recognition -*, and Target Reattack option -.**

* - It is meant, that the torpedo is not absolutely insured from targeting on CM's.

For example - if range between torpedo and CM large, the torpedo will not distinguish CM, accordingly, she will be targeting on CM.

However - in process of reduction of distance up to a CM and increase of strength of a signal, the torpedo will distinguish CM and to reject her from attack.

The acoustic conditions, also can influence distance, on which CM will be distinguished steadily.

In general, it is possible to say so - than closer to CM the sensor control on a torpedo will be switched on, especially probability that a signal of a CM will be high on the level, and CM will be at once rejected from the valid target.

** - After loss of contact, torpedo 20-30 seconds continue to move by the current course, then will carry out a circular sample of search (In Any Random Side – port or starport), for attempt of repeated reception of contact.

In case the repeated contact is not received - torpedo will continue cruise in that course, on which she was at the moment of the discontinuance reattack option.

The torpedo has separated modes - ASW , ASuW or ASW+ASuW.

The mode ASW+ASuW is preset default - when value "Ceiling" preset as 9 feet.

The mode ASuW is activated by preset value of "Ceiling" - to 10 ft. It will work only against the Surfaced target (above 10 feet or 3 meters)

The mode ASW is activated by preset value of "Ceiling" – to 11 or below feet. It will work only against the undersea target (below 10 feet or 3 meters).
For a mode ASW, the ceiling will work in all range - for example if the ceiling will be preset as 328 ft, - the submarines which are will not be higher than 328 ft valid for attack of a torpedo.
However - in a mode of attack, the torpedo will ignore the ceiling, established by the player -
The torpedo will pursue a sub in all range of working depths.

Changed Search Depth: The player can change depth of search during work of a torpedo.
For change of depth follow by the following steps:

Switch off sensor controls on a torpedo - pressing of the button PREENABLE.

Then, execute the following combination of pressing of buttons:

ENABLE-PREENABLE-ENABLE.

(It is necessary to notice, that the combination ENABLE-PREENABLE-ENABLE, works quickly - on it 5 seconds are allocated - Last pressing of the button ENABLE should be not later than 5 of seconds from the originally pressed button ENABLE.)

Visually, it can be checked on the display - by pressing the button ENABLE a cone of a torpedo becomes red color, then by pressing the button PREENABLE - the color of a cone becomes dark blue, and subsequent pressing ENABLE - cone to become of red color - torpedo will do change of depth of search.

If is termal a layer, and the torpedo is above than layer, then she will change depth of search so that he was UNDER a layer. And on the contrary.

If a layer no, then the torpedo simply will change depth of search on large or smaller - depending on that on what depth there is a torpedo.

The torpedo remembers depth on which the option of change of depth of search was given.
After preenable sensor controls, the torpedo again will restore the previous depth of search.

Do not worry about infringement FLOOR of a below allowable limit.

If the value 24500 will be for example established, FLOOR will be established automatically to the maximal value of a torpedo Mk 48 ADCAP - 2499 ft.

PASSIVE MODE FEATURES:

If the speed of cruise torpedo exceeds of minimal SPD torpedo at 5 kts , after enabled of a passive sensor control, a torpedo automatically to be set search speed to minimal speed.

Simple sample – for fast exited torpedo to target, player preset cruise speed torpedo to 55 knots.

After enabled Passive Sensor, torpedo Mk 48 ADCAP automatically decreased speed to 40 knots /Minimal speed for this torpedo/.

If Player preset cruise speed torpedo between 40-45 knots (Between “Minimal SPD +5”), after enabled sensor control, the torpedo will inherit cruise speed.

The rule "Minimal speed + 5 knots " also is fair for all torpedo capable to work in a passive mode of the given addition “Reinforce Alert”.

Mk 48 Mod 4. Torpedo

This weapon can be used against both surface and submarine targets and can be wire-guided.

Direct Strait Torpedo.

Diameter: 533 mm (21 in)

Length: 5.84 m (19.1 ft)

Weight: 1565 kg (1.7 tons)

Warhead: 295 kg (650 lb) PBXN-103 /Polymer Bonded Explosive /

Speed: 40 kts min / 55 kts max
40-45 Kts Passive Search Mode / 50 Kts Passive Attack Mode
40-55 Kts Active Search Mode / 55 Kts Active Attack Mode
Ranges:
27 Nmi at 40 kts
21 Nmi at 55 kts
Max Depth: 2,499 ft (762 m)

Frequency of Active Search Mode – 20000 Hz.
After Acquired, In Attack Mode a worked sensor with 25000 Hz.

Mk 48 Mod 4. Torpedo uses a direct mode of movement, however sensors discretely scan a cone between 270 and 90 degrees on a course of a torpedo in Passive Mode and 300 and 60 degrees in Active mode [If Heading torpedo at 000 degress]. Complete cycle the acoustic head of a torpedo will make for 26 seconds in full segment overview.

Algorithm of work acoustic head after enabled of a sensor control - always STARPORT side begin scanning.

Torpedo has Decoy Logic Recognition, and Target Reattack option.

Changed Search Depth: The player can change depth of search during work of a torpedo.

For change of depth follow by the following steps:

Switch off sensor controls on a torpedo - pressing of the button PREENABLE.

Then, execute the following combination of pressing of buttons:

ENABLE-PREENABLE-ENABLE.

(It is necessary to notice, that the combination ENABLE-PREENABLE-ENABLE, works quickly - on it 5 seconds are allocated - Last pressing of the button ENABLE should be not later than 5 of seconds from the originally pressed button ENABLE.)

Visually, it can be checked on the display - by pressing the button ENABLE a cone of a torpedo becomes red color, then by pressing the button PREENABLE - the color of a cone becomes dark blue, and subsequent pressing ENABLE - cone to become of red color - torpedo will do change of depth of search.

If is termal a layer, and the torpedo is above than layer, then she will change depth of search so that he was UNDER a layer. And on the contrary.

If a layer no, then the torpedo simply will change depth of search on large or smaller - depending on that on what depth there is a torpedo.

The torpedo remembers depth on which the option of change of depth of search was given. After preenable sensor controls, the torpedo again will restore the previous depth of search.

65-76 Torpedo

65-76 - This is an extremely powerful Wakehoming Torpedo, and has the ability to destroy most Surface Vessels with one hit. It may be used solely against Surface Targets. Cruise depth limited to 14 meters [46 feet]. After Launch, torpedo automatically set to cruise depth. Wireguide – remove from this torpedo. Button CIRCLE And SNAKE – not valid. This Is Straight Move torpedo.

Diameter: 650 mm (25.6 in)
Length: 10.m (32.8 ft)
Warhead Weight: 900 kg (1,984 lb)
Cruise Depth: 14 meters (45 feet)
Max Launch Depth: 525m. (1722ft)
Speed: 30-50 kts (92.6 km/h)

Range: 24.9 km (13.4 nm) at 50 kts.
30.7 km (16.6 nm) at 40 kts.
36.7 km (19.8 nm) at 35 kts.
50 km (27 nm) at 30 kts.

IMPORTANT NOTE: The wakehoming torpedoes do not work against the surface ship, controlled by the player. This mistake is written down in the engine of game. The torpedo does not see a trace of the ship. It is fair for ALL wakehoming of torpedos (UGST in wakehoming mode, USET-80 etc.). Only the AI ships, are good targets for these torpedoes.

UGST Torpedo

Multipurpose, wire-guided props shrouded gas-turbine torpedo

Diameter: 53 cm

Length: 7.23 m

Weight: 2200 kg

Warhead: 205 kg

Speed: 30 kts min / 50 kts max

30-35 Kts Passive Search Mode / 40 Kts Passive Attack Mode

30-50 Kts Active Search Mode/ 50 Kts Active Attack Mode

Max Depth: 515 m.

Range: 40 km (21.5 nmi) at minimal speed cruise.

31 km (16.7 nmi) at maximal speed cruise.

Acoustics: Wake-Follower with Active/Passive homing. Universal torpedo. Could be used to depths of 515 m.

This weapon can be used against both surface and submarine targets and can be wire-guided.

There are no reports of effective countermeasures for use against wake-homing torpedoes making this a highly effective weapon.

Active Mode: This works as per Normal. Set the Torpedo for Active, and configure the other Torpedo settings i.e. Floor, Ceiling, Search Depth etc.

Passive Mode: With the exception of Torpedo depth, all other Torpedo settings, are set as per normal. (Depth value setting as deeper than 10 m.)

If the speed of cruise exceeds 35 kts, at enabled of a passive sensor control a torpedo automatically to be set search speed to 35 kts.

Wake Mode: Set Torpedo In Passive Mode, set depth value to 10 or less meters.

The cruise of a torpedo will be on that depth on which there was a launch. After enable of a wakehome sensor, torpedo to be established to the given depth - 10 meters or are higher

Torpedo has Decoy Logic Recognition, and Target Reattack option.

The torpedo has separated modes - ASW , ASuW or ASW+ASuW.

The mode ASW+ASuW is established default - when value "Ceiling" preset as 2 meters.

The mode ASuW is activated by preset value of "Ceiling" - to 3meters. It will work only against the Surfaced target (above 3 meters or 10 feet)

The mode ASW is activated by preset value of "Ceiling" – to 4 meters or below. It will work only against the undersea target (below 4 meters or 12 feet).

For a mode ASW, the ceiling will work in all range - for example if the ceiling will be preset as 100 m, - the submarines which are will not be higher than 100 meters valid for attack of a

torpedo. However - in a mode of attack, the torpedo will ignore the ceiling, established by the player - The torpedo will pursue a sub in all range of working depths.

Changed Search Depth: The player can change depth of search during work of a torpedo.

For change of depth follow by the following steps:

Switch off sensor controls on a torpedo - pressing of the button PREENABLE.

Then, execute the following combination of pressing of buttons:

ENABLE-PREENABLE-ENABLE.

(It is necessary to notice, that the combination ENABLE-PREENABLE-ENABLE, works quickly - on it 5 seconds are allocated - Last pressing of the button ENABLE should be not later than 5 of seconds from the originally pressed button ENABLE.)

Visually, it can be checked on the display - by pressing the button ENABLE a cone of a torpedo becomes red color, then by pressing the button PREENABLE - the color of a cone becomes dark blue, and subsequent pressing ENABLE - cone to become of red color - torpedo will do change of depth of search.

If is termal a layer, and the torpedo is above than layer, then she will change depth of search so that he was UNDER a layer. And on the contrary.

If a layer no, then the torpedo simply will change depth of search on large or smaller - depending on that on what depth there is a torpedo.

The torpedo remembers depth on which the option of change of depth of search was given.

After preenable sensor controls, the torpedo again will restore the previous depth of search.

USET-80 Torpedo

Multipurpose electric torpedo

Diameter: 533 mm

Length: 7.9 m

Weight: 2200 kg

Warhead: 300 kg

Speed: 30 / 48 kts (Variable Speed Mode)

30-35 Kts Passive Search Mode / 40 Kts Passive Attack Mode

30-48 Kts Active Search Mode/ 48 Kts Active Attack Mode

Max Depth: 1000 m (3280 ft).

Range: 18 km (9.7nmi) at 30 kts

13.5 km (7.3 Nmi) at 48 kts

This weapon can be used against both surface and submarine targets.

It has a maximum range of 9.7 n.m.

Acoustic with Active/Passive, Wake homing. Multipurpose electric torpedo. Could be used to depths of 1000 m.

There are no reports of effective countermeasures for use against wake-homing torpedoes making this a highly effective weapon.

Active Mode: This works as per Normal. Set the Torpedo for Active, and configure the other Torpedo settings i.e. Floor, Ceiling, Search Depth etc.

Passive Mode: With the exception of Torpedo depth, all other Torpedo settings, are set as per normal. (Depth value setting as deeper than 10 m.)

If the speed of cruise exceeds 35 kts, at enabled of a passive sensor control a torpedo automatically to be set search speed to 35 kts.

Wake Mode: Set Torpedo In Passive Mode, set depth value to 10 or less meters.
The cruise of a torpedo will be on that depth on which there was a launch. After enable of a wakehoming sensor, torpedo to be established to the given depth - 10 meters or are higher.

Torpedo has Decoy Logic Recognition, and Target Reattack option.

The torpedo has separated modes - ASW , ASuW or ASW+ASuW.

The mode ASW+ASuW is preset default - when value "Ceiling" preset as 2 meters.

The mode ASuW is activated by preset value of "Ceiling" - to 3meters. It will work only against the Surfaced target (above 3 meters or 10 feet)

The mode ASW is activated by preset value of "Ceiling" – to 4 meters or below. It will work only against the undersea target (below 4 meters or 12 feet).

For a mode ASW, the ceiling will work in all range - for example if the ceiling will be preset as 100 m, - the submarines which are will not be higher than 100 meters valid for attack of a torpedo. However - in a mode of attack, the torpedo will ignore the ceiling, established by the player - The torpedo will pursue a sub in all range of working depths.

USET-80K Torpedo

Multipurpose electric torpedo

Diameter: 533 mm

Length: 7.9 m

Weight: 2200 kg

Warhead: 205 kg

Speed: 35 kts / 50 kts (Variable Speed Mode)

35-40 Kts Passive Search Mode / 45 Kts Passive Attack Mode

35-50 Kts Active Search Mode/ 50 Kts Active Attack Mode

Range: 22 km (11.8 nmi) at 35 kts

17.5 km (9.4 nmi) at 50 Kts

This weapon can be used against both surface and submarine targets.

It has a maximum range of 11.8 n.m.

Acoustic with Active/Passive, Wake homing. Multipurpose electric torpedo. Could be used to depths of 1000 m.

There are no reports of effective countermeasures for use against wake-homing torpedoes making this a highly effective weapon.

Active Mode: This works as per Normal. Set the Torpedo for Active, and configure the other Torpedo settings i.e. Floor, Ceiling, Search Depth etc.

Passive Mode: With the exception of Torpedo depth, all other Torpedo settings, are set as per normal. (Depth value setting as deeper than 10 m.)

If the speed of cruise exceeds 35 kts, at enabled of a passive sensor control a torpedo automatically to be set search speed to 35 kts.

Wake Mode: Set Torpedo In Passive Mode, set depth value to 10 or less meters.

The cruise of a torpedo will be on that depth on which there was a launch. After enable of a wakehoming sensor, torpedo to be established to the given depth - 10 meters or are higher

Torpedo has Decoy Logic Recognition, and Target Reattack option.

The torpedo has separated modes - ASW , ASuW or ASW+ASuW.

The mode ASW+ASuW is preset default - when value "Ceiling" preset as 2 meters.

The mode ASuW is activated by preset value of "Ceiling" - to 3 meters. It will work only against the Surfaced target (above 3 meters or 10 feet)

The mode ASW is activated by preset value of "Ceiling" – to 4 meters or below. It will work only against the undersea target (below 4 meters or 12 feet).

For a mode ASW, the ceiling will work in all range - for example if the ceiling will be preset as 100 m, - the submarines which are will not be higher than 100 meters valid for attack of a torpedo. However - in a mode of attack, the torpedo will ignore the ceiling, established by the player - The torpedo will pursue a sub in all range of working depths.

53-65KE; 53-65M Torpedo

Wake-homing torpedo

53-65 **KE** (**K** – Kislород **E** - Export Variant)- Oxygen propulsion torpedo.

53-65 **M** (**M** - Modernizirovanaya)- Hydrogen-Peroxide propulsion torpedo.

53-65KE Specification:

Diameter: 533.4 mm (21 in)

Length: 7.945 m (26 ft)

Weight: 2,070 kg (2.28 tons)

Warhead weight: 307 kg (661 lb)

Max Depth: 220m (722 Ft)

Speed: Fixed to 44-45 kts (102 km/h)

Range: 19 km (10.25 nm)

Guidance: Wake-homing

53-65M Specification:

Speed: 70 kts Max (128 km/h)

50 kts Min (91 km/h)

Range: 22 km at 50 kts (11.8 nm)

11 km at 70 kts (5.94 nm)

Max Depth: 447m (1466 Ft)

Torpedo 53-65K (53-65KE) works only against surface ships. Also this torpedo has no variable speed and can be started only in speed of 44-45 knots. Max depth for 53-65KE weapon is modeled at 220 m (722 ft). The 53-65K torpedo can be started on depth up to 220 meters. Be careful - less depth pressure the torpedo! The torpedo travels on depth of Launch. After the sensor control is allowed, the torpedo will automatically take depth of search of 14 meters or high (for shallow waters) – if player set depth above 14 meters.

When this torpedo encounters a ship's wake, it turns and follows the wake to its source. Since the weapon can not always determine the direction of the wake source it doesn't always turn in the proper direction. There are no reports of effective countermeasures for use against wake-homing torpedoes making this a highly effective weapon.

53-65M torpedo has variable speed and can be started in speed of 50-70 knots. The torpedo travels on depth of Launch. After the sensor control is allowed, the torpedo will automatically take depth of search of 14 meters or high (for shallow waters) – if player set depth above 14 meters.

TEST-71 Series Torpedo (TEST-71ME / TEST-71ME-NK export version)

Wire-Guided Electric Torpedo

This weapon has both active and passive sonar, surface target wake homing, and can be wire-guided.

Diameter: 534.4 mm (21 in)

Length: 8.260 m (27 ft)

Weight: 1,840 kg (4,057 lb)

Warhead weight: 205 kg (452 lb)

Speed: Variable, 26 - 40 kts (74 km/h)

26 kts Passive Search Mode / 36 kts Passive Attack Mode

26-40 kts Active Search Mode / 40 kts Active Attack Mode

Range: 25 km (13.5 nmi) at minimal speed.

15 km (8.1 nmi) at maximal speed.

Max Depth: 400 m (1,312 ft).

Torpedo has Target Reattack option.

Torpedo Control:

Active Mode: This works as per Normal. Set the Torpedo for Active, and configure the other Torpedo settings i.e. Floor, Ceiling, Search Depth etc.

Passive Mode: In search mode torpedo reduced move to it's passive search speed – always 26 kts. When Sensor Acquired Target, Torpedo Increase Speed To 36 kts - attack speed passive mode for this torpedo.

With the exception of Torpedo depth, all other Torpedo settings, are set as per normal. **Depth value setting as deeper than 10 m.**

Wake Mode: To activate the TEST-71M [TEST-71ME-NK] Wakehoming Mode, ensure that the Torpedo is set as Passive. Set depth value to 10 or less meters.

The cruise of a torpedo will be on that depth on which there was a launch. After enable of a wakehome sensor, torpedo to be established to the given depth - **10 meters or are higher.**

Changed Search Depth: The player can change depth of search during work of a torpedo.

For change of depth follow by the following steps:

Switch off sensor controls on a torpedo - pressing of the button PREENABLE.

Then, execute the following combination of pressing of buttons:

ENABLE-PREENABLE-ENABLE.

(It is necessary to notice, that the combination ENABLE-PREENABLE-ENABLE, works quickly - on it 5 seconds are allocated - Last pressing of the button ENABLE should be not later than 5 of seconds from the originally pressed button ENABLE.)

Visually, it can be checked on the display - by pressing the button ENABLE a cone of a torpedo becomes red color, then by pressing the button PREENABLE - the color of a cone becomes dark blue, and subsequent pressing ENABLE - cone to become of red color - torpedo will do change of depth of search.

If is termal a layer, and the torpedo is above than layer, then she will change depth of search so that he was UNDER a layer. And on the contrary.

If a layer no, then the torpedo simply will change depth of search on large or smaller - depending on that on what depth there is a torpedo.

The torpedo remembers depth on which the option of change of depth of search was given.

After preenable sensor controls, the torpedo again will restore the previous depth of search.

Note: the export variants [TEST-71ME] is not completed by system wake homing. Also this torpedo can target ONLY surface vessel.

YU-3 Torpedo

MultiPurpose Electric Torpedo

Warhead: 250 Kg

Speed: 25-40 Knots

Depth: 440 m. (1443 Feet)

Range: 15.000 m (8.1 nm) at 25 kts

9.260 m (5.0 nm) at 40 kts

Guidance: Active/Passive Homing

Chinese version of Russian SET-65 Torpedo.

NOTE: This Weapon replace SET-53 passive Torpedo on Driveable Chinese SS "Kilo" Class.

Shkval (VA-111) Rocket Torpedo

Nato Nickname: Squall

This high-speed underwater rocket torpedo operates on the principles of supercavitation which allow it to reach speeds of nearly 200 kts. The weapon is extremely noisy. Its use alerts all to your presence.

Specifications:

Length: 8.2 m (27 ft)

Diameter: 533.4 mm (21 in)

Speed: 200 kt (370 km/h)

Range: 7-10.5 km (3-5.3 nm) (Note: 6 nm is modeled in the game)

Warhead: 210 kg (463 lb)HE

Fuze: MAD; Preset "Range Free Detonate"

Max depth: 436 m (1430 ft)

Has 2 modes of operations:

Mode 0: By default (Mode 0), the Shkval is established in a normal mode - detonation when MAD a sensor control of Shkval, detected the target.

Mode 1: The given mode (Mode 1), provides a detonation of **Shkval** on a distance of cruise, without preliminary detecting of the target - in this mode, the MAD sensor control is not enabled.

For launch of Shkval in this mode it is necessary - to establish depth on 1000 meters more than you wish. For example: the preset of depth as 1250 meters - first digit in the category, will establish a mode 1, following three digits 250, there is a depth cruise of a rocket.

Set necessary range on which owes a detonation of a warhead weapon.

Be careful of Shkval launch from depth more than 436 meters. Also, in a mode 0, do not exceed preset depth for cruise of a rocket more than 436 meters - the Shkval will be destroyed or detonated.

Great Prophet [Rocket Torpedo]

Iranian experimental fake a Russian "Shkval" Torpedo-Rocket.

This high-speed underwater rocket torpedo operates on the principles of supercavitation which allow it to reach speeds of nearly 250 km/h. The weapon is extremely noisy. Its use alerts all to your presence.

Specifications:

Length: 6.2 m (20.3 ft)

Diameter: 533.4 mm (21 in)

Speed: 136 kt (250 km/h)

Range: 10.1 km (5.5 nm)

Warhead: 150 kg

Fuze: MAD; Preset "Range Free Detonate"

Max depth: 200 m (656 ft)

Has 2 Mode: - See VA-111 "Shkval" weapon control guide section.

Spearfish Torpedo

Heavyweight dual purpose Wire-guided torpedo

Straight Move torpedo

Diameter: 533 mm (21 in)

Length: 8.50 m (27.8 ft)

Weight: 1,850 kg (4,078 lb)

Warhead: 300 kg (661 lb)

Propulsion: Gas-Turbine, shroud propulsor

Speed: 29 kts (53 km/h) - 70 kts (128 km/h)

29-35 Kts Passive Search Mode / 45 Kts Passive Attack Mode

29-70 Kts Active Search Mode/ 70 Kts Active Attack Mode

Range: 64.82 km (35 nmi) at 29 kts

23.15 km (12.5 nmi) at 70 kts.

Max. depth: 900 m (2,953 ft)

Guidance: Active/Passive Sonar.

Uses a direct mode of movement, however sensors discretely scan a cone between 270 and 90 degrees on a course of a torpedo in Passive Mode and 300 and 60 degrees in Active mode [If Heading torpedo at 000 degrees].

Torpedo has Decoy Logic Recognition, and Target Reattack option.

The torpedo has separated modes - ASW , ASuW or ASW+ASuW.

The mode ASW+ASuW is preset default - when value "Ceiling" preset as 9 feet.

The mode ASuW is activated by preset value of "Ceiling" – to 10 ft. It will work only against the Surfaced target (above 10 feet or 3 meters)

The mode ASW is activated by preset value of "Ceiling" – to 11 ft or below. It will work only against the undersea target (below 11 feet or 3 meters).

For a mode ASW, the ceiling will work in all range - for example if the ceiling will be preset as 328 ft, - the submarines which are will not be higher than 328 ft valid for attack of a torpedo.

However - in a mode of attack, the torpedo will ignore the ceiling, established by the player -

The torpedo will pursue a sub in all range of working depths.

Torpedo Control: The algorithm of sensor controls and other options is similar to a torpedo Mk 48 ADCAP

Tigerfish Torpedo

Dual Purpose , A Low Noise Electric Wire guided Torpedo

Diameter: 533 mm (21 in)

Length: 6.464 m (21.2 ft)

Weight: 1,551 kg (1.7 tons)

Warhead: 134 kg (295 lb); magnetic & impact-fuzed

Propulsion: Electric, shroud propulsor

Speed: 24-35 kts (65 km/h)

24-29 Kts Passive Search Mode / 34 Kts Passive Attack Mode

24-35 Kts Active Search Mode/ 35 Kts Active Attack Mode

Range: 35 km (18.8 nm) at 24 kts

22 km (11.8 nm) at 35 kts

Max.Depth: 442 m. (1450 ft)

SET-65/SET-65E Torpedo

ASW Torpedo

Diameter: 533 mm (21 in)

Length: 7,800 mm (25.6 ft)

Weight: 1,750 kg (2 tons)

Warhead: 205 kg (551 lb)

Speed: 30/40 kts (74 km/h)

30-35 Kts Passive Search Mode / 40 Kts Passive Attack Mode

30-40 Kts Active Search Mode/ 40 Kts Active Attack Mode

Range: 15 km (8.1 nm) at 30 kts

11.1 km (6.0 nm) at 40 kts

Depth: 437 m (1455 ft)

Active/Passive acoustic homing

A 184/ A 184-M3 Torpedo

Wireguide Electric Dual Purpose Torpedo

A 184 Model:

Diameter: 533 mm (21 in)

Length: 6,000 mm (19.7 ft)

Weight: 1,750 kg (1.75 tons)

Warhead: 250 kg (551 lb)

Speed: 20/36 kts (66 km/h)

20-25 Kts Passive Search Mode / 30 Kts Passive Attack Mode

20-36 Kts Active Search Mode/ 36 Kts Active Attack Mode

Range: 50 km (27 nm) at 20 kts

18.52 km (10 nm) at 36 kts

Depth: 500 m (1640 ft)

WireGuide Active/Passive acoustic homing

Torpedo has Target Reattack option.

A 184M3 Model:

Diameter: 533 mm (21 in)

Length: 6,000 mm (19.7 ft)

Weight: 1,750 kg (1.75 tons)

Warhead: 300 kg (651 lb)
Speed: 30/45 kts (82 km/h)
30-35 Kts Passive Search Mode / 40 Kts Passive Attack Mode
30-45 Kts Active Search Mode/ 45 Kts Active Attack Mode
Range: 33,33 km (18 nm) at 30 kts
22.24 km (12 nm) at 45 kts
Depth: 600 m (1966 ft)
WireGuide Active/Passive acoustic homing

Torpedo has Decoy Logic Recognition, and Target Reattack option.

The torpedo has separated modes - ASW , ASuW or ASW+ASuW.

The mode ASW+ASuW is preset default - when value "Ceiling" preset as 9 feet.
The mode ASuW is activated by preset value of "Ceiling" – to 10 ft. It will work only against the Surfaced target (above 10 feet or 3 meters)
The mode ASW is activated by preset value of "Ceiling" – to 11 or below ft. It will work only against the undersea target (below 10 feet or 3 meters).
For a mode ASW, the ceiling will work in all range - for example if the ceiling will be preset as 328 ft, - the submarines which are will not be higher than 328 ft valid for attack of a torpedo.
However - in a mode of attack, the torpedo will ignore the ceiling, established by the player -
The torpedo will pursue a sub in all range of working depths.

DM2 A4 Torpedo

Wireguided Electric Dual Purpose Torpedo.

Diameter: 533 mm (21 in)
Length: 7,000 mm (21.3 ft)
Weight: 1,730 kg (1.75 tons)
Warhead: 255 kg PXBN (Equal 460 kg TNT)
Speed: 30/50 kts (92,6 km/h)
30-35 Kts Passive Search Mode / 40 Kts Passive Attack Mode
30-50 Kts Active Search Mode/ 50 Kts Active Attack Mode
Range: 55,5 km (30 nm) at 30 kts
38 km (20,5 nm) at 50 kts
Depth: 457 m (1500 ft)

WireGuide, Active/Passive acoustic homing

Torpedo has Decoy Logic Recognition, and Target Reattack option.

The torpedo has separated modes - ASW , ASuW or ASW+ASuW.

The mode ASW+ASuW is preset default - when value "Ceiling" preset as 9 feet.
The mode ASuW is activated by preset value of "Ceiling" – to 10 ft. It will work only against the Surfaced target (above 10 feet or 3 meters)
The mode ASW is activated by preset value of "Ceiling" – to 11 or below ft. It will work only against the undersea target (below 10 feet or 3 meters).
For a mode ASW, the ceiling will work in all range - for example if the ceiling will be preset as 328 ft, - the submarines which are will not be higher than 328 ft valid for attack of a torpedo.

However - in a mode of attack, the torpedo will ignore the ceiling, established by the player - The torpedo will pursue a sub in all range of working depths.

Type 89 Torpedo

Wireguide Gas-Turbine Dual Purpose Torpedo

Diameter: 533 mm (21 in)

Length: 5,020 mm (19.7 ft)

Weight: 1,750 kg (1.75 tons)

Warhead: 300 kg (661 lb)

Speed: 35/55 kts (100 km/h)

35-40 Kts Passive Search Mode / 35 Kts Passive Attack Mode

35-55 Kts Active Search Mode/ 55 Kts Active Attack Mode

Range: 42,59 km (23 nm) at 35 kts

29.63 km (16 nm) at 55 kts

Depth: 640 m (2099 ft)

WireGuide Active/Passive acoustic homing

Torpedo has Decoy Logic Recognition, and Target Reattack option

--- SPECIAL LAUNCHED UNITS ---

UUV – (Unmanned Underwater Vehicle)

Depth: Max 530 m. (1739 Ft)

Range: 2.5 nmi

Sensors:

LF Passive Sonar- 120 deg sensor cone; 18520 m max range. Search Speed limited To 4 Kts.

HF Active Sonar - 100 deg sensor cone; 4650 m max range - MineHunting purpose.

Speed: Variable, 3 -:- 15 kts

Operating time UUV, depends on speed:

3 kts – 50 min; **4 kts** – 37 min; **5 kts** – 30 min; **6 kts** – 25 min; **7 kts** – 21.5 min;

8 kts – 19 min; **9 kts** – 16.5 min; **10 kts** – 15 min; **11 kts** – 13.5 min; **12 kts** – 12.5 min;

13 kts – 11.5 min; **14 kts** – 10.5 min; **15 kts** – 10 min;

The UUV modeled in the game is a remote sonar sensor. Launched and wire-guided like a torpedo, this sensor can be set to variable search mode.

Sonar returns cease as soon as the guidance wire is cut or after the UUV's battery is depleted.

UUVs are especially useful in a minefield.

In this addition UUV device has the interface of a torpedo and controllable similarly to her.

The device has three modes of search:

HF Active + LF Passive (Default Mode)

HF Active

LF Passive

Employment Features:

UUV Maybe Launched With "Snapshot" method, at Own Ship Depth. When Sensor Activated, Device Take for Search "PreEnable Depth", established by player.

The sensor activated can be allowed on a distance "Run To Enable" (can be preset by the player) or in a wire the control of the device, pressing of the button 'Enable' when necessary – similar a Torpedo Control.

SNAPSHOT: - Preset a course of cruise UUV.

Run To ENABLE: Preset a distance enable of a sensor CONTROL.

DEPTH: - Preset depth of search.

SPEED: - Preset speed of cruise.

CEILING: Preset a delay for an exit to depth of search after Sensor ENABLE.

To nominate Ceiling 5 meters (15 ft) or is lower:

After Sensor ENABLE, the search is carried out during 1 minute on depth of cruise, then, UUV goes on the given depth of search (established in an option DEPTH).

*** - This method, was intended for primary survey of depth on which is started UUV, with the subsequent arrival UUV To Preset "Search Depth" - ABOVE layer or UNDER a layer.**

It can be designated on a simple example:

There is a layer on depth of 600 ft.

Player located at depth 400 feet (Above Layer).

The player preset depth of search (DEPTH) as 800 ft - that is "Search Depth" UNDER a layer.

UUV is started from depth of 400 ft.

After a ENABLE of a sensor control, during one minute, UUV he will listen contacts on the same depth in which made cruise - 400 ft.

After one minute, UUV will plunge on depth of 800 ft (as the Depth of search of 800 ft on an option DEPTH) is preset, and will search UNDER a layer.

Subsequent PREENABLE the sensor control, will send UUV to "Cruise Depth" - 400 ft. Where the above described cycle can is repeated.

If Ceiling is not established to 5 meters (15 ft or below) then, after Sensor ENABLE the UUV device at once going on depth of search. **This mode is presets as default.**

FLOOR: - Preset of "Search Speed" **ONLY for an Active Mode.** For preset of speed, set value Floor as - 20XX (XX - speed in knots). Preset value "Floor" as 2007, will set speed of 7 knots for an active ping after Sensor Enable. Available Speed Preset: 2005-2015.

*** - This Option provides a "rapid" exit UUV on significant distance, and subsequent decrease speed of search for reduction extreme flow of Energy the UUV battery.**

If, option established the default (not equal 2005-:-2015), UUV for speed of search, will inherit speed of cruise.

ACOUSTIC MODE:

Only ACTIVE SEARCH:

To preset an option AcousticMode - ACTIVE.

To preset an option SearchPattern - CIRCLE.

The minimal speed of search in this mode, is always limited to 5 knots.

Note: - it is in addition possible to set more speed of search, by means of an option Floor (see descr. above)

Only PASSIVE SEARCH:

To preset an option AcousticMode - PASSIVE.

To preset an option SearchPattern - ANY: SNAKE OR CIRCLE.

Note: the speed of search in a passive mode always 4 knots or is less.

ACTIVE + PASSIVE SEARCH:

To preset an option AcousticMode - ACTIVE.

To preset an option SearchPattern - SNAKE.

* - If the device is launched on cruise speed of 4 knots or less, passive sonar will begin returns immediately (as the speed is within the limits of 4 kts and less). At activation of the button ENABLE, will begin to work acsstive sonar, and the device will go on depth of search. As a whole, it is possible to say that this mode is similar to a mode UUV in the original of game.

ACT + Pass Mode - This Is Default Mode.

Note: the speed of search in an active - passive mode always 4 knots or is less.

Search PATTERN:

Sample of search the CIRCLE, preset a type of search: ONLY ACTIVE Search Mode – depending from Acoustic Mode Preset.

NOTE: the UUV device is not found out on launch - (TIW the message will not come!). This very covertly unit.

Sirena – (Manned Underwater Vehicle)

Russian Kilos; Lada; Victor-III; - Weapon.

Crew - 2 Diver.

(Applied To Designated Sub Class – Replaced old DSRV loadout)

Diameter: 532 mm

Length: 8.6 meters (10.5 with cargo container)

Weight: 1.367 Kg (1.447 kg with cargo container)

Life span: 2 hours

Speed: 2-5 Knots

Range: 14,816 Meters (8 Nmi)

Depth: 40 meters max. (144 feet)

The design of the device provides installation of small-sized hydroacoustic station for detection of underwater obstacles, echolot and lag gauge.

All aggregats, devices and propellers are executed in low-noise performance.

Work “Sirena” Underwater Vechicle, similar Special forces. But cruise to target, “Sirena” execute in subsurface location.

Can be Target: LandBased, Floats Platforms – Oil Rigs,ShipYards (etc), and Surface Vessels.

Launch “Sirena” below 40 meters (144 feet) – has been damage this unit – be careful with depth Launch!

NOTE: If option “Quick Air Launch” (Main Menu -> OPTIONS ->“Quick Air Launch”) turn off, Sirena has been taken about 15 minutes for deploy after order to depart from own Sub.

Device is not found out on launch - (TIW the message will not come!).

--- SUB LAUNCHED MINES ---

SLMM Mk 67 (Submarine-Launched Mobile Mine)

An anti-surface or anti-submarine bottom mine.

Launched by a submarine as much as 16 km (8.6 nm) from its intended location, after which it navigates under its own power to the predesignated position, and sinks to the bottom. The mine uses either the magnetic/seismic or pressure/magnetic/seismic fuzing.

Weight: 800 kg (1,764 lb)

Warhead: 234-kg (516 lb) PBXN-103 explosive warhead.

Length: 4.09 m (13.4 ft)

Diameter: 533 mm. (21 in)

Maximum depth 108 m. (354 ft)

If the depth of a submarine periscope or is higher, the mine will be established near to a surface - 10 meters (32.8 ft).

If the depth of a submarine at launch of the mine is more than 22 meters (75 ft) then the mine will be established above than bottom on 8 meters (25 ft).

Launch of the mine from depth exceeding its maximal depth - will destroy the mine. Be Careful.

NOTE: TIW message will not be informed an Launch.

MK 60 CAPTOR - Moored Mine (CAPsulated TORpedo) – Ohio SSBN Payload.

Contains a Mark 46 Torpedo, which is released once the CAPTOR detects an Enemy Submarine.

Sensor Range: 6,000 Yards

Mark 46 Captor Torpedo - Range: 11.112 m (12,000 Yards)

Mk 60 Setting Depth:

Surface - 27 m. (90 ft)

Shallow - 122 m. (400 ft)

Deep - 305 m. (1000 ft)

Bottom – 450 meters (1476 ft).

For the mine, started from a submarine, she remain on depth of launch.

Also there is no distance for movement of this mine - she simply remains in patrol at point of its launch.

Only general device has the block of classification of the target.

The torpedo can be homing on the ship if he will be found out by a torpedo.

Mobile Mine

Mobile mine is a modified version of the 53-65K torpedo and has this sound signature.

Nevertheless, this weapon can not be revealed on launch – TIW message will not be informed.

Range: 10 nm (18.5 km) after leaving the tube

Speed: 26 kts

Warhead: 450 kg (992 lb)

Lethal Zone: 50 m (164 ft)

Effective Depths: 4 - 150 m (13 - 492 ft)

Two channel (acoustic-magnetic induction) fuze.

If the depth of a submarine periscope or is higher, the mine will be established near to a surface - 10 meters (32.8 ft).

If the depth of a submarine at launch of the mine is more than 22 meters (75 ft) then the mine will be established above than bottom on 8 meters (25 ft).

Launch of the mine from depth exceeding its maximal depth - will destroy the mine. Be Careful.

--- UNDERWATER MISSILE LAUNCHED ---

--- UGM Missile --

UGM-109B (TASM) Tomahawk Anti-Ship Missile

This anti-ship cruise missile is a formidable weapon against surface platforms, (Oil-Rig can be targeting in Snapshot mode launch).

It can be used from distances up to 250 nm (463 km) from the target and can fly in low making it more difficult for the target to detect and destroy it. TASM is the missile of choice against larger surface ships because its warhead is twice that of Harpoon. This is Sea Skimmer Missile.

Length: 640 cm (21 ft)

Diameter: 53 cm (21 in)

Weight: 1,157 kg (2,650 lb) without booster

Warhead: Various (454kg modeled in the add-on)

Propulsion: F-107-WR400 turbojet sustainer

Speed: 510 kts

Range: 250 nm (463 km)

For successful in-game launch of this missile Ownship depth must be 150 feet or less. Speed must be 6 knots or less. The target must be a minimum of 5 nautical miles away. It is recommended that the first waypoint be at least 2000 yards from OS and all waypoints at least 500 yards apart.

Gameplay Note: This weapon is added for gameplay purposes only. All TASMs have been withdrawn from the fleet and are being converted to the land attack version.

UGM-84 / RGM-84 "Harpoon" (AntiShip Missile)

Air-Surface-Sub-launched all-weather Sea Skimmer cruise missile

This highly effective antiship missile has a range of 70 nm. Its sea-skimming trajectory makes it difficult to detect assuring its survivability. With a warhead half that of the TASM, Harpoon is best suited for use against smaller surface ships.

Length:

4.628 m (15.1 ft) (RGM-84) ship-launched

4.628 m (15.1 ft) (UGM-84) sub-launched

3.848 m (12.6ft) (AGM-84) air-launched

Diameter: 0.343 m (13.5 in)

Wingspan: 0.914 m (2.9 ft)

Warhead: 227 kg (500 lb)

Propulsion: CAE-JA02 turbojet, with a rocket booster added to the ship- and submarine-launched versions

Speed: Mach 0.85 (548 kts; 1,014 km/h)

Guidance: inertial, then active homing on J band in the final trajectory

Range: >67 nm (124 km). (Modeled in the game: A maximum range of 70 nm (130 km). Target must be at least 3 nm from OS.)

For successful in-game launch of this missile from a submarine, Ownship depth must be 150 feet or less. Speed must be 6 knots or less.

NOTE: This weapon is not normally carried by the 688-:-688(I)s or Seawolf class submarines. It is available in their loadouts for gameplay purposes.

EXOCET (AntiShip Missile)

Air-Surface-Sub-launched Sea Skimmer cruise missile

This highly effective antiship missile has a range of 35 nm. Its sea-skimming trajectory makes it difficult to detect assuring its survivability.

Length: 6 m.

Diameter: 0.54 m.

Warhead: 165 kg .

Speed: Mach 0.95 (615 kts; 1,125 km/h)

Guidance: inertial, then active homing on J band in the final trajectory

Target must be at least 1 nm from OS.)

SS-N-27 ASM (NATO NAME) / 3M-51 ALFA

Sub-launched **Supersonic** Anti-ship Sea Skimmer Cruise Missile

This weapon is based on the SS-NX-27 Novator Al'fa (Russian P-10 Biryuza) missile.

The “3M-51 Alfa” missile has two stages, when the FC Radar got the target, she to be speed up to the maximal speed – supersonic attack phase.

Length: 8.22 m (27 ft)

Diameter: 533 mm (21 in)

Weight: 1,900 kg (2 tons) (2,500 (2.75 tons) with solid booster)

Warhead: 225 kg.

Speed: Mach 0.6-0.95 (387-580 kts; 716-955 km/h) Cruise Mode

Mach 3.0 (1933 kts; 3,580 km/h) Attack Mode

Range: 200 km (119 nm)

For successful in-game launch of the missile Ownship depth must be 100 meters or less.

Ownship speed must not exceed 6 knots

SS-N-27 ASM (NATO NAME) / 3M-54E1 Klub ASCM

Sub-launched Anti-ship Sea Skimmer Cruise Missile

This weapon is based on the SS-NX-27 Novator Al'fa (Russian P-10 Biryuza) missile.

Length: 6.2 m (20 ft)

Diameter: 533 mm (21 in)

Weight: 1,570 kg (1.5 tons)

Warhead: 450 kg.

Speed: Mach 0.6-0.95 (387-580 kts; 716-955 km/h) Cruise Mode

Range: 300 km (162 nm)

For successful in-game launch of the missile Ownship depth must be 100 meters or less.

Ownship speed must not exceed 6 knots

SS-N-19 Shipwreck [Kh-88 Nuke Version] Advanced SSM Missile

Range: 300 nm (556 km)

Length: 10.0 m (32.8 ft)

Wingspan: 2.6 m (8.52 ft)

Diameter: 0.85 m (2.9 ft)

Weight: 7,000 kg (7.7 tons started weight)

Warhead:

Conventional variant - eq. 750 Kg TNT;

Nuke variant - 500 kT.

A nuclear device designed to detonate (about ~1500 m. around target) just little above the surface.

Destroying targets primarily shock transmitted through the water and air.

Fuze: Active Radar, IR Sensor

Speed/Altitude Modes:

1.5 Mach (967 kts), low trajectory (150 m) - Cruise Phase,

2.5 Mach (1,812 kts) high trajectory - (up to 10 km) Search Phase When Radar "Enable".

4,0 Mach (2,576 Kts with 4D04 booster) - Attack Phase.

Note: Attack Mode Modeled To 1812 Kts.(Without Booster).

Nuke Variant payload only a driveable OSCAR-II SSGN loadout

Actually, this weapon has countermeasure possibility, against interceptors- SAM missiles.

SS-N-19 "Shipwreck" in this add-on, equipped countermeasure devices.

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**The User control "Shipwreck" missile, has a 5 modes of operations:**

**Mode 0 (Set As Default)** - The "Shipwreck" missile has the list of a priority of the Target. The importance of the target is distributed by the following:

1- All Types AirCarriers (CV CVG CVH CVHG etc – Without Russian)

2- Missile Cruisers / Only U.S. Ships - Tico VLS /

3- Cruisers – CG, BB; LPH. / Only U.S. Ships /

4- destroyers DDG,DD, FFG. / Only U.S. And U.K Ships /

5- ships of support AOR,AOE, Landing the ships LSD.

At attack on group of the target the missile will choose the most perspective target from the battle group and will attack it.

For activation of this mode follow such steps:

Establish Value DESTROY RANGE as **0050**. (Set As Default)

First digit in the category (Red Designated)- will establish number of a mode – Mode Number ZERO.

Following three digits [050 (Or Any Necessary Value)– Blue Designated] - will establish distance of cruise of a Missile before self-destruct.

[ If value "Destruct Range" be set as **0650** (Non correct a maximal cruise range), Missile has a maximal Cruise Range – 300 Nm.]

**Mode 1** - Shooting on the battle group with random targeting of Missile on the target.

This mode, does small probability of targeting of several missiles on the same target, also promotes Aiming missiles in salvo, as it is possible "wide", for the greater destruction of the targets in group.

For activation of this mode follow such steps:

Establish Value DESTROY RANGE as **1050**.

First digit in the category (Red Designated)- will establish number of a mode – Mode Number ONE.



Following three digits [050 (Or Any Necessary Value)– Blue Designated] - will establish distance of cruise of a Missile before self-destruct.

**Mode 2 - Shooting on a single target.**

The Missile in this mode will use a radar in narrow sector of search (10 degrees) for an aiming on a necessary single target in group of the ships.

For activation of this mode follow such steps:

Establish Value DESTROY RANGE as **2050**.

First digit in the category (Red Designated)- will establish number of a mode – Mode Number TWO.

Following three digits [050 (Or Any Necessary Value)– Blue Designated] - will establish distance of cruise of a Missile before self-destruct.

**Mode 3 - This mode is entered for programming a missile for an aiming on the certain CLASS of a ship from ships formation .**

For activation of this mode follow such steps:

Choice Necessary Class Code From “Shipwreck Employment Guide” Manual. (

Sample:“Harpers Ferry” LSD Class Code – 6 )

Establish Value DESTROY RANGE as **3006**.

First digit in the category (Red Designated)- will establish number of a mode – Mode Number THREE.

Following three digits [006 (Or Any Necessary Value)– Blue Designated] - will establish Class for priority aiming Any Ship From Class LSD “Harpers Ferry” from convoy.

If the necessary ship is absent or is not found out by a “Shipwreck”, the missile will be induced on any another a ship in group. The distance of self-liquidation of a missile in this mode - maximal, cruise follows 300 miles.

**Mode 4 - This mode is entered for programming a missile for an aiming on the certain UNIQUE NAME of a ship from ships formation. (If Data Of Reconnaissance Very Good ☺, Or game in “Truth” Mode Run.)**

For activation of this mode follow such steps:

Choice Necessary UniqueNameCode From “Shipwreck Employment Guide” Manual. (

Sample:“Harpers Ferry” LSD UniqueName – “Pearl Harbor” UniqueNameCode – 17 )

Establish Value DESTROY RANGE as **4017**.

First digit in the category (Red Designated)- will establish number of a mode – Mode Number FOUR.

Following three digits [017 (Or Any Necessary Value)– Blue Designated] - will establish UniqueNameCode for priority aiming Ship with Name “Pearl Harbor” from convoy.

If the necessary ship is absent or is not found out by a “Shipwreck”, the missile will be induced on any another a ship in group. The distance of self-liquidation of a missile in this mode - maximal, cruise follows 300 miles.

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SS-N-22 Sunburn SSM [Nato Code]/ 3M80E Moskito (AntiShip Supersonic Missile)

Range: 120 km (65 nm)

Length: 9.385 m (30.7 ft)

Diameter: 0.52 m (1.6 ft)

Wingspan: 2.10 m (6.8 ft); 1.30 m (4.26 ft) folded

Weight: 3,950 kg (4.35 tons)

Warhead: 150 kg (330 lb) explosive

The increased force of destruction - missile punches a board of the ship and blows up inside hull.

Speed: Mach 3.0 /Full Cruise Range/ (1,933 kts; 3,537 km/h)

NOTE: Only one experimental hull Victor-III class, had Moskito in the external starting container.

The second missile, was in a rack of a torpedo compartment, and could be charged in the external starting container only with the help of the ship support (AOR).

For game purposes one UGM Missile SS-N-22 in the external container is added only.

--- STRIKE Missiles ---

UGM-109D (TLAM) Tomahawk Land Attack Missile

The Tomahawk is the standard U.S. ship and sub-launched weapon for use against land targets. Weapon can use against Oil-Rigs.

Length: 6.17 m (20.24 ft)

Diameter: 0.52 m (20.4 inches)

Weight: 1,542 kg (3,400 lb)

Warhead weight: 500 kg

Propulsion: solid booster, F-107 turbojet sustainer

Speed: 510 kts

Range: 1,400 nm (2,593 km)

Advanced Control: For launch it is necessary to nominate number of a point in which there is a target (It sets in what point to switch on a radar on missile).

For example player has established a point number 2 on the target - then it is necessary to specify in "Destruct Range" number of a point - 2.

The launch from Nav.map - is launch with one point - this mode number 1 (ONE) is established as default.

There is a mode number 5 - missile enables a radar in each waypoint. If the target is found out - missile kills it. If the target no - then the missile switch off own radar and run to the next way point and there makes search (For All Four Waypoints Subsequences).

Gameplay Note: For successful in-game launch of this missile Ownship depth must be 150 feet or less. Speed must be 6 knots or less. The target must be a minimum of 5 nautical miles away. It is recommended that the first waypoint be at least 2000 yards from OS and all next waypoints at least 5000 yards apart.

Hint: Good idea - To ensure entrance of a TLAM Missile on land, through shallow coastal water area.

SS-N-27 LAM (NATO Name) / 3M-14E LAM (Klub Series) (Land Attack Missile)

This weapon is based on the SS-N-27 (3M-14E) submarine-to-coast missile.

Length: 6.2 m (20.3 ft)

Diameter: 533 mm (21 in)

Range: 162 nm (300 km)

Weight: 1,800 kg (1.98 tons)

Warhead: 450 kg (882 lb)

Speed: 0.9 Mach (580 kts; 1061 km/h)

Advanced Control: – [similar TASM missile](#).

Gameplay: There are reports that Russia exports this weapon as part of the Klub series. It is not known if it is actually in service in the Russian or other navies. We have added it for gameplay purposes to the Russian Akulas (as the SS-N-27 LAM) and to Klub Capable Indian and Chinese Kilo Submarines as the 3M-14E LAM.

For successful in-game launch of the missile, Ownship depth must be 100 meters or less.

Ownship speed must not exceed 6 knots.

Weapon can use against Oil-Rigs.

Hint: Good idea - To ensure entrance of a TLAM Missile on land, through shallow coastal area.

SS-N-19 Shipwreck LAM Variant

Warhead – 1000 kg TNT.

Speed of cruise: 1611 kts

Altitude cruise: 10 km (32.800 ft)

Range: 300 nmi (556 km)

SS-N-21 Sampson [NATO CODE] / “GRANAT” (Strategic LAM Missile)

Sub Launched Seaskimmer / Terrain Follow LAM Missile

A SS-N-21 “Sampson” – NAVY version AS-15 “Kent” Air-Launched Missile.

Has nuclear 500 kT warhead. For Game purposes added conventional missile variant.

Range: 1620 nmi (3000 km)

Length: 8.0 m

Diameter: 0.65 m

Weight: 2,200 kg

Warhead: 410 Kg TNT equal.

Speed: 495 kts

Guidance: Inertional; TVision.

Advanced Control: – [similar TASM missile](#).

Hint: Good idea - To ensure entrance of a TLAM Missile on land, through shallow coastal water area.

--- SLBM (SUB-LAUNCHED BALLISTIC MISSILE) ---

SLBM

SS-N-23 Sineva (Improved SS-N-23 Skiff)

Trident-II SLBM

SLBM (Typhoon InterContinental missiles designated)

Max Speed: 4000 Knots (In Game World)

Max Altitude: 60000 Feet (In Game World)

Range: Minimum - 50 Nm (In Game World)

Maximum – Completely will capture operative area of all navigating map in mission.

SLBM Missile detonate above ground (approx. 900 meters – 3000 feet) after arrival at nominated area strike.

Establish on the Target ONLY by first Waypoint from Target Display Station.

Also, from a navigating map, the launch on target object "LANDBASED" is authorized.

Only FIRST WayPoint is valid for targeting :

Use Manual Preset for An Coordinates Launch (Exactly Put First WayPoint Over To Target At “TargetDisplay”)

* - Second, third, and the fourth WayPoints - are not valid.

Second Way:

Launch from MENU (Nav.Map.)

This method not required set Waypoint Number to Value 1-2-3 or 4.

In this case, uses only FIRST Waypoint – as Default setting in presets.

--- UGM SUBROCs ---

UUM-44 SUBROC [SSN 637 Sturgeon’s Payload]

ASW missile with Depth Charged.

Length: 6.4 m. (21 ft)

Diameter: 53.3 cm (21 inch)

Weight: 1.8 tons (4000 lb)

Payload: W55 warhead with 500 kg TNT.(For Game Purpose)

Range: around 55.5 km (30 nm). Min Range Employment - 3 Nmi.

Missile Speed: 1.5 Mach (968 Kts)

Launch Depth: 50 m (150 ft) and above.

.Gameplay: This weapon flies as a missile on an assigned course then drops a shute with warhead. Shute speed falls aprx.10 m/sec (33ft/sec). The missile has a max range of 55.5 km (30 nm). For successful in-game launch of the missile Ownship depth must be at 150 feet (50 m.) or above. Ownship speed must not exceed 6 knots.

NOTE:“Run To Enable” preset for this weapon settings in Nmi instead Yards.

Preset “Run To Enable” as 00005 assigned drop torpedo at 5 n.m. from Own Ship.

UUM-125B “Sea Lance” SUBROC [SSN 774 Virginia Payload]

ASW missile

Length: 6.25 m. (20.6 ft)

Diameter: 53.3 cm (21 inch)

Weight: 1.4 tons (3100 lb)

Payload: Mk50 High Effective Antisubmarine LWT Torpedo.

Range: around 65 km (35 nm). Min Range Employment - 5 Nmi.

Missile Speed: 1.5 Mach (968 Kts)

Launch Depth: 50 m (150 ft) and above.

Gameplay note: This weapon flies as a missile on an assigned course then drops a shute with Mk 50 torpedo. In the game the torpedo begins homing as soon as it hits the water. Shute speed falls aprx.10 m/sec (33ft/sec). The missile has a max range of 65km (35 nm). The torpedo it drops has a range of 12.960 m (7 nm) at 35 kts and a warhead of 45 kg. A maximum depth of 1200 meters (3,608 ft) is modeled for Mk 50 Subroc torpedo.

Mk 50 torpedo, accommodate ONLY ASW priority. Its can targeting only subsurfaced target. Active Or Passive mode torpedo, set by random method in doctrine.

For successful in-game launch of the missile Ownship depth must be 150 ft (50 m) or above.

Ownship speed must not exceed 6 knots.

NOTE: This weapon is not normally carried by the “**Virginia**” Class or any other U.S Subs. It is available in loadout for gameplay purposes.

“Run To Enable” preset for this weapon settings in Nmi instead Yards.

Preset “Run To Enable” as 00005 assigned drop torpedo at 5 n.m. from Own Ship.

SS-N-15 Starfish Series (Russian RPK-6 V'yuga)

ASW Missile

Length: 8.166 m (26.8 ft)

Diameter: 533 mm (21 in)

Weight: 2,445 kg (2.7 tons)

Conventional Variant Payload: 742-kg (1,636 lb) UMG-1 homing torpedo.

Nuke Variant Payload: Nuclear Depth Charge/Bomb WE-177; (200kT TNT equal.)

Range: 10-35 km (5-19 nm)

Missile Speed: 580 kts (1060 km.h)

Launch Depth: Between 40-60 m (131- 197ft)

When the missile will arrive in the nominated area, the torpedo will be lowered on water on a chute, the speed of drop is approximately appreciated as 10 meters per one second (33 ft/sec). Height dropping of a torpedo variable, thus descent can borrow from 1 up to 2 of minutes. When the parachute will enter water, the torpedo UMG-1 torpedo will begin circle search.

The missile has a max range of 19 nm. The torpedo it drops has a range of 8 km (4.3 nm) and a warhead of 60 kg. For successful in-game launch of the missile Ownship depth must be between 40 and 60 meters. Ownship speed must not exceed 6 knots.

Missile variant UMG-1 torpedo, accommodate ONLY ASW priority. Its can targeting only subsurfaced target. Active Or Passive mode torpedo, set by random method in doctrine.

NOTE: **Victor-III** SSN Sub Class, capable to **100 meters (328 f.)** depth launch this weapon.

“**Alfa**” SSN Class, Nuke Version between **0-60** meters.

AI platforms - NOT USE in game nuke variant SS-N-15 missile.

SS-N-16 Stallion (Russian/RPK-7 Veter/Vodopad-MK)

ASW missile

Derived from the SS-N-15 system.

Diameter: uses 650-mm tubes

Employs the Type 86R (B-255) missile

Payload: advanced APR-3ME acoustic homing torpedo

Range: around 100 km (54 nm). Min Range Employment - 5 Nmi.

Missile Speed: 1.7 Mach (1010 Kts)

Launch Depth: between 40-150 m (131-492 ft)

Length: RPK-7 Veter is 11 m long.

Gameplay: This weapon flies as a missile on an assigned course then drops a chute with APR-3ME torpedo. In the game the torpedo begins homing as soon as it hits the water. Chute speed falls aprx.10 m/sec (33ft/sec). The missile has a max range of 100 km (54 nm). The torpedo it drops has a range of 3.333 m (1.79 nm) at 65 kts and a warhead of 76 kg. A maximum depth of 800 meters (2,400 ft) is modeled for APR-3ME torpedo.

Missile variant APR-3ME torpedo, accommodate ONLY ASW priority. Its can targeting only subsurfaced target. Active Or Passive mode torpedo, set by random method in doctrine.

For successful in-game launch of the missile Ownship depth must be between 40 and 150 meters. Ownship speed must not exceed 6 knots.

NOTE: A “Typhoon” SSBN [B] Class, “Run To Enable” preset for this weapon, settings in Nmi instead Meters. Preset “Run To Enable” as 00005 assigned drop torpedo at 5 n.m. from Own Ship. Launch Depth: Above 61 meters

SS-N-27 ASW (NATO NAME) / 91RE1 ASW (Klub Series)(Anti-submarine weapon)

An ASW version of the SS-NX-27 Novator Al'fa (3M54) missile, designated 91RE1.

Weight: 2,050 kg (including a homing torpedo payload)

Missile Range: 50 km (27 nm)

Speed: 2.6 Mach (1675 kts)

Payload: MPT-1UE ASW Torpedo

When the missile will arrive in the nominated area, the torpedo will be lowered on water on a parachute, the speed of drop is approx. appreciated as 10 meters per one second (33 ft/sec). Height dropping of a torpedo variable, thus descent can borrow from 1 up to 2 of minutes. When the parachute will enter water, the torpedo MPT-1UE torpedo will begin circle search.

The missile has a max range of 27 nm. The MPT-1UE torpedo it drops has a maximal range of 14.8 km (8 nm) and a warhead of 80 kg.

For successful in-game launch of the missile Ownship depth must be 100 meters or less.

Ownship speed must not exceed 6 knots.

Missile variant MPT-1UE torpedo, accommodate Dual-mission priority. Its can targeting as subsurfaced and Surfaced target. Active Or Passive mode torpedo, set by random method in doctrine.

NOTE: Delta-IV Class: “Run To Enable” preset for this weapon settings in Nmi instead Meters. Preset “Run To Enable” as 00005 assigned drop torpedo at 5 n.m. from Own Ship

--- SHIP LAUNCHED MISSILE ---

SM-1 MR (Surface-to-Air Missile)

Standard Missile- MR acronym Medium Range.

Length: 4.72 m (15.5 ft)

Diameter: 0.34 m (13.3 in)

Weight: 705 kg (1,554 lb)

Range: 24.8 nmi (46 km)

Guidance: semi-active homing.

Warhead: 115 kg. (253 lb)

Gameplay: Maximum range for this missile is modeled at 24.8 nmi (46 km). Missile speed is modeled at 1,770 kts.. On the controllable FFG the SM-1 FIRE button is disabled until the radar acquires the target. The missiles's range NOT exceeds the FFG's fire control radar range.

Important: When the missile will appear in 5 miles from the target, the radar on a SM-1 missile will be switched on and guide will be transferred from a ship Fire Control radar on a SM-1 missile. In all modes (SAM or SSM task attack) - at a final stage of flight, when the missile receives the data from an own radar, the missile CAN be retargeting on other target - for example if the countermeasure CHAFF will be found out.

SM-1MR, under Player control, cannot targeting and hit FRIENDLY Units.

NOTE: The missile SM-2, was replaced on SM-1MR in the given addition. While primarily a surface to air missile, SM-1MR can also be used to target surface vessels.

SA-N-9 Gauntlet (Surface to Air Missile)

Weight: 165 kg (374 lb)
Warhead: 15 kg (33 lb)
Speed: 1,739 kts;
Range: 1.5-15 km (.8-8 nm)
Altitude: 32-19,700 ft (9.7-6005 m)

Gameplay: Maximum range for this missile is modeled at 12 nmi (22.2 km). Missile speed is modeled at 1,739 kts. This weapon is available on the controllable -UDALOY * User * - DDG Class for gameplay purposes. On the controllable DDG the “Gauntlet” FIRE button is disabled until the radar acquires the target. The missile's range not exceeds the DDG's Fire Control Radar (-Drakon Eye-) range.

NOTE: Missile can engage SURFace Target.

SS-N-14 Silex (Primary ASW Weapon)

Multipurpose Missile

Length: 7.205 m (23.6 ft)
Diameter: 0.574 m (22.5 in) (upper body)
Height: 1.35 m (4.4 ft)
Payload: UMGT-1 torpedo
Weight: 4,000 kg (4.0 tons)
Speed: 0.95 Mach (613 kts)
Max Altitude: 400 meters.
Range: 6-50 km (3.2 -:- 27 nm)
Warhead: 250 Kg (AsuW Mode)

Has two modes - ASW and ASuW.

Mode ASW: In ASW employment, the torpedo is dropped in as soon weapon "Enabled".
[Point "E" at SILEX PLAN on geoplot display. /Weapons Control Station Of -UDALOY * User * - DDG Class]

Before Launch of a “SILEX” guarantee that the first WayPoint "F" is ahead of the ship on distance less than 5000 m.

* - For exact drop of a torpedo, it is recommended to hold a course of the ship in a direction of target.

As soon as the torpedo is dropped, the missile will be selfdestruct own detonator.

Mode ASuW: In a this mode, “Silex” does not use a torpedo and the missile works as usual SSM.

For activation of this mode, at start of a missile, guarantee that the first WayPoint, [F mark at Display], will defend from the ship - more than on 5000 meters. It will nominate to a “Silex” a mode ASuW.

NOTE: ASW Mode - It can also be used with limited success against surface target with UMGT torpedo at controllable DDG.

Udaloy - has two stations of Weapons Control - F10 and F12.

--- AIR LAUNCHED MISSILES ---

AGM-119B Penguin (Anti-ship Missile)

Length: 3.00 m (9.84 ft)
Diameter: 0.28 m (11 in)
Wingspan: 1.40 m (4.6 ft)
Weight: 385 kg (849 lb)
Warhead: 140 kg (309 lb) explosive.
Speed: 2 mach (1352 kts / 2474 km/h)
Range: 22 nm (55 km)
Guided: IR Sensor.
Weapon also can target an surface subs.

AGM-114 Hellfire-II (Anti-Surface Missile)

Length: 1.727 m (5.6 ft)
Diameter: 178 mm (7 in)
Wingspan: 0.3262 m (12.8 in)
Launch Weight: 45.7-47.88 kg (100-105 lb)
Guided: Laser-Beam Guided
Warhead: 50 kg (111 lb)
Speed: Mach 1.1 (708 kts; 1,295 km/h)
Range: 9.000 m (4.86 nm)

Gameplay: This missile designated as Hellfire ASM can target both land and surface contacts from controllable player helo.

For distant control AI MH-60 from FFG-7, the missile designated as Hellfire-II and can target LAND, SURF and surfaced SUB.

AGM-65E Maverick (Air to Surface Missile)

AGM-65E – Laser Beam Guide missile version.

Length: 2.49 m (8.1 ft)
Diameter: 0.305 m (12 in)
Wingspan: 0.72 m (2.36 ft)
Weight: 307 kg (677 lb)
Sensor: Laser-Beam guided
Warhead: 136-kg (300 lb) penetrator, with a 56.8-kg (125 lb) blast-fragment warhead.
Propulsion: solid-fuel rocket
Speed: 621 kts (1150 km/h)
Range: 12 nm (27 km)

Weapon can target: Surface, Land and surfaced Sub.

AGM-84H (SLAM-ER: Stand-off Land Attack Missile-Expanded Response)

An update to SLAM it is a day/night, adverse weather, over-the-horizon, precision strike missile for the U.S. Navy.

Length: 4.34 m (14.2 ft)
Diameter: 0.343 m (13.5 in)
Weight: 725 kg (1,598 lb)

Warhead: 227 kg (500 lb)
Propulsion: CAE-JA02 turbojet
Speed: Mach 0.85 (548 kts; 1,014 km/h)
Range: 155 nm (287 km)

Weapon can target Surface, Land target (Include Oil-Rigs).

Hint: Good idea - To ensure entrance of a TLAM Missile on land, through shallow coastal water area.

SS-N-25 Switchblade / Kh-35 – “Uran” (ASM Version Anti-Ship Missile)

Length: 3.75 m (12.3 ft)
Diameter: 470 mm (1.5 ft)
Wingspan: 930 mm (3 ft)
Weight: 603 kg (1,329 lb)
Warhead weight: 145 kg (320 lb)
Speed: Mach 0.9 (580 kts; 1,074 km/h)
Range: 5-130 km (2.6-70 nm)
Guidance: Active Radar
Russian “Harpoon” missile analog.

9M120 ATAKA

Multitask IR missile. You can use against the surface ships, submarines taking place on a surface, and landbased targets.

Speed: 1.5 Mach (967 Kts)
Range: 0 - 10 km (5.3 nm)
Fuze: IR Sensor.
Warhead: Equal 50 Kg (armor capability damages)

SSN-X-26 Yakhont ASM (AntiShip Missile)

Derived from a NAVY “Onix” [PJ-10 BraMos] SSM missile version.

Supersonic missile.

Speed: 2,5 Mach /Full Cruise Range/

Range: 161 nmi

Warhead: 250 Kg.

Guide: Semi-Active Radar.

Cruise stage, uses the target illumination from the plane FCRadar.

Uses High Altitude Cruise – 10 km (32.800 ft).

Has variable height for realization of attack - The attack can be conduct from altitude of cruise, or the missile can be reduced own altitude for 50.000 meters up to the target, and work in seaskimmer a mode. This Modes modeled as “Random” create. However - at distance up to the target less than 50.000 meters (An launch), the SSN-X-26 always works in seaskimmer a mode.

AS-15B Kent / Kh-65 ALCM - Strategic LAM Missile

Seaskimmer / Terrain Follow Multipurpose Attack Missile.

Has nuclear 500 kT warhead. For Game purposes added conventional missile variant.

Target: LAND; SURFACE

Speed: 495 Kts

Warhead: 410 Kg.

Range: Minimum - 5 Nm ; Maximum - 1620 Nmi (3000 km)

Targets: Land-Based; Surface

Guidance: Inertial; TVision

Hint: Good idea - To ensure entrance of a ALCM Missile on land, through shallow coastal water area.

--- AIR DROPPED BOMBS MINES CHARGES ---

PLAB-250 (Air-Dropped Depth Bomb)

(PLAB - ProtivoLodochnayaAviaBomba)

Dual Fuze: MAD; Depth Reached Activator

Warhead: 250 kg TNT (500lb)

Weight: 400 kg

Max Depth: 656 meters (2152 Feet)

Payload Driveable TU-142 Bear "F", and CTRL Ka-27, From "Udaloy".

For Use PLAB-250, Helo must Launched From a Udaloy DDG With "STRIKE" Loadout.

Detonate Depth:

Surface - 27 m. (90 ft)

Shallow - 122 m. (400 ft)

Deep - 305 m. (1000 ft)

Bottom - 656 m. (2152 ft)

When the weapon enters into water, is allowed MAD a sensor control. The detonation occurs on the ordered depth or on a command MAD of a sensor control.

WE-177 (Nuke Depth Charge/Bomb)

Warhead: (Equal 200 kT TNT)

Weight: 320 lb (145 kg)

Fuze: Depth Reached Activator.

Payload into SS-N-15 Starfish ASW missile nuclear variant and TU-142 Bear "F".

Detonate Depth:

Surface - 27 m. (90 ft)

Shallow - 122 m. (400 ft)

Deep - 305 m. (1000 ft)

Bottom - 656 m. (2152 ft)

1000 lb Mine (MK-11 Air-dropped mine)

Overall weight: 1,000 lbs (453.5 kg)

Explosive Charge: 270 kg (595 lb) HBX explosive

Fuse: magnetic influence

Can be laid in depths up to 183 m (600 ft)

Preset Depth:

Surface - 27 m. (90 ft)

Shallow - 122 m. (400 ft)
Deep And Bottom - 183 m. (600 ft)

MK 60 CAPTOR - Moored Mine (CAPsulated TORpedo) – P3 'Orion' Payload.

Contains a Mark 46 Torpedo, which is released once the CAPTOR detects an Enemy Submarine.

Sensor Range: 6,000 Yards
Mark 46 Captor Torpedo - Range: 11.112 m (12,000 Yards)

Mk 60 Setting Depth:
Surface - 27 m. (90 ft)
Shallow - 122 m. (400 ft)
Deep - 305 m. (1000 ft)
Bottom – 450 meters (1476 ft).

NOTE: Only general device has the block of classification of the target.
The torpedo can be induced on the ship if he will be found out by a torpedo.

--- AIR DROPPED TORPEDOES ---

Mk 50 Torpedo

Advanced Lightweight Torpedo [primary ASW purpose]
Gas-Turbine Propulsion

Length: 2.93 m (9.25 ft)
Weight: 362 kg (798 lb)
Warhead: 45 kg (220 lb)
Speed: 35-55 kts (100 (km/h)
35-40 Kts Passive Search Mode / 45 Kts Passive Attack Mode
35-55 Kts Active Search Mode/ 55 Kts Active Attack Mode
Depth: 1200 m (3608 ft)
Range: 7 nmi (12.964 m) 35 kts
5 nmi (9.260 m) 55 kts.

Torpedo has Target Reattack option.

TORPEDO CONTROL:

Modes For SEARCH PATTERN - SNAKE.

" Left Side - Narrow SNAKE "

FLOOR: **0**1000 (By default)
SEARCH PATTERN: SNAKE

Key figure **0**:

It will set to a torpedo such features - after sensor enabled the initial turn of a torpedo in the left sector. The amplitude of the snake narrow - a torpedo carries out a deviation on 30 degrees from preenable course. We admit a torpedo have started in 000 degrees, the ambassador of a beginning of performance of the snake the torpedo begins the left turn. When she will rise on a rate 330 - (a deviation from the given preenable crs in 000 degrees - happened as 30 degrees) - the return turn in the right side begins. On a right shoulder, as soon as the rate of a torpedo will

be 30 degrees - the return process - turn of a torpedo in the left side again on a rate 330 degrees etc.etc ... to put it briefly snake cycle begins.

" Right Side - Narrow SNAKE "

FLOOR: 11000

SEARCH PATTERN: SNAKE

Key figure 1.

As well as in the previous mode - the initial turn is carried out in the right sector.

" Left Side - WIDE SNAKE "

FLOOR: 21000

SEARCH PATTERN: SNAKE

Key figure 2.

As well as in the First mode - the initial turn is carried out in the Left sector, with that difference, that the snake has increased snake amplitude - 45 degrees, as a consequence, a little wider range of viewing in lateral sectors.

" RIGHT Side - WIDE SNAKE "

FLOOR: 31000

SEARCH PATTERN: SNAKE

Key figure 3.

Analogue of a Previous mode with only turn in the right sector.

Modes for SEARCH PATTERN - CIRCLE.

" Left Side - Narrow CIRCLE "

FLOOR: 01000

SEARCH PATTERN: CIRCLE

After enabled sensor control, the turn of a torpedo in the left side on small radius begins.

" Right Side - Narrow CIRCLE "

FLOOR: 11000

SEARCH PATTERN: CIRCLE

After enabled sensor control, the turn of a torpedo in the right side on small radius begins.

" Left Side - WIDE CIRCLE "

FLOOR: 21000

SEARCH PATTERN: CIRCLE

After enabled sensor control, the turn of a torpedo in the Left side on large radius begins
Diameter of a ring about 1.2 miles. (For different torpedoes on any other diameter range - depends on value of minimal radius given to a torpedo in DataBase, and own speed.)

" Right Side - WIDE CIRCLE "

FLOOR: 31000

SEARCH PATTERN: CIRCLE

After enabled sensor control, the turn of a torpedo in the Right on large radius begins.

Additional Mode: DIRECT MOVE

Key figures: 32555

" DIRECT MOVE "

FLOOR: **32555**

SEARCH PATTERN: ANY - CIRCLE Or SNAKE

After enabled, sensor control, the torpedo goes directly in preenable crs. Any maneuver does not make, the sensor control scans ahead of a torpedo.

Note: O.H. Perry (the default preset FLOOR as **32766** will establish to a torpedo 3935ft - the maximal depth Mk 50 torpedo)

Mk 54 Torpedo

Advanced Lightweight Torpedo/dual purpose

Gas-Turbine Propulsion

Length: 2.93 m (9.25 ft)

Weight: 362 kg (798 lb)

Warhead: PBXN Eq. 60 kg TNT. /Polymer Bonded Explosive /.

Speed: 30-50 kts (74 (km/h)

30-35 Kts Passive Search Mode / 40 Kts Passive Attack Mode

30-50 Kts Active Search Mode/ 50 Kts Active Attack Mode

Depth: 525 m (1722 ft)

Ranges: 16.6 km (9.0 nm) at 30 kts

12.9 km (7.0 nm) at 50 kts

NOTE: This weapon replace MK46 Torpedoes at Driveable units.

Torpedo Control: Similar Mk-50 Air Dropped Torpedo.

APR-2E Torpedo

Anti-Submarine pump-jet rocket-torpedo.

Propulsion: pump-jet propulsion unit operating on a composite high-calorie solid propellant.

Speed: 35-62 Kts (Search/Attack Mode)

35 Kts Passive Search Mode / 62 Kts Passive Attack Mode

35 Kts Active Search Mode/ 62 Kts Active Attack Mode

Range: 4.300 m (2.3 nm) at 35 kts

3.010 m (1.62 nm) at 62 kts.

Warhead: 78 Kg

Max depth: 655 m (2148 ft)

Guidance: Active/Passive Homing

TORPEDO CONTROL:

The work of APR-2; APR-3 torpedo series is constructed thus:

The torpedoes APR have only CIRCULAR route of search move.

The mode the Snake or Direct course - is not supported.

The speed of search - is always limited to the minimal speed - 35 knots.

Free Diving Phase:

Up to depth of 200 meters, the torpedo has a mode of move with the switched off engine. It is a so-called "Free Diving Phase" of a torpedo. The immersing occurs on a spiral a pattern.

On depth of 200 meters, the torpedo enabled the engine on the minimal speed (35 kts) and is immersed on the order depth already on the engine.

If the depth of search is nominated above than 200 meters, (for example 100 meters - 328 ft) that up to this depth the torpedo does a Free Diving, and on depth of 100 meters the torpedo will

switch on a sensor control and engines for performance of a phase of search on the nominated depth.

It is necessary to mention, that in a phase of free diving, torpedo very silent - as the engine does not make any noise, also it saves fuel of a torpedo from the extreme flow before execute battle order.

Search Phase:

At achievement of the ordered depth - the torpedo enabled own sensor control and will begin to carry out circulation in the side, nominated by the player.

Thus, the search speed of a torpedo (Search Phase) by default will be always established in minimal spd - 35 knots (irrespective ordered of the player), and radius of turn, will be established depending on presets of the player - wide or narrow sample of search to execute.

Attack Phase:

The phase of attack in a passive and active mode is carried out in the maximal torpedo speed.

PRESETS MODE –DIVING TYPE (options CIRCLE/SNAKE):

Sets a parameters of a diving and “Free Diving Phase”- **CIRCLE:** Nominates to a torpedo more abrupt spiral in a mode of free fall - sliding on a spiral with a corner of immersing of 20 degrees and speed of 20 knots.

It gives a torpedo more prompt achievement of search depth

Sets a parameters of a diving and “Free Diving Phase”- **SNAKE:** Will nominate to a torpedo a smooth diving - speed of 10 knots and corner of sliding of 10 degrees.(It can be useful in shallow waters for prevention of damage of a torpedo about seabed.)

PRESET MODE – SEARCH PATTERN AND FLOOR (option FLOOR):

Nominates to a torpedo the **SIDE** for the beginning of performance of a circle, and **SAMPLE** of a circle.

The **circle SAMPLE** can be wide or narrow.

Mode /Floor: **0**1000 (Default) - **The LEFT side a NARROW circle**

Mode /Floor: **1**1000 - **The RIGHT side a NARROW circle**

Mode /Floor: **2**1000 - **The LEFT side a WIDE circle**

Mode /Floor: **3**1000 - **The RIGHT side a WIDE circle**

First Digit (Blue designated) establishes number of a mode. Next 4 digits - for ordered **FLOOR** of a torpedo. If **FLOOR** it is more than maximal depth of a torpedo, the maximal depth will be automatically established. (the preset **FLOOR** as **15000** will establish to a torpedo 2148ft - the maximal depth APR-2E and the “RIGHT side a NARROW circle” pattern.)

GENUINE HELIX SEARCH MODE (option RTE/APR-Helix [RunToEnable]) :

RTE/APR-Helix: 00001 (or any value RTE, not equal ZERO)

This preset nominates a torpedo in search of a mode a **HELIX**.

After an entrance water, on a torpedo enable a sensor control, up to depth nominated as Search Depth the torpedo does descent on a **HELIX** pattern with **ENABLED** Sensor. (A type **HELIX** pattern- - depends from preset **CIRCLE** or **SNAKE**.)

NOTE: In a mode NOT HELIX (Default mode) - the sensor controls always are enabled only on the ordered SEARCH depth.

APR-3E Torpedo [TU-142 Bear Payload]

Advanced Anti-Submarine pump-jet Rocket-Torpedo.

Apr-3ME - version for 86R Missile mount (Stallion ASW Missile) APR-3ME, accommodated only for engage SubSurfaces Targets.

Speed: 35-65 Kts (Variable Speed Mode)

35 Kts Passive Search Mode / 65 Kts Passive Attack Mode

35 Kts Active Search Mode/ 65 Kts Active Attack Mode

Range: 5.5 km (2.9 nmi) at 35 kts

3.333 m (1.79 nm) at 65 kts.

Propulsion: pump-jet propulsion unit operating on a composite high-calorie solid propellant

Warhead: 76 Kg

Max depth: 800 m (2624 ft)

Guidance: Active/Passive Homing

Torpedo Control: [Similar APR-2E.](#)

UMGT-1 Torpedo /KA-27 Helo Payload/

Dual Purpose Electric Torpedo (ASW and ASuW Capability)

Length: 3.8 m

Diameter: 400 mm

Warhead: 60 Kg

Speed: Variable, 25-41 Kts

25-30 Kts Passive Search Mode / 35 Kts Passive Attack Mode

25-41 Kts Active Search Mode/ 41 Kts Active Attack Mode

Range: 12.964 m (7 nm) at 25 kts

9.075 m (4.9 nm) at 41 kts

Max depth: 500 m (1640 ft)

Guidance: Active/Passive Homing

Torpedo has Target Reattack option.

Torpedo Control: [Similar MK-54 Air Dropped Torpedo](#)

MPT-1UE Torpedo [TU-142 Bear Payload]

Dual (ASW/ASuW) Purpose LWT Gas-Turbine Torpedo

Length: 2.9 m

Diameter 324mm

Weight: 300 kg

Speed: 30-45 Kts (Variable Speed Mode)

30-35 Kts Passive Search Mode / 40 Kts Passive Attack Mode

30-45 Kts Active Search Mode/ 45 Kts Active Attack Mode

Ranges: 8 nmi (14.816m) at 30 kts

5.6 nm (10.371m) at 45 kts

Warhead: 80 Kg

Max depth: 717 m (2352 ft)

Guidance: Active/Passive Homing

Torpedo Control: [Similar MK-54 Air Dropped Torpedo](#)

--- SUB COUNTERMEASURES ---

Application:

There is now feature in use of Sub CMs.

START FROM " MENU OPTION ":

If is Launched from the menu, then - SHALLOW CM tries to go upward - though physics is broken, however it nevertheless does attempts to reach the specified depth.

DEEP CM - after launch from the menu, during one minute does hovering on depth of launch, is then immersed downwards.

The depth is established below SUB on 656 ft (200 meters).

SAMPLE: - if the Sub is on depth of 1000 ft, DEEP CM will be put on 1656 ft.

START FROM STATION " LAUNCH DISPLAY ":

Start through pressing of buttons FIRE - Launch ONLY DEEP CM!

However - time hovering is reduced about 8 seconds, after that the CM leaves on depth - below than 656 ft of a SUB.

It is stipulated for emergency situations - when the player can is sharp rise upwards being rescued from a torpedo - and that to direct her deeply.

SEAWOLF: All just as above, besides - if the player will establish unique depth for each CM - that a CM will aspire to this depth. If default presets (depth - OwnShip) - that it is regarded as EMERGENCY DEEP CM (immediate deep immersing).

Reinforce Alert Add-on "Ship-Helo" Distant Control ADvancedCAPability Guide

For establish of the helicopter in different modes of operations, after his launch, you should nominate to him a mode of his job. As well in case of launch a torpedo or the missile, in them are entered presets the data – speed, depth, bearing, etc.. etc.

The modes of the helicopter can be changed by the player during job of the helicopter in mission. 16 different modes of operations in total are stipulated.

A Helo Programming Code:

Mode 1 W-W-W-W

Active - Passive mode operations of acoustics.

The basic role of this ASW mode – Transit An MAD Search. Flight on waypoints plan, **without check of each point** deeping sonar.

In LAST point of a way the helicopter will do hovering and will lower dipping sonar In ACTIVE_PASSIVE mode.

Operative Speed is MaxSpd. At flight work MAD ESM and Visual sensor controls.

Emitting of a Helo radar - the player should use REMRO function.

SubMode 1 - Use of the helicopter with the given acoustic conditions of search of a Mode1 is possible with the "AutoAttack" option of the helicopter for HOSTILE Target. For installation of this mode use primary a code of programming – **W-T-W-W**

Mode 2 – W-W-W-T

Active - Passive mode operations of acoustics with check of each waypoint - **StepByStep**. The basic role of this ASW mode - Acoustic Search. Flight on waypoints plan, **with check of each point** by deeping sonar in ACTIVE-PASSIVE mode. In last point of a way the helicopter will do hovering and will lower deeping sonar. Operative Speed is MaxSpd. At flight work MAD ESM and Visual sensor controls. Emitting of a Helo radar - the player should use REMRO function.

SubMode 2 - Use of the helicopter with the given acoustic conditions of search of a Mode2 is possible with the “AutoAttack” option of the helicopter for HOSTILE Target.. For installation of this mode use primary a code of programming – **W-T-W-T**

Mode 3 – W-W-T-W

Passive mode operations of acoustics. The basic role of this ASW mode – transit an MAD Search. However at to assigned one of a LAST waypoint, he will make search by deeping sonar only in PASSIVE mode. Flight on waypoints plan,**without check of each point** deeping sonar. In last point of a way the helicopter will do hovering and will lower deeping sonar. Operative Speed is MaxSpd. At flight work MAD ESM and Visual sensor controls. Emitting of a Helo radar - the player should use REMRO function.

SubMode 3 - Use of the helicopter with the given acoustic conditions of search of a general Mode 3 is possible with the “AutoAttack” option of the helicopter for HOSTILE Target. For installation of this mode use primary a code of programming – **W-T-T-W**

Mode 4 – W-W-T-T

Passive mode operations of acoustics with check of each waypoint **StepByStep**. The basic role of this ASW mode - Acoustic Search. Flight on waypoints plan, **with check of each point** by deeping sonar in PASSIVE mode. In last point of a way the helicopter will do hovering and will lower deeping sonar. Operative Speed is MaxSpd. At flight work MAD ESM and Visual sensor controls. Emitting of a Helo radar - the player should use REMRO function.

SubMode 4 - Use of the helicopter with the given acoustic conditions of search of a general Mode 4 is possible with the “AutoAttack” option of the helicopter for HOSTILE Target.. For installation of this mode use primary a code of programming – **W-T-T-T**

Mode 5 – T-T-T-T

Mode of Long distant radar search. The helicopter will be established on maximal altitude (approximately about 10 kilofeet ~ 4 km). Economy Speed of moving about 40 knots.

* - **All radar modes have no an option of auto SWITCH ON/OFF.**

The player himself operates a radar with the –REMRO- of an option from F8 station of the ship.

SubMode 5 - Similar Altitude search of a Mode 5. The speed of transit is increased up to 84-90 knots. For employment of this submode, use primary a code of programming – **T-W-T-T**

Mode 6 - T T T W

Mode of distant radar search. The helicopter will be established on altitude 6.5 kFt (2 km). Economy Speed of moving about 50 knots.

SubMode 6 - Similar Altitude search of a Mode 6. The speed of transit is increased up to 99-105 knots. For employment of this submode, use primary a code of programming – **T-W-T-W**

Mode 7 - T T W T

Mode of distant radar search.

The helicopter will be established on altitude 3.2 kFt (1 km).
Economy Speed of moving about 60 knots.

SubMode 7 - Similar Altitude search of a Mode 7. The speed of transit is increased up to 113-120 knots. For employment of this submode, use primary a code of programming – **T-W-W-T**

Mode 8 - T T W W

Mode of distant radar search.

The helicopter will be established on altitude 1.6 kFt (0.5 km).
Economy Speed of moving about 65 knots.

SubMode 8 - Similar Altitude search of a Mode 8. The speed of transit is increased up to 122-130 knots. For employment of this submode, use primary a code of programming – **T-W-W-W**

Initial presets of a helo mode: The acronyms for programming the helicopter are based on the initial letters of buttons - acronym of a code “W” corresponds with the button "Waypoints", the code acronym “T” corresponds to the button "Torpedo".

After helo away from deck:

Click to transfer control of the airborne helicopter to the ship (ASTAC). When SHIP has control, Helo Fly To Commands are enabled and flight, weapon and sonobuoy waypoints can be placed for the helo to follow.

Example of establish Mode 7 - T T W T:

Establish one waypoint for drop of a torpedo - having pressed the button "Torpedo".

Then, remove this waypoint - press on the keyboard a key “Delete”.

The important note: After assigned of a waypoint, wait for some time - 1 second or 2, and only after that, make removal of a waypoint. The period of interrogation of the doctrine per 1 second, can not distinguish the too fast removed waypoint!

Establish the second point for drop of a torpedo - having pressed the button "Torpedo" and as remove her with some delay.

The third point, is a point “W” - place this waypoint - having pressed the button "Waypoint", after that remove her.

Final phase of mode programming – assigned and removal of the fourth point - having pressed the button for "Torpedo" and then to remove her.

After that, the helicopter will be ready for job in the mode, established by you.

Nominate new waypoints path, and the helicopter will begin to carry out ordered tactics.

The installation submode does not require input of the basic mode. If it is required “SubMode 8”, it is necessary you to enter a code only for this submode T-W-W-W.

Reprogramming a helo mode:

If the helicopter continues to execute out ordered tactics (on the display there are routing points, on which the helicopter) - follows remove them.

Establish scale of the round display at station F3 of the ship to the resolution 10 or 20 miles, that it was convenient to grasp a road point of the helicopter by the cursor of the mouse at its appointment and subsequent "dragging". Assigned a new waypoint (with any abbreviation T or W).

Arrange shape of a symbol the helicopter on the display, at any edge of the display.

Then gradually increase scale of the display up to the maximal sanction in 120 miles and simultaneously with it, drag a waypoint on maximal distance.
Simply speaking, divide by this line, the display half-and-half - as much as possible remove from the helicopter, on opposite edge of the round display.

After that, remove this waypoint. The helicopter is ready for input of a new mode.

(* - Easier speaking - the moving of the FIRST waypoint from the helicopter on distance of 220 miles, will be recognized as readiness of the helo for appointment other mode of operations. Unfortunately, we can't on the display of interface management the helicopter, duplicate and confirm these functions, any sound signals (beep) or other different ways. Reprogramming and assignment operation helo mode, can be trained with some practice.)

The further procedure of input of a mode, is similar described in previous guide - consecutive input and delete 4 points on an alphabetic code of a mode.

The change of modes, is not limited with what or cycle - you can change this modes so much time, how much it will be necessary.

At the rest in the helicopter of fuel 5 % and less, he will automatically be established in a mode of return on the ship.

NOTE: The appointment of a waypoint for drop sonobuoy (**acronym "S"**) is identified by the doctrine as appointment of a point with **acronym "T"**.

For establish initial mode with loadout **"STRIKE"** type, for KA-27 or MH-60, use the button "Sonobuoys", instead of the inactive button "Torpedo".

--- DEPTH MAST USE ---

Class Name	Periscope	Radio	ESM	RADAR	Snorkel	Bridge Exit	Visible Sail
637 Sturgeon	63 ft	63 ft	61 ft	58 ft	63 ft	49 Ft	51 Ft
637 Sturgeon Long	63 ft	63 ft	61 ft	58 ft	63 ft	49 Ft	51 Ft
688 LosAngeles Flt-I	66 ft	66 ft	67 ft	56 ft	56 ft	50 ft	52 Ft
688 LosAngeles VLS Flt-II	66 ft	66 ft	67 ft	56 ft	56 ft	50 ft	52 Ft
688 LosAngeles Impr Flt-III	67 ft	67 ft	68 ft	57 ft	56 ft	51 ft	53 ft
971U Akula-I Impr	20 m	20 m	20 m	20 m	19 m	17 m	17 m
971U Akula-II	20 m	20 m	20 m	20 m	19 m	17 m	17 m
971 UM Akula-II Impr	21 m	21 m	21 m	21 m	19 m	18 m	18 m
705 Alfa	16 m	19 m	18 m	17 m	17 m	13 m	13 m
877V Alrosa	18 m	18 m	19 m	20 m	16 m	14 m	14 m
667 BDRM Delta-IV	25 m	25 m	25 m	24 m	23 m	19 m	21 m
877 Kilo	18 m	19 m	19 m	20 m	17 m	14 m	14 m
636 Kilo Impr	18 m	19 m	19 m	20 m	17 m	14 m	14 m
677 LADA	18 m	19 m	19 m	18 m	17 m	14 m	14 m
Harushio	75 ft	77 ft	77 ft	75 ft	73 ft	68 ft	70 ft
Collins	60 ft	60 ft	62 ft	58 ft	55 ft	48 ft	49 ft
Type 212	57 ft	59 ft	59 ft	53 ft	49 ft	43 ft	45 ft
Ohio	89 ft	90 ft	89 ft	82 ft	80 ft	68 ft	71 ft
Oscar	25 m	23 m	25 m	24 m	23 m	17 m	19 m
Typhoon	30 m	30 m	31 m	28 m	27 m	24 m	26 m
SSN21 Seawolf	69 ft	79 ft	79 ft	71 ft	72 ft	63 ft	65 ft
SSN774 Virginia	78 ft	78 ft	78 ft	68 ft	66 ft	58 ft	60 ft
Trafalgar	70 ft	70 ft	73 ft	64 ft	60 ft	52 ft	56 ft
Trenchant	70 ft	70 ft	73 ft	64 ft	60 ft	52 ft	56 ft
Victor-III	18 m	18 m	18 m	18 m	19 m	13 m	13 m

--- SONOBUOYS ---

Buoy Type	Acoustic Type	Frequency	Max.Range	SNR (sensitive)	Shallow Depth	Deep Depth
VLAD	Pass	0-100 Hz	37040 m (20 nmi)	-1	600 ft	1200 ft
Type 75	Pass	0-100 Hz	37040 m (20 nmi)	-1	183 m	366 m
DiFAR	Pass	75-2400 Hz	120380 m (65 nmi)	3	90 ft	400 ft
BM Type	Pass	75-2400 Hz	120380 m (65 nmi)	3	27 m	122 m
DiCASS	Pass	0-2400 Hz	12038 m (6.5 nmi)	5	90 ft	800 ft
RGB Type	Pass	0-2400 Hz	12038 m (6.5 nmi)	5	27 m	244 m
DiCASS	Act	10000 Hz	13715 m (7.4 nmi)	-5	90 ft	800 ft
RGB Type	Act	10000 Hz	13715 m (7.4 nmi)	-5	27 m	244 m

IMPORTANT NOTE OF SOME INSUPERABLE STOCK BUGS.

About Active Sensor Enabled Bug:

In the engine of game there is an essential bug - if your distant controlled helicopter will be counterdetected by enemy unit, and the is classified as -HOSTILE -, then by the helicopter the NavalSimEngine will under duress switch ON a Your Helo radar.

If hostile sub which has counterdetected your helicopter there is at periscope depth - a radar the helicopter will be SWITCHED ON. If the Sub not at periscope depth, radar is NOT SWITCHED ON. [Damn It Evil ...]

It is fair as well for the surface ships - while they were NOT found out by an enemy, the radars at them will be switched off (If EMCON Option Enabled In Mission Editor). But if there will be an counter detection (for example: AI SUB will find out this ship even at 20 miles far, but sub stays at PD), the NavalSimEngine also will switch ON radars by the ship. It is simply incredible - how the submarine can, SWITCH ON radars an the Enemy ship?

Why by the ship (or by helicopters) the active sensors, are enabled - me it is not known.

About Wakehoming Torpedo Bug:

The wakehoming torpedos do not work against the surface ship, controlled by the player. This mistake also is stock written down in the engine of game. The torpedo does not see a trace of the ship. It is fair for ALL wakehoming of torpedos (53-65; 65-76; UGST , USET-80 etc. in wakehoming mode).

When play a submarine against the player controlled by the ship - not launch torpedo against the ship of the player in this mode - torpedo never will be locked on the ship.

About Time Acceleration Bug:

The acceleration of time in game up to x16, can cause "freezing" sim at work of such torpedoes as directly going Mk 48. Interrogations of the doctrine can 8 times per one second are made only with speed. SCS have increased speed DW sim up to x16 (in comparison with SubCommand where the maximal acceleration x8), however maximal speed of interrogation of the doctrines in DW remains as x8. A multiplier of time for interrogation of the doctrines – SCS have forgotten to increase also up to x16. This is "**Waiting queue**" an arising problem of the engine of game.

We urgently recommend to limit acceleration of time up to x8 in DangerousWaters.ini a file.

.MaxTimeScale 16 string, replaced At .MaxTimeScale 8

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Weapon Manual created by -+=Crazy:Ivan=+-. Sorry for bad English.