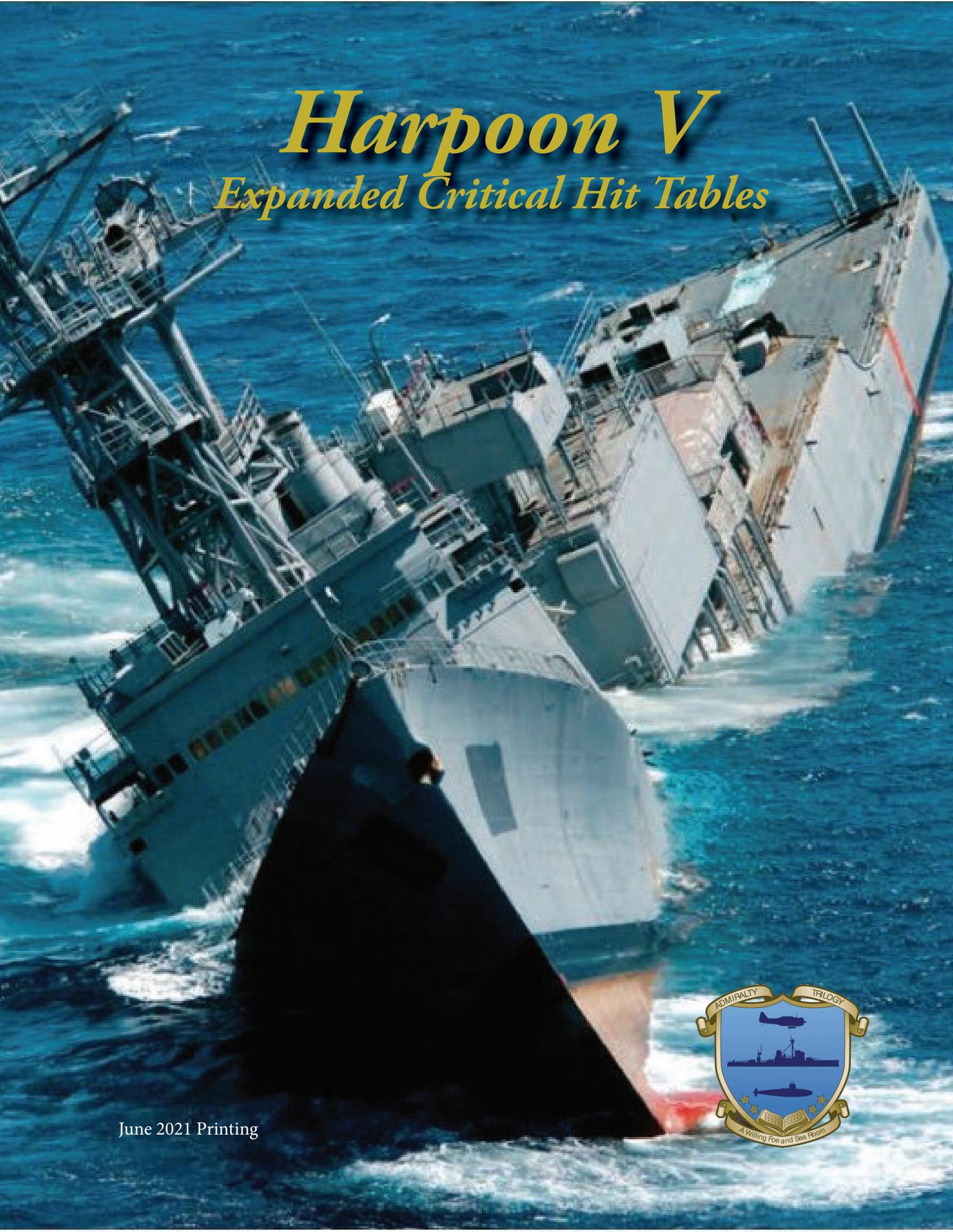


# *Harpoon V*

## *Expanded Critical Hit Tables*



June 2021 Printing



## Expanded Critical Hit Tables for *Harpoon V*

### General Rules:

- If a vessel is not fitted with the system called for by a die roll, ignore the critical hit (e.g., an unarmed merchant ignores weapon Critical hit rolls)
- Any critical hit marked with an asterisk (\*) is protected by the belt/deck armor. The armor must be penetrated before the critical hit is inflicted.
- Surfaced subs should be treated as surface combatants, torpedo and other underwater damage is rolled on the Underwater attacks table. Depth Charge attacks against surface subs are still rolled on the Submarine Major and Minor damage tables.
- Amphibious ships (e.g., LST, LPD) use the table for Merchants and Auxiliaries, unless they have a flight deck (LHA, LPH), in which case they use the Aviation Ship table.
- Torpedo critical hits on surface ships are resolved on the Underwater Attacks column, while torpedo hits on subs use the Major Submarine Damage column.

### This expansion includes two official rule changes for Harpoon fifth edition, and an optional “house rule.”

- 1) Airburst critical hits that strike a weapon do not cause a magazine explosion.
- 2) Aviation ships that receive a Bridge critical should roll D6 to see if the Bridge is hit or Air Plot is struck. This includes Airburst and Underwater attacks.
  - 1-3: Bridge. The main conning station has suffered a catastrophic hit.
    - The ship will continue on its current course and speed.
    - If the ship is fitted with any navigation radars, they are lost.
  - 4-6: Air Plot: The ship must cease land/launch operations.

For both types, roll D6/2 for the number of Tactical Turns it takes to restore functionality, and a Fire critical has started, roll D6-2% for severity.

These two official changes will appear in the next update of *Harpoon V*.

### Optional House Rule

For ships in service before 1955, instead of rolling on the Pre-1955 Surface Combatants table, use the Major and Minor Surface Combatants columns from *Command at Sea*. We have reproduced those two columns from the critical hit tables in CaS at the end of this booklet.

The tables have been adapted to work with the *Harpoon*, and players may have to use their own judgment to apply them properly.

The goal of this rule is to model the damage inflicted on ships built in the CaS era more accurately.

### Critical Hits by Light Weapons (applies to all target types)

- Make sure that the damage points inflicted are at least 1% of the target’s original damage points (see 14.1.2), otherwise no critical hits are inflicted.
- Also, check to make sure that the weapon inflicting the Critical hit penetrates any armor, and can inflict that type of critical. If it cannot, the critical hit is ignored.

#### *Largest gun*

<i>fired</i>	<i>Criticals allowed against Size class E and larger</i>
<12.7mm	Bridge, Weapon
12.7 - 15mm	Aircraft, Bridge, Weapon, Sensor (not sonar), Cargo
20 - 27mm	Aircraft, Bridge, Weapon, Sensor (not sonar), Cargo
30 - 45mm	Aircraft, Bridge, Fire, Weapon, Sensor (not sonar), Cargo
57 - 65mm	Aircraft, Weapon, Bridge, Fire, Flooding (-2 severity), Sensor (not sonar), Cargo

Cover: Ex-USS *John Young* (DD 973) snapped in two after being struck by a single Mk48 Mod 6 warshot torpedo, fired by USS *Pasadena* (SSN 752). SINKEX, April 13, 2004 (US Navy)

Thanks to Jose Luis Alonso, Chang Lei, Francis Marliere, Kevin Martell, and Steve Thorne.

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## Pre-1955 Surface Combatants (Size A - E)

**01-30:** Weapon\*. Roll to find out which weapon has been affected.

**If Weapon, using the same D100 roll:**

**01-06** Director, if no director treat as weapon mount.

**07-30** Weapon mount. If a weapon has explosive ammunition, roll D10. The mount's ammunition detonates on a roll of 0. The explosion of a belowdecks missile or gun magazine will destroy the ship. The explosion of a loaded torpedo tube or abovedecks missile mount (Mk141 with Harpoon, for example), inflicts damage on the mount divided by two, rounded down, but never less than one.

**If unarmed aircraft**

Aircraft destroyed, roll D6-2% for the severity of the fire.

**If armed aircraft**

Aircraft destroyed, roll D6+2% for the severity of the fire; on a 6 the ordnance explodes, inflicting 2/3 normal damage points on the ship. If the deck is armored, the damage will not penetrate.

**31-45:** Sensor. One of the ship's sensors has been knocked out. This also includes the ship's countermeasures (jammer and decoys are counted separately). Roll to find out which sensor has been affected.

**46-50:** CIC. The ship's command space has been destroyed. All weapons that do not have a local control mode (either being able to fire from the mount itself or a secondary control space) are out of action. All sensors are lost, except for any navigation radars.

**51-60:** Engineering\*. The ship's engineering plant has been damaged. Reduce speed to the next lower level on the Damage and Speed Breakdown chart.

**A fire critical hit** has started, roll D6-2% for severity.

**Electrical Load.** Roll D6. For the first Engineering critical, a roll of 1 means the electrical load has been lost for D6 Intermediate Turns. For the second Engineering critical, it's 1-3 on a D6, and 1-5 for the third and all successive Engineering critical hits.

**61-75:** Flooding\*. Roll D6% for severity.

Halve the result if the hit is non-penetrating; Halve the result if it is caused by guns of 65mm or less; 1/4 if both.

**76-90:** Fire. Roll D6% for severity.

Halve the result if the hit is non-penetrating; Halve the result if it is caused by guns of 65mm or less; 1/4 if both.

**91-95:** Bridge\*. The main conning station has suffered a catastrophic hit.

The ship will continue on its current course and speed.

Roll D6/2 for the number of Tactical Turns it takes to restore functionality. After the casualty has been corrected, all changes to course and speed take two Tactical Turns to execute.

**A fire critical hit** has started, roll D6-2% for severity.

If the ship is fitted with any navigation radars, they are lost.

**96-00:** Rudder\*. The ship's steering and control surfaces are damaged. Roll D6:

1-3: Jammed: The rudder is jammed in whatever direction the ship is currently moving. If the ship is steering evasively or otherwise maneuvering with both left and right rudder, roll randomly for the direction of the jam:  
1-2 port, 3-4 straight, 5-6 starboard.

4-6: Disabled: The ship's steering engine has been hit. Maximum speed is reduced to 1/3 of the ship's undamaged speed. Maximum course changes after moving the required advance are reduced from 45° to 15°.

## 1955+ Surface Combatants (Size A - E)

**01-20:** Weapon. Roll to find out which weapon has been affected.

**If Weapon, using the same D100 roll:**

**01-04** Director, if no director treat as weapon mount.

**05-20** Weapon mount. If a weapon has explosive ammunition, roll D10. The mount's ammunition detonates on a roll of 0. The explosion of a belowdecks missile or gun magazine will destroy the ship. The explosion of a loaded torpedo tube or abovedecks missile mount (Mk141 with Harpoon, for example), inflicts one weapon's damage times the number of weapons on the mount divided by two, rounded down, but never less than one.

**If unarmed aircraft.**

Aircraft destroyed, roll D6-2% for the severity of the fire.

**If armed aircraft**

Aircraft destroyed, roll D6+2% for the severity of the fire; on a 6 the ordnance explodes, inflicting 2/3 normal damage points on the ship. If the deck is armored, the damage will not penetrate.

**21-35:** Sensor. One of the ship's sensors has been knocked out. This also includes the ship's countermeasures (jammer and decoys are counted separately). Roll to find out which sensor has been affected.

**36-45:** CIC. The ship's command space has been destroyed. All weapons that do not have a local control mode (either being able to fire from the mount itself or a secondary control space) are out of action. All sensors are lost, except for any navigation radars.

**46-60:** Engineering\*. The ship's engineering plant has been damaged. Reduce speed to the next lower level on the Damage and Speed Breakdown chart.

**A fire critical hit** has started, roll D6-2% for severity.

**Electrical Load.** Roll D6. For the first Engineering critical, a roll of 1 means the electrical load has been lost for D6 Intermediate Turns. For the second Engineering critical, it's 1-3 on a D6, and 1-5 for the third and all successive Engineering critical hits.

**61-75:** Flooding\*. Roll D6% for severity.

Halve the result if the hit is non-penetrating; Halve the result if it is caused by guns of 65mm or less; 1/4 if both.

**76-90:** Fire. Roll D6% for severity.

Halve the result if the hit is non-penetrating; Halve the result if it is caused by guns of 65mm or less; 1/4 if both.

**91-95:** Bridge. The main conning station has suffered a catastrophic hit.

The ship will continue on its current course and speed.

Roll D6/2 for the number of Tactical Turns it takes to restore functionality. After the casualty has been corrected, all changes to course and speed take two Tactical Turns to execute.

**A fire critical hit** has started, roll D6-2% for severity.

If the ship is fitted with any navigation radars, they are lost.

**96-00:** Rudder. The ship's steering and control surfaces are damaged. Roll D6:

1-3: Jammed: The rudder is jammed in whatever direction the ship is currently moving. If the ship is steering evasively or otherwise maneuvering with both left and right rudder, roll randomly for the direction of the jam:  
1-2 port, 3-4 straight, 5-6 starboard.

4-6: Disabled: The ship's steering engine has been hit. Maximum speed is reduced to 1/3 of the ship's undamaged speed. Maximum course changes after moving the required advance are reduced from 45° to 15°.

## Guided Weapons vs. Surface Combatants (Size A - E)

**01-10:** Weapon. Roll to find out which weapon has been affected.

**If Weapon, using the same D100 roll:**

**01-02** Director, if no director treat as weapon mount.

**03-10** Weapon mount. If a weapon has explosive ammunition, roll D10. The mount's ammunition detonates on a roll of 0. The explosion of a belowdecks missile or gun magazine will destroy the ship. The explosion of a loaded torpedo tube or abovedecks missile mount (Mk141 with Harpoon, for example), inflicts one weapon's damage times the number of weapons on the mount divided by two, rounded down, but never less than one.

**If unarmed aircraft**

Aircraft destroyed, Roll D6-2% for the severity of the fire.

**If armed aircraft**

Aircraft destroyed, roll D6+2% for the severity of the fire; on a 6 the ordnance explodes, inflicting 2/3 normal damage points on the ship. If the deck is armored, the damage will not penetrate.

**11-25:** Sensor. One of the ship's sensors has been knocked out. This also includes the ship's countermeasures (jammer and decoys are counted separately). Roll to find out which sensor has been affected.

**26-40:** CIC. The ship's command space has been destroyed. All weapons that do not have a local control mode (either being able to fire from the mount itself or a secondary control space) are out of action. All sensors are lost, except for any navigation radars.

**41-65:** Engineering\*. The ship's engineering plant has been damaged. Reduce speed to the next lower level on the Damage and Speed Breakdown chart.

**A fire critical hit** has started, roll D6-2% for severity.

**Electrical Load.** Roll D6. For the first Engineering critical, a roll of 1 means the electrical load has been lost for D6 Intermediate Turns. For the second Engineering critical, it's 1-3 on a D6, and 1-5 for the third and all successive Engineering critical hits.

**66-80:** Flooding\*. Roll D6% for severity.

Halve the result if the hit is non-penetrating.

**81-95:** Fire. Roll D6% for severity.

Halve the result if the hit is non-penetrating.

**96-00:** Bridge. The main conning station has suffered a catastrophic hit.

The ship will continue on its current course and speed.

Roll D6/2 for the number of Tactical Turns it takes to restore functionality. After the casualty has been corrected, all changes to course and speed take two Tactical Turns to execute.

**A fire critical hit** has started, roll D6-2% for severity.

If the ship is fitted with any navigation radars, they are lost.

• Each hit on a ship by a missile with a warhead of 10 DP or larger will cause an extra, automatic Fire critical hit, in addition to any other critical hits (hot engine and fuel).

Guided weapon attacks on aviation ships and small craft combatants are resolved on the page for that ship type.

## Small Craft Combatants (Size F - G)

**01-20:** Weapon. Roll to find out which weapon has been affected, then using the same D100 roll:

**01-04** Director, if no director treat as weapon mount.

**05-20** Weapon mount. If a weapon has explosive ammunition, roll D10. The mount's ammunition detonates on a roll of 0. The explosion of a belowdecks missile or gun magazine will destroy the ship. The explosion of a loaded torpedo tube or abovedecks missile mount (Mk141 with Harpoon, for example), inflicts one weapon's damage times the number of weapons on the mount divided by two, rounded down, but never less than one.

**21-30:** Sensor. One of the ship's sensors has been knocked out. This also includes the ship's countermeasures (jammer and decoys are counted separately). Roll to find out which sensor has been affected.

**31-35:** CIC. The ship's command space has been destroyed. All weapons that do not have a local control mode (either being able to fire from the mount itself or a secondary control space) are out of action. All sensors are lost, except for any navigation radars.

**36-50:** Engineering\*. The ship's engineering plant has been damaged. Reduce speed to the next lower level on the Damage and Speed Breakdown chart.

**A fire critical hit** has started, roll D6-2% for severity.

**Electrical Load.** Roll D6. For the first Engineering critical, a roll of 1 means the electrical load has been lost for D6 Intermediate Turns. For the second Engineering critical, it's 1-3 on a D6, and 1-5 for the third and all successive Engineering critical hits.

**51-60:** Personnel. One of a small craft's six crew factors is incapacitated:

1st Loss: No effect

2nd Loss: One weapon of 20mm or less must be abandoned and cannot be used for the rest of the battle.

3rd Loss: One additional weapon (two total) of 20mm or less, or one weapon of 23mm or larger, must be abandoned.

Increase the D6% roll by 2% for the severity of all fires.

4th Loss: The boat must stop all weapons fire and make every possible effort to escape combat at maximum possible speed. Increase the D6% roll by 2% for the severity of all fires.

Reduce the chance of correcting fires by 2 on the D10 roll (add 2 to the die).

5th Loss and higher: Boat leaves the area at current speed.

Increase the D6% roll by 2% for the severity of all fires.

Reduce the chance of correcting fires by 2 on the D10 roll.

**61-80:** Flotation. Reduce a small craft's speed by one level on the Damage/Speed Breakdown Chart.

Size class F boats take five flotation hits, and Size class G boats take four.

When a small craft has no flotation hits left, it sinks.

**81-95:** Fire. Roll D6% for severity.

Halve the result if the hit is non-penetrating; Halve the result if it is caused by guns of 65mm or less; 1/4 if both.

**96-00:** Bridge. The main conning station has suffered a catastrophic hit; it will continue on its current course and speed.

Roll D6/2 for the number of Tactical Turns it takes to restore functionality. After the casualty has been corrected, all changes to course and speed take two Tactical Turns to execute.

**A fire critical hit** has started, roll D6-2% for severity.

The captain has been hit. If more than one captain is aboard, or if the commodore is embarked, roll randomly to see who is hit.

If the ship is fitted with any navigation radars, they are lost.

## Aviation Ships

**01-05:** Weapon. Roll to find out which weapon has been affected, then using the same D100 roll.

**01** Director, if no director, treat as a weapon mount.

**02-05** Weapon mount. If a weapon has explosive ammunition, roll D10. The mount's ammunition detonates on a roll of 0. The explosion of a belowdecks missile or gun magazine will destroy the ship. The explosion of a loaded torpedo tube or above decks missile mount (Mk141 with Harpoon, for example), inflicts one weapon's damage times the number of weapons on the mount divided by two, rounded down, but never less than one.

**06-25:** Flight Deck\*. Roll D6.

1-2: Hit forward, cannot launch aircraft, any bow catapults are lost.

3-4: Hit amidships, any waist catapults are lost.

5-6: Hit aft, aircraft cannot land, arresting gear are lost.

If aircraft are stowed in that location, roll D6 to see how many are hit.

Treat each plane hit as an aircraft critical hit.

If the weapon penetrates the flight deck, roll D10:

1-5: There is no further damage.

6-10: D6 Aircraft in the hangar are hit. Treat each plane hit as an aircraft critical hit.

**26-40:** Hangar\*. D6 aircraft are destroyed. Treat each plane hit as an aircraft critical hit.

**41-45:** Ammo/Fuel\*. Roll D10:

1-3: A hit in the aviation ordnance magazine. Roll D10:

A roll of 10 means that the magazine has detonated, destroying the ship.

4-10: A hit in the aviation fuel storage. Fire critical, Roll D6+2 for severity.

Also, add 2 when rolling on the Fire and Flooding Reduction table.

The player can flood/gas purging the Ammo/Fuel stowage areas.

This automatically puts out the fire, but the carrier cannot fuel or arm any aircraft for the rest of the game.

**46-50:** Sensor. One of the ship's sensors has been knocked out. Roll to find out which sensor has been affected.

**51-55:** CIC. The ship's command space has been destroyed. All weapons that do not have a local control mode

(either being able to fire from the mount itself or a secondary control space) are out of action.

All sensors are lost, except for any navigation radars.

**56-65:** Engineering\*. The ship's engineering plant has been damaged. Reduce speed to the next lower level on the Damage and Speed Breakdown chart.

**A fire critical hit** has started, roll D6-2% for severity.

**Electrical Load.** Roll D6. For the first Engineering critical, a roll of 1 means the electrical load has been lost for D6 Intermediate Turns. For the second Engineering critical, it's 1-3 on a D6, and 1-5 for the third and all successive Engineering critical hits.

**66-75:** Flooding\*. Roll D6% for severity.

Halve the result if the hit is non-penetrating; Halve the result if it is caused by guns of 65mm or less; 1/4 if both.

**76-90:** Fire. Roll D6% for severity.

Halve the result if the hit is non-penetrating; Halve the result if it is caused by guns of 65mm or less; 1/4 if both.

**91-95:** Bridge/Air Plot. Roll D6

1-3: Bridge. The main conning station has suffered a catastrophic hit.

The ship will continue on its current course and speed.

If the ship is fitted with any navigation radars, they are lost.

4-6: Air Plot: The ship must cease land/launch operations.

For both criticals, roll D6/2 for the number of Tactical Turns it takes to restore functionality. After the Bridge casualty has been corrected, all changes to course and speed take two Tactical Turns to execute.

For both criticals, a **Fire** has started, roll D6-2% for severity.

**96-00:** Rudder. The ship's steering and control surfaces are damaged. Roll D6:

1-3: Jammed: The rudder is jammed in whatever direction the ship is currently moving. If the ship is steering evasively or otherwise maneuvering with both left and right rudder, roll randomly for the direction of the jam:

1-2 port, 3-4 straight, 5-6 starboard.

4-6: Disabled: The ship's steering engine has been hit. Maximum speed is reduced to 1/3 of the ship's undamaged speed. Maximum course changes after moving the required advance are reduced from 45° to 15°.

Aviation ships are CVs, CVHs, LHAs, CHG, or other vessels that have at least half of their main deck devoted to aircraft land/launch facilities.

- Each bomb of 100 lb/50 kg or larger that hits a carrier automatically inflicts a flight deck critical hit (penetration allowing), in addition to any other criticals caused by its damage points.

- Each turn of 120mm or larger shellfire from Long or Extreme range that hits a carrier may inflict a flight deck critical hit (penetration allowing), in addition to any other criticals caused by its damage points. The chance is 60% from Long range and 70% from Extreme range.

## Aircraft Critical Hit Table

**Unarmed aircraft.** Aircraft destroyed, Roll D6-2% for the severity of the fire

**Armed aircraft.** Aircraft destroyed, roll D6+2% for the severity of the fire; on a 6 the ordnance explodes, inflicting 2/3 normal damage points on the ship. If the deck is armored, the damage will not penetrate.

## Underwater Attacks

Used for mines (13.6) and torpedoes (14.1.7) against ships and surfaced submarines and all collisions (3.3.2).

**01-15:** Weapon. Roll to find out which weapon has been affected.

**If Weapon, using the same D100 roll:**

**01-03** Director, if no director treat as weapon mount.

**04-15** Weapon mount. If a weapon has explosive ammunition, roll D10. The mount's ammunition detonates on a roll of 0. The explosion of a belowdecks missile or gun magazine will destroy the ship. The explosion of a loaded torpedo tube or above decks missile mount (Mk141 with Harpoon, for example), inflicts one weapon's damage times the number of weapons on the mount divided by two, rounded down, but never less than one.

**If unarmed aircraft**

Aircraft destroyed, Roll D6-2% for the severity of the fire

**If armed aircraft**

Aircraft destroyed, roll D6+2% for the severity of the fire; on a 6 the ordnance explodes, inflicting 2/3 normal damage points on the ship. If the deck is armored, the damage will not penetrate.

**16-25:** Sensor. One of the ship's sensors has been knocked out. This also includes the ship's countermeasures (jammer and decoys are counted separately). Roll to find out which sensor has been affected.

**26-30:** CIC. The ship's command space has been destroyed. All weapons that do not have a local control mode (either being able to fire from the mount itself or a secondary control space) are out of action. All sensors are lost, except for any navigation radars.

**31-50:** Engineering\*. The ship's engineering plant has been damaged. Reduce speed to the next lower level on the Damage and Speed Breakdown chart.

**A fire critical hit** has started, roll D6-2% for severity.

**Electrical Load.** Roll D6. For the first Engineering critical, a roll of 1 means the electrical load has been lost for D6 Intermediate Turns. For the second Engineering critical, it's 1-3 on a D6, and 1-5 for the third and all successive Engineering critical hits.

**51-80:** Flooding\*. Roll D6% for severity. Halve the result if the hit is non-penetrating.

**81-90:** Fire. Roll D6% for severity. Halve the result if the hit is non-penetrating.

**91-95:** Bridge\*/Air Plot. If it is an aviation ship, roll D6

1-3: Bridge. The main conning station has suffered a catastrophic hit.

The ship will continue on its current course and speed.

If the ship is fitted with any navigation radars, they are lost.

4-6: Air Plot: The ship must cease land/launch operations.

For both criticals, roll D6/2 for the number of Tactical Turns it takes to restore functionality. After the Bridge casualty has been corrected, all changes to course and speed take two Tactical Turns to execute.

For both criticals, a **Fire** has started, roll D6-2% for severity.

**96-00:** Rudder. The ship's steering and control surfaces are damaged. Roll D6:

1-3: Jammed: The rudder is jammed in whatever direction the ship is currently moving.

If the ship is steering evasively or otherwise maneuvering with both left and right rudder, roll randomly for the direction of the jam:

1-2 port, 3-4 straight, 5-6 starboard.

4-6: Disabled: The ship's steering engine has been hit. Max speed is reduced to 1/3 of the ship's undamaged speed. Maximum course changes after moving the required advance are reduced from 45° to 15°.

Submarines lose depth control. A submerged submarine has a 5% chance times its speed to involuntarily change depth. Roll before each Plotting Phase. If the submarine does accidentally change depth, roll D10.

1-5 it goes up one level, 6-10 it goes down one level. The submarine will not exceed crush depth. A submarine which is at periscope depth and goes up one level will broach, but will automatically dive the following turn, unless another 'up' roll occurs.

• Each contact-fuzed torpedo or mine that hits a ship will automatically inflict a flooding critical, in addition to any other critical hits. Any torpedo protection system (see 14.1.7) will have to be penetrated before the flooding critical hit occurs.

• If a contact-fuzed torpedo hits in the narrow stern aspect, the first two critical hits (besides the automatic flooding, which doesn't count against the critical hit number) are automatically Engineering and Rudder hits. Roll the remaining critical hits using the Underwater Attacks column on the Critical Hit Table.

• The first two Critical hits on a ship by a wake-homing torpedo will be Rudder and Engineering.

• Any ship that takes 60% or more of its original damage from a single torpedo or mine hit must roll D10. On a 1 - 8, the keel has been broken and the ship will sink immediately.

• If a sub is hit by a 533mm or larger torpedo, there is an 80% chance of a Pressure Hull Penetration Critical hit for all single-hull and Medium and smaller double-hull submarines. Large double-hull submarines have a 60% chance of a hull penetration. Smaller torpedoes (450mm or smaller) have a 70% and 50% respectively. If the warhead uses a shaped charge, add 20% to the die roll. If no automatic pressure hull critical occurs, resolve the remaining critical hits on the Major Submarine Damage table.

## Airburst & Fragmentation Hits

**01-20:** Weapon\*. Roll randomly to find out which weapon has been affected.

**If Weapon, using the same D100 roll:**

**01-04** Director, if no director treat as weapon mount.

**05-20** Weapon mount, no chance of a magazine detonation

**If unarmed aircraft**

Aircraft destroyed, Roll D6-2% for the severity of the fire.

**If armed aircraft**

Aircraft destroyed, roll D6+2% for the severity of the fire; on a 6 the ordnance explodes, inflicting 2/3 normal damage points on the ship. If the deck is armored, the damage will not penetrate.

**21-55:** Sensor. One of the ship's sensors has been knocked out. This also includes the ship's countermeasures (jammer and decoys are counted separately). Roll randomly to find out which sensor has been affected.

**56-60:** Engineering\*. The ship's engineering plant has been damaged. Reduce speed to the next lower level on the Damage and Speed Breakdown chart.

**A fire critical hit** has started, roll D6-2% for severity.

**Electrical Load.** Roll D6. For the first Engineering critical, a roll of 1 means the electrical load has been lost for D6 Intermediate Turns. For the second Engineering critical, it's 1-3 on a D6, and 1-5 for the third and all successive Engineering critical hits.

**61-90:** Weapon/Flight Deck\*.

**If Aviation Ship:** Flight Deck critical (remember to check for penetration)

**If Other Ship Type:** Weapon critical

**91-95:** Flight Deck\*. Roll D6,

1-2: Hit forward, cannot launch aircraft, bow catapults lost.

3-4: Hit amidships, any midships catapults lost.

5-6: Hit aft, aircraft cannot land, arresting gear lost.

If aircraft are stowed in that location, roll D6 to see how many are hit.

Treat each plane hit as an Aircraft critical hit.

If the weapon penetrates the flight deck, roll D10:

1-5: There is no further damage.

6-10: D6 Aircraft in the hangar are hit. Treat each plane hit as an aircraft critical hit.

**96-00:** Bridge\*/Air Plot. If it is an aviation ship, roll D6

1-3: Bridge. The main conning station has suffered a catastrophic hit.

The ship will continue on its current course and speed.

If the ship is fitted with any navigation radars, they are lost.

4-6: Air Plot: The ship must cease land/launch operations.

For both types, roll D6/2 for the number of Tactical Turns it takes to restore functionality.

For both criticals, roll D6/2 for the number of Tactical Turns it takes to restore functionality. After the Bridge casualty has been corrected, all changes to course and speed take two Tactical Turns to execute.

For both criticals, a **Fire** has started, roll D6-2% for severity.

Fragments from airbursts are stopped by any level of armor protection (CHP or Armor Rating of 1 or greater).

## Merchants and Auxiliaries (Size class A - E)

**01-10:** Weapon. Roll randomly to find out which weapon has been affected.

If the ship is unarmed, treat as a Cargo Critical hit.

**If Weapon, using the same D100 roll:**

**01-02** Director, if no director treat as weapon mount.

**03-10** Weapon mount. If a weapon has explosive ammunition, roll D10. The mount's ammunition detonates on a roll of 0. The explosion of a belowdecks missile or gun magazine will destroy the ship. The explosion of a loaded torpedo tube or above decks missile mount (Mk141 with Harpoon, for example), inflicts one weapon's damage times the number of weapons on the mount divided by two, rounded down, but never less than one.

**If unarmed aircraft.** Aircraft destroyed, Roll D6-2% for the severity of the fire.

**If armed aircraft.** Aircraft destroyed, roll D6+2% for the severity of the fire; on a 6 the ordnance explodes, inflicting 2/3 normal damage points on the ship. If the deck is armored, the damage will not penetrate.

**11-15:** Sensor. One of the ship's sensors has been knocked out. This also includes the ship's countermeasures (jammer and decoys are counted separately). Roll randomly to find out which sensor has been affected.

**16-25:** Engineering. The ship's engineering plant has been damaged. Reduce speed to the next lower level on the Damage and Speed Breakdown chart.

**A fire critical hit** has started, roll D6-2% for severity.

**Electrical Load.** Roll D6. For the first Engineering critical, a roll of 1 means the electrical load has been lost for D6 Intermediate Turns. For the second Engineering critical, it's 1-3 on a D6, and 1-5 for the third and all successive Engineering critical hits.

**26-30:** CIC. The ship's command space has been destroyed. All weapons that do not have a local control mode (either being able to fire from the mount itself or a secondary control space) are out of action. All sensors are lost, except for any navigation radars. If the ship is unarmed, treat as a Cargo Critical hit.

**31-60:** Cargo: Roll randomly to see which hold is affected.

**If Ammo:** Roll D10,

1-2 D100% of the ammo is lost

3-7 D100% ammo lost. Fire, add one to the fire severity and reduction die rolls.

There is a 25% risk of explosion each following Intermediate Turn.

8-10 Explosion. Nearby ships take damage points according to the amount of ammo, in tons, in the hold.

500 yds away                      tons/5 DP

1000 yds away                    tons/25 DP

2000 yds away                    tons/200 DP

There is a 70% chance ammo in each adjacent hold will explode. Fires or the chance of explosion can be stopped by flooding the hold, but all the cargo in that hold is lost.

**If Petroleum Products:** Fire. Add one to the severity die roll for crude oil. If it is a refined product, add two. If it is avgas, add three. Add the same number to the reduction die roll

**If Troops.** Roll randomly among the troops embarked to see which company is affected. Then roll dice to see what the casualties are within the company. The dice to be rolled depends on the amount of damage inflicted that turn.

1-3 DP casualties

4-6 2\*DP casualties

7-9 3\*DP casualties

10 4\*DP casualties

**If General Cargo:** DP/2 tons destroyed

**If Vehicles:** DP/2 destroyed

**If Aircraft:** DP/5 damaged

**61-75:** Flooding. Roll D6% for severity.

Halve the result if the hit is non-penetrating; Halve the result if it is caused by guns of 65mm or less; 1/4 if both.

**76-90:** Fire. Roll D6% for severity.

Halve the result if the hit is non-penetrating; Halve the result if it is caused by guns of 65mm or less; 1/4 if both.

**91-95:** Bridge. The main conning station has suffered a catastrophic hit.

The ship will continue on its current course and speed.

Roll D6/2 for the number of Tactical Turns it takes to restore functionality. After the casualty has been corrected, all changes to course and speed take two Tactical Turns to execute.

**A fire critical hit** has started, roll D6-2% for severity.

If the ship is fitted with any navigation radars, they are lost.

**96-00:** Rudder. The ship's steering and control surfaces are damaged. Roll D6:

1-3: Jammed: The rudder is jammed in whatever direction the ship is currently moving.

If the ship is steering evasively or otherwise maneuvering with both left and right rudder, roll randomly for the direction of the jam: 1-2 port, 3-4 straight, 5-6 starboard.

4-6: Disabled: The ship's steering engine has been hit. Max speed is reduced to 1/3 of the ship's undamaged speed. Maximum course changes after moving the required advance are reduced from 45° to 15°.

Amphibious ships (e.g., LST, LPD) use the table for Merchants and Auxiliaries, unless they have a flight deck (LHA, LPH), in which case they use the Aviation Ship page.

## Small Cargo Craft (Size F - G)

**01-10:** Weapon, using the same die roll. If the ship is unarmed, treat as a Cargo Critical hit.

**If Weapon:**

**01-02** Director, if no director treat as a weapon mount.

**03-10** Weapon mount. If a weapon has explosive ammunition, roll D10. The mount's ammunition detonates on a roll of 0. The explosion of a belowdecks missile or gun magazine will destroy the ship. The explosion of a loaded torpedo tube or abovedecks missile mount (Mk141 with Harpoon, for example), inflicts one weapon's damage times the number of weapons on the mount divided by two, rounded down, but never less than one.

**11-15:** Sensor. One of the ship's sensors has been knocked out. This also includes the ship's countermeasures (jammer and decoys are counted separately). Roll to find out which sensor has been affected.

**16-25:** Engineering. The ship's engineering plant has been damaged. Reduce speed to the next lower level on the Damage and Speed Breakdown chart.

**A fire critical hit** has started, roll D6-2% for severity.

**Electrical Load.** Roll D6. For the first Engineering critical, a roll of 1 means the electrical load has been lost for D6 Intermediate Turns. For the second Engineering critical, it's 1-3 on a D6, and 1-5 for the third and all successive Engineering critical hits.

**26-35:** Personnel. One of a small craft's six crew factors is incapacitated:

1st Loss: No effect

2nd Loss: One weapon of 20mm or less must be abandoned and cannot be used for the rest of the battle.

3rd Loss: Two weapons of 20mm or less, or one weapon of 23mm or larger must be abandoned.

Increase the D6% roll by 2% for the severity of all fires.

4th Loss: The boat must stop all weapons fire and make every possible effort to escape combat at maximum possible speed. Increase the D6% roll by 2% for the severity of all fires. Reduce the chance of correcting fires by 2 on the D10 roll (add 2 to the die).

5th Loss and higher: Boat leaves the area at current speed.

Increase the D6% roll by 2% for the severity of all fires.

Reduce the chance of correcting fires by 2 on the D10 roll.

**36-60:** Cargo: Roll randomly to see which hold is affected.

**If Ammo:** Roll D10,

1-2 D100% of the ammo is lost

3-7 D100% ammo lost. Fire, add one to the fire severity and reduction die rolls.

There is a 25% risk of explosion each following Intermediate Turn.

8-10 Explosion. Nearby ships take damage points according to the amount of ammo, in tons, in the hold.

500 yds away                      tons/5 DP

1000 yds away                    tons/25 DP

2000 yds away                    tons/200 DP

There is a 70% chance ammo in each adjacent hold will explode. Fires or the chance of explosion can be stopped by flooding the hold, but all the cargo in that hold is lost.

**If Petroleum Products:** Fire. Add one to the severity die roll for crude oil. If it is a refined product, add two. If it is avgas, add three. Add the same number to the reduction die roll

**If Troops.** Roll randomly among the troops embarked to see which company is affected. Then roll dice to see what the casualties are within the company. The dice to be rolled depends on the amount of damage inflicted that turn.

0-3 DP casualties

4-6 2\*DP casualties

7-9 3\*DP casualties

10 4\*DP casualties

**If General Cargo:** DP/2 tons destroyed

**If Vehicles:** DP/2 destroyed

**If Aircraft:** DP/5 damaged

**61-80:** Flotation. Reduce a small craft's speed by one level on the Damage/Speed Breakdown Chart.

Size class F boats take five flotation hits, and Size class G boats take four.

When a small craft has no flotation hits left, it sinks.

**81-95:** Fire. Roll D6% for severity.

Halve the result if the hit is non-penetrating; Halve the result if it is caused by guns of 65mm or less; 1/4 if both.

**96-00:** Bridge. The main conning station has suffered a catastrophic hit; it will continue on its current course and speed.

Roll D6/2 for the number of Tactical Turns it takes to restore functionality. After the casualty has been corrected, all changes to course and speed take two Tactical Turns to execute.

**A fire critical hit** has started, roll D6-2% for severity.

If the ship is fitted with any navigation radars, they are lost.

## Submarines (Major Damage)

Used for torpedo attacks against submarines, nuclear ASW standoff weapons (8.5.2) and ahead-thrown weapons (8.5.3) and depth charges (8.5.4.2) and optionally, influence mine damage (13.6).

**01-15:** Weapon. Roll randomly to find out which weapon has been affected.

Roll D10; on a zero the weapons magazine detonates, destroying the sub.

**16-20:** Sensor. One of the ship's sensors has been knocked out. This also includes the sub's decoy launcher and periscopes. Most subs have two. Roll randomly to find out which sensor has been affected.

**21-35:** Hull Penetration. The submarine's hull has been ruptured and it experiences uncontrollable flooding. If the submarine is at Shallow or Intermediate Zone I it has a 50% chance of making it to the surface so the crew can abandon ship. The sub will then take D10\*2 Tactical Turns to sink. If the submarine is at deeper depths, she sinks with the loss of all hands.

**36-40:** Battery. Some of the sub's battery cells have been damaged. Roll D6\*5% (max loss of 30% per battery critical). Split the loss proportionately between charged and depleted cells.

**41-45:** Battery on conventional Subs/Engineering on nuclear subs.

**46-55:** Engineering. The ship's engineering plant has been damaged. Reduce speed to the next lower level on the Damage and Speed Breakdown chart.

**A fire critical hit** has started, roll D6-2% for severity.

**Electrical Load.** Roll D6. For the first Engineering critical, a roll of 1 means the electrical load has been lost for D6 Intermediate Turns. For the second Engineering critical, it's 1-3 on a D6, and 1-5 for the third and all successive Engineering critical hits.

**56-70:** Flooding. Roll D6% for severity.

**71-85:** Fire. Roll D6% for severity.

**86-90:** Sensor. One of the ship's sensors has been knocked out. This also includes the sub's decoy launcher and periscopes. Most subs have two. Roll to find out which one has been affected.

**91-95:** Control. The sub's control room has been hit. Both Bridge and CIC Critical hits inflicted.

Bridge. The main conning station has suffered a catastrophic hit; the sub will continue on its current course, speed and depth.

Roll D6/2 for the number of Tactical Turns it takes to restore functionality. After the casualty has been corrected, all changes to course, speed and depth take two Tactical Turns to execute.

**A fire critical hit** has started, roll D6-2% for severity.

If the sub is fitted with any navigation radars, they are lost.

CIC. The command space has been destroyed. All weapons that do not have a local control mode (either being able to fire from the mount itself or a secondary control space) are out of action. All sensors are lost, except for any navigation radars.

**96-00:** Rudder. The ship's steering and control surfaces are damaged. Roll D6:

1-3: Jammed: The rudder is jammed in whatever direction the ship is currently moving.

If the ship is steering evasively or otherwise maneuvering with both left and right rudder, roll randomly for the direction of the jam:

1-2 port, 3-4 straight, 5-6 starboard.

4-6: Disabled: The ship's steering engine has been hit. Max speed is reduced to 1/3 of the ship's undamaged speed. Maximum course changes after moving the required advance are reduced from 45° to 15°.

Submarines also lose depth control. A submerged submarine has a 5% chance times its speed to involuntarily change depth. Roll before each Plotting Phase. If the submarine does accidentally change depth, roll D10. 1-5 it goes up one level, 6-10 it goes down one level. The submarine will not exceed crush depth. A submarine which is at periscope depth and goes up one level will broach, but will automatically dive the following turn, unless another 'up' roll occurs.

## Submarines (Minor Damage)

Used for nuclear ASW standoff weapons (8.5.2) and ahead-thrown weapons (8.5.3) and depth charges (8.5.4.2) and optionally, influence mine damage (13.6).

**01-15:** Weapon. Roll randomly to find out which weapon has been affected.

Roll D10; on a zero the weapons magazine detonates, destroying the sub.

**16-20:** Sensor. One of the ship's sensors has been knocked out. This also includes the sub's decoy launcher and periscopes. Most subs have two. Roll randomly to find out which sensor has been affected.

**21-35:** Hull Deformation. Shock has deformed or dished in part of the sub's pressure hull. Because the hull cross-section has lost its circular shape, it can no longer withstand the maximum design depth. The submarine must come to Intermediate Zone I as fast as it can. If a submarine chooses to stay at a depth greater than Intermediate Zone I there is a 25% chance per depth zone below Zone I of the hull failing (treat as a Hull Penetration). A second hull deformation critical hit restricts the submarine to Shallow. The chance of the hull failing increases to 30% per depth zone below Shallow. A third hull deformation critical hit is treated as a hull penetration critical.

**36-40:** Battery. Some of the sub's battery cells have been damaged. Roll D6\*5% (max loss of 30% per battery critical).

Split the loss proportionately between charged and depleted cells.

**41-45:** Battery on conventional Subs/Engineering on nuclear subs.

**46-55:** Engineering. The ship's engineering plant has been damaged. Reduce speed to the next lower level on the Damage and Speed Breakdown chart.

**A fire critical hit** has started, roll D6-2% for severity.

**Electrical Load.** Roll D6. For the first Engineering critical, a roll of 1 means the electrical load has been lost for D6 Intermediate Turns. For the second Engineering critical, it's 1-3 on a D6, and 1-5 for the third and all successive Engineering critical hits.

**56-70:** 1/2 Flooding. Roll D6/2 for severity.

**71-85:** 1/2 Fire. Roll D6/2 for severity.

**86-90:** Sensor. One of the ship's sensors has been knocked out. This also includes the sub's decoy launcher and periscopes. Most subs have two. Roll to find out which one has been affected.

**91-95:** Control. The sub's control room has been hit. Roll D6:

1-3 Bridge. The main conning station has suffered a catastrophic hit.

The sub will continue on its current course, speed, and depth.

Roll D6/2 for the number of Tactical Turns it takes to restore functionality. After the casualty has been corrected, all changes to course, speed, and depth take two Tactical Turns to execute.

**A fire critical hit** has started, roll D6-2% for severity.

If the sub is fitted with any navigation radars, they are lost.

4-6 CIC. The command space has been destroyed. All weapons that do not have a local control mode (either being able to fire from the mount itself or a secondary control space) are out of action.

**96-00:** Rudder. The ship's steering and control surfaces are damaged. Roll D6:

1-3: Jammed: The rudder is jammed in whatever direction the ship is currently moving.

If the ship is steering evasively or otherwise maneuvering with both left and right rudder, roll randomly for the direction of the jam:

1-2 port, 3-4 straight, 5-6 starboard.

4-6: Disabled: The ship's steering engine has been hit. Max speed is reduced to 1/3 of the ship's undamaged speed. Maximum course changes after moving the required advance are reduced from 45° to 15°.

Submarines also lose depth control. A submerged submarine has a 5% chance times its speed to involuntarily change depth. Roll before each Plotting Phase. If the submarine does accidentally change depth, roll D10. 1-5 it goes up one level, 6-10 it goes down one level. The submarine will not exceed crush depth. A submarine which is at periscope depth and goes up one level will broach, but will automatically dive the following turn, unless another 'up' roll occurs.

## CaS Major Surface Combatant (Size Class A/B) (adapted)

**01-02:** Main Battery FC director destroyed.

**03-14:** Main Battery Hit\*. Turret lost, roll randomly to see which one.

**15:** Main Battery Hit\*. Main battery magazine explodes, ship destroyed.

**16-17:** Area AA/Secondary Battery FC directors destroyed

**18-24:** Area AA/Secondary Battery\*. Mount Lost, roll randomly to see which one.

**25:** Area AA/Secondary Battery \*. Magazine detonates, inflict 4 times the short range HE damage.

**26-34:** Other Weapon\*. One of the weapons, except main or secondary battery guns, has been knocked out. Roll randomly to find out which mounts have been hit. Previously hit mounts can be hit again. If the mount has already been destroyed, there is still a chance of the magazine immediately detonating, but no further damage is inflicted.

- **Torpedo or ASW Weapon.** Weapon knocked out.

- **Unarmed aircraft.** Aircraft destroyed, Roll D6-2% for the severity of the fire

- **Armed aircraft.** Aircraft destroyed, roll D6+2% for the severity of the fire; on a 6 the ordnance explodes, inflicting 2/3 normal damage points on the ship. If the deck is armored, the damage will not penetrate.

**35:** Other Weapon\*. Magazine explodes. The mount's ammunition immediately explodes. Multiply the damage points for one weapon times half number of weapons loaded in the mount. If the exploding weapon is a depth charge, use the Lethal value for computing the damage points inflicted. If the mount has fired all of its ammunition, there is no danger of explosion.

**36-45:** Light guns. D6/2 guns of 25mm or less are knocked out.

**46-60:** Engineering\*. The ship's engineering plant has been damaged.

Reduce speed to the next lower level on the Damage and Speed Breakdown chart.

**A fire critical hit** has started, roll D6-2% for severity.

**61-75:** Flooding\*. Roll D6% for severity.

Halve the result if the hit is non-penetrating; Halve the result if it is caused by guns of 65mm or less; 1/4 if both.

**76-90:** Fire. Roll D6% for severity.

Halve the result if the hit is non-penetrating; Halve the result if it is caused by guns of 65mm or less; 1/4 if both.

**91-93:** Sensor. One of the ship's sensors has been knocked out. This also includes the ship's countermeasures (jammer and decoys are counted separately). Roll to find out which sensor has been affected.

**94:** Communications. One of the ship's communications spaces has been hit. Roll D6:

1 - 2: Long-range radio communications. Cannot communicate with units beyond the horizon.

3 - 4: Short-range radio communications. Cannot use radio with other ships in the same formation.

5 - 6: Aircraft radio communications. Cannot communicate with aircraft.

**95 - 97:** Bridge\*. The main conning station has suffered a catastrophic hit.

The ship will continue on its current course and speed.

Roll D6/2 for the number of Tactical Turns it takes to restore functionality.

**A fire critical hit** has started, roll D6-2% for severity.

If the ship is fitted with any navigation radars, they are lost.

**98-100:** Rudder\* The ship's steering and control surfaces are damaged. Roll D6:

1-3: Jammed: The rudder is jammed in whatever direction the ship is currently moving. If the ship is steering evasively or otherwise maneuvering with both left and right rudder, roll randomly for the direction of the jam:

1-2 port, 3-4 straight, 5-6 starboard.

4-6: Disabled: The ship's steering engine has been hit. Maximum speed is reduced to 1/3 of the ship's undamaged speed. Maximum course changes after moving the required advance are reduced from 45° to 15°.

## CaS Minor Surface Combatant (Size Class C/D/E) (adapted)

**01-02:** Main Battery FC director destroyed

**03-14:** Main Battery Hit\*. Turret lost, roll randomly to see which one.

**15:** Main Battery Hit\*. Main battery magazine explodes, ship destroyed.

**16-34:** Other Weapon\*. One of the weapons, except main or secondary battery guns, has been knocked out. Roll randomly to find out which mounts have been hit. Previously hit mounts can be hit again. If the mount has already been destroyed, there is still a chance of the magazine immediately detonating, but no further damage is inflicted.

- **Torpedo or ASW Weapon.** Weapon knocked out.

- **Unarmed aircraft.** Aircraft destroyed, Roll D6-2% for the severity of the fire

- **Armed aircraft.** Aircraft destroyed, roll D6+2% for the severity of the fire; on a 6 the ordnance explodes, inflicting 2/3 normal damage points on the ship. If the deck is armored, the damage will not penetrate.

**35:** Other Weapon\*. Magazine explodes. The mount's ammunition immediately explodes. Multiply the damage points for one weapon times half number of weapons loaded in the mount. If the exploding weapon is a depth charge, use the Lethal value for computing the damage points inflicted. If the mount has fired all of its ammunition, there is no danger of explosion.

**36-45:** Light guns. D6/2 guns of 25mm or less are knocked out.

**46-60:** Engineering\*. The ship's engineering plant has been damaged.

Reduce speed to the next lower level on the Damage and Speed Breakdown chart.

**A fire critical hit** has started, roll D6-2% for severity.

**61-75:** Flooding\*. Roll D6% for severity.

Halve the result if the hit is non-penetrating; Halve the result if it is caused by guns of 65mm or less; 1/4 if both.

**76-90:** Fire. Roll D6% for severity.

Halve the result if the hit is non-penetrating; Halve the result if it is caused by guns of 65mm or less; 1/4 if both.

**91-93:** Sensor. One of the ship's sensors has been knocked out. This also includes the ship's countermeasures (jammer and decoys are counted separately). Roll to find out which sensor has been affected.

**94:** Communications. One of the ship's communications spaces has been hit. Roll D6:

1 - 2: Long-range radio communications. Cannot communicate with units beyond the horizon.

3 - 4: Short-range radio communications. Cannot use radio with other ships in the same formation.

5 - 6: Aircraft radio communications. Cannot communicate with aircraft.

**95 - 97:** Bridge\*. The main conning station has suffered a catastrophic hit.

The ship will continue on its current course and speed.

Roll D6/2 for the number of Tactical Turns it takes to restore functionality.

**A fire critical hit** has started, roll D6-2% for severity.

If the ship is fitted with any navigation radars, they are lost.

**98-100:** Rudder\* The ship's steering and control surfaces are damaged. Roll D6:

1-3: Jammed: The rudder is jammed in whatever direction the ship is currently moving. If the ship is steering evasively or otherwise maneuvering with both left and right rudder, roll randomly for the direction of the jam:

1-2 port, 3-4 straight, 5-6 starboard.

4-6: Disabled: The ship's steering engine has been hit. Maximum speed is reduced to 1/3 of the ship's undamaged speed. Maximum course changes after moving the required advance are reduced from 45° to 15°.