

EXAMPLES OF FIRE DIRECTION

Method of fire direction		Method 1	Method 2	Method 3	Method 4	Method 5	(When the ships of the division cannot open fire simultaneously, they will go into action in (1) (2) (3) (4) order, starting with the leading ship.)			
When Unit Consists of Four Ships	Engage-ment on same course									
	Engage-ment on opposite course									
When Unit Consists of Three Ships	Engage-ment on same course									
	Engage-ment on opposite course									
When unit consists of two ships			or 							

Notes:

1. - a primary target ship (ship at which concentrated fire is directed).
2. - a ship which is out of range.
3. In the absence of special orders, the leading enemy ship (or two ships) will be the primary target ship(s).
4. When it is desired to direct a concentration of fire against any ship of the formation, the order will be given as follows: "Fire direction method ..., primary target ship -"; The fire direction methods outlined above will be used.

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E. Air Combat

1. The functions of airplanes will be as follows:

TYPE	PRIMARY FUNCTIONS	SECONDARY FUNCTIONS
Three-seat airplanes	Search Reconnaissance Tracking	Attack Antisubmarine screening Antiaircraft patrol
Two-seat airplanes	Antisubmarine screening Antiaircraft patrol Observation during gunnery and torpedo actions Search Reconnaissance	Attack
Notes	Other functions will be performed depending on the battle situation and other considerations.	

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2. When an encounter with the enemy is anticipated, scout planes will be sent out. When the nature of the enemy force is ascertained and the main target discovered, tracking planes will be sent out immediately. They will maintain contact and serve as guides for attack plane units and the night operations force.

3. When a night action is anticipated, scout (tracking) planes will try to secure contact before nightfall. Night tracking planes thereafter will maintain contact and serve as guides for attack plane units and the night operations force.

4. When enemy vessels, especially aircraft carriers, are expected, even scout planes will be equipped with bombs. This will enable them to make surprise attacks. In chance encounters and in actions in narrow waters, all the airplanes carried may be used to attack.

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IV. COMBAT REGULATIONS

A. Antiaircraft Combat

Antiaircraft combat will be in accordance with Diversion Attack Force Doctrine.

B. Surface Gunnery Engagements

1. Day gunnery engagements

a. Main battery gunnery actions always will be ordered by the division commander. When the enemy appears unexpectedly, however, the ship captains will direct the action.

b. The main targets in gunnery engagements will be enemy aircraft carriers and auxiliary forces. If the situation demands, the enemy main force will be the principal target.

d. Although targets normally will be changed by special order, in the following cases the change will be made at the discretion of the individual ship captains. Such changes will be reported immediately.

(1) When a particularly advantageous or dangerous target appears unexpectedly

(2) When the target ship falls out of line

(3) When the target has run into an excessive concentration of fire

(4) When the range becomes too great or firing becomes difficult due to smoke and the like

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e. In gunnery engagements, the initiative will be taken from the enemy by opening fire at the longest effective range. Standard ranges for opening fire are as follows:

Against heavy cruisers and larger ships -

When spotting is used - 25,000 m

When spotting is not used - 23,000 m

Against light cruisers - 18,000 m

Against destroyers - 12,000 m

f. Decisive actions against medium cruisers and larger ships normally will be fought within 17,000 m. Against light cruisers and smaller ships, actions will be fought at about 14,000 m.

g. Indirect firing normally will not be used. It will be used, however, when absolutely necessary or when smoke screens and other obstacles are encountered. In such a case, airplanes will be used to the fullest possible extent.

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h. When the situation demands, the order, "independent firing", will be given. In this case, the choice of target and the time of opening fire will be left to the discretion of the individual ship captains. The ship captains will select the most promising targets and try to achieve the most effective fire by avoiding excessive concentration of several ships on the same target.

i. The fire of the main battery will not be divided.

j. In main battery engagements, spotting and observation by airplane will be used insofar as the situation permits. Details of gunnery observation and related communications will be set forth elsewhere.

2. Night gunnery engagements

a. The object of night gunnery engagements is to annihilate the enemy quickly by taking the initiative to discover him and by relying on the effects of torpedo attack and decisive and unexpected fire. It is essential to appraise the enemy situation accurately, to maintain strict watches, to utilize electric ranging gear and to move to the attack swiftly.

b. When approaching at night, it will always be necessary to be prepared for an immediate gunnery engagement.

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c. The execution of night main battery engagements normally is left to the discretion of individual ship captains. However, firing by the flagship with the aid of flares (searchlights) will be ordered by the division commander and each ship will conform to this except when speedy action is imperative.

d. When visibility is extremely good, main battery engagements will follow the pattern of day engagements, and the target, fire direction method and time to open fire will be ordered.

e. In night engagements, when the field of vision is extensive or when good results can be expected because dawn, dusk or moonlight afford good visibility, no illumination will be used in firing.

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f. When the field of vision is limited, the practice will be to fire with the aid of star shells. If possible, two ships will concentrate their fire. Star shells will be used in sufficient quantity.

g. When attempting to get on the target from a concealed position, searching fire will use star shells.

h. The standard range for opening fire with the aid of star shells will be 18,000 m. Range for firing by searchlight will be 10,000 m (12,000 m in the SOUTH SEAS).

i. When the opposing forces have closed and the point of actual combat is reached, all ships will co-operate in delivering a gunnery attack (aided by searchlight) against the largest possible number of enemy ships, thus confusing the enemy as well as developing maximum gunfire.

3. Use of antiaircraft cannon and machine guns in surface engagements

a. Antiaircraft cannon and machine guns against surface targets will be used at the discretion of the individual ship captains.

b. It will be the practice, if possible, to direct the fire of antiaircraft cannon against vessels which are not receiving fire from weapons of more than .25 cm caliber.

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c. Standard ranges for opening fire with antiaircraft cannon and machine guns are:

Antiaircraft cannon - day, 10,000 m
- night, 7,000 m
Machine guns - 3,500 m

d. At close quarters, day or night, antiaircraft cannon and machine guns will be used in conjunction with the main batteries in order to develop maximum offensive power.

C. Torpedo Action

1. General rules

a. Torpedo targets

In the absence of special orders, the target of the torpedo attack will be the center ship of the leading unit of the enemy main force. If the leading unit comprises two or four ships, however, the target will be the No 2 ship.

b. Firing data

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(1) The depth setting for torpedoes will be 6 m against battleships and large carriers and 5 m against large cruisers and medium carriers. In other cases, the setting will be 3-4 m. For best results against both capital ships and cruisers, a setting of 4 m will be used.

(2) Range at No 2 depth setting will be 5 km.

(3) In the absence of special orders, torpedoes will be set for No 2 speed both day and night. If circumstances require, alterations will be specially ordered. When firing independently, however, each ship will make expedient alterations.

c. Firing maneuvers

(1) Firing normally will be executed from a single line ahead or from a quarter line of less than 30°. When in a quarter line, in the absence of special orders, ships will make the necessary turns to avoid torpedoes fired by the ship ahead.

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(2) Each ship will make appropriate small-angle turns at the time of firing.

(3) The limit of an oblique advance (SHASHIN) will be 45°. When an oblique advance of more than 45° is necessary, the practice will be to fire making a small-angle turn in unison or changing course.

2. Day torpedo action

a. In long-range concealed attacks, firing will be by concentrated salvo (ISSEI SHUOCHU) or by spread salvo (ISSEI HOU). In short-range attacks, firing will be by concentrated or independent salvo.

b. In drawing actions before or after the deployment of the enemy main force or in frontal engagements at long range, concealed firing will be rapid and continuous. In all cases, however, continuous firing will be carried out in accordance with special order.

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c. In long-range torpedo actions, every effort will be made to obtain exact intelligence of the enemy by making full use of airplane observation and combined division spotting and lookouts.

d. At the beginning of an action, when all the torpedoes on the engaged side have been fired, the reserve torpedoes from the opposite side will be transferred immediately and both sides readied for action.

e. In the advanced phases of a battle, the practice will be to approach as close to the enemy as possible and to fire continuously at short range without giving the enemy a chance to evade the attack. In all cases, however, continuous firing will be by special order.

3. Night torpedo action

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a. In long-range concealed attacks, firing will be by concentrated or spread salvo. In other cases, independent salvo fire normally will be used. In immediate torpedo actions, each ship normally will fire independently.

b. In attacking a strong and stubborn enemy delaying force (BOSHI BUTAI), the division will seize the initiative and deliver a torpedo attack at close quarters.

c. In order to facilitate the attack of the night operations force, a concealed torpedo attack will be made either independently or in co-operation with friendly units.

d. Concealed firing normally will be carried out from the limit of the field of vision so as not to alert the enemy. If circumstances demand, concealed firing from outside the field of vision will be effected with the aid of parachute flares and floating flares from tracking planes, radio direction finding and electric ranging gear.

e. Long-range, concealed torpedo actions carried out by the formation against the enemy main force will conform to day actions.

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f. In concealed torpedo attacks intended to facilitate the attack of the destroyer squadron (night operations unit) while the latter is in contact with the enemy, the torpedoes will be timed to arrive at the target at the same time as the destroyer squadron (night operations unit) moves to the attack.

g. In carrying out concealed, joint torpedo actions from both flanks of the enemy main force while in separate contact with both quarters of the enemy, the time of firing will be designated, and normally the basic course and speed of the enemy will be given by order. In order to make firing at the designated time possible, each ship will proceed toward the enemy and make timely position reports. All ships will maintain close liaison, get on the target and fire at the time designated. The angle of fire will be selected to cover a direct advance or a 40° evasive turn by the enemy.

h. Concealed firing carried out in co-operation with a friendly cruiser division in contact on the opposite flank will follow the outline set forth in the above paragraph. However, the assignment of firing angles will be in accordance with Regulations for Torpedo Action.

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i. When an enemy being tracked reverses his course or makes a radical change of course, thus presenting a good target, a torpedo attack will be made without fail from as concealed a position as possible.

10. When co-operating with the destroyer squadron (night operations unit) to prevent the enemy from turning, the distance to the enemy mine force will be shortened and torpedoes will be fired to arrive at the enemy formation at the same time as those fired by the destroyer squadron (night operations unit).

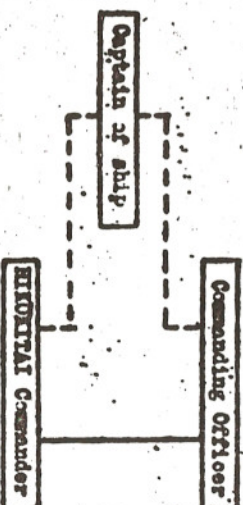
11. When attacking to capitalize on confusion in the enemy formation immediately after the attack of the destroyer squadron (night operations unit), an effort will be made to increase the effect by striking from extremely close quarters.

12. When there is danger of an unexpected encounter with the enemy because of limited visibility or geographical factors, preparations will be made in advance for an immediate torpedo action.

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D. Air Combat

1. The chain of command of HINDITAI



Note: ----- chain of command when airplanes from two or more ships are used

----- chain of command when each ship operates its airplanes independently.

The ship captain will command the airplanes of his ship in matters pertaining to maintenance, launching, and recovery and will make the necessary provisions for execution of their duties.

2. The organization of the HINDITAI and the assignment of duties in every case will be by special orders.

3. Airplanes normally will be launched as outlined below:

a. The airplane on the windward side will be launched first.

b. When airplanes are to be launched successively, in the absence of special orders, they will be launched from port and starboard alternately, beginning with the windward side. In the absence of orders to the contrary, the third airplane to be launched will be set up on the windward side.

4. When landing into the wind, airplanes may be launched from both sides simultaneously if the combined speed is sufficient.

d. To alert airplanes, a preparatory command will be given for each type of airplane.

e. When airplanes are used in operations, normally they will be recovered as soon as their duties have been completed. They may be specially ordered to land at a nearby base or off the coast of a nearby island, however, to be recovered as soon as the opportunity presents.

They may also be ordered to operate from such a base. When the airplanes return to the fleet (division), they will carry out anti-submarine patrol sweeps in the surrounding area before landing.

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f. The details of airplane readiness, launching and recovery, the execution of air combat, and observation communications will be as set forth in Diversion Attack Force Regulations and related regulations.

g. Depth Charge Action

In the absence of special orders, depth charge action will conform to the procedure given in the following paragraphs and will be carried out as ordered by the ship captains.

1. The ship which detects an enemy submarine will use the designated method of communications to report its location immediately and will either attack or take evasive action.

2. A ship which discovers an enemy submarine at close range and finds itself in an advantageous position for attack will quickly shift to the offensive. In case two ships detect the submarine simultaneously the ship on the course closer to the contact will attack first and hoist the necessary signals.

3. When submarine contact is made at long range, evasive measures will be taken promptly.

4. The attack speed normally will be 20 knots or more. The command, "Increase speed one half", will be used.

h. Maneuvers

1. Battle speeds will be as follows:

Battle speed 1	20 knots
Battle speed 2	24 knots
Battle speed 3	28 knots
Battle speed 4	31 knots
Battle speed 5	33 knots

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2. A ship whose maneuverability has been impaired because of damage or other reasons will take emergency action to check the damage. At the same time, it will report its maximum speed and will continue at the rear of the formation.

3. When a ship within a formation has lost some of its speed but can still make headway, it will attempt to maintain formation provided the battle situation does not require it to drop behind.

4. When the flagship drops out of line because its maneuverability has been impaired, the leading ship will lead the unit and, until special orders are received, will continue to carry out the movement in which it is engaged.

5. Engines normally will be used as directed. When a ship is damaged or has lost its maneuverability for other reasons, the use to be made of the engines will be left to the discretion of the ship captains.

i. Smoke Screens

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1. Smoke screens will be used effectively. Special effort will be made to make the most of attack, concealing and background smoke screens in the day and concealing smoke screens at night.

2. When ships are moving in formation, smoke screens will be used only by special order.

3. The use of smoke screens when ships are operating individually will be left to the discretion of the ship captains. When using a smoke screen to conceal a single unit (ship), care will be taken not to impair the operations of friendly units.