

c. Cruising formation for ships

(1). When antisubmarine alert is the principal consideration

Formations in breadth will be more advantageous than those in depth; fan-shaped formations will be better than rectangular. Important shipping will be posted in the center of the formation; the faster ships will be stationed at the flanks.

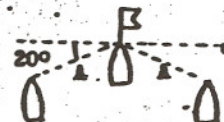
Examples:

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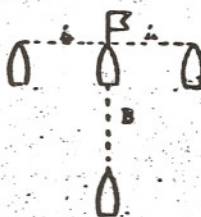
Two ships



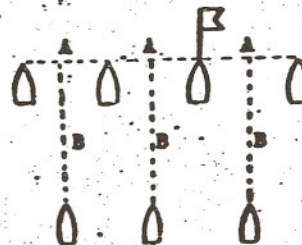
Three ships



Four ships



Seven ships



Remarks

1. B = ship carrying convoy commander
2. A ----- from 600m to 800m
3. B ----- from 600m to 800m

(TS Exact tracings from the original document.)

(2). When antiaircraft alert is the principal consideration

Single line ahead will be normal when the number of ships is small, line abreast will be used with an interval of from 3 km to 4 km when the number of ships is large.

d. Escort ship positions

(1). When speed is 15 knots or less

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Dispositions will be determined with regard to the use of underwater ranging and radar ranging instruments and to measures which will be taken when encountering the enemy.

(a). With one escort ship

Station will be taken up at points about 1 km. astern of the convoy; shifts will be made to screen on port and starboard.

(b). With two escort ships

Stations will be taken up at a distance of about 1 km and at points 20° astern of the convoy beam on both sides of the convoy.

(c). With three escort ships

Stations will be taken up at a distance of about 1 km with two ships at points 20° astern of the convoy beam on both sides and the third directly astern.

(d). With four escort ships one ship will be posted ahead of the convoy in addition to the stations mentioned in (c).

(2). When speed is 15 knots and above

Main stations will be established for forward screenings; stations for each ship will be determined as the speed is increased in comparison with (1).

e. Cruising

Besides conformance to Merchant Ship Unit Movements and Communications Regulations and Transport Ship Unit Movements and Communications Regulations the fleet Outline for Cruising Under Alert (KEIKAI KOKU) will apply. Except when visibility is particularly poor, zigzagging movements normally will be executed both night and day.

f. Measures to be taken when encountering the enemy

(1). Against surface vessels

The escort unit will get up full speed at once and attack the enemy while the convoy retires in the direction of safety.

(2). Against submarine and airplanes

The Outline for Protection of Sea Traffic during the Greater East Asia War will apply.

g. Rescue

The Outline for Protection of Sea Traffic during the Greater East Asia War will apply.

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J. GUNNERY ACTION

a. Normally large caliber gunfire against the main enemy force during day action will be opened simultaneously by all the battleship divisions present. Therefore BatDiv One (the battleship division under the senior commanding officer) will announce in advance the time for opening of gunnery action and will communicate when main battery fire is to begin.

b. Gunnery action will be opened at the longest effective range. When the opportunity occurs, the divisions will close in on the enemy, provided this does not entail an appreciable loss in gun power. When executing Day Action OTSU, gunnery action at approximately the extreme angle of elevation will be carried out till the time for striking.

c. The van of the main enemy force will be the principal point of attack. In the case of Opposite Course Method B the principal point of attack may be in the enemy rear under certain conditions.

d. Methods of directing gunfire will be as follows:

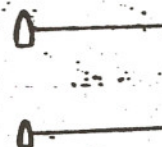
(1). Method of directing gunfire for a single unit

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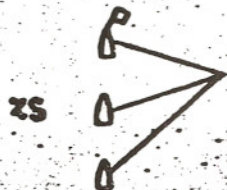
Method KU



Method OTSU



Method KU



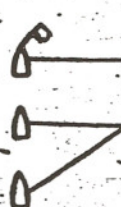
Method OTSU



Method HKI



Method TEI



(TH Exact tracings from the original document.)

(TH Translation of conventional signs and abbreviations.)

1S	BatDiv One
2S	BatDiv Two
3S	BatDiv Three

The standard target will be the target toward which the flagship gunfire is directed. When subsequent changes are made in the method of directing gunfire, however, the standard target normally will not be designated except where particularly necessary.

Notes:

(a). Methods of directing gunfire will be the same in action on same course and in action on opposite course.

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(b). Each ship, according to its position on the firing line, will have assigned as target the ships nearest the standard target or the ships in the van of the division nearest the standard target (in case of quarter line or line abreast). Under certain conditions targets for the number two ship and following may be specially ordered.

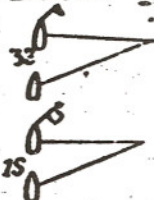
(c). When the number of ships in a division is inadequate, the foregoing will apply, disregarding the firing line at the divisions rear.

(2). Methods of directing gunfire for several units

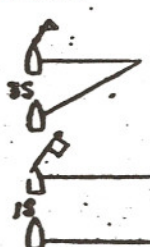
(a). BatDiv One and BatDiv Three combined

The standard target will be that toward which the gunfire of the flagship of the Combined Fleet is directed. When subsequent changes are made in the method of directing gunfire, however, the standard target normally will not be designated except where particularly necessary.

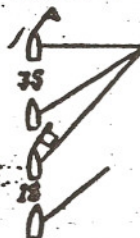
Method 1



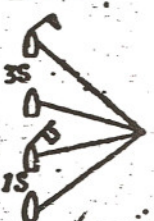
Method 2



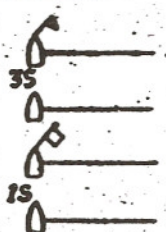
Method 3



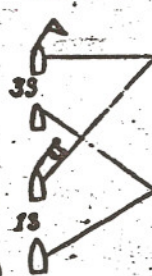
Method 4



Method 5



Method 6



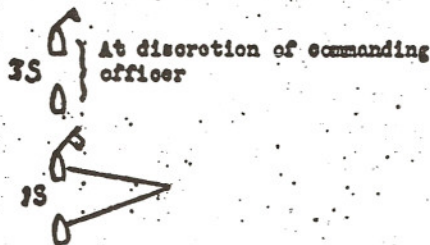
(The exact tracings from the original document.)

(The translation of conventional signs and abbreviations.)

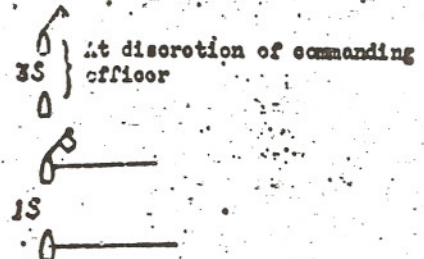
1S BatDiv One

3S BatDiv Three

Method 7



Method 8



(TM Exact tracing from the original document.)

(TM Translation of conventional signs and abbreviations.)

1S BatDiv One

3S BatDiv Three

Notes:

1. The foregoing sketch will be the basis for the outline of target allotment even when the station order of BatDiv One and BatDiv Three differs.

2. Stationing on the firing line will be based on that for single units. Under certain conditions, however, the target for division flagships may be ordered specially, in which case gunnery for those divisions will be allotted with reference to the flagship target.

(b) BatDiv Two

When gunnery action is conducted in the same line with BatDiv One, or with BatDiv One and BatDiv Three, BatDiv Two gunnery will be directed at targets other than those for BatDiv One, or for BatDiv One and BatDiv Three, except by special orders. The method of directing gunfire will be ordered by the Commander in Chief, Combined Fleet.

(c) Direction of gunfire when gunnery action is conducted jointly by BatDiv Two and BatDiv Three will be entirely at the discretion of Commander in Chief, 1 Fleet.

(3) If a change in situation occurs some time after the opening of gunnery action, each fleet commander in chief (division commander) may change the method of directing gunfire.

(4) When executing Day Action OTSU in various stages of combat or at other times, heavily concentrated fire will be conducted against the enemy van (the enemy rear under certain conditions in action on opposite course).

(5) Heavily concentrated fire will be conducted against the enemy van insofar as possible in the various stages of combat even inside the range of the main enemy force.

(6) At the height of combat firing will be distributed along the whole line of the main enemy force insofar as possible.

e. When battleship divisions successively are entering into gunnery action, the battleship divisions which have already begun action will communicate promptly to friendly units their own targets and the method of directing gunfire. At this time the main enemy force toward which gunnery has not been directed will be enveloped by individual attack smoke screens insofar as possible.

f. When the enemy makes a group withdrawal, battleship divisions will concentrate gunnery either on enemy ships in the extreme rear or on the flagship in general accordance with gunnery action for the various stages of combat. When the enemy during withdrawal impedes gunnery action by laying a smoke screen, the nearest ship will attack and destroy the ship (airplane) laying the screen. When the enemy flees in confusion, each ship will begin speedy pursuit and deliver heavy fire on the nearest enemy vessels. The ships will communicate to each other respective targets of attack.

g. Gunnery action by battleship divisions at dusk when visibility is good will be based on gunnery action for the various stages of combat. When gunnery action against the main enemy force becomes difficult as visibility gradually weakens, targets will be changed quickly to enemy cruisers.

h. Joint gunnery action and gunnery action by battleship divisions either at night or under conditions of poor visibility will be at the discretion of the various fleet commanders in chief (division commanders).

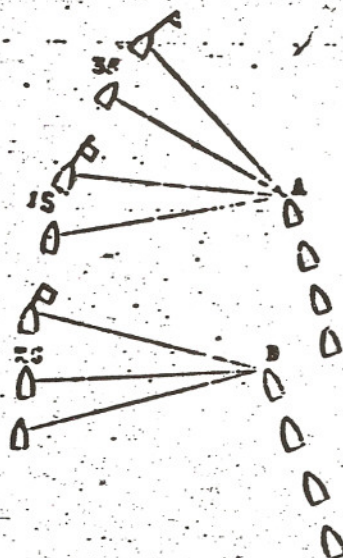
i. Antiaircraft gunnery action involving large caliber guns will be at the discretion of each ship captain.

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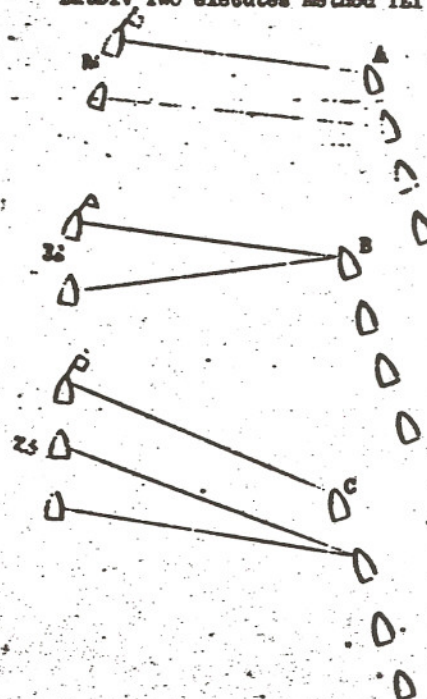
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EXAMPLE OF METHODS FOR DIRECTING GUNFIRE

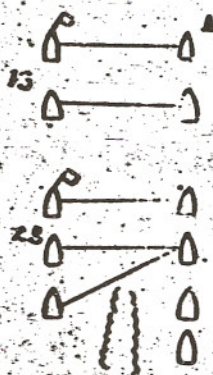
Method 4 for Directing Gunfire
Standard target is A
BatDiv Two executes Method KO



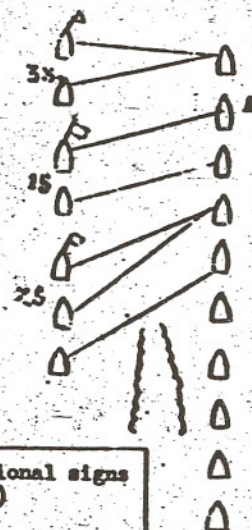
Method 2 for Directing Gunfire
Standard target is A
Target for BatDiv Three is B
BatDiv Two executes Method TEI



BatDiv One executes Method OTSU
for Directing Gunfire
Standard target is A
BatDiv Two executes Method TEI



Method 2 for Directing Gunfire
Standard target is A
BatDiv Two executes Method TEI



(TN Translation of conventional signs
and abbreviations.)

1S - BatDiv One
2S - BatDiv Two
3S - BatDiv Three

(TN Exact tracings from the original document.)

Page
14/69**K. TORPEDO ACTION**

a. When engaging in long-range torpedo action, torpedo depth adjustments normally will be made for 4 to 5 m in order to increase the error over which the enemy may be damaged.

b. When ordered to prepare to strike during day surface action, destroyer squadrons will take up the following preliminary striking positions.

	AREA OF PRELIMINARY STRIKING POSITIONS
Loading Units Destroyer Squadron	Area extending from a point approximately 25 km from and bearing 45° forward of the enemy battleship division beam to a point approximately 20 km directly abeam of the same unit
Rear Units Destroyer Squadron	Area extending from a point approximately 20 km from and bearing 10° forward of the rear unit of the enemy battleship division beam to a point approximately 20 km from and bearing 15° abaft the beam of the same unit

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c. Strikes by several destroyer squadrons in day surface action either will be by simultaneous attack or by successive attack at short intervals. Ordinarily the respective distances between main elements will be set at about 30 km.

L. MINE WARFARE

a. Each force commander will take advantage of favorable opportunities and conduct mining operations, communicating this information to the proper authorities.

b. The details to be ordered when conducting mining operations will be as follows:

Objectives of the operation and forces involved in mining operations.

Mine laying data

Measures to be taken when encountering enemy

Measures to be taken when major disagreements arise over practice

Schedule for movements

Detailed matters involving diversionary feinting movements, deception, etc

Detailed matters involving cover

Detailed matters involving communications

c. Locations for laying mines will be determined by the following standards:

Where sea conditions are suitable for using mines

Locations where the enemy can be successfully attacked

Locations where the enemy can be seriously harassed

Locations where mines can be laid without enemy knowledge

d. Mine warfare will be conducted speedily by seizing favorable opportunities to keep plans secret and to take the enemy by surprise.

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K. MOVEMENT

e. Battle speeds for BatDiv One are established as follows:

Battle speed 1 - 18 knots
 Battle speed 2 - 20 knots
 Battle speed 3 - 22 knots
 Battle speed 4 - 24 knots
 Battle speed 5 - 26 knots

b. When a ship of BatDiv One loses speed because of damage or other reason, if its maximum speed is within five knots of the speed of the division, every effort will be made to maintain the formation insofar as battle conditions permit.

c. Speeds for other units will be established by the respective fleet commanders in chief.

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L. SMOKE SCREENS

a. A classification of smoke screens is established as follows:

SMOKE SCREEN CLASSIFICATION		NOTES
Class 1 Smoke Screen	Soot smoke screen	A soot smoke screen only will be laid.
Class 2 Smoke Screen	Chemical-soot smoke screen	A soot smoke screen and a heavy chemical smoke screen will be laid simultaneously.
Class 3 Smoke Screen	Heavy chemical smoke screen	A heavy smoke screen will be laid using 8 kg. (two smoke pots).
Class 4 Smoke Screen	Light chemical smoke screen	A light smoke screen will be laid using 4 kg. (one smoke pot).
Class 5 Smoke Screen	Smoke shell smoke screen	
Re- marks	Smoke screens will be laid at standard speed when the sea is calm and humidity is 75%. The number of times smoke will be discharged and the amounts of air pressure will be regulated using temperature as the criterion and with regard to wind direction, wind velocity, humidity, weather, etc.	

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b. Methods of using smoke screens are established as follows:

TYPE	OBJECT	FORCES LAYING SMOKE SCREENS
Smoke screens for individual attacks	To make enemy attack difficult by enveloping an element of his main force or other forces; then to concentrate offensive power against the remaining elements or other forces	Designated direct escort units, destroyer squadrons, cruiser divisions or airplanes of designated air flotillas.
Smoke screens for sorties	To make sorties and close in on the enemy while concealing the units (ships)	
Smoke screens for providing cover	To keep movements secret and to conceal units (ships) while disengaging	
Smoke screens for providing a background	To hamper (or aid) visual observation by the enemy (or our forces) by laying a smoke screen behind our forces (or the enemy)	

Notes: 1. Smoke screens for providing cover are those used to provide cover for aircraft carriers, convoys, etc., against enemy bombers.

2. By preparing a suitable haze over areas of maneuver and over anchorages, observation, tracking and bomb sighting of enemy airplanes will be made difficult.

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c. The laying of smoke screens by airplanes, in addition to the following, will be directed by the respective fleet commanders in chief.

(1) Organization of airplane smoke screen units

AIRPLANE UNIT		TYPE OF AIRPLANE	NUMBER OF AIRPLANES
Airplane Smoke Screen Units	1 Airplane Smoke Screen Unit	Carrier-borne attack planes	3
	2 Airplane Smoke Screen Unit		3

(2) Chain of command

