

- (d) The scouting task group should cover as many sectors as possible in order that any change in course or speed by the enemy may be observed shortly after it is made.
- (e) The cruisers in the several sectors may be assembled by sections or by divisions for mutual support, but each group should operate in the sector to which its ships were assigned.
- (f) Development of the enemy disposition should be made on the basis of the need of information by own attacking forces.
- (g) When a later development of the enemy's force is desired this development should be ordered, but activity should not be such as to alarm the enemy and by inference inform him that an attack is pending. The importance of the information sought will be weighed against the damage to the scouting forces and the resulting effect upon the subsequent phases of the operations.
- (h) If the enemy has been developed by daylight and in time to allow our scouting ships to take suitable positions before dark, night tracking may be practicable. Cruisers tracking at night should, if practicable, do so from positions in which they can be least readily or easily attacked by enemy destroyers.

441. Unless otherwise directed, the following will govern tracking operations:

(a) Initial Contact

- (1) Ship making contact will endeavor to develop the contact and to track. The situation will indicate whether tracking should be carried out by continuous or occasional sight contact or by aircraft observation.
- (2) Adjacent scouts assist in developing the contact. Other scouts continue scouting until otherwise directed, or until the scouting objective of the group is definitely located. They will then proceed at maximum available speed toward contact or toward tracking stations.

- (b) Tracking Stations may be designated by signals from the General Signal Book or other directive. If no tracking sector signal is made, the unit making the original contact will track in the general sector in which contact is made. Other units will take stations uniformly around the enemy disposition, in logical order considering their original disposition with respect to the enemy and the unit making first contact, and having due consideration for the possibilities of the military situation.

(c) Tracking

- (1) Tracking units will ordinarily operate in the sectors to which they are assigned, the senior officer assuming command. The enemy ordinarily will be observed by aircraft or by occasional sight contact. Continuous sight contact will be maintained when the tracking units are so superior in strength or in speed as to be able to do so with impunity. At night, or in low visibility, tracking ordinarily will be performed by smaller types, such as destroyers, heavier units furnishing the support.
- (2) In low visibility, trackers normally will operate singly. In high visibility they normally will operate in concentrations for mutual support. Superior enemy concentrations will be avoided.

- (3) Tracking units will seize every favorable opportunity to destroy detached enemy forces or isolated units of the screen, if it does not interfere with the primary mission.
- (4) The primary task of units in flank sectors will be to observe and report promptly any marked change of enemy course and to harass the screen by destroying exposed vessels. At night, destroyer striking groups will be assisted and supported by cruisers insofar as is practicable. Positions sharp on enemy bow or which otherwise interfere will be avoided by cruisers at night when it is known that own destroyers are directed to attack the enemy.
- (5) The primary task of units in rear sector(s) will be to trail, transmitting frequent reports of enemy position, course and speed and transmitting for radio direction finders. At intervals if the situation requires, a trailing ship will transmit a series of MOs with the normal heading interspersed. All practicable support and assistance will be rendered destroyers attacking at night from the rear.

#### CONCENTRATION

450. Either a plan for contact scouting, or a concentration of scouts for another task, or both, may be ordered by the Scouting Task Group Commander upon receipt of information that the objective of a search has been located.

451. Orders for a concentration should give definite instructions therefore; and, if the concentration is on a moving point, the course and speed of such point should be given as well as its position at a specified time.

452. When quick assembly into a fighting formation becomes necessary, ships should join up, without regard to the normal tactical order of ships, in the minimum time and in the first position towards the guide which is vacant. However, it should be noted that actual assembly is not always necessary for mutual support and often wastes valuable time and fuel, especially in good visibility.

453. Night assembly for attack, if necessary, should be made at a point outside the enemy area, and normally on course and speed approximating the enemy's.

454. When mixed types assemble for attack, the initial disposition of assembly is preferably a column of types on the Attack Group Commander.

## CHAPTER V OPERATIONS

### INDEPENDENT CRUISER ENGAGEMENT

#### SURFACE SHIP

500. The principles set down in this section are for the guidance of cruisers engaging independently. They are not intended to be restrictive; nothing herein shall be construed as preventing the cruiser captain from engaging any enemy vessel when he believes that such action will contribute to the successful accomplishment of his task and that damage inflicted on the enemy will compensate for damage that may be received.

#### 501. Offensive Action.

- (a) Cruisers, by the nature of their duties, are likely to encounter enemy forces suddenly. THE ABILITY TO USE ALL BATTERIES IMMEDIATELY AND EFFECTIVELY IS AN ABSOLUTE NECESSITY FOR ALL CRUISERS. Since there will be little time in the presence of the enemy for prolonged consideration of courses of action, Cruiser Commanders should, insofar as possible, anticipate the probable situations which may confront them and select tentative courses of action to be followed in each case. Consideration should always be given to the benefits of prompt offensive action, even though the cruiser mission be primarily defensive.
- (b) Factors Affecting Decision to Engage.
  - (1) Cruiser unit commanders must be familiar with the offensive and defensive characteristics of their own and foreign vessels which they may engage. They should determine the fighting strength of their own unit in comparison with enemy units likely to be encountered. The comparative weakness of certain foreign types at various ranges and target angles should be known so that the most advantageous positions may be sought and the most favorable targets selected for concentration. Defensive weaknesses of own ships must be known so that they will not be unnecessarily exposed to destructive fire.
  - (2) Based on own experience, the estimated maximum ranges for an accurate control of fire, during normal day visibility and when using top spot, are as given in Table I:

**TABLE I**

**ESTIMATED OUTER LIMIT FOR ACCURATE FIRE CONTROL--TOP SPOT. (Range Limits given in thousands of yards).**

| Type of Ship                         | BB         | CA | CL | CL   | CL   |
|--------------------------------------|------------|----|----|------|------|
| Caliber of Guns                      | 14"<br>16" | 8" | 6" | 5.5" | 5.1" |
| Ships having:                        |            |    |    |      |      |
| Most Modern Control and Optical Gear | 22         | 20 | 18 | 16   | 14   |
| Recent Control and Optical Gear      | 20         | 18 | 15 | 14   | 13   |
| Obsolescent Control and Optical Gear | 20         | 18 | 13 | 12   | 12   |

(3) Important considerations for cruisers are:

- (a) Ability to effect penetration of the side and deck armor of the enemy engaged, and
- (b) Ability to resist penetration of own side and deck armor.

The factors upon which penetration depends are:

- (a) For deck armor, the range;
  - (b) For side armor, the range and the target angles presented.
- (4) Penetration of turret face plates (when turrets are trained to the line of fire, as they should be to obtain maximum protection), of barbettes, and to a large degree of conning towers, is unaffected by target angle. Maximum advantage accrues when the armor of enemy vessels is being penetrated by own gunfire while own armor is not being penetrated by enemy gunfire. It should be noted, however, that the characteristics of the opponent must be known before the most favorable range band can be determined. Only a large superiority in the number of ships, or some other very decisive advantages, can overcome the disadvantages to us if these conditions are reversed. Disadvantageous ranges often can be compensated for by presenting an oblique target angle to enemy fire. The guns for own cruisers generally are higher powered than are similar caliber guns used in foreign navies. As a consequence our guns obtain more favorable penetration of enemy side armor but not so favorable penetration of enemy deck armor.
- (5) Based on the expected performances of own projectiles against own plates, the estimated limiting ranges for armor penetration by cruiser projectiles are as given in Table II. The plates considered are modern class B plates, approximating in thickness the side and deck plates of own and probable enemy light and heavy cruisers. Except as noted, the projectiles are modern special common projectiles that are effective against fairly heavy class B plates but will probably break up against class A armor. In the 6" section of the table, the ranges enclosed in parentheses are the limiting penetration ranges of the 6" common projectiles of the OMAHA class of light cruisers.

TABLE II

Cruiser Gunfire as it affects Light Cruisers. Estimated Ranges of Penetrations of Class B Armor. Ranges are given in the body of the Table in thousands of yards.

## 8" PROJECTILES

| T. A. | Thickness of Side Plates |      |    |    |     | Deck Plate |      |    |
|-------|--------------------------|------|----|----|-----|------------|------|----|
|       | 2"                       | 2.5" | 3" | 4" | 5"  | 1"         | 1.5" | 2" |
| 90°   | 30                       | 30   | 29 | 24 | 20  |            |      |    |
| 60°   | 30                       | 30   | 25 | 21 | 17  | 12         | 18   | 21 |
| 45°   | 30                       | 24   | 20 | 15 | 12* |            |      |    |

## 6" PROJECTILES

|     |       |      |      |     |     |      |      |      |
|-----|-------|------|------|-----|-----|------|------|------|
| 90° | 23    | 20   | 17   | 12  | 10  | 15   | 19   | 22   |
| 90° | (14)  | (11) | (9)* | (X) | (X) | (17) | (21) | (24) |
| 60° | 19    | 16   | 14   | 10  | 7   |      |      |      |
| 60° | (12)* | (9)* | (7)* | (X) | (X) |      |      |      |
| 45° | 13    | 13   | 11*  | 7*  | 4*  |      |      |      |
| 45° | (X)   | (X)  | (X)  | (X) | (X) |      |      |      |

## 5.5" PROJECTILES

|     |    |    |    |   |   |    |    |    |
|-----|----|----|----|---|---|----|----|----|
| 90° | 17 | 14 | 12 | 9 | 7 | 16 | 20 | 23 |
| 60° | 14 | 11 | 9  | 8 | X |    |    |    |
| 45° | 10 | 8  | 6* | X | X |    |    |    |

## 5.1" PROJECTILES

|     |    |    |   |   |   |    |    |   |
|-----|----|----|---|---|---|----|----|---|
| 90° | 13 | 10 | 8 | 6 | 4 | 17 | 21 | X |
| 60° | 10 | 8  | 6 | 4 | X |    |    |   |
| 45° | 6  | 6  | X | X | X |    |    |   |

NOTES: - Ranges for side penetration are outer limits.

Ranges for deck penetration are inner limits.

X Indicates no penetration within range of gun.

\* Indicates plate probably holed but projectile probably breaks up.

( ) Ranges in parentheses are for the 6" common of the OMAHA class.

CAUTION: Information on enemy characteristics is incomplete and based on inference and conjecture. While the characteristics of our own cruisers are well known, their relative effectiveness depends on imperfect knowledge of enemy characteristics. The inherent uncertainty in enemy data must be appreciated and allowances made for probable error.

- (6) Limitations of ammunition supply should be recognized and expenditure justified by firing only at significant targets and at profitable ranges. The eight-inch gun batteries of heavy cruisers are intended primarily to inflict heavy damage on heavy and light cruisers and auxiliary types. The batteries of light cruisers are designed to destroy quickly other light cruisers and destroyers. The use of cruisers' batteries against enemy vessels of other than these types should be justified by important considerations.

- (7) Only under special conditions is engagement by cruisers with battleships and battle cruisers justifiable. Avoidance of effective fire from these types preliminary to or during fleet engagement is covered in paragraphs 520-532 inclusive of this doctrine. Should two or more cruisers attempt the destruction of an isolated enemy battleship or battle cruiser, they should attack from widely separated bearings to force the enemy to inefficient division of fire and should close the range at the highest rate consistent with coordination of effort to the point where high volume of six-inch and eight-inch fire will be effective. Smoke and radical maneuvers should be used freely to minimize effectiveness of enemy fire.
- (c) **Conduct of the Engagement.** The normal tasks of cruisers require quick engagements and decisive results. Therefore engagements with suitable objectives should be sought at comparatively short ranges. Neither time nor ammunition supply will permit much fighting at ranges over 20,000 yards for 8-inch cruisers, 16,000 yards for 6-inch cruisers. Decisive results can be insured only by a large percentage of penetrative hits and engaging cruisers must close to ranges where penetration can be obtained even when it entails crossing unfavorable range bands. When decisive range is reached, every effort must be made to maintain the maximum attainable volume of well-directed fire.

#### ENGAGEMENTS IN FORMATION

502. When engaged in formation, all maneuvers of cruisers should be simple and flexible and should require the minimum of reliance on communication circuits remaining intact. Therefore;

- (a) Maneuvers made while engaged at decisive ranges should normally be made by follow-the-leader methods.
- (b) Maneuvers by simultaneous ship turn movements should ordinarily be limited to maneuvers performed before reaching decisive ranges.
- (c) Cruiser formations larger than a single division will not ordinarily be used when engaging. If more than one division of cruisers participate in the engagement, junior division commanders should conform generally to the movements of their common senior and should take such action as will best support his actions.
- (d) During the engagement cruiser divisions and the individual ships in the divisions should ease off as necessary to clear own area of fire and arcs of fire of adjacent ships or divisions.
- (e) To permit the necessary freedom of movement of cruisers when engaging in formation, the distance between adjacent cruisers should not ordinarily be less than 600 yards, and a greater distance may at times be advantageous.
- (f) When two or more different classes of cruisers in the same formation are engaged simultaneously with the same group of enemy vessels, the engagement should ordinarily be fought at the decisive range of the class having the less powerful battery.

## ENGAGEMENTS WITH AIRCRAFT

Reference: War Instructions, Article 1106. Current Tactical Orders, U. S. Fleet, Chapter II, Section 5.

503. (a) Personnel occupying exposed positions on bridges and in control stations, and all lookouts, should be thoroughly familiar with the characteristics and identification markings not only of the airplanes of our own naval and military forces but also of those of the enemy. Drawings and sketches showing characteristics and markings of both enemy and own planes should be kept posted in suitable places.
- (b) Authority to open fire as necessary on threatening enemy aircraft with antiaircraft batteries should be delegated by Commanding Officers to the Air Defense Officer, or other responsible officer and those officers should be thoroughly indoctrinated with the necessity for opening fire on enemy planes at the earliest possible instant.
- (c) Individual ships or units should maneuver at high speed as necessary both to bring attacking enemy aircraft under most effective fire and to nullify their attacks. However, all such maneuvers should be made advisedly bearing in mind other tactical considerations.
- (d) In those cases when operations properly require the acceptance of air menace, an air screen or combat patrol, speed, maneuverability, gunfire, and vigilance should be used to the utmost, — with proper preliminary air reconnaissance when the situation permits.

## OPERATIONS AGAINST SUBMARINES

Reference: War Instructions, Chapter VII, Section 13; Articles 1016-1019; Section 4 and 5. General Tactical Instructions, Chapter 10. Current Tactical Orders, U. S. Fleet, Chapter II, Section 3. Current Doctrine, Destroyers, Article 402.

504. The action to be taken against submarines is covered under references above.

505. Cruisers at present have no effective offensive weapon against submarines; but three partially effective defensive weapons, — speed, maneuverability, and watertight integrity (damage control). These require the use of vigilance and strict compliance with damage control instructions. When there is a probability that submarines are in the vicinity speed and maneuverability should be used to the utmost, and no unnecessary chances should be taken whether in sortie, cruising, boarding, rescue work, handling paravanes, entry into port, or similar undertakings when there is a temptation to use low speeds and constant courses. No avoidable jeopardy to the ship should be accepted; and when a submarine area is ascertained or when periscopes are sighted, there should be no hesitation on the part of a cruiser unit or ship acting singly in turning as provided in article 509, F. T. P. 188, and leaving the area to destroyer depth charges, except in the rare case when there is opportunity to ram and destroy a submarine, perhaps at the cost of a cruiser's mobility.

506. In those cases when operations properly require the acceptance of a submarine menace a destroyer screen, speed, maneuverability, and vigilance should be used to the utmost, not neglecting proper preliminary reconnaissance by destroyer and plane when the situation permits. A submerged submarine is soon left behind if skillfully evaded; and for the same inherent reasons the haunts and habits of submarines may often be predicted. There should be a thorough understanding of submarine characteristics, maneuvers, and attack methods.

507. When light cruisers have been equipped with depth charges, they will use this weapon offensively when:

- (a) Favorably situated, with respect to the submarine on contact.
- (b) When defense of capital ships is imperative and no destroyers are in position to take the offensive.

**ACTIVITIES DISTANT FROM OR UNRELATED TO FLEET**

Reference: F.T.P. 143, Chapter VI, Section 3.

510. **Commerce Destruction.** Should a campaign of commerce destruction be entered into, the focal points of enemy trade routes and the areas surrounding those points should be selected and divided among the task groups selected to carry out the operations. Such forces should shift their bases frequently if possible. A retirement plan should be provided so that if attacked by superior forces, the task groups can concentrate and fall back on supporting forces. Commerce raiding groups, although operating as independent commands, should be kept informed of the activities of forces in adjacent areas and of the movements of friendly ships in own areas.

511. **Commerce Protection.** Patrolling in protection of our commerce is a special task, the nature of which will be entirely dependent on the military and diplomatic peculiarities of the war. Instructions will be laid down to cover them at the time. Cruiser Commanders should keep in mind the probability of being assigned such tasks and should be prepared to carry them out efficiently.

512. **Escort.** The many variables affecting this duty prohibit thorough previous instructions. Observe the fundamentals:

- (a) Escort and convoy commands should be independent of each other. Their formations and maneuvers should be separate in execution.
- (b) The escort should be mobile rather than static.
- (c) The escort should utilize picketing, screening, speed, danger bearing, and maneuver pattern best suited to provide mutual support and preserve both escort and convoy.
- (d) Vigilance and ingenuity are required to make up for inadequacy of escorting force.
- (e) The escort should include a rear patrol to encourage and protect the slow, the breakdowns, and the timid.

**VISIT AND SEARCH: BOARDING**

Reference: ComCruScoFor Serial 2902 of 19 August, 1940.

513. Commanding Officers should be prepared for the following alternatives:

- (a) Boarding and Search.
- (b) Release, or prize crew.
- (c) Ship escort into port in case boarding is too hazardous or prohibitive.
- (d) Air escort into port.
- (e) Sending into port without escort or through relay escort.

**BLOCKADE**

514. In case it is decided to establish on short notice a physical blockade the same order of units, methods of stationing and of supports will be used temporarily as for establishing a scouting line facing toward the objective of the blockade.

## FLEET ACTION

## FLEET ACTION, GENERAL

Reference: War Instructions, Chapter XII, Section 8.

520. In a fleet engagement the normal mission of the battleline is to destroy the enemy battleline by gunfire. Other than battleships, all types, including cruisers, have supporting missions. These types are important members of the battle team but act in capacities subsidiary to the battleline, furnishing it information, preserving its freedom of tactical movement, and supplementing its attack. General doctrine for guidance of cruisers in battle is contained in the referenced section of the War Instructions. On applying this doctrine the fundamental relationship between the battleline and cruiser types must be kept in mind.

## FLEET ACTION, APPROACH

Reference: War Instructions, Chapter XII, Sections 1 and 2, and Chapter X, Article 10132. General Tactical Instructions, Chapter XI. Current Tactical Orders, U.S. Fleet, Chapter III, Section 1.

521. Stations in Approach Dispositions. The assignment of cruisers to stations in fleet approach dispositions will be as specified in Current Tactical Orders, U.S. Fleet, or the effective U.S. Fleet Tactical Bulletin thereto appended. Attention is directed to Articles 1107-1110, inclusive, U.S.F. 10.

522. Forming Approach Dispositions. Just prior to forming approach disposition, cruisers attached to the Fleet will be in one of the following situations:

- (a) Operating with the engaging force.
- (b) Engaged in tactical scouting.
- (c) Rejoining from independent service.

On signal to take an approach disposition, cruiser units operating with the engaging force will proceed to their assigned stations by the most direct route, clear of superior enemy gunfire, at maximum formation speed. Cruisers engaged in tactical scouting will proceed in accordance with Article 10132, War Instructions. Cruisers rejoining from independent service should endeavor to gain station at the earliest practicable time, avoiding superior enemy forces en route.

## FLEET ACTION, DEPLOYMENT

Reference: War Instructions, Chapter XII, Sections 4 and 5, and Articles 1223-1225. General Tactical Instructions, Chapters XII and XIII. Current Tactical Orders, U.S. Fleet, Chapter III, Section 2.

523. Stations in Battle Dispositions. The assignment of cruisers to stations in Fleet battle dispositions will be as specified in Current Tactical Orders, U.S. Fleet, or the effective U.S. Fleet Tactical Bulletin thereto appended. It is to be understood that the battle stations indicated in the diagrams in Current Tactical Orders and General Tactical Instructions are to be considered as a general guide for the arrangement of light forces. When deployment is ordered, cruisers will proceed toward their stations at maximum formation speed by such route as to avoid superior gunfire. The station taken by the senior cruiser officer on the flank shall be interpreted by other cruiser commanders as indicating the distances they should maintain from their own battleline. The paramount consideration is mutual support and successful cooperation in inflicting damage to the enemy. Conditions on the flank normally make it impossible for all the cruisers to be

handled as one formation by signal. Normally division commanders will conduct their divisions in general conformity with the movements of the senior cruiser officer on the flank so as to give maximum support continuously. Maneuvering signals may be issued by the senior cruiser commander intermittently, but this does not preclude division commanders resuming independent movements after the maneuvering signal has been executed.

524. The fortuitous details of contact and initial engagement cannot be predicted. It is a reasonable assumption, however, that when the Fleet deploys some cruisers will be engaged and unable to conform either to the Fleet movement or that of adjacent forces. Divisions which are not engaged when deployment is ordered should give earliest practicable support to those which are engaged, conforming generally to the disposition and movement of the engaged force. If the engaged force has the situation well in hand and requires no assistance, the remaining divisions should proceed to their deployment stations, avoiding interference with the engaged force en route. It may eventuate, however, that part or all of the cruiser force will be diverted from the direction of Fleet deployment by the engagement in progress. Cruisers which do reach their deployment stations should take the disposition best suited to their task assignment in the battle plan in effect. Maneuvers under gunfire should be performed in the quickest manner compatible with maintaining volume and effective control of own fire.

#### FLEET ACTION, THE ENGAGEMENT

Reference: War Instructions, Chapter XII, Section 8. General Tactical Instructions, Chapter XIV. Current Tactical Orders, U. S. Fleet, Chapter III, Section 3.

525. Battle Tasks. The general tasks assigned to the light forces on the flanks are prescribed for the various battle plans in the references above. The battle plan placed in effect by the Officer in Tactical Command will indicate that:

- (a) Light forces assume the tactical offensive and attack immediately the battle line engages, or
- (b) Light forces assume the tactical defensive, withholding the attack until:
  - (1) Specifically ordered by the Officer in Tactical Command.
  - (2) Particularly favorable circumstances warrant immediate offensive action, or
- (c) Light forces operate at discretion of light force commander.

526. Any cruiser commander on a flank may find himself in the position of Flank Task Force Commander through reassignment of forces or battle attrition. Each cruiser commander on a flank must therefore be prepared to make the following decisions:

- (a) Whether to attack.
- (b) Type of attack to be employed.
  - (1) Preliminary.
  - (2) Simultaneous.
- (c) Assignment of forces available to:
  - (1) Attack Force.
  - (2) Defense of own battleline.

527. When the decision to attack or withhold attack is made by a cruiser Commander, it must, above all else, be that decision which best assists the Officer in Tactical Command in carrying out the Fleet task. Factors favoring the initial tactical offensive are:

- (a) Marked superiority of own light forces.
- (b) Faulty disposition of enemy light forces.
- (c) Inferiority of own battleline strength.
- (d) Superiority of own battleline strength, but inferiority of own battleline speed.
- (e) Position to windward of torpedo attack area.
- (f) Low visibility.

Those which make initial tactical defensive operations almost imperative are:

- (a) Marked inferiority of own light forces.
- (b) Lack of an adequate number of destroyers to conduct an effective torpedo attack on the enemy battleline.

The initial decision may of necessity be hastily changed due to a change in the tactical situation. Cruiser commanders must be alert to changing circumstances and to act immediately upon own initiative when the situation so demands.

528. Consideration of the following will assist in deciding which type of attack to employ:

#### THE PRELIMINARY ATTACK

529. The object of the preliminary attack is to destroy, damage, or disperse the enemy light forces in order to clear the way for a destroyer torpedo attack to be initiated later; the period of delay depending upon the situation. The preliminary attack:

- (a) Requires a marked superiority in light force strength.
- (b) Must be made by light forces other than destroyers assigned to the torpedo attack group.
- (c) Cruiser phase may be made before or after deployment, but the torpedo attack should not be initiated until the battlelines are engaged.
- (d) Is usually made by cruisers only, but if cruiser strength is inadequate, destroyers not assigned to the attack group may be used.
- (e) Must be driven home; enemy light forces must be destroyed or driven off.

In the preliminary attack the normal objective of light cruisers will be the enemy destroyers and that of the heavy cruisers, the enemy cruisers, both heavy and light. The operations of the attacking cruisers and the distribution of their gunfire should, however, be governed by consideration of the relative value of enemy types in defending against the torpedo attack which is to follow. If, due to scarcity of cruisers, destroyers are employed in the force conducting the preliminary attack, they may be expected to operate as cruisers and our own cruisers must be so disposed and handled as to permit accompanying destroyers to use their torpedoes against the enemy cruisers.

**THE SIMULTANEOUS ATTACK**

530. The object of the simultaneous attack is to destroy, damage, or disperse enemy light forces simultaneously with the conduct of a destroyer torpedo attack on the enemy battleline. The simultaneous attack:

- (a) To be successful should be conducted by an attack force superior in strength to the enemy light force.
- (b) May be made by inferior force to relieve own battleline from an unfavorable tactical situation, by forcing the enemy battleline to maneuver or to prevent the enemy light forces from taking the initiative.
- (c) Should be made after the battlelines are engaged.
- (d) Need not be driven home in the face of superior opposition if the unfavorable situation of our own battleline has been relieved.

In this attack the normal objective of light cruisers is the defending destroyers and that of the heavy cruisers the enemy cruisers, both heavy and light; but preference as gun targets must be given to the enemy ships which are in position most effectively to oppose the destroyer attack, regardless of type. Cooperating cruisers must keep clear of destroyer attack points. Cruisers will retire with the destroyers, covering their retirement.

**DISTRIBUTION OF FORCES**

531. Heavy cruisers normally will operate in the outer cruiser area and will operate with the attack group in both preliminary and simultaneous attacks. They will take care not to crowd their own light cruisers and destroyers and need accompany them during an attack only sufficiently to insure the maintenance of effective gunfire against opposing cruisers. Light cruisers will normally be divided between the outer and inner areas. Light cruisers in the outer area will normally operate with the attack force and will precede the destroyers in the preliminary and accompany them in the simultaneous attack. Light cruisers in the inner area may close the range to the enemy light forces sufficiently to support the attack; provided they can do so without drawing main battery fire from the enemy battleline and provided the position reached by them is such that the favorable area for enemy destroyer torpedo attack on our own battleline is not left unprotected, particularly when destroyers in the inner areas leave their defensive positions and proceed to the outer destroyer area.

**TACTICAL DEFENSE**

532. The best position for defense of own battleline is in the area from which enemy destroyers would be most favorably situated for launching torpedoes. It is not essential, however, that cruisers occupy this area in the physical sense at the expense of damage from enemy long range fire but only that the position to which they retire control this area at effective range. If the battlelines are not engaged, retirement should be sufficient to gain support of own battleline. If the battlelines are engaged the support which can be expected from own battleline will be almost negligible. The light forces opposite the enemy rear should endeavor to gain a position relative to the enemy battleline from which a gun and torpedo attack may be quickly initiated in the event a reversal of enemy battleline course or other conditions favor. The cruisers on this flank assist the destroyers in gaining this point by attacking enemy light forces and by preventing effective light force opposition.