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JUNE 1938

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A7-3/(2869)

UNITED STATES FLEET
BATTLESHIPS, BATTLE FORCE
U. S. S. WEST VIRGINIA, Flagship

San Francisco, California,
6 August 1938.

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J. W. GREENSLADE,
Vice Admiral, U. S. Navy,
Commander Battleships, Battle Force.

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Change No.	Dated	Date Entered	Signature of Officer making correction
[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]

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FOREWORD

Current Tactical Orders Battleships shall govern battleship maneuvers in all cases except when another type or other types are maneuvering in the same formation with the battleships in which case the General Tactical Instructions shall apply. (FTP 149, Par. 170, 171, 241 and 248).

CHAPTER I.

GENERAL.

Section 1. ORGANIZATION AND COMMAND.

(FTP 142, Par. 404-407)
(FTP 146, Par. 504-507) (FTP 165, Arc. 100-133).

1101. THE BATTLE LINE is a Battle Task Force of the Fleet and normally consists of battleships, including embarked aircraft. When ordered it will include the Battle Line Anti-Submarine Screen, Battle Line Aircraft Carriers and other units essential for the accomplishment of the task.

1102. ORGANIZATION. The normal tactical organization of Battleships, Battle Force, is that organization which is prescribed by the Commander in Chief, U. S. Fleet. For tactical purposes individual ships may be directed to join other than their own divisions. When practicable, battleships will be organized into divisions of equal numerical strength.

1103. NATURAL ORDER of Divisions from the van, if in column, otherwise from the right is:
Fourth Division,
Second Division,
First Division,
Third Division.
Should other than Natural Order be desired Commander Battle Line will prescribe the order to be taken.

1104. ORDER IN DIVISIONS. When battleships are operating as one tactical group the order of ships will normally be that given in the organization prescribed by the Commander in Chief. When a temporary rearrangement is necessary it will be made by authority of Commander Battle Line. Due consideration will be given to the distribution of dye-loaded projectiles and to tactical characteristics. Division Flagships will normally lead their divisions.

1105. FLAGSHIP OF THE COMMANDER-IN-CHIEF (COMMANDER BATTLE FORCE). Should the Flagship of the Commander in Chief (Commander Battle Force) act as a separate unit (single ship division) that ship will lead the formation if in column or take station on either flank if the formation is line or line of bearing. Otherwise the Flagship of the Commander in Chief (Commander Battle Force) will cruise, deploy and fight with the division to which regularly assigned by the U. S. Fleet Organization.

1106. ADDITIONAL INTERVAL. Under circumstances described in Article 1105, should a maneuver be ordered which requires an interval greater than that existing between the Fleet (Force) flagship and the adjacent division guide, it is always incumbent on the Fleet (Force) flagship to provide the increased interval by maneuvering to afford sea room.

1107. A SQUADRON ORGANIZATION may be ordered for tactical purposes and when so ordered will remain in effect until cancelled or until the termination of the particular stay at sea. The senior division commander in each squadron will exercise tactical command of that squadron unless the Fleet or Force Commander indicates his intention to do so. (For Communications, see Article 6301).

1108. THE COMMANDER BATTLE LINE will normally be Commander Battleships, Battle Force. The officer in Tactical Command may assume command of the Battle Line or may delegate it to another officer as circumstances require.

1109. COMMAND OF THE BATTLE LINE includes command of all task groups assigned to the Battle Line.

1110. TASK GROUP COMMANDERS. The Commander Battle Line exercises tactical command of the Battleship Divisions of the Battle Line. Other elements assigned to the Battle Line are, unless otherwise ordered, under the tactical command of the senior officer in each such element or unit.

Section 2. DEFINITIONS.

1201. The following definitions are in amplification of, or in addition to, those given in General Tactical Instructions. They apply only to battleship maneuvers.

1202. BASE UNIT is the evolution unit upon which other units regulate their movements during a maneuver. Unless otherwise prescribed the base unit for a maneuver is the unit which contains the formation guide at the beginning of the maneuver.

1203. EVOLUTION UNIT is normally the Battleship Division.

1204. PRESENT COURSE is the course of the formation before a maneuver begins.

1205. NEW COURSE is the course of all evolution units upon completion of a maneuver.

1206. COURSE ANGLE is the angle between New Course and the course of a unit performing an evolution.

1207. ONE COURSE EVOLUTION is one during which the evolution unit steers but one course other than the present course or the new course in proceeding to its new position.

1208. TWO COURSE EVOLUTION is one to lose bearing without change of speed, during which the evolution unit steers two courses, the first diverging from and the second converging with the course of the formation guide in proceeding to its new position.

1209. DISTANCE. (See Article 1501).

1210. INTERVAL. (See Article 1502).

1211. SIMPLE FORMATION. (See Article 3101).

1212. COMPOUND FORMATION. (See Article 4101).

1213. PRESCRIBED SPEED is the speed ordered by a signal,—"Steam at.....knots."

Section 3. GETTING UNDERWAY AND ANCHORING.

(FTP 142, Par. 118-124 and 182-188)

1301. In getting underway in company with other ships from an anchorage where sea room is restricted each ship shall normally turn to the desired heading before leaving the limits of its assigned berth. Ships shall remain within such limits until it becomes necessary to move in execution of a signal to proceed. Movements will be so regulated that no ship precedes another ship which, in the formation to be taken later, will be ahead of it.

1302. When ample room is available and it is desired to conduct a division clear of other ships in an anchorage before forming up and shaping course, the Division Commander will indicate such procedure by signaling, "Proceed without regard to formation." and by signaling the course and speed to be taken by the flagship to stand clear. In such circumstances ships will proceed at discretion with due regard for the order in which they will later form.

1303. When battleship divisions are to operate as a unit after clearing an anchorage the senior division commander concerned will designate the order of departure and prescribe the standard speed and the formation to be taken unless these details are prescribed by higher authority.

1304. When two or more battleship divisions have been directed to depart from an anchorage at the same time for independent operations, the senior officer involved in the departure shall designate the order of departure. Coordination of entry shall be effected in the same manner.

1305. When a single ship has permission to get underway independently at approximately the same time that a division or larger unit is scheduled to get underway from the same anchorage the ship acting independently will clear the anchorage prior to the time scheduled for the division to get underway, or will delay until the division has cleared the anchorage.

1306. Immediately upon anchoring the position of the anchor shall be determined. If the position of the anchor is found to be more than 40 yards from the center of the assigned berth the ship shall at once request, of the Senior Officer, Battleships, Battle Force, permission to correct the position of her anchor.

Section 4. SORTIE AND ENTRANCE.

(FTP 142, Par. 427-440)
(FTP 143, Par. 700-709 and 1400 to 1410)

1401. PRIOR TO SORTIE OR ENTRANCE, unless prescribed by higher authority, Commander Battle Line will prescribe:

(a) PARAVANES, — whether used or not and, if used, when streamed and taken in.

(b) SPEED, — maximum required and speed in channel.

(c) ORDER of task groups and order of Battleship Divisions of the Battle Line.

(d) DISTANCE AND INTERVAL.

(e) TIME for various units to pass point "A" in sortie, or point "X" on entrance.

(f) FORMATION to be taken on reaching point "O" on sortie.

(g) ANCHORAGE assignment on completion of entrance.

1402. FOR SORTIE all battleships will be in Readiness for Action — Condition I (See FTP 143, Par. 804) prior to arrival at point "A" and will remain in this condition until ordered by Commander Battle Line to take another condition of readiness.

1403. DURING SORTIE, when the ship which will be the fleet guide at point "O" is in the Battle Line, the reports required by FPT 142, Par. 486, will be made, except as restricted by radio or visual silence, to Commander Battle Line for relay to all task force commanders.

Section 5. DISTANCE AND INTERVAL.

(FTP-142, Par. 75-80 and 81-87)

(FTP 155, Arts. 155 - 1162)

1501. STANDARD DISTANCE for battleships is 700 yards. Standard distance will be taken without signal unless another is prescribed.

1502. STANDARD BATTLESHIP DIVISION INTERVAL is 2,100 yards.

STANDARD BATTLESHIP SQUADRON INTERVAL is 4,200 yards.

Standard interval will be taken without signal unless another interval is prescribed.

1503. OTHER THAN STANDARD. When a distance or interval other than standard is prescribed all evolution units will continue to maneuver at that distance or interval until another distance or interval is ordered or until the current period underway is terminated.

1504. NATURAL INTERVAL is the interval between the guides of adjacent divisions or squadrons which will permit all the vessels of a formation to take position on a single line of bearing at standard distance on the guide of the van unit or on the right or left flank unit from which the natural interval is prescribed.

1505. CLOSING INTERVAL OR DISTANCE. Gaps that exist because divisions of unequal numerical strength are in column at other than natural interval are closed only when:

(a) Division Commanders concerned are signaled to take other than standard interval.

(b) The formation is changed from a compound to a simple formation.

(c) A signal to DEPLOY or a signal placing the battleships in Battle Formation is executed. (See FTP 148, Art. 12169).

1506. NO CLOSE INTERVAL for battleships is prescribed. When interval less than standard is desired such interval will be designated in yards.

1507. When the Fleet (Force) Flagship is acting as a single ship division the interval between the Fleet (Force) Flagship and the adjacent division guide will be 700 yards unless otherwise ordered.

Section 6. THE GUIDE.

~~(FTP-148, Par. 88-94 and 125-131)~~ (FTP 183, Par. 163-164; 315; 424)
(CSP 734, Pages 11 and 12)

1601. IN SIMPLE FORMATIONS the Formation Guide, unless otherwise designated by the officer in tactical command of the formation, is:

(a) In column, the leading ship.

(b) In line, the ship which was the guide in the formation from which line was taken.

(c) In line of bearing, the flank ship on the advanced flank.

1602. IN COMPOUND FORMATIONS the Formation Guide, unless otherwise designated by the officer in tactical command of the formation is:

(a) In column of division (squadron) guides, the guide of the van division (squadron).

(b) In line of division (squadron) guides the guide of the center, or right center, division (squadron).

(c) In line of bearing of division (squadron) guides the guide of the most advanced division (squadron).

(d) During a maneuver, the Guide of the Base Unit.

(e) Upon the completion of a maneuver by all evolution units (a), (b) or (c) immediately above will obtain.

1603. In compound formations the Unit Guide of each evolution unit, unless otherwise designated by the Unit Commander, is as prescribed for simple formations in article 1601.

1604. When the Unit Guide is also the Formation Guide the formation guide flag only will be flown. When the Fleet Guide is also the Formation Guide the fleet guide pennant only will be flown.

1605. When the fleet guide is designated in battleships, the normal battleship formation guide will fly the fleet guide in lieu of the formation guide.

1606. UNIT GUIDE FLAGS are flown by the guides of evolution units:—

(a) In compound formation, when formation guide flag or fleet guide pennant is not prescribed by article 1604 or 1605.

(b) In a disposition, when the unit is a station unit and not required by article 1604 or 1605 to fly the formation guide flag or fleet guide pennant.

(c) When the division is operating independently.

Section 7. SPEED.

(FTP 142, Par. 95-101) (FTP 183, Art. 1103-1110)
(Comm. Instructions, Speed Indicators)

1701. ACCELERATION. When steaming in formation, after the engineering plant has been adequately warmed up battleships of this command shall increase speed uniformly at the following rates:

Knots	Rate of change of propeller R.P.M.	Total time to make change through range of revolutions indicated.
0 to 10	5.00 Knots/min.	2 min.
10 to 15	1.00 Knots/min.	5 min.
15 to 18	0.50 Knots/min.	6 min.
18 to 20	0.25 Knots/min.	8 min.

1702. DECELERATION. Through all speed ranges, speed shall be decreased as rapidly as possible without lifting safety valves except when an order to STOP is given in which case the throttle shall be closed immediately.

1703. ENGINE ORDER TELEGRAPHS shall be set to the speed which is most nearly the exact desired speed of the engines. As example: If standard speed is twelve knots and signal is made, "steam at nine knots," the telegraph should be set at "two-thirds"; if it is necessary to steam at thirteen knots the telegraph shall be set at "Full", etc. Should it happen that the prescribed speed is exactly half-way between settings of the engine order telegraphs they shall be set at the lower speed if a reduction is involved and at the higher indications if an increase is involved.

1704. SPEED INDICATORS shall be employed as prescribed in Communication Instructions. The speed cones, night speed indicators and where applicable, the speed pennant, shall indicate that proportionate part of standard speed which is shown on the engine order telegraph at the time. When maneuvering at night, the engines being operated in opposite directions, the night speed indicator will be operated to show alternately red and white. Note:— To avoid vibrations of the engines it is necessary for the OKLAHOMA to operate her engines at different rates when making speeds between 11 and 13 knots.

1705. CHANGING STANDARD SPEED. When necessary to steam for a considerable length of time at a prescribed speed other than standard it is preferable to meet existing conditions by making that speed standard speed by signal. In any event, to avoid confusion, all maneuvers shall be made on the basis of the last signaled standard speed. Prescribed speed will ordinarily be confined to movements incident to maneuvers.

Section 8. STATION KEEPING.

(FTP 142, Par. 182-185) (FTP 183, Art. 227-234)
~~(CinCUS Serial 4088 of 21 July, 1937)~~
(U.S. Navy Regs., Art. 1063 (4))

1801. In a flagship which is operating as a Formation or Unit Guide the responsibility for station keeping by that ship rests with the Flag Officer in command of the Tactical Unit who may delegate the necessary authority to the Commanding Officer.

CHAPTER II.

Section 1. RULES FOR BATTLESHIP MANEUVERS.

2101. GENERAL RULES. The following general rules for maneuver of battleships apply in all normal circumstances. Division Commanders have full authority to depart from these rules when the tactical situation demands, or when considerations of safety dictate a different course of action.

2102. Individual ships, or evolution units will not join a formation at course angles greater than 90°.

2103. COURSES AND SPEEDS: In changing line of bearing Tables I, II, and III, herein, will be followed. It must be noted that Table I is for ships and Table II for divisions. The progress of evolutions should be plotted on the maneuvering board. (Tables I and II of FTP 442 shall not be used for battleship maneuvers).

The tables herein are a guide to give uniformity of maneuver. As they are drawn up with the definite assumptions that the maneuvering unit is exactly in position and maintaining the position steadily at the beginning of the maneuver and that the speed ratios are uniform throughout the evolutions, it is apparent that when these assumptions do not suit the existing circumstances, good seamanship will dictate that variations are necessary.

2104. In maneuvers for dropping back the bearing in simple formations maneuvering ships will in all cases where a reduction of speed is required either by Table I or the GTI, first reduce speed to two-thirds until it is evident that the ship is not ahead of bearing or forging ahead, and will then take the required course and adjust the speed to attain the new position. The speed ratios given in Table I are the approximate average speed ratios for the entire evolution.

2105. In maneuvers for dropping back the bearing when in a line or a line of bearing, or for closing the interval on a retired flank when in line of bearing, evolution units will delay initiating their movement until the unit toward which they turn has started.

2106. COLUMN MOVEMENTS. Evolution Unit Commanders will in general conduct their units in evolutions by column movements.

2107. SIMULTANEOUS TURNS. In the following cases simultaneous turns are mandatory:

(a) Two course evolutions to drop back the bearing.

(b) One course evolutions to drop back the bearing when using course angles greater than 20 degrees unless such evolution places the evolution units in column.

(c) Movements out of column to invert order or exchange stations of evolution units.

2108. When an evolution unit is performing an evolution of translation independent of the other units in the formation, the manner of movement is optional with the unit commander.

2109. FOLLOW THE LEADER. In the absence of signals, ships of a division will follow in column the movements of the division guide.

2110. SIMULTANEOUS CHANGES OF COURSE AND LINE OF BEARING. When a formation change of course by division column movements and a change in the line of bearing of division guides are signaled simultaneously, divisions will come to the new course first and then maneuver to new positions.

2111. When evolution units of unequal numerical strength are involved in a maneuver at less than standard interval unit commanders must be alert to provide additional interval when the occasion demands.

When in line or line of bearing of division guides, when one or more divisions are at less than standard interval, and when signal is executed to form column of divisions those divisions which will not have sufficient interval toward the new guide shall stand on for five hundred yards before turning to the new course and shall then maneuver to regain stations. (See Plate 11).

Should a countermarch of 180 degrees be ordered by simultaneous division head of column change movements while steaming at such an interval that all ships are at standard distance from the next ahead, the division or divisions having the largest number of ships will execute the column change on execution of the signal and become, in effect, the base unit or units for the maneuver. Divisions containing a smaller number of ships will stand on present course such distances before starting the reversal that each ship will be at standard distance from the ship ahead when the maneuver is completed. (See Plate 12).

2112. EVOLUTIONS OF BASE UNIT: On the execution of a signal for a maneuver the Base Unit will:

(a) Take and maintain prescribed course, changing by column movement.

(b) Take or maintain standard speed, unless directed otherwise by signal or instructions for the maneuver. (See Article 1705).

2113. EVOLUTIONS OF UNITS REQUIRED TO GAIN BEARING:

(a) Take full speed, unless another speed is signaled for the maneuver; or whenever a unit has a considerable distance to gain it shall use flank speed (or maximum available speed if flank speed is not available) if it will materially expedite the completion of the maneuver.

(b) Change course by column movement directly to the course to reach the new position, (see Table III herein).

2114. EVOLUTIONS OF UNITS REQUIRED TO LOSE BEARING. Units will use one or two course evolutions in accordance with Table II herein.

2115. When an officer ordering a maneuver desires to carry it out by other than the prescribed methods, he shall specify the METHOD by use of General Signals.

2116. AT NIGHT, whether darkened or otherwise, also in low visibility, all changes of course shall normally be made by head of column change.

2117. In a two course evolution, units will steady on the course of the base unit between the first and second courses, (~~See FTP~~ 142, Par. 253). (See FTP 153, Par. 185)

2118. Evolution units which, from a position forward of the beam of the base unit, are required to drop the bearing to a position abaft the beam of that unit will not drop the bearing more than 90° in a single evolution. Where a drop in bearing of more than 90° is desired, it will be accomplished by two successive maneuvers. Changes in relative bearing which involve crossing the track of the base unit, either ahead or astern of that unit, will be made in two successive evolutions, the first of which will terminate on that track at the speed and on the course of the base unit.

2119. When maneuvering from column of divisions (divisions in column) to line of divisions or line of bearing of divisions, divisions ahead of the Base Unit will advance to the turning point of the van division before changing course to drop back the bearing.

CHAPTER III.

SIMPLE FORMATIONS.

Section 1. DEFINED.

3101. A SIMPLE FORMATION is one in which the ships are arranged on one line of bearing and keep station on a single formation guide. ~~(FTP 142, Par. 164-166)~~ (FTP 183, Art. 148)

Section 2. FORMING A SIMPLE FORMATION.

3201. WHEN NOT FORMED, the procedure of forming a simple formation of ships is as described in ~~FTP 142, Paragraph 177.~~ FTP 183, Art. 333.

3202. FROM A COMPOUND FORMATION, a simple formation is created by maneuvering all ships involved to a common line of bearing and then addressing a signal to all ships to form on the existing line of bearing.

3203. FROM A SIMPLE FORMATION, a compound formation is formed as specified in Article 4202.

Section 3. GUIDE.

3301. THE GUIDE of a simple formation is as designated in Article 1601.

3302. UNIT GUIDE FLAGS are not flown when a simple formation is created from a compound formation.

3303. Signals for changes of course by head of column change or by simultaneous turns, and addressed to all ships, do not change an existing compound formation into a simple formation.

Section 4. COLUMN OPEN ORDER.

3401. COLUMN OPEN ORDER is described in FTP ~~142, Paragraph 198.~~ 183 Art. 336. It may be formed either when ships are in a simple or when units are in a compound formation and the formation remains a variation of simple or compound formation thereafter. ~~(FTP 142, Par. 200-204 and 273).~~ When formed while divisions are in column of division guides, divisions in column, natural interval will first be signaled. (FTP 183, Art. 353)

Section 5. MANEUVERS FOR COLUMN.

3501. TO CHANGE COURSE, — as described in ~~FTP 142, Paragraphs 188 to 191.~~ FTP 183, Art. 321-329.

3502. TO OPEN OR CLOSE DISTANCE, — as described in FTP ~~142, Paragraphs 192 and 193.~~ 183 Art. 330 and 331

3503. TO INVERT THE ORDER, — as described in ~~FTP 142, Paragraph 194.~~ FTP 183, Art. 332.

3504. TO INTERCHANGE POSITION OF TWO SHIPS, — as described in ~~FTP 142, Paragraph 195.~~ FTP 183, Art. 333.

3505. TO FORM LINE FROM COLUMN, — as described in ~~FTP 142, Paragraph 196.~~ 183, Art. 334-335 (See Table I herein).

3506. TO FORM LINE OF BEARING, — as described in FTP 142, Paragraph 197, ~~except the third method described on page 22 FTP 142, will not be used by battleship formations.~~ FTP 183, Art. 334-335 Tables in FTP 142 shall not be used. In lieu thereof ships will use Table I herein.

Section 6. MANEUVERS FOR LINE.

3601. TO CHANGE COURSE, — as described in ~~FTP 142, Paragraphs 217 and 218.~~ FTP 183, Art. 346 and 347.

3602. TO OPEN DISTANCE, — as described in ~~FTP 142, Paragraph 219 except that the angles prescribed are not suitable for battleships in those instances where the distance to be opened is less than twice the resulting transfer. In lieu thereof:—~~ FTP 183, Art. 348, with the following modifications:

(1) When The Guide Maintains Standard Speed.

(a) Ships having four hundred yards or less to open will turn away 6° for each hundred yards to be opened and increase speed to maintain bearing on guide, resuming guide's course and speed as necessary to attain position.

(b) Ships having over four hundred yards to open will turn away 27° and take full speed resuming guide's course and speed as necessary to attain position.

(2) When The Guide Takes Two-thirds Speed.

(a) Ships having less than nine hundred yards to open will turn away 6° for each hundred yards to be opened and adjust speed to maintain bearing on the guide, resuming guide's course and speed as necessary to attain position.

(b) Ships having nine hundred yards or over to open will change course away 54° and take full speed, resuming guide's course and speed as necessary to attain position.

3603. TO CLOSE DISTANCE, — as described in FTP 142, Paragraph 220 except that the angles prescribed are not suitable for battleships when the distance to be closed is less than ~~twice the resulting transfer. In lieu thereof:—~~ FTP 183, Art. 349, with the following modifications:

(1) When The Guide Maintains Standard Speed.

(a) Ships having four hundred yards or less to close will turn 6° toward for each hundred yards to be closed and increase speed to maintain bearing on the guide, resuming guide's course and speed as necessary to attain position.

(b) Ships having over four hundred yards to close will turn 27° toward and take full speed, resuming guide's course and speed as necessary to attain position.

(2) When The Guide Takes Two-thirds Speed.

(a) Ships having less than nine hundred yards to close will turn 6° toward for each one hundred yards to be closed and adjust speed to maintain bearing on the guide, resuming guide's course and speed as necessary to attain position.

(b) Ships having over nine hundred yards to close will turn 54° toward and take full speed, resuming guide's course and speed as necessary to attain position.

3604. TO INTERCHANGE THE POSITION OF TWO SHIPS, — as described in ~~FTP 142, Paragraph 222.~~ FTP 183, Art. 351.

3605. TO FORM COLUMN FROM LINE, — as described in ~~FTP 142, Paragraph 223~~ (also see Table I herein). FTP 183, Art. 352 and 353

3606. TO FORM LINE OF BEARING FROM LINE, — as described in ~~FTP 142, Paragraph 224,~~ except that course angles and speeds as shown in Table I herein, will be used. FTP 183, Art. 354

Section 7. MANEUVERS FOR LINE OF BEARING.

3701. TO CHANGE COURSE, — as described in ~~FTP-142, Paragraph 230.~~ FTP 183, Art. 351 and 353

3702. TO OPEN DISTANCE, — as described in ~~FTP-142, Paragraph 232, except that the maneuvering board solution for course angle will be used.~~ FTP 183, Art. 354

CAUTION. The flank ship on the retired flank shall be designated the guide for this maneuver.

3703. TO CLOSE DISTANCE, — as described in ~~FTP-142, Paragraph 233, except that the maneuvering board solution for course angle will be used.~~ FTP 183, Art. 2[illegible]

CAUTION. The flank ship on the advanced flank shall be the guide for this maneuver.

3704. TO INTERCHANGE THE POSITION OF TWO SHIPS, — as described in ~~FTP-142, Paragraph 235.~~ FTP 183, Art. 362.

3705. TO FORM COLUMN FROM LINE OF BEARING, — as described in ~~FTP-142, Paragraph 236,~~ FTP 183, Art. 364 except that course angles and speeds prescribed in Table I herein, will be used.

3706. TO FORM LINE FROM LINE OF BEARING, — as described in ~~FTP-142, Paragraph 237,~~ FTP 183, Art. 365 except that the course angles and speeds prescribed by Table I herein, will be used.

3707. TO FORM ANOTHER LINE OF BEARING, — as described in ~~FTP-142, Paragraph 238,~~ FTP 183, Art. 366 and 367 except that course angles and speeds from Table I herein, will be used.

CHAPTER IV.

COMPOUND FORMATIONS.

~~(FTP-142, Par. 245-247)~~
(FTP183, Art. 400-440)

Section 1. DEFINED AND DESCRIBED.

4101. BATTLESHIP COMPOUND FORMATIONS are:—

(a) Column of divisions (squadrons).

(b) Line of divisions (squadrons).

(c) Line of bearing of divisions (squadrons).

(d) Multiple line of bearing of divisions (squadrons) with guides of both flank divisions (squadrons) either forward or abaft the beam of the guide(s) of the interior division(s) (squadron).

4102. When individual divisions are stationed in a disposition by means of position pennant signals or by coordinates they cease to be part of a compound formation and become station units of the disposition until such time as they are again ordered into a compound formation. See Article 6401 for communications.

Section 2. FORMING A COMPOUND FORMATION.

4201. WHEN UNFORMED a compound formation is formed from a group of ships by the methods given in ~~FTP-142, Paragraphs 259 to 261.~~ FTP183, Art. 431

4202. A COMPOUND FORMATION is created from a simple formation by the execution of a signal addressed to all Division Commanders for Division Guides to form on the existing line of bearing from the formation guide; or on the execution of any signal which requires the divisions to maneuver as evolution units.

Section 3. MANEUVERS FOR COLUMN OF EVOLUTION UNITS.

4301. TO CHANGE COURSE, — as described in FTP-142, ~~Paragraph 279.~~ FTP183, Art. 443.

4302. TO OPEN INTERVAL, — as described in ~~FTP-142, Paragraph 280.~~ FTP183, Art. 444.

4303. TO CLOSE INTERVAL, — as described in FTP-142, Paragraph 281. FTP183, Art 445.

4304. TO INVERT THE ORDER OF EVOLUTION UNITS, — as described in ~~FTP-142, Paragraph 282.~~ FTP183, Art. 446.

4305. TO INTERCHANGE POSITIONS OF TWO EVOLUTION UNITS, — as described in ~~FTP 142, Paragraph 283.~~ FTP183, Art. 447.

4306. TO FORM LINE OF EVOLUTION UNITS.

(a) On present course in present order from the right or in reverse of present order by a single maneuver. (See Plate 1).

(1) If the base unit is to maintain standard speed other evolution units take course angles and speeds as indicated in Table II or III-A, herein, depending on whether the base unit is a rear or a leading division.

(2) If the base unit is to take two-thirds speed evolution units in the rear of the

base unit take course angles and speeds from Table III-B herein; units ahead of the base unit slow to speed of guide and maneuver according to Table II herein.

(b) On present course in a new order from the right, other than the reverse of the present order, by a single maneuver. (See Plate 2).

(1) Base Unit: Rear Division, invariably. Maintain standard speed throughout except when the change of order requires any division to take greater than present interval in which case it slows to two-thirds speed in such time as not to pass the most advanced division or divisions already on line.

(2) Units ahead of base unit maneuver at standard speed to turn up on new tracks on present course, slow to two-thirds speed if necessary when rear ship of unit has completed turn to new track. When the base unit does not slow, units which slow to two-thirds resume standard speed as necessary to attain new bearing. When base unit slows all units resume standard speed on signal. (NOTE: Units which are required to increase the interval shall use full or flank speed and maneuvering board courses as soon as clear of internal divisions).

4307. TO FORM LINE OF BEARING OF EVOLUTION UNITS, — (on present course by single maneuver). Same as 4306(a) above. (See Plate 1).

4308. COLUMN OPEN ORDER. See ~~FTP 142, Paragraph 278~~ FTP 183, Art. 338. Units will be ordered to take natural interval prior to being placed in column open order.

Section 4. MANEUVERS FOR LINE OF EVOLUTION UNITS.

4401. TO CHANGE COURSE, — as described in ~~FTP 142, Paragraph 303~~ FTP 183, Art. 463.

4402. TO OPEN INTERVAL, — as described in ~~FTP 142, Paragraph 304~~ FTP 183, Art. 466 except that when the change in interval is less than 500 yards, (when guide uses standard speed) or 900 yards, (when guide uses two-thirds speed) smaller changes of course with appropriate speeds are required.

4403. TO CLOSE INTERVAL, — as described in ~~FTP 142, Paragraph 305~~ FTP 183, Art. 466, except that when the change in interval is less than 500 yards, (when guide uses standard speed) or 900 yards, (when guide uses two-thirds speed) smaller changes of course with appropriate speeds are required.

4404. THE ORDER OF EVOLUTION UNITS WILL NOT BE INVERTED FROM LINE BY A SINGLE MANEUVER.

4405. TO INTERCHANGE POSITIONS of two evolution units, — as described in ~~FTP 142, Paragraph 307, except~~ FTP 183, Art 468, the division which is to drop back shall maneuver at standard speed, dropping back by the use of a ninety degree change of course. When the evolution units are not adjacent the movement will be inaugurated in the same order and manner as when divisions are adjacent. However, when the unit moving to the right reaches a position astern of the next adjacent unit it will take full speed and such course as necessary to draw up astern of the unit whose place it is taking. When the guide of the left evolution unit is astern of its new position the right evolution unit will then maneuver to the left in a similar manner.

4406. TO FORM COLUMN OF EVOLUTION UNITS. Take course angles and speeds from Table II or III herein. (NOTE: This method can be used only when evolution units are at standard interval or greater, or at sufficient natural interval to allow for advance and transfer). Method of Paragraph 308 of FTP 142 will not be used unless speed for evolution units of four-fifths standard is signaled. (See Plates 3 and 4).

4407. TO FORM LINE OF BEARING OF EVOLUTION UNITS, — take course angles and speeds given in Table II or III herein, as appropriate. (See Plate 6).

Section 5. MANEUVERS FOR LINE OF BEARING OF EVOLUTION UNITS.

4501. TO CHANGE COURSE, — as described in ~~FTP 142, Paragraph 321.~~ FTP 183, Art. 480.

4502. TO OPEN INTERVAL. When it is necessary to open interval while in line of bearing and when the base unit cannot be made the evolution unit on the retired flank, the evolution unit on the retired flank will start its evolution first. The other units toward the guide will follow in succession using such course angles and speeds as will not interfere with movements of adjacent divisions.

4503. TO CLOSE INTERVAL. When it is necessary to close interval while in line of bearing and when the base unit cannot be made the evolution unit on the advanced flank, the same precautions as given in 4502 will be used.

4504. THE ORDER OF EVOLUTION UNITS WILL NOT BE INVERTED, WHILE IN LINE OF BEARING, BY A SINGLE MANEUVER.

4505. TO INTERCHANGE POSITIONS OF ADJACENT EVOLUTION UNITS, — as described in ~~FTP 142, Paragraph 325,~~ except that units which are required to drop back will do so by maneuvering at reduced speeds. FTP 183, Art. 484

4506. TO FORM COLUMN OF EVOLUTION UNITS, LINE OF EVOLUTION UNITS, OR ANOTHER LINE OF BEARING OF EVOLUTION UNITS, — take course angles and speeds from Tables II or III herein. DO NOT employ tables from Chapter XVI of FTP ~~142~~ 183. (See Plates 5, 7 and 8).

Section 6. MANEUVERS FOR MULTIPLE LINE OF BEARING OF EVOLUTION UNITS.

4601. The maneuvers to and from this formation will be made by evolutions determined on the maneuvering board or from Tables II or III herein if applicable, having due regard for the rules of the road. On taking multiple bearing line of evolution units, the interval existing before the maneuver will be maintained unless a signal is made prescribing a different interval.