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DOMESTIC INTELLIGENCE
OFFICE OF NAVAL INTELLIGENCE

UNITED STATES NAVAL INTELLIGENCE SERVICE

AR-2

INVESTIGATION REPORT

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SUBJECT: JAPANESE NAVAL INTELLIGENCE Instructions.

RECEIVED

Report made at: San Diego, California Date: February 25, 1941.

Report made by: Lieut. C.H. Coggins, (MC)USN; D.W. Kohler, Translator.

Period covered: 1937 Status of case: Closed

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Origin of case: Documents taken from Lieut. Comdr. Toshikazu OMAE, IJN, a Japanese espionage agent who visited Pacific coast ports of the United States during the year 1937.

Character of investigation: Translation from the Japanese language, and arrangement of data to facilitate its analysis.

Enclosures: None Copy to: ONI (5)
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Synopsis: This report contains the detailed instructions given to a Japanese Naval Intelligence Officer assigned to gather information on all navies, with special emphasis on the navies of the United States and the British Empire. These instructions specify the nature of information desired by the Japanese Naval Intelligence service.

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Comment and recommendations: It is recommended that the information contained in this report be studied and analyzed by tactical and counter-espionage groups.

Approved - B.L. Canaga
Captain, U.S. Navy (Ret)

1. Course of policy in night combat by capital ships and cruisers of the U.S. and British navies. Conditions of action and operation under which aspects of night combat can be observed.

2. Practice plans connected with night combat; shifts in execution; and action of main squadron in retreat.

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*4. In investigations of foreign military matters, it is requested that cognizance be taken of the desire for information on items considered of the utmost importance by the official fleet school.

Enclosure. Requested outside of Ministerial departments.

I. TACTICS

(A) Tactics in General.

1. Tactics being employed by hypothetical enemy nations.
2. Special tactics, if any, of the U. S. Navy and the navies of other powers.
3. Synopsis of tactical operations by foreign powers.
4. Tactical ideas of the various navies.
5. The course of tactical leadership in the U. S. and other navies; also actual conditions of training operations.
6. Execution of British and American maneuvers, and the general tactical trends on which they are based.
7. Actual conditions of night and day fleet combat, and execution of training by the U. S. and other navies.
8. Plans adopted to force a decisive battle.
9. Methods of chemical warfare in the U. S. and other navies; also direction of leadership and actual conditions of putting training into operation for such.
10. Combat of advancing force in the beginning of a decisive battle.
11. Aspects of execution of battle at dawn; at dusk.
(Pencilled note: This year's maneuvers.)
12. Reference materials on execution of landing operations.
13. War-time fleet organization of U. S. and English navies, with special attention to air power.
14. Similarity in important commands among the navies of the world.
15. Methods of employing smoke-screens; conditions of smoke-screen use in various types of combat.

(B) Night Combat.

1. Course of policy in night combat by capital ships and cruisers of the U.S. and British navies. Conditions of action and operation under which aspects of night combat can be observed.
2. Practice plans connected with night combat; shifts in execution; and action of main squadron in retreat.

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3. Items under consideration and in practice as countermeasures to our night combat.
4. Strategy for night combat; especially as regards the use of cruisers, destroyers and airplanes.
5. Ideas in regard to night combat.
6. Plans considered of importance in evading night combat.
7. The following items, by which the extent of the U. S. Navy's anticipation of night warfare may be confirmed:
 - (1) Extent to which capital ships enter into night warfare.
 - (a) Circumstances of firing practice of main batteries; also effectiveness.
 - (b) Methods of evading an attacking force.
 - (2) Extent to which airplanes participate in night combat; apportionment of duties.
 - (3) Extent of putting night combat training into operation.
 - (4) Conditions governing use of various types of illuminating devices.
8. Investigation is desired chiefly about the U. S. Navy in regard to the following items pertaining to night firing:
 - (a) Conditions under which main batteries are used at night.
 - (b) Existing conditions of smoke-powder.
(Powder for smoke-screens?)
 - (c) Types of flare-bombs.

(C) Torpedo Tactics.

1. Methods of attack by destroyer, submarine and air squadrons. Also, their effectiveness in night and day attack.
2. Evasion tactics employed by battleships and heavy-cruiser fleets against attack by destroyer squadrons, submarine flotillas and airplanes. Their effectiveness.
3. Tactics employed by the U. S. and other navies in evading torpedoes; also actual conditions under which training is put into practice.
4. The following items emphasizing the extent of training and objectives of world fleets, particularly of England and the U. S., in torpedo warfare and countermeasures.
 - (1) Daytime fleet combat.
 - (a) Methods of employing destroyer flotillas.
Do they have a policy in decisive action like

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ours, in coordinating a resolute attack with firing from main batteries?

Also, conditions of combined action by cruiser and destroyer squadrons.

- (b) Methods employed to check or scatter an attacking destroyer flotilla; also methods of evading torpedoes. Do they or do they not have plans to check or scatter an attack by means of cruiser and air squadrons? If they do, give examples of plans and training.
- (c) Methods of airplane torpedo attack. Also counter methods and evasion of same.

(2) Night Warfare.

- (a) Methods of defeating destroyer flotillas at dusk; particularly methods of employing cruiser squadrons and air squadrons in obtaining this object.
 - (b) Precautionary methods of navigation by main squadron in night combat, with particular attention to whether or not the main force is isolated. Disposition of cruiser squadrons.
 - (c) Methods of scattering and evading the attacking force. Also, the extent of such training. A point to be particularly noted is whether star-shells or searchlights are used, distance at which firing is begun, etc.
 - (d) Methods of night look-out practice and its extent.
 - (e) Systems of attack by torpedo forces. Essential points in searching for the enemy. Is a surrounding movement chiefly employed? Or is the distance covered by a direct advance, and attack at opposing courses?
 - (f) Extent of wireless interference in night warfare. (We may imagine that, in opposition to our Navy's specialty in torpedo warfare, the British Navy will employ marksmanship, the U. S. Navy, air strength. Furthermore, unless we know the enemy's policies and plans in meeting surprise attack such as our torpedo warfare, it is difficult for us to expect definite good results.)
5. Systems of torpedo attack in the U. S. and other navies, (including mine-layers). Also, course of direction, and aspects of training execution.
 6. Tactical torpedo strength of all countries, particularly U. S. and England.
 7. Systems of submarine warfare in the U. S. and other navies. Also, course of direction, and actual conditions of training execution therefor.
 8. Use of mine squadrons attached to the fleet.

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(D) Artillery Tactics.

1. Day and night firing; methods of executing anti-aircraft fire; firing distances; firing methods; area of dispersion; accuracy of hits; salvo intervals.
2. Methods of executing fire over smoke-screens.
3. Methods of fire-control employed by the major naval powers.
4. It is desired that the following items be investigated with particular attention to the U. S. Navy.
 - (1) Relating to artillery tactics:
 - (a) Wireless intelligence regarding firing such as we obtained last year.
 - (b) Average area of dispersion (range?) of the various types of ships.
 - (c) Essential particulars of the latest shells.
 - (d) Naval College textbooks: "Naval Ordnance", and "Line Officers' Examiner".
 - (e) Obtain new editions of the "Compilation of Pamphlet on Naval Gunnery", which we acquired up to about 1920.
5. It has been noted that remodeled battleships and heavy cruisers of the U. S. have a remarkably short foremast, which we judge is doubtless the result of careful consideration of various tactical points. Investigation is desired on aspects of practical firing drill in which emphasis is placed on the effective use of airplanes with main-battery fire.
6. Systems of fire-action, also direction of leadership, and actual conditions of execution of training therefor.
7. Particularly in the midst of action, the actual conditions and countermeasures in the U. S. and other navies, confronting aides to the captain in their relationship with firing conducted by the chief gunnery officer.

(E) Air Tactics.

1. Extent to which aircraft is used in various types of combat.
2. Effectiveness of aerial warfare.
3. Effectiveness of various types of planes.
4. Fundamental policies of forces employed in sea flying by England and the U. S. (particularly the U.S.) (Chiefly, the relative importances observed in regard to connections between them and the sea forces.)
5. Policies and actual conditions of operation of air forces in daytime fleet combat, in accordance with

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the following items:

- (a) Reconnaissance patrol (including extent to which sailing and wireless is employed, etc.)
 - (b) Relationships between the time for battle and selection of objectives for attack.
 - (c) Systems of aerial attack against sea forces; also, co-operative policies with other forces.
 - (d) Ideas on employment of special types of armaments, and special types of combat methods.
6. Existence and numbers of planes defending observation air squadrons during battleship firing. (Particularly U. S.)
 7. Systems of air fighting in the U. S. and other navies; also course of direction and actual conditions of training execution.
 8. Items particularly noted as to how air fighting is put into operation in the first stages of decisive battle.

(F) Logistics

1. Daytime cruising order under military precautions.
2. Ordinary distances in straight line formation.
3. Precautionary measures against submarines and airplanes.
4. Fleet precautions against submarines, as used by the U. S. Navy.

II. IDENTIFICATION OF ALLIES.

1. Aspects of recognition signals. Recognition signal systems used by the various navies. Methods of identifying allies.
2. U. S. Navy's methods of distinguishing between enemy and allied planes in peacetime maneuvers.

III. EDUCATIONAL TRAINING.

1. Systems of technical training and practical application employed by the U. S. and other navies.
2. Items of educational training which are particularly stressed in the various fleets. Impressions of their results.
3. Measures taken in maneuvers to improve technical education; also, actual conditions of study thereof. (As a general rule, maneuvers have a tendency to slight technical courses, and end in a "war of movement". Attitudes of the various nations toward the various technical courses practiced during war games; their maintenance, improvement and supervision.)

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4. Aspects of training in U.S. anti-submarine attack and defense systems.
(Precautionary and attack methods depending on airplanes. Zigzag and evasive movements. Methods of attack against submarines.)
5. War-game results of hypothetical enemy countries.
6. Aspects of U. S. fleet movement practice.
7. System of officer education.
8. Status of educational training in aviation by the English and U. S. navies. Extent of skill.
9. Technical education in the reserve fleet. Policies for improving results.
10. Aspects of training in stormy weather.
11. Are various types of small boats and aircraft drilled and used in bad weather? In any and all kinds of weather?
12. Organization on board ship.
13. Organization of defense forces in the various navies. Status of educational training in defense systems.
14. Official school of land forces connected with the Navy. In general.
15. Organization of persons employed in construction drafting in foreign navies (particularly England and U. S.) Also system of education.
16. Gas-protection stations in fleet force.
17. Types of manuals in the various navies.
18. Text-books used in the various schools of the U. S. Navy; their standard.

IV. POWER IN ACTION.

1. Ability of battleships in action.
2. Essential ability of battleships and heavy cruisers of the powers in action (movement) as requisite in torpedo warfare; particularly revolutions per second in combat speed.
3. U. S. fleet system of formation movement.
4. Investigation of materials connected with fleet movements in foreign navies; for example, tradition connected with fleet movement; rules; movement boards, etc.

V. PERSONNEL

1. General administration of personnel.
2. Various outstanding men in the U. S. Navy, who are situated to be in positions of leadership in their

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Navy in tomorrow's (future) wars. Their life histories, character and conduct, peculiarities, special abilities, ideas in the art of war, career record, also investigation of records of promotions and changes, and articles published by them.

3. Investigation of persons who have flown in Chinese airplanes. *(Penciled notation: Too much).

VI. PROTECTION

1. Aspects of operation of fleet protection training in U.S., British and German navies. Systems of directing flooding and drainage; also devices related thereto. Particularly, practical methods of detecting leakage points.
2. Aspects and equipment of gas-protection drills of the various naval powers.
3. Protection, and existence of special devices in various equipments.
4. Equipment facilities connected with damage control stations in foreign navies, particularly the German and U. S. navies. Communication equipment; systems of directing training; education; and aspects of facilities for practical study.
5. Existence of special devices and facilities directed toward submarine defense.
6. Protection in general.
7. Fleet air defense of the various nations. Provisions against flooding.
8. Special measures taken by submarines of the various nations against mines and depth charges.
9. Aspects of deck-defense on aircraft carriers.
10. Items of equipment-remodeling connected with defense, mainly as regards the U. S. Navy. Also steel-plate resistance.
11. Practical measures related to emergency defense; and aspects of training.
12. Among items relating to protective equipment on board foreign ships and boats, investigation is particularly desired on the following points:
 - (a) Station of defense direction (place of central control). Location, and equipment therein.
 - (b) Detached stations. Their location and equipment.
 - (c) Methods of notification in all compartments within the ship.

*Note: The word used here means passengers. The context suggests that information is desired regarding U. S. Navy men who have flown in Chinese planes as observers.

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13. Defense organization aboard ship, and systems of training defense squads.
(In regard to defense aboard ship, the Imperial Navy is at present hardly out of the beginning stages. It barely suffices for peacetime security. The improvement of this state of affairs is quite a pressing matter. It is necessary to bring ourselves quickly up to date by combining diligent research within the nation with the strong points, if possibly available, of foreign countries.)
14. Details of defense strength and other essentials of combat strength. Particularly strength of submarine defense; evaluation of relationship between torpedo and mine strength, and general defense.
15. Defense equipment in U.S. and Soviet bases against submarines (anti-submarine nets, hydrophones, mines, and defense boats; shore equipment, etc.; particularly details as to the efficacy of anti-submarine mines used in defense). Also, defense systems.
16. Items, concerning anti-submarine defense mechanisms and weapons, which should be used for reference in submarine strategic movements. (Policy of equipping, and efficacy of hydrophones and detection instruments in the local area. Present status, possible future, etc., of anti-submarine weapons).
17. Defense equipments in general.
18. Items now being studied for improvement in the various nations as to building-construction from the viewpoint of anti-aircraft defense.
19. Utilization control of anti-aircraft communications and extra-departmental systems of communication in major cities, naval bases and strategic ports.
20. Items in fire-fighting agencies and equipment now being employed in the various foreign countries, which would be applicable to our Navy and would constitute material for improvement.

VII. SHIPS

1. Strength in specially adapted aircraft carriers (with estimate of ability).
2. Submarine efficacy in particularly minute detail.
3. Efficacy of ships, and outstanding systems of identification by externals.
4. Essential points of mine-layers.
5. Summary of equipment of ships specially adapted for harbor service.
6. Details of armament of ships and boats in the U. S. and other navies.
7. Details concerning ship's bridge equipment in the various navies.

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8. Points of peculiarity in the recognition of ships identical in type.
9. Shape of fishing boats in vicinity of U. S. and vicinity of Philippines; method of distinguishing from military ships and boats.
10. Collection of textbooks and other reference works on items concerning complete ship maintenance equipment in foreign countries.

VIII. LOOKOUTS.

1. Lookout and warning stations in the fleets of hypothetical enemy countries. Apparatus used, and their efficacy.
2. Lookout equipment (place of lookout direction; facilities of lookout stations.)
3. Ability at discovering destroyers at night; submarines by day.
4. Systems of lookout training in hypothetical enemy countries. Aspects of educational training of lookout personnel.
5. Systems of night-lookout training in the navies of the world, particularly England and U. S. Their extent.
6. Organization of lookout divisions.
7. Lookout rules.
8. Organization of signalling divisions; important duties; equipment. Investigation, particularly of the following points in education training:
 - (a) Organization of signalling divisions.
 - (b) Extent of practical use of visual signals; also aspects of educational training.
 - (c) Extent of signal control.
 - (d) Locations and equipments of: signal direction room; signal office; signal stations.
 - (e) Aspects of long-distance flashing apparatus.
 - (f) General concept of systems of recognition signals.
 - (g) Aspects of educational training in signalling between naval and merchant marine vessels.

(If we consider actual combat conditions, there can be no question as to the great importance of signal communication. In view of the present situation in the Imperial Navy, the speedy improvement of this art is the urgent need of the day. Up to now, however, materials in this direction have been so scanty that it must be urged that results, as complete as possible, be obtained.)

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IX. INTELLIGENCE.

1. Organization of U. S. Intelligence.
2. The method followed by guard-ships* in the past has been investigation of foreign military matters mainly through getting reports solely from consular employees and resident nationals. There are many drawbacks to this method. In order to gain access to foreign military secrets, and to investigate actual facts, it is necessary to employ spies, or to buy over foreigners, all of which necessitates a considerable secret-service fund. Consequently, unless guard-ships are provided with secret-service funds, it is difficult to make satisfactory investigations of military matters.
3. Concerning Ryojun (Pt. Arthur) and Dairen, aspects of activity, up to and including various plans of military intelligence networks spread, or attempting to be spread by various countries, toward the Manchukuo area, with both cities as centers.
4. Establishment of agencies of communication intelligence in Pt. Arthur. (Interception and research).

Reasons:

1. It is contiguous to the USSR and China.
2. There is a continual coming and going of naval ships and boats dispatched by the various countries to the Orient, which fact makes it convenient for interception of communications.
3. The increase of concern by foreign countries toward Manchukuo; and congestion of communications.
4. Convenience of liaison with the Kwantu military headquarters, and its special-duty agencies.
5. Convenience in defending and maintaining the secrecy of this agency.

X. ORDNANCE.

(A) Gunnery.

1. Large caliber gun turrets, revolving apparatus, and types and abilities of motors.
2. Firing equipment of the various countries, particularly U. S. and England.
3. Investigation is desired on the following items, mainly in regard to the U. S. Navy.

Relative to firing:

- (1) Relative to indirect firing.
 - (a) Kinds of gyros, and their accuracy.
 - (b) Kinds of logs, and their accuracy.
 - (c) Number of airplanes employed.
- (2) Relative to fire-action of capital ships.
 - (a) Synopsis of equipment for fire-direction on capital ships after reorganizing.
 - (b) Firing ranges actually being practiced.

* Could this mean, in the case of the Japanese, "special-duty ships", or oil tankers?

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- (3) (This number skipped by compiler of text)
4. Investigation is desired on the following items, mainly in regard to the U. S. Navy:
 - (a) Systems of side-observation.
 - (b) Systems of training for observation of fire.
 5. Aspects of shot-diffusion in ship artillery fire.
 6. Number of shells carried by each type of ship.
 7. Form of director, and number carried (main-guns, supporting guns).
 8. Form of equipment for salvo firing. Number, and where carried.
 9. Length of base of rangefinders for main and secondary guns. Method of carrying, and number.
 10. Muzzle-velocity of smoke-powder(?)
 11. Range-finding methods at night, and methods of illumination. (Is, or is not, an invisible beam used?)
 12. Estimate of the ship and boat artillery power of the U. S. and other countries.
 13. Various apparatus (or weapons) which would make it possible to guess ability at night fire-action.
 14. Research in counter-measures to systems of directing anti-submarine fire. (Including equipment for directing anti-submarine fire, special weapons for attacking submarines, etc.)
 15. Areas of powder magazines and shell-rooms, aspects of housing, various equipment for supplying, circumstances regarding personnel assigned to defense devices, and system of ammunition supply.
 16. Existing conditions of ordnance connected with fire-action.
- (B) Torpedoes.
1. Destroyer flotilla, submarine flotilla, and air squadron plans for firing torpedoes. Accuracy of hits.
 2. Explosive force of torpedoes--particularly air-plane torpedoes.
 3. Torpedo strength of U.S. and other navies. Essential items. (Points in defensive power, and points in torpedo and mine power, according to umpire's standards.)

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4. Methods of torpedo firing in the various navies.
5. Check for existence of oxygen torpedoes in U. S. and other countries.
6. Equipment for direction of firing.
7. Existence, or not, of torpedo wake; and visual aspects.
8. Existence, or not, of plans in the U. S. or other countries for methods of exploding ships and boats.
9. It is unsatisfactory to make the publicly sold Vickers mines an object. Investigation of mines of the various foreign countries, and research for effective sweeps thereof.
10. Investigate the enemy's minesweeps and minesweeping equipment. Research in mines which will render the above ineffective.
11. Present status of connected mines.
12. Principal details in the ability of mines of the U.S. and other countries.
13. Ability of minesweeps. Systems of sweeping.
14. Mechanisms used by hypothetical enemy countries to interfere with minesweeping.

(C) Communications.

1. Extension method used for wireless antenna on British and U. S. aircraft carriers (particularly flush-deck carriers); and classifications of use.
2. Present status of wireless telephone used for direction of single-seater airplanes.
3. Wireless apparatus and communications equipment of various wireless stations (particularly on naval vessels); skill in communicating, and in exchange of communications. (This is necessary in practicing for war-time communications interference; methods of evading interference; methods of utilizing enemy communications; and methods of defending communications from the enemy.)
4. Aspects of utilization of television, and wireless sending of photographs by military aircraft wireless.
5. Accuracy of short wave bearing-finding instruments.
6. Systems of controlling military aircraft wireless communication.
7. Aspects of crystal-use in military aircraft wireless.
8. Aspects of wireless navigation systems.
9. Synopsis of observation communications.
10. Extent of wireless interference in night combat by the various navies, particularly England and the U. S.

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11. Speed of wireless communication.
12. System of control of navy, particularly fleet, communications.
13. System of fleet communication versus the enemy; aspects of training, and extent of drill.
14. Since it is assumed that both U.S. shore wireless stations and the fleet flagship are equipped with automatic sending and receiving instruments, and that important communications are exclusively sent thereby, it is necessary for the ship station in charge of interceptions to be equipped with automatic receiving apparatus.
15. Methods of formation of British and U.S. naval call signs, and apportionment of waves.
16. Chart of abbreviations in British and U.S. navies.
17. Localities, principal points, aspects of communication, and special merits of foreign wireless and cable stations. Details concerning points where submarine cables touch land; also special features essential to steps to be taken for cutting them when the necessity arises.
18. Present status of ability of wireless bearing-finding instruments in the equipment of shore wireless stations and ships.

(D) Aviation.

1. Relating to aviation armament.
 - (1) Armament carried.
 - (a) Armament of aircraft now in use.
 - (b) Essential items and abilities of various kinds of armament carried.
 - (c) Optical apparatus.
Principal items and abilities of important observation apparatus used in firing over smoke-screen.
 - (d) Relating to torpedo and bombing armament.
 - (1) Abilities and mechanisms of aircraft torpedo armaments.
 - (2) Types of bombing armaments, and their construction.
 - (3) Forms of devices for laying smoke-screens. Essential items, and abilities.
 - (e) Relating to firing armaments.
 - (1) Abilities of large-caliber machine-guns used by aircraft.
Uses, and constructions.
 - (2) Abilities of large muzzle velocity (?) machine guns used by aircraft. Uses and constructions.
 - (3) Kinds of multi-machine guns used by aircraft. Their abilities and constructions.
 - (4) Types of firing devices of the above. Abilities and constructions. Also, aspects of stationary machine-gun mountings.
 - (5) Types of aircraft machine-gun sights. Mechanisms and accuracies.
 - (f) Relating to chemical armaments.
Chemical armaments used by aircraft (smoke, poison, and incendiary mixtures). Kinds, abilities, uses, and manufacture.
 - (g) Relating to wireless armaments. Present status of wireless armaments used by aircraft.

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2. Relating to armaments of "departure-and-arrival" ships (land).
 - (a) Essential points and abilities of catapult and "departure-and-arrival" ships (land).
 - (b) "Departure-and arrival" devices for night and fog.
 3. Relating to aviation in general.
 - (a) Abilities of first-rate planes of the various countries.
 - (b) Aspects of research in endurance flights in cold and heat.
 - (c) Present status of agencies for research in aviation dynamics.
 - (d) Possibilities in high altitude flying.
 4. Detailed research of items relating to aviation of England, U.S., France, etc. Gather results together, after classification for convenience of research, and distribute.
 5. Types of airplanes used by the U.S. Navy and Army.
 6. Outstanding methods of differentiating aircraft by externals.
 7. Kinds of anti-battleship bombers. Abilities.
 8. Estimated power of bombs of the U.S. and other navies.
 9. Number of renovations in aircraft of the Powers. Also quantities used in body and engine parts.
 10. Principal items of aircraft of hypothetical enemy countries.
- (E) Miscellaneous.
1. Communications devices on board ship.
 2. Effectiveness of hydrophones of all types of hypothetical enemy ships and boats. Also, extent to which hydrophone apparatus is utilized.
 3. Improvement in communications devices on board ship; and their tendencies.
(Although our country mainly uses the auditory system, which is prone to error, we are given to understand that visual communications are used in the main by Germany.)
 4. Mechanisms and abilities of all kinds of armaments. Also, results of use,.
 5. Novel armaments. Check for their existence.
(For example, death rays.)
 6. Aspects of research by the U.S. in chemical armaments.
 7. Kinds and methods of use of chemical armaments,
 8. Present status of various kinds of smoke-screens.

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9. Actual circumstances of sounding* machinery installed in submarines. (Types of hydrophones and submarine detectors installed, and their numbers; competency; circumstances in which the above are employed; extent to which tacticians depend on submarine sounders* in submarine attack, etc.)
10. Types, and abilities of armaments against submarine attack now being used by the U.S. and other navies. Aspects of training.

XI. ENGINES.

1. Aspects of executing high power runs. Also, extent of training.
2. Notice systems of extended navigation under precautions.
3. Practical plans in use relative to maintaining physical strength of engineer personnel.
4. Charts of speed according to number of revolutions in various types of ships of the U.S. Navy.
5. Maximum speed made good, maximum speed, and maximum cruising power of battleships, cruisers and destroyers.
6. Standard, location, and power capacity of machinery used in vessels of the various countries.
7. Ship electricity distribution systems of the various countries.
8. Substance of regulations governing engine operation drill and construction drill in foreign navies (particularly U.S. and England). Aspects of execution of drill.
9. Type of, and facilities for at-sea replenishment in the various navies, particularly U.S.
(Considering the present state of affairs in regard to Imperial ships and boats, the lack of cruising power truly gives us cause for alarm. Needless to say, this point should be given the most careful consideration in ship-building of the future. As for the ships we now have, all possible steps must be taken in planning how to make up this deficiency. At-sea replenishment is one step of great importance. At the same time, the present situation of the Imperial Navy demands that we earnestly exert ourselves to the limit in improvements to satisfy requirements in the art of war. From actual observation in occasional trips abroad, and viewed in the light of a policy of operations, it is not hard to deduce that there are many progressive items in the at-sea replenishment of U. S. naval ships and boats. There is a need for thorough investigations, and the acquisition of profitable materials connected with system equipment).
10. Aspects of oil fueling by towing, in the case of foreign cruisers and above.
11. Aspects of wave-making by U.S. and English naval ships at maximum speed, and steaming at various other speeds.

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*This is the only English word which seems applicable, although the exact Japanese term used is not found in dictionaries.

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12. Contents of engineer and construction manuals in foreign navies (particularly England and U.S.).
13. Repairs, and devices for directing flooding and drainage of ships in foreign navies (particularly England and U.S.).
14. Present status of underwater cutting apparatus, underwater welding apparatus, underwater tools, etc., in foreign navies (Particularly England, U.S., Germany and Soviet Russia).
15. Relative to aviation engines.
 - (a) Countermeasures in Germany, France, Italy and other countries of small oil production, regarding aviation fuel and lubricating oil.
 - (b) The goal of various countries in types of engines. Abilities, particularly altitude of use.
 - (c) Details of the following items, recognized to be the special merits of the various countries:
 1. England. Extent of practicability of vapor cooling, and real objects.
(For example, is it to be used in dive-bombing?)
 2. Germany. Extent of practicability of Diesel engines and double-stroke engines of Siemens Company.
 3. France. Research in high-speed small motors and double-stroke engines.
 4. United States. Present status of research in high-ability air-cooled machines, and liquid-cooled motors of high horsepower.
 5. Italy. Stages of research in motors used in high-speed planes.
 6. Soviet Russia. Progress and results of nationalization of motor production.
16. Can all fleet airplane repairs be handled on aircraft carriers? Also, what system is followed in making replacements? Are such vessels as airplane munitions and repair-ships attached?
17. The following items are desired in regard to systematic distribution of materials:
 1. Aspects of carrying out the training and educations of aviation ground-crews (including items in war-game inspections).
 2. Aspects of equipment inspection in aviation operations corps.
 3. Aspects of stationing of ground-crews.
 4. Items relating to repairing and supply of airplane appliances.

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XII. 5. Aspects and trends of technical advancement in aviation appliances.

XII. MISCELLANEOUS, ETC.

1. Aspects of practical application of meteorology, particularly in aviation combat operations.
2. Investigation of items concerning astronomy, meteorology, and general sea conditions in presupposed strategic seas, particularly in the North.
3. Reference materials for the improvement of our equipment and machinery in accordance with practical investigations of facilities for supplying of munitions in ordinary wartime, particularly improvements in the English, U.S., French, German and other nations' supply equipment since the World War.
4. Intelligence regarding British, U.S., and other Powers' munitions. (Investigations of ordnance, munitions, fuels, victualling and clothing, etc., pertaining to munitions in general.)
5. Systems of placing buoys in sea areas having deep strong currents.
6. Distribution of foreign investigation items on harbor service and salvage work.
7. Accurate information is speedily desired in regard to transitional aspects of reorganizations, innovations, etc. in legal systems connected with military justice in the various foreign countries.
8. Relating to airplane bodies.
 - (a) Systems of airplane body construction.
 - (b) Schemes to ward against vibration.
9. Relating to aircraft materials.
 - (a) New materials being used in the construction of airplane bodies. Also, materials under research.
 - (b) Aspects of research in materials to be used for propellers.
 - (c) Latest revisions in gauges for aviation material in the various countries. Also, additional items.
 - (d) Guides to strength of powerful light alloys.
 - (e) Methods of employing metal materials which can be worked at normal temperatures.
10. Practical facts are desired in regard to sections, in ships of new construction, where electrical welding is applicable; particularly present condition of limitations in regard to applicability to high grade steel.
11. Army in general.

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12. Defects in air power, which keep us from ranking with other countries, and impede national defense, are a source of considerable worry to our navy. In order to be sure of completeness in the investigation of technical items, it is hoped that agencies for technical aviation investigation similar to, but even more effective than the present inspector system, will be established abroad without delay. The following is a practical proposal:

To establish divisions for technical aviation investigation in Europe and the U.S. (Europe, Paris; U.S., Washington, D.C.). Three or more technical officers should be assigned at all times under a director of rear-admiral or captain rank; with a few foreigners as advisors. Coincidental with carrying on all kinds of investigations in regard to aviation technique, reports of the actual facts, as far as possible, concerning technical levels of the various countries, etc., should be made by working in concert with short-term official visitors from Japan who are up-to-date in the latest technical developments. According to circumstances, this investigative division could be discontinued after a period of two years.

13. We need, in Europe and America, resident technicians specializing in fuel.

(In the past, there have been absolutely no technicians specializing in fuel resident in Europe and the U.S. to do various kinds of investigations and research concerning fuel. There have only been superficial inspections in official trips of very short duration; or technicians in other lines, who have resided overseas in the capacity of inspector, from whose reports only conjectures have been possible as to actual conditions.

The present situation makes it difficult to grasp a true picture of the real facts of fuel and lubricating oil research in the various countries, and the changing phases of fuel which accompany advances in aviation motors, Diesel engines, and boilers. On the other hand, inspection of fuel conditions, which was comparatively easy in the past, is gradually becoming more difficult with the exaltation of our country's national prestige. For this reason, it is necessary to assign at least one technician specializing in fuel to reside in each Europe and the U.S., utilizing various opportunities for investigative and research intelligence in all matters concerning fuel and lubricating oil.)

14. Items relating to aviation tactics (e.g., relating to air combat, bombing and torpedoing, air strategy, etc.) For investigation thereof, a special survey division should be created to collect and translate textbooks, manual forms, and other publications of the various countries. Or, men should be sent to fleet training areas and aviation corps districts to make direct investigations.
15. Collections of technical information. (Although there are quite a few technical survey reports from foreign inspectors in regard to naval construction,

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among other investigation items on foreign military matters, there is a marked lack of information on the detailed status of armament agencies, due to the present secretiveness on the part of foreign countries. Thus, at present, there is very little reference material, in spite of the distinct necessity of being thoroughly informed on the inside facts of rival countries.)

According to the system followed by the English and U.S. navies, of making advisory officers out of technical officers, considerable attention is being directed at our gathering of technical information. It is desired that measures be taken to remedy this situation.

16. The training, selection, and assignment to foreign countries of officers well-versed in both technical courses and foreign languages, for purposes of investigations concerning technical courses.
17. Conditions of thought in areas in foreign countries where troops are stationed, and their vicinities.
18. Aspects of anti-military activities in the various countries.
19. Sources of criminal offenses in military forces; details of good conduct; and criminal statistics.

XIII. CHARTS, MAPS ETC.

1. Bloc distribution of important materials regarding military operations and various fighting efficiencies of the U.S. Navy.
2. Important charts on combat power of U.S. and English ships. To be revised and distributed. (Accompanied by photographs.)
3. Distribution of picture albums which clearly demonstrate peculiar points for recognition of all types of U.S. naval vessels and important merchant vessels.
4. Accurate details of important vessels of foreign countries. (Overall length, length between masts, mast heights, heights and relative distances of important structures above upper deck. Angles of visibility of structures above upper deck which are clearly visible). (This includes new ships, battleships after reconstruction, and aircraft carriers).
5. Heights of freeboard, smokestacks, bridges, direction stations, etc., in various ships.
6. Details of battleships of the Powers are added, subtracted, and corrected every year. Distribution of the latest data is desired.
7. As secret (or ordinary) Naval General Staff reports are inconvenient for investigation relating to the past, revisions are to be made so that each of the various divisional headings will be classified, put in order, and kept on file. For this purpose:

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- (a) Bindings will be of a more and more temporary nature for convenience in converting to loose-leaf form.
 - (b) Durable covers, clearly titled, will be distributed for each divisional heading, and after circulation around the ship (or fleet) for perusal, will be filed under the department indicated.
 - (c) Next to the said cover, index paper will be distributed to facilitate recording, and keeping contents in order.
 - (d) Each divisional heading will be separately allowed one ream for number of pages. Also composition should be as clear as possible, and one style of writing followed, so as to make it possible to get all important points at a glance.
- 8. Principal items of U.S. ships and boats in process of construction (and reorganization), and charts of construction progress contained in secret reports of the Naval General Staff are of great value in knowing the latest conditions. The same type of arrangement is also desired in connection with the British Navy.
 - 9. It is hoped that secret (and ordinary) reports of the Naval General Staff will be put into circulation once a week, or about three times a month.
 - 10. In addition to Naval General Staff secret (and ordinary) reports now in use, items etc., relating to foreign technical information are to be lumped together once a year, and distributed as a yearly report.
 - 11. In classified military reports on the various countries, it is desired that news items be gathered regarding artillery power, torpedo power, artillery training, and torpedo training, of all countries, particularly England and U.S.
 - 12. It is desired that mere fragmentary information be kept to a minimum.
 - 13. It is desired that classified reports of the Naval General Staff be gathered together occasionally (a few times a year) and issued in such forms as: "The U.S. Aircraft Carrier Lexington", or "U.S. Aircraft Carriers", or "Aircraft Carriers of the Various Countries".
 - 14. Supplementation of more detailed reference charts on destroyers, submarines and aircraft of the various countries. Items pertaining to the above are too brief in material now being issued, which is notably decreasing in practical value.
 - 15. Addition, to reference charts, of columns giving fuel and horsepower of ships of the various countries.

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16. It should be made almost compulsory, at least for officers and above, to buy at cost and keep World War histories and the like, with a view to doing detailed research in facts of the past in order to obtain data for the future. This also applies to war histories of the Shanghai Incident, Manchukuo Incident etc. Also, to stimulate voluntary study, there should be improvements in regulations for handling, and systems of distributing secret documents of the present. From an educational standpoint, it is necessary that war histories and, to a certain extent, documents on foreign military investigations, be distributed to all personnel. Persons officially visiting, or on resident duty in foreign countries, should, without fail, write up a record of their personal travel experiences and have it distributed in general for temporary use (to be burned or returned). These, although detailed in items, are to serve as general introductory material on the true status of military matters in the various foreign countries.
17. Large scale and detailed world maps, or detailed maps with the Pacific Ocean as center, are needed, as they are necessary in locating the enemy ships' positions and directions for purposes of interception and bearing-finding; and for estimating amounts of deviation.
18. War histories and tactical works relating to coast defense, landing strategy, billeting of advance bases etc.
19. Maps of China in accurate detail.
20. Maps of China coast.
21. Investigation and distribution are desired, if convenient, of military items including political policies of England, U.S. and Soviet Russia applying correspondingly to military survey material on China and Manchukuo.
22. As "Yushu", "Gaiko Jiho", etc., are excellent material for learning world conditions and aspects of world armaments, they should be distributed to ships in general (to each ship in destroyer flotillas, submarine flotillas, etc.).
23. Distribution of various Japanese ("Kokusai Joho", "Kagaku Gaho", etc.) and foreign magazines which contain latest conditions of all sorts in foreign armies and navies.
24. Distribution of military information on Soviet Russia (particularly Far East).
25. In addition to charts giving the locations of foreign^{ships} ordinarily in the Orient, movements and locations of foreign ships active in waters under Japanese control should be made generally public in the Official Navy Gazette.
26. International current events monthlies which contain articles with a strong relationship to the standpoint of the Empire.

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27. Reference materials with international connections necessary for performance of duties.
28. In consideration of the duties of attached destroyer flotillas, the distribution by the middle of April of the following, as references for the formation of defense plans.
 - (a) Various information which has been collected concerning the Soviet Union, in connection with the Urashio and Kamchatka regions, particularly the military forces and their dispositions, by which the Soviet intends to exercise surveillance over fishing in the Kamchatka region. (Particularly necessary is information as to intended use of latest airplanes, submarines, destroyers etc).
 - (b) Important charts based on the above.
29. Information and important charts collected up to November of each year, concerning Maritime Province of Siberia, North Saghalien, Kamchatka, and Aleutian Islands, centering around Urashio. To be used as reference material for formation of various wartime plans.
30. Distribution of strategic material in connection with foreign countries' (mainland and dominions) special relationships with maritime forces.
31. Important items of investigation material on foreign military matters, arranged into simplified charts.
32. Investigation material on military matters to serve as reference for strategic movements against the enemy by submarine division commandants and submarine commanding officers.
33. Easy material, such as the "Gaikoku Gunji Nenkan"* as necessity demands.
34. General internal conditions (chiefly as regards economics, and trends of thought).
35. Important lists of Chinese government officials. (These are necessary for gathering intelligence, and for decipherment purposes, since Chinese telegrams do not use the sender's or receiver's official title, but are accustomed to employ family names, first names, pen names etc.)
36. Bases of China Coast pirates. Power and points of strength.
37. Distribution of rival countries' fleet organization as reference for research of foreign wireless message interception and bearing-finding operations.

*Note: "Foreign Country Military Matters Year Book".

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38. Schematic diagram of main operations of U.S. fleet (fighting fleet, reconnoitering fleet). (Night and day differences in various kinds of training, particularly tactical drills; participating forces and direction command. Sources for obtaining such data, convenient for an understanding of aspects of drill, are very few at the present time.)
39. Distribution of U.S. battleship models as material for desk attack drill and education, observation of opposing forces, survey training, etc.
40. Tables giving mast-head angles of foreign ships, boats and important merchant vessels.
41. Schematic diagram of important U.S. ships.
42. Fleet organization of the various countries; schematic diagram of ships and boats (including those now being planned).
43. Schematic diagram of present status of merchant vessels and wireless stations which can be utilized in time of war.
44. Separate schematic diagrams for the various countries, giving ability at, and systems of supplying coal, water and munitions in various localities.
45. Distribution of diagrams on armaments.
46. Chart of abilities of armaments in use by hypothetical enemy countries.
47. Silhouettes of important ships of the various countries (side, bow, stern etc., in properly differing angles.)
48. Pictures taken in all directions from aircraft of hypothetical enemy countries. (Material for judging azimuths).
49. The following plan charts, which are articles of consumption in the education of petty officers and enlisted men (particularly signal and lookout personnel:)
 - (a) Plan charts of ships and boats.
(Appending principal items summarized).
 - (b) Plan charts of aircraft. (Ditto).
50. Investigation chart of military aircraft in the various important countries. (Principal items and abilities. To be accompanied by photographs).

XIV. MILITARY GEOGRAPHY.

1. U.S. military geographies, etc., are to be supplied to each division headquarters. In conjunction with the supply, to each base headquarters, of sections of the above which pertain to the home fleet, occasional changes and corrections will be required.

Although the military geography of the U.S. has recently been completed, the radius of distribution is

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narrow, and peacetime inspection by fleet forces in general is impossible. Furthermore, although recent information is provided to division headquarters and above in the form of classified reports, these are fragmentary items, impractical for a comprehensive view of the situation. Thus, it is necessary that the third division of the Naval General Staff assign men to edit and make thoroughgoing revision, periodically inserting and deleting, in order always to be in touch with current situations in that country. Although this type of material is furnished just before departure for the front, there is no time for true study. Consequently, such should be supplied in peace time. More than this, right to-day, with the tightening up of world conditions, it is necessary to drill day and night in conjunction with research in military matters of hypothetical enemy nations, in order to be prepared for battle.

As U.S. military geography extends into politics, economics, and all phases of the military, and constitutes enormous volumes of material, it is fitting that base headquarters receive only the sections devoted to the Navy.

2. Insertions and changes are to be made from time to time in military geographies.
3. Investigation of military geographical points in anticipated strategic seas.
4. Military geographical material concerning advance bases and various kinds of bases which are likely to be utilized in time of war.
5. Complete data on the following military geography, for the performance of mine-laying duty:
 - (a) Investigations of weather and sea conditions (particularly depths of water, currents, nature of bottoms and transparencies of water).
 - (b) Preparation of large-scale charts of vicinities of scheduled mine-laying points.
 - (c) Necessary landmarks for ship navigation.
 - (d) Aspects of local coast defense.
 - (e) Suitable points for landing.
6. Military geographical maps of hypothetical enemy countries.
7. Necessary views of hypothetical enemy countries.
8. Necessary materials for protection of commerce. Also, for putting commerce destruction warfare into operation.
 - (a) Investigations of the main Western Pacific-Indian Ocean shipping lanes, and vessels navigating therein.
 - (b) Investigation of munitions resources in the above area. (If feasible, a simple guide-chart for

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clarification.)

9. Important vessels, etc., employed by main shipping companies in foreign commercial shipping lanes in the Indian Ocean, and Eastern and Western Pacific; chiefly along the China Coast, East Indies, and Australian areas.
10. Relating to principal Pacific coastal ports and bays:
 - (a) Weather.
 - (b) Sea conditions (depths of water, nature of bottoms, tides, ocean currents, transparencies of water, etc.)
 - (c) Aspects of defense.
11. Various military establishments in territories encompassing the Pacific.
12. Investigations of military geographical points in countries adjoining hypothetical enemy countries (e.g., Mexico, Central America, North part of South America), and of points lying between our operations bases and hypothetical enemy countries. Such information is essential to mine warfare and other types of subsidiary operations of the future.
13. Coastal military geography (Alaska, Aleutian Islands, Kyu(?) Islands, and other strategic points).
14. Military geographical relationships of Japan and the U.S.
Military geographical relationships of Japan and Soviet Russia.
15. Air routes of China, Siberia and Manchukuo.
Also types of planes used.
16. Investigation of Korean, Manchukuoan, Chinese and Siberian aviation fields.
17. Accurate and complete information should be obtained on the values, from the standpoint of subsidiary operations, of usable operations bases in the Chinese coastal and Urashio areas.
18. Indicate on a single chart, the latest military geographical relationships between Soviet Russia and China, so that essential details may be easily grasped.
19. Aspects of waterway relationships of Maritime Province of Siberia, Heilung-kiang and Soviet-Manchukuo border regions. Also, military geographical maps and reorganization of military establishments on same.
20. Aspects of harbors and bays of Soviet Maritime Province of Siberia, particularly Urashio Bay,

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and harbors and bays in its vicinity. (Items in connection with advance-base billeting, and preparation of waterway charts relative to mine-laying before the enemy.)

21. Present Soviet naval power, air power, and shore establishments in Urashio.
22. Present status of submarines in Urashio.
23. Schematic diagram indicating Chinese Army's dispositions of military power, and radii of influence of the various Chinese war-lords and governmental officials. (To be submitted once per month.)
24. Aviation strength in South China.
25. Military maps relating to Chinese Army and aviation.
26. Recent aspects of advancement in the Singapore naval base.

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Requested within the Ministry.

1. Is the U.S. making armament or military technical adoptions from European nations (particularly Germany and England?) If so, give circumstances.
2. First-rate ships of the various countries (making a norm of ships having gross tonnage of 5,000 and over; speed of 18 knots or more; and under ten years of age). Ships being planned for construction, and essential data.
3. Plans of the various navies to utilize fishing-boats in time of war.
4. Aspects of army and navy control of resources under national mobilization.
5. Fuel policies.
6. Character of aviation personnel in the various countries.
7. Devices used at night for mutual recognition between allied ships. Systems of recognition of allies.
8. Day and night devices used by aircraft for recognition of allies. Systems of recognition of allies (between aircraft; between aircraft and warships; between aircraft and land).
9. Types of visual communications devices (generally, within the limits of normal vision); their abilities; and number in equipment.
10. Check for existent use of invisible rays in ship communication.

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11. Check for existent use of code mechanisms.
Organization of code personnel.
12. Conditions of (ship's) complement, and plans
to economize therein.
Reference materials leading to knowledge of
above, such as fleet station bills and quarter
bills.
13. Torpedo bursting charges (Germany).
14. Present status of principal warship-engines
(Germany).
15. Ability of submarine sounding* apparatus (Eng-
land, France, Germany).
16. Aspects of single main engine type of submarine
which does not use storage batteries.
17. Aspects of European countries' construction and
supply of ships and armaments used by the var-
ious Latin-American nations.
18. Relationships between various European countries
and various Latin-American countries (particul-
arly emigration, trade and diplomacy).
19. Collection of photographs, plans etc., of first-
rate ships of the various countries (same qual-
ifications as previously stated).
20. Aspects of increase and decrease in numbers;
political and social positions; influence; spec-
ial characteristics; and education of foreign
racial groups and unnaturalized foreigners in
the various countries (differentiating between
mainlands and colonies).

END

* See foot-note on page 15.