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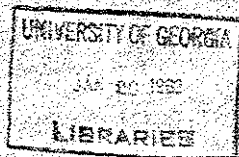
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FM 55-8

DEPARTMENT OF THE ARMY FIELD MANUAL



TRANSPORTATION INTELLIGENCE



HEADQUARTERS, DEPARTMENT OF THE ARMY
DECEMBER 1961

FIELD MANUAL

No. 55-8

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DEPARTMENT OF THE ARMY
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TRANSPORTATION INTELLIGENCE

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* This manual supersedes FM 55-8, 12 October 1956, and DA Forms 55-170, 55-171, 55-172, 55-173, 55-174, 55-175, 55-176, 55-177, 55-178, 55-179, 55-180, 55-181, 55-182, 55-183, 55-184, and 55-185.

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CHAPTER 1

GENERAL

1. Purpose and Scope

a. This manual explains how transportation intelligence is produced, disseminated, and used. It is a training and planning guide for personnel concerned with transportation information and intelligence.

b. The transportation intelligence responsibilities and functions of transportation officers, transportation staff sections, and transportation units are explained. The organization for collecting information and producing transportation intelligence is discussed. The fundamentals of collecting and processing information and of disseminating and using transportation intelligence are explained. Source references for transportation intelligence and related subjects are listed in appendix I. Information requirements and possible foreign sources of information for each mode of transportation are outlined in appendixes II through VII. Appendix VIII consists of sample intelligence photographs, which show how transportation facilities and equipment should be photographed. Sample reporting formats are shown in appendix IX; transportation terms are defined in appendix X. Procedures described herein are in accord with accepted Department of the Army doctrine and apply to all echelons of command. (FM 30-16 prescribes the overall responsibilities and organization for the production of technical intelligence.)

c. The material presented herein is applicable without modification to both nuclear and nonnuclear warfare.

d. Users of this manual are encouraged to submit recommended changes or comments to improve the manual. Comments should be keyed to the specific page, paragraph, and line of the text in which the change is recommended. Reasons should be provided for each comment to insure understanding and complete evaluation. Comments should be forwarded direct to the Commandant, U.S. Army Transportation School, Fort Eustis, Va.

2. Function

a. Definition. Transportation intelligence is the product resulting from the collection, evaluation, interpretation, analysis, and integration of all available information about the air, land, and water transportation systems of foreign areas of operations that are of immediate or potential military significance. This intelligence includes data on the characteristics, condition, development, organization, materiel, operation, maintenance, and construction of transportation systems and facilities.

b. Role. Transportation intelligence is necessary when evaluating the feasibility of United States or enemy operations in a given area. It provides data essential to strategic, logistical, and tactical planning by—

- (1) Providing the Defense Department and other governmental agencies with intelligence about the physical characteristics of transportation systems and their allied activities.
- (2) Supporting the war planning schedule that is directed by the Joint Chiefs of Staff and implemented by the military departments and the unified and specified commanders overseas.
- (3) Furnishing commanders at all echelons with timely intelligence upon which to base their decisions.

c. Coordination. It is most important that a continuing and vigorous system of transportation intelligence liaison and coordination be maintained with other staffs, units, and agencies, at appropriate staff levels, under the supervision and within the policies of the Assistant Chief of Staff for Intelligence (ACSI). Coordination in areas of mutual interest precludes confusion and duplication of effort. Railway, motor transport, water terminal, and air terminal intelligence is also of major interest to the Corps of Engineers. The Quartermaster Corps is interested in some distribution facilities, such as pipelines and storage tanks for POL products. The Military Police Corps requires transportation intelligence dealing with motor transport traffic control and the physical security of such installations and facilities as bridges, tunnels, terminals, marshaling yards, and landing fields. The Signal Corps is concerned with telecommunications equipment and procedures for the control of traffic pertaining to all transportation modes. The Ordnance Corps is particularly interested in ordnance equipment used for transportation, especially that used for motor transport. Civil Affairs units and staffs are concerned with transportation information about the civil population.

CHAPTER 2

ORGANIZATION

3. General

Armywide organization for the collection of information, processing of collected information, and dissemination and use of the resulting technical intelligence about foreign facilities and materiel is prescribed in FM 30-16. This chapter discusses Transportation Corps organizational elements concerned directly with transportation intelligence activities in oversea areas. Organization in a theater of operations is shown in figure 1.

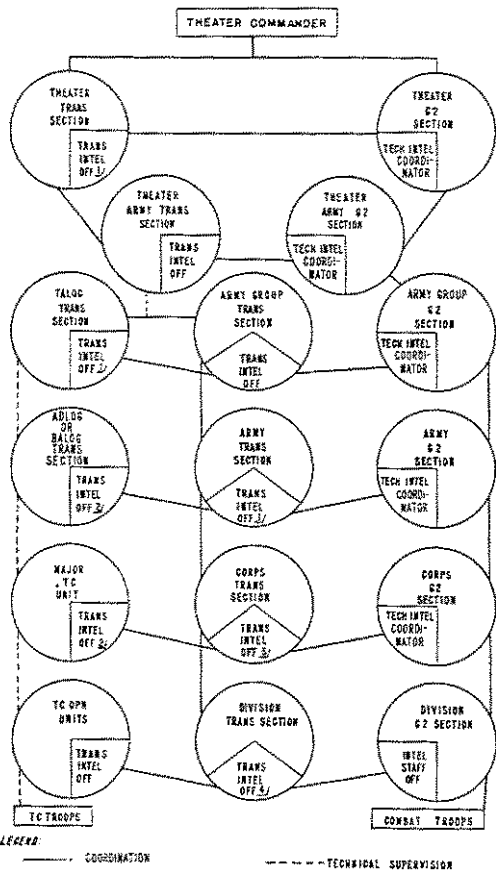
4. Transportation Officer and Staff

a. *Transportation Officer.* The transportation officer of a command, under the general staff direction and supervision of G2, has organizational elements that enable him to accomplish his transportation intelligence responsibilities. The transportation intelligence officer on his staff is directly concerned with performing this function.

b. *Transportation Special Staff Section.* The transportation special staff section in oversea commands normally includes a plans and intelligence division. This division has an intelligence branch, under the transportation intelligence officer, organized to carry out the intelligence duties and responsibilities of the transportation officer as defined in FM's 30-16 and 101-5.

5. Transportation Intelligence Teams

a. *General.* Under the general staff direction and supervision of G2, the transportation officer is responsible for the accomplishment of the assigned mission of TOE 35-500 transportation intelligence teams. In some instances these intelligence teams are the only specially trained transportation intelligence personnel available to a command. They assist the transportation officer to discharge his intelligence responsibilities, including liaison with transportation, engineer, signal, and other staff elements. They are his intelligence staff—planning, collecting, processing, and reporting information and maintaining intelligence. The trans-



NOTE:

- | | |
|-----------------------------------|------------------------------------|
| 1) NR TEAM (RESEARCH) | 3) NA TEAM (COLLECTION) |
| 2) NA OR NR TEAMS MAY BE ATTACHED | 4) PART OF NA TEAM MAY BE ATTACHED |

Figure 1. Typical transportation intelligence organization in a theater of operations.

portation corps has three types of intelligence teams; they are designated HA, HB, and HC. Each team is responsible for the performance of specialized transportation intelligence activities. The HA and HB teams are large teams; they have personnel representing all transportation modes. The HC team is a small one and is used to augment either of the other teams or to operate where large teams are not justified. The organization, capability, and normal assignment or attachment of each team are described below. Properly authorized and under the supervision of the appropriate staff transportation officer, teams or team personnel may be assigned or attached to any organization that needs them.

b. Team HA (Collection).

- (1) This team is capable of collecting and partially processing technical information and reporting information and any intelligence produced about physical characteristics, critical features, resources, condition, organization, operation, and performance of foreign transportation systems. The team also selects, processes, and expedites the flow of foreign transportation materiel for intelligence purposes.
- (2) One or more HA teams are normally assigned or attached to a corps, field army, or logistical command headquarters under supervision of the appropriate staff transportation officer. These teams may also be assigned or attached to an intelligence unit organized under TOE 30-600.

c. Team HB (Research).

- (1) This team is capable of producing and reporting technical intelligence concerning the physical characteristics, critical features, resources, condition, organization, operation, performance, and capacities of foreign transportation systems. The team selects, processes, and expedites the flow of foreign transportation materiel. It can also perform selected transportation information collection missions.
- (2) One or more of these teams are normally assigned to or attached to a theater, theater army headquarters, field army headquarters or logistical command headquarters under supervision of the appropriate staff transportation officer. Teams may also be assigned or attached to an intelligence unit organized under TOE 30-600.

d. Team HC (Augmentation).

- (1) Although limited in personnel, this team's capabilities are similar to those of the HA team.

- (2) The HC team normally is assigned or attached to an HA or HB team as augmentation or to a command or theater if the assignment of a larger team is not justified. It may also be assigned or attached to an intelligence unit organized under TOE 30-600.

6. Division Transportation Officer

The transportation officers of the infantry and armored divisions and the transportation officer (an assistant to the Assistant Chief of Staff, G4) of the airborne division have the same general intelligence functions as transportation officers of higher echelons. Their functions are subject to such modifications as may be directed by their division commanders. See FM 30-16 for detailed information.

CHAPTER 3

RESPONSIBILITIES

7. General

The collection of transportation information and the production and dissemination of transportation intelligence are command responsibilities. The transportation officer assists the commander in the discharge of these responsibilities. In this text, the term "transportation officer" refers to the transportation special staff officer at each level of command outside the continental United States, including the transportation officer of a combat division. At all echelons, the G2 is responsible for technical intelligence coordination and is the initial point of contact with non-Army agencies—civil, military, domestic, and foreign. In addition, he is responsible for integrating and coordinating the collection effort of all technical intelligence agencies within the command, including those of the technical services. Unnecessary duplication of effort will result unless coordination is effected between all concerned because the other technical services. G2's of all commands, other Army agencies, elements of the Navy and Air Force, and others also collect and report transportation information and/or intelligence.

8. Individual Responsibilities

The individual responsibilities outlined in the following subparagraphs are general in nature. Detailed information requirements and collection procedures at the operating level are given in appendixes II through VII for each mode of transportation. Transportation personnel at all operating echelons should be thoroughly familiar with the information requirements that pertain especially to their mode of transport.

a. Intelligence Staff Officers. The Assistant Chief of Staff for Intelligence at Department of the Army level, directors of security, and G2's at lower echelons of command, with the assistance of technical intelligence coordinators, general and special staff officers, and technical specialists evaluate and interpret information in accordance with their established intelligence responsibilities and command directives. They produce intelligence in relation to

given operational situations to determine the capabilities and probable courses of action of hostile military forces. The responsibilities of the Assistant Chief of Staff for Intelligence and the technical services for technical intelligence about foreign facilities and materiel usable in military operations are prescribed in FM 30-16.

b. Chief of Transportation. The Chief of Transportation is responsible for—

- (1) Producing and maintaining worldwide transportation intelligence to service fully the basic and staff transportation intelligence needs of the Transportation Corps and the other technical services; the Department of the Army, Defense, State, and Commerce; the Central Intelligence Agency; and the joint task force commanders, army component commanders, and unified and specified commanders in oversea areas.
- (2) Providing training facilities and programs (ch. 4).
- (3) Performing the intelligence functions common to the chiefs of all technical services (FM 30-16).

c. Chief, Transportation Intelligence Agency. The Chief of the U.S. Army Transportation Intelligence Agency, a class II activity of the Chief of Transportation, assists the Chief of Transportation in carrying out his intelligence responsibilities by producing and maintaining the following types of transportation intelligence studies, estimates, and analyses.

- (1) The transportation sections of the National Intelligence Surveys provide, on a worldwide basis, a complete and comprehensive coverage of basic information about railroads, highways, inland waterways, ports and harbors, and aviation. These surveys contain technical data concerning physical characteristics, condition, critical features, and limiting factors (bridge and tunnel data are furnished by the Corps of Engineers), resources, performance data, and operating procedures of transportation modes. These are produced under the joint direction and supervision of the Assistant Chief of Staff for Intelligence, Department of the Army, and the Central Intelligence Agency. They assist other U.S. Government agencies in the development and execution of policies, plans, estimates, and decisions affecting national security, foreign policy, and the readiness posture of the Armed Forces.

- (2) Special transportation network analyses and military line-of-communication studies contain summary descriptions of ports, beaches, and road and rail nets, including their throughput capacities. They also describe airfields and give their runway bearing characteristics and capabilities.
- (3) Special studies, estimates, and analysis of foreign military transportation equipment (including rotary-wing and light fixed-wing aircraft), organizations, installations, scientific and technical personnel, techniques, and research and development progress.

d. Chief of Engineers. The Chief of Engineers is responsible for making maps and geodetic surveys that show the location, identity, and physical characteristics of all natural, cultural, and military surface features of foreign geographical regions. His duties also include the development of intelligence data on the physical engineering characteristics and the conditions required for the maintenance, construction, reconstruction, and demolition of air, land, and water transportation systems. Responsibility for producing terrain intelligence has been assigned to the Chief of Engineers. For functions of the agencies that assist in the preparation of these studies see FM 5-30. Also under the staff supervision of G2, the staff engineer:

- (1) Produces and maintains terrain studies based upon terrain analysis. This involves:
 - (a) Determining the requirements for terrain information, based upon requests from G2.
 - (b) Collecting and evaluating terrain information.
 - (c) Assembling terrain intelligence into a terrain study.
- (2) Provides technical interpretation of the terrain covering such factors of military significance as obstacles, routes, and avenues of approach, cover and concealment, land forms, hydrology, cross-country movement and related subjects.
- (3) Disseminates terrain studies and other technically evaluated information through appropriate channels. For details of engineer responsibility in terrain intelligence see FM 30-10.

e. Chief Signal Officer. The Chief Signal Officer is responsible for the collection and processing of signal information and the production and maintenance of intelligence concerning telecommunications equipment and facilities used for control of traffic by

rail, air, motor transport, waterways, and within water terminals. From an intelligence point of view, communication systems which are installed and operated exclusively for railway operational use are generally considered a part of the railway system and are treated as such by Transportation Corps intelligence personnel. Detailed guidance for the collection of this information is given in DA Pam 30-100. The responsibilities of the Chief Signal Officer are described fully in FM 11-30.

f. Provost Marshal General. The Provost Marshal General is responsible for traffic control; traffic control reconnaissance, surveys, and studies; prisoner-of-war processing and evacuation; control of refugees and the circulation of individuals; and the protection of property and installations. Much valuable transportation information is accumulated during the performance of these functions.

g. Chief of Ordnance. The Chief of Ordnance is responsible for the production and maintenance of technical intelligence concerning ordnance materiel used in transportation. This applies particularly to motor transport equipment and supporting facilities and installations.

h. Chief of Civil Affairs. Civil affairs embraces the relationship between the military forces and civil authorities and the people in a free country or area, or in an occupied country or area when military forces are present. The Chief of Civil Affairs is responsible for the production and maintenance of intelligence about the area pertaining to its civil population, government, economy, and institutions. This includes transportation information that affects civil affairs plans and operations.

i. Transportation Officer. The transportation officer of any command is responsible for collecting transportation information, processing it into transportation intelligence, and disseminating it through appropriate channels. He uses transportation technical data and intelligence for his own military planning purposes and prepares special transportation intelligence studies, reports, and analyses for G2 use in estimating the effect of enemy transportation capacities and capabilities on both our own and enemy military operations. The transportation officer provides the transportation intelligence training required to qualify intelligence personnel under his control to perform their duties. To assist in establishing a continuing and thorough information collection effort, the transportation officer implements procedures to insure coordination and collaboration with other agencies on technical intelligence training, techniques, manuals, and other intelligence matters. He also

provides technical supervision and coordination of the intelligence activities of transportation staff sections, transportation intelligence teams, and transportation units of subordinate headquarters and assists these sections and units when possible. See FM 30-16 for further intelligence responsibilities of the transportation officer.

j. Transportation Intelligence Officer. This officer performs the intelligence staff function on the transportation officer's staff. He may be a team commander or some other member of the staff. He assists in the preparation of and executes the transportation officer's intelligence plans and elements of plans as prescribed by G2. The transportation intelligence officer trains his own section or unit in intelligence functions and in appropriate transportation subjects. Normally, he is delegated the responsibility for the technical supervision of teams and of transportation intelligence training and operations in staff sections and in units of subordinate headquarters. He coordinates with the operations officer in the preparation of training programs.

k. Transportation Staff Section Chiefs and Unit Commanders. Chiefs of transportation special staff sections and commanders of operating units keep the transportation intelligence officer and/or the appropriate transportation intelligence team informed of their current and anticipated operational plans and intelligence requirements. They are responsible for the prompt reporting and submitting of foreign transportation documents and captured transportation equipment which they gain possession of or of which they have knowledge. Information is forwarded to the next higher echelon without delay. Captured enemy documents and materiel are reported promptly and processed through appropriate channels. Each Transportation Corps unit commander and staff section chief insures that all personnel under his command know and understand their intelligence duties.

l. Other Transportation Corps Personnel. All personnel are responsible for reporting promptly to their commander or section chief all information of intelligence value pertaining to the enemy, his strength, equipment, location, and movement. They too are responsible for safeguarding and turning in captured documents and equipment. Personnel in all headquarters and units must make a continuous effort to collect and to report all types of transportation information of potential intelligence value that can be collected within their area of operations.

CHAPTER 4

TRAINING

9. Introduction

a. *General.* Intelligence training generally follows procedures outlined in FM's 21-5 and 21-6 and applicable Army training programs. It is both specialized and general. Transportation intelligence specialists, assigned or attached to intelligence teams, are given specialized training in the collection and processing of information and in the production of intelligence. All transportation personnel, officer and enlisted, are given general training in transportation intelligence. In the general training, particular emphasis is placed on the collecting and reporting of pertinent information.

b. *Responsibilities.*

- (1) The Chief of Transportation is responsible for insuring that facilities and appropriate programs of instruction are provided for general and specialized transportation intelligence training of Transportation Corps personnel and units. FM 30-16 states responsibilities and general subjects to be covered in the programs of instruction.
- (2) Commanders at all echelons are primarily responsible for transportation intelligence training of the personnel in their commands.
- (3) Transportation intelligence officers, through close coordination with plans and training officers, are responsible for establishing the transportation intelligence training program and for staff supervision of this program. This program must include the training of intelligence specialists as well as other personnel. Integrated and concurrent training should be incorporated in the program whenever possible (par. 12).
- (4) Unit officer and noncommissioned officer personnel are also responsible for transportation intelligence training, particularly the training of personnel who are not intelligence specialists. Unit training offers the chief opportunity for integrated and concurrent training.

c. Training.

- (1) Officer and enlisted transportation intelligence specialists are trained to research, collect, process, and report transportation technical information and intelligence. Their primary mission is to convert information into useful intelligence. They receive special training in the various modes of transportation and are normally assigned to transportation intelligence teams. The appendixes of this manual and ATP 55-207 should be used for guidance in the preparation of training programs for these specialists. Whenever possible, potential team members should receive their specialized training at service schools.
- (2) All other personnel must be trained to be aware of the importance of intelligence and to understand the fundamentals of collecting and reporting information. Intelligence training should be taught whenever possible as concurrent and integrated training (par. 12).

10. Objectives

a. Creating Intelligence Consciousness. The development of intelligence awareness in both individuals and units should be the principal objective of a training program. Sources of information, the ability to recognize information of intelligence value, methods of collecting, and methods of reporting are of primary importance. All personnel must be trained to observe carefully, to remember what they have observed, and to report observations promptly. Emphasis must be placed upon the objective reporting of facts—not the interpretation of facts by personnel not qualified to do so.

b. Establishing a Situation. Because one objective of intelligence training is proficiency in combat, as much training as possible should be conducted in a tactical situation and with a simulated or actually played enemy. Individual and unit training should be conducted in realistic situations.

c. Emphasizing Subjects Related to Transportation. Although almost any observation may become a part of the broad field of intelligence, emphasis must be placed upon subjects related to the various modes of transportation.

11. Pertinent Subjects

The subjects listed or referred to below cover items that pertain, either directly or indirectly, to transportation intelligence. Train-

ing officers may use these lists as guides when making training plans and schedules. The subjects listed in *a* below should be taught to all transportation personnel; transportation intelligence specialists and those who are concerned with the transport mode indicated should be instructed in the subjects listed in *b* below. FM 30-16 lists additional subject matter.

a. Subjects Common to all Transportation Modes.

- (1) Purpose and scope of intelligence.
- (2) The intelligence cycle.
- (3) Methods of collecting and reporting information; theory and practice of observation.
- (4) Counterintelligence and security.
- (5) Information sources in general: captured military and civilian personnel, photographs, documents, captured materiel, facilities, and installations.
- (6) Organization and mission of transportation intelligence teams.
- (7) Policies concerning war trophies.
- (8) Guerrilla warfare and its effect on transportation.
- (9) Map and photograph evaluation; terrain analysis.
- (10) Counterintelligence applied to transportation.
- (11) Responsibility of individuals for technical intelligence.
- (12) Determination of enemy transport capabilities and vulnerabilities.
- (13) Security discipline; use of signs and countersigns.
- (14) Identification of enemy equipment, clothing, and insignia.
- (15) Maintenance of operations maps; military symbols.
- (16) Defense against enemy propaganda.
- (17) Training in the use of enemy weapons and equipment.
- (18) Organization and characteristics of enemy armed forces.
- (19) Handling and processing of captured enemy personnel and documents.
- (20) Route reconnaissance and classification.
- (21) Intelligence responsibilities of the Transportation Corps; objectives of transportation intelligence.
- (22) Effect of climate, weather, and terrain on transportation.
- (23) Captured enemy materiel: examination, marking, evacuation.
- (24) Determination of when to classify intelligence data; importance of keeping from the enemy what we know about him.

- (25) Importance of transportation intelligence to tactical and strategic planning.
- (26) Languages of the areas of operations.
- (27) Determining effects of CBR and nuclear warfare on transportation. (See FM 3-130 for detailed information.)
- (28) Related subjects.
 - (a) Communications.
 - (b) Code of conduct, evasion, escape.
 - (c) Elementary map and aerial photograph reading.
 - (d) Organization of the U.S. Army and its relationship to other services.
 - (e) Camouflage discipline.
 - (f) Basic photography.

b. Subjects Peculiar to Transportation Modes.

- (1) Aviation Information Requirements (app. II); Aviation Terms (app. X).
- (2) Inland Waterway Information Requirements (app. III); Inland Waterway Terms (app. X).
- (3) Motor Transport Information Requirements (app. IV); Motor Transport Terms (app. X).
- (4) Port, Beach, and Landing Area Information Requirements (app. V); Port, Beach and Landing Area Terms (app. X).
- (5) Railway Information Requirements (app. VI); Railway Terms (app. X).
- (6) Miscellaneous Transportation Information Requirements (app. VII).

12. Types of Training

The three general types of training—scheduled, concurrent, and integrated—are described below. It is of the utmost importance that all training time be used efficiently; this requires detailed planning and careful supervision to insure that each man is fully occupied during all of his allotted training time. See FM's 21-5 and 21-6 for detailed techniques of military instruction.

a. Scheduled Training. This is training that is programed in accordance with ATP's, postcycle POI's, and other appropriate authorities. Scheduled training usually consists of basic, cadre, advanced individual (MOS), unit, postcycle, and school training.

b. Concurrent Training. Concurrent training is used when all troops cannot be taught a scheduled subject at the same time. Those that are awaiting instruction in a particular scheduled subject should receive training in some other scheduled subject. Examples of concurrent training are—

- (1) During range firing, personnel who are not on the firing or ready line may be trained in reporting information about the enemy.
- (2) Personnel who are awaiting their turn in practical driving instruction may be instructed in the theory and practice of observation.

c. Integrated Training. Training that is conducted in addition to and as part of a regularly scheduled subject and that affects the entire unit at the same time is integrated training. Subjects to be integrated should be related to, but not necessary to, the effective presentation of the scheduled subject. One or more subjects may be integrated with the scheduled training. The personnel concerned should have received previous instruction in the integrated subjects. Examples of integrated training are—

- (1) Collection of roadway data during a motor march.
- (2) Collection of beach and landing area data during an amphibious exercise.

CHAPTER 5 OPERATIONS

Section I. COORDINATION AND LIAISON

13. General

Transportation intelligence activities at each level of command will be coordinated with G2 and other appropriate agencies, through the transportation intelligence officer, in accordance with doctrine and procedures prescribed in FM 30-16.

14. Coordination

Transportation intelligence should be available to all levels of command if intelligence coordination is maintained between all echelons. Maintenance of a close, systematic, and continuous coordination by the individuals and activities listed below will help to establish the essential elements of information, eliminate duplication of effort, expedite collection and processing, and insure adequate dissemination of intelligence data.

a. Transportation intelligence officer, plans officer, and other elements of the transportation section.

b. Intelligence elements of transportation staff sections.

c. Communications zone transportation sections and their counterparts in army and adjacent commands.

d. Other staff sections--particularly the engineer sections because of similar intelligence interests.

e. Military intelligence units at division, corps, and field army levels from which intelligence support (imagery interpreters, order of battle specialists, counterintelligence agents, interrogators of prisoners of war) may be obtained.

f. Intelligence elements of the Navy, Air Force, and allied forces through the Assistant Chief of Staff for intelligence (FM 30-16).

Section II. DIRECTION OF COLLECTION REPORT

15. General

Direction of the collection effort involves these important pro-

cedures: determination of information requirements and establishment of priority of items of information required, check of information available from other offices and agencies, allocation of available collection effort after balancing requirements against capabilities, issuance of requests for and orders to collect required information, evaluation of collection reports, and issuance of new instructions to collecting agencies. Guidance must be provided collecting agencies on the specific transportation information needed, time limitations when applicable, priorities of requirements, and means by which agencies can improve their transportation information collection effort. Collection agencies should be advised of changed priorities and completion of specific requirements. Direction and supervision of these activities is the responsibility of the G2 at each level of command.

16. Determination of Requirements

a. Essential Elements of Information. The unobtained items of needed information or intelligence required by a commander at a particular time to enable him to make a decision with confidence are the essential elements of information (EEI). In the collection of transportation information, the primary concern is the effect of the enemy, weather, and terrain at a given time upon the transportation mission (par. 20g). The EEI depends entirely upon the situation; designation of the EEI is the responsibility of the commander. He should state the EEI, specifying items with the highest priority in sufficient time for the collection agencies to perform their mission properly. At each echelon, the essential elements may include certain requirements of higher, lower, and adjacent echelons. Although the primary mission of the collection agencies is the satisfying of the EEI, they must also collect and report any additional information acquired.

b. General Requirements. All transportation personnel should collect and report all types of information of intelligence value within their areas of operations (par. 8I). Appendixes II through VII provide a guide for information requirements pertaining to aviation, inland waterways, motor transport, ports, beaches and landing areas, railways, and miscellaneous modes of transport.

c. Specific Requirements. Specific guidance in the collection of transportation information and the production of intelligence is furnished by the following media and agencies:

- (1) The transportation sections of the National Intelligence Surveys contain the available data on major transportation facilities and principal routes in foreign areas. Transportation information gaps and deficiencies are

indicated. This publication is available at oversea theater and command headquarters to meet initial wartime and peacetime military transportation planning and operational needs. Transportation officers and unit commanders endeavor to supplement this initial intelligence.

- (2) Analysis of transportation plans, annexes, and special transportation capability studies prepared by transportation personnel at various levels of command furnish guidance for determining information requirements. During the preparation of these plans and studies, a listing of intelligence gaps and deficiencies is developed for submission to the transportation intelligence officer who initiates appropriate collection effort.
- (3) Requirements specified by G2, transportation staff planners, transportation units, and others.

d. Implementation and Guidance. The transportation intelligence officer at each level of command assembles and determines priority of transportation information requirements of his own and other headquarters, analyzes them, and incorporates them into his collection plan (par. 18). He checks all sources of information and makes requests to appropriate collecting agencies. He evaluates reports, issues instructions, and furnishes continuous guidance to collecting agencies through appropriate channels.

Section III. COLLECTING AND REPORTING INFORMATION

17. General

a. Transportation information embraces all pertinent information about the various modes of transportation. Collection includes coverage of foreign areas that are under the control of our own, friendly, and hostile military forces and that are of immediate or potential significance to planning. Complete, comprehensive coverage is desired. Collection continues in peacetime as well as in periods of hostility. Every effort must be made to collect, report, and compile all basic transportation information needed for present and future military planning. The collection scope includes manmade and natural features of an area of operations. Emphasis must be placed upon the factors that greatly affect the different modes of transportation. For example, in a heavily populated area, manmade factors may be important, whereas natural features may be of greater importance in arctic, desert, and jungle areas. The impact of nuclear and CBR warfare may be an im-

portant consideration. The type of coverage needed must be determined before preparing a collection plan.

b. The office of the Chief of Transportation needs the following information about the armed forces of foreign nations.

- (1) Top transportation echelons of the government, such as ministry of transport, bureau of rivers and docks, army headquarters, and other elements of defense having transportation responsibilities. Information should include—
 - (a) Organization, strength and grades, and responsibilities.
 - (b) Type of control and how accomplished.
 - (c) Extent of coordination with other governmental agencies.
 - (d) Chain of command through subordinate echelons.
- (2) Organization, mission, functions, responsibilities, personnel and equipment strengths, and capabilities of transportation headquarters, units, and detachments at all levels.
- (3) Training methods and programs, schools and other training installations, tactical doctrines, and methods of procurement.
- (4) Order of battle information of transportation forces.
- (5) Mobilization system and potential of civilian and quasi-military agencies, facilities, equipment, and personnel.
- (6) Overall appraisal of transportation forces as components of the fighting machine, including strengths, weaknesses, past performances, and expected future developments.
- (7) System of maintenance, including methods of implementation, repair, evacuation, and replacement of equipment and efficiency of system and personnel.

18. Collection Plan

a. Formulation of the collection plan depends upon the situation and the time element involved. The plan must coincide with the commander's needs at a given time for a given period. The intelligence officer must always be guided by what his commander needs to know, when he needs to know it, and what collection agencies can best provide the information. After the information requirements have been determined (pars. 16 and 17), the transportation intelligence officer prepares a collection worksheet. The worksheet specifies the information needed to fulfill requirements, and is

designed to insure the systematic exploitation of all sources, by all means, and within a specified time. The worksheet may be prepared in any appropriate format. It should show unit, situation, period covered, transportation mission, area involved, EEI (elaborated upon if necessary), specified collecting agency or agencies, and instructions for reporting the information. The collection plan is developed from this worksheet. The plan does not have to be written, and if written, can be very brief—consisting of only a few notes.

b. The EEI should be as concise as possible. Obvious items should not be explained; items that are not obvious should be explained in sufficient detail for the collecting agency to clearly understand its mission.

19. Collection Agencies

Any individual or organization which collects or processes information, or both collects and processes information is a collection agency (FM 30-5). The intelligence branch of the transportation special staff section, the transportation intelligence teams, and other transportation units constitute the transportation collection agencies. Transportation units or personnel may be assigned special collection or reporting tasks. Transportation information is collected by the agencies listed in FM's 30-5 and 30-16, including the G2 sections of all commands, the intelligence elements of various technical services (particularly the Corps of Engineers), Naval Intelligence, Air Force Intelligence, and other agencies. All transportation personnel are potential collectors of transportation information. Selection of the collection agency depends upon its location, training, and qualifications for the mission.

20. Sources of Information

A source is a person, thing, action, or condition from which desired information is obtained. In general sources listed in this paragraph are those used by the transportation officer and his assistants and include agencies or persons which may also be collecting agencies. Foreign sources are given in appendixes II through VI by transportation modes. See FM's 30-5 and 30-16 for further discussion of information sources. Principal general sources are—

a. *Persons.*

- (1) Military and civilian personnel of the Transportation

Corps and other technical services, the Army, Navy, Air Force, Marines, and Coast Guard.

- (2) Military police personnel.
- (3) Civil affairs personnel.
- (4) Civil authorities and local civilians.
- (5) Representatives of contracting and engineering firms, export-import firms, manufacturers, suppliers, airlines and steamship lines, public utilities, and other agencies concerned with transportation.
- (6) Captured enemy personnel, deserters, defectors, repatriates, and refugees. For detailed procedures in handling and interrogating prisoners of war, see FM's 19-40 and 30-15.
- (7) G2 personnel.
- (8) Employees of—
 - (a) Major oil companies.
 - (b) Tourist, statistical, and census bureaus.
- (9) Civilian and governmental transportation officials.

b. Documents. This source consists of written, printed, engraved, and photographic material—such as: maps, sketches, orders, tactical and technical manuals, cryptographic material, insignia, letters, photographs, diaries, notebooks, logbooks, maintenance records, newspapers, service records, and commercial transportation magazines and periodicals. Bookstores, libraries, captured enemy headquarters, command posts, observation posts, personnel, and all types of cargo and personnel-carrying vehicles are possible sources of documents. At least one copy, preferably two, of all basic documents, maps, and diagrams should be forwarded through intelligence channels to the appropriate transportation officer. Examples of documents of a general nature are—

- (1) Charts, manuals, manning tables, tables of organization and equipment, and related publications that show organization, functions, and staffing of departments, agencies, and operating units.
- (2) Training aids, field and technical manuals, courses of instruction, lesson plans, textbooks, and other military training material.
- (3) Transportation research and development plans and progress reports, including reports on characteristics and capabilities of new equipment and facilities and current developmental trends.

- (4) Technical and scientific publications, including reports, studies, and analyses dealing with transportation developments, operations, and problems.
- (5) Terrain, geographic, economic, commercial, industrial, military, and similar studies that give details on transportation systems, routes, facilities, structures, and equipment.
- (6) Handbooks and similar publications. For example: transportation equipment manufacturers' handbooks, maintenance and servicing manuals, equipment catalogs, parts and accessories lists, operating instructions, design specifications, construction standards, working drawings, blueprints, photographs, films, test reports, scale models, prototypes, production records and schedules, sales records, advertising brochures, engineering textbooks, and other material dealing with design and construction standards, equipment specifications, or operating and maintenance practices.
- (7) Transportation activity plans, studies, reports—such as brochures of construction firms, transportation consultants, public utilities offices, defense agencies, public works departments, oil and mining companies, and similar agencies.
- (8) Tourist and travel agency literature on transportation routes and facilities, namely—maps, charts, photographs, operating schedules, timetables, and similar publications.
- (9) Governmental and commercial publications that contain transportation articles, operating statistics, engineering data, and photographs.
- (10) Technical dictionaries, encyclopedias, textbooks, and modern reference works on transportation subjects.
- (11) Manifests, track charts, station diagrams, route profiles, bridge and tunnel clearance diagrams, route logs, and equipment registers.
- (12) Cargo and shipping documentation for all transport modes.

c. Transportation Materiel. Transportation equipment includes motor vehicles, trailers, locomotives, rail cars, airplanes, helicopters, boats, and barges. The information obtained should include: model, type, date of issue, place of manufacture, condition, capabilities, and other characteristics that will assist in developing intelligence of tactical, technical, and strategic value.

d. Transportation Facilities. Information about air; inland waterway; motor transport; port, beach, and landing area; railway; and miscellaneous transportation facilities must be exploited (apps. II-VII). Transportation facilities that are overrun during combat should be examined without delay and detailed reports furnished through technical service and intelligence channels. Because of the collateral interests of the Transportation Corps and other agencies (par. 8), exploitation is more effective if made jointly.

e. Related Facilities, Equipment, and Conditions. Facilities, equipment, and conditions that affect transportation, such as communication systems, geography, hydrology, location of contaminated areas, and concealment constitute this source.

f. Air and Ground Reconnaissance and Photography. A chief source of information is the actual inspection of an area. Whenever possible, the information obtained should be clarified and supplemented by photographic coverage (par. 27c).

g. Climate and Terrain. Soil trafficability, visibility, operation and maintenance of equipment, cover and concealment, routes of communication, and mobility of vehicles and personnel are effected by climate and terrain. Extreme conditions caused by mountains, desert, precipitation, wind, heat, and cold are of particular significance. See FM 30-5 for a detailed discussion of the effect of climate and terrain.

21. Methods of Collection

General methods of collecting transportation information of intelligence value are research and observation, interrogation of a source, and liaison with the other technical services and combat units.

a. Research and Observation. Transportation Corps personnel must be alert constantly; they should observe and report everything of intelligence value. Personnel charged with information collection responsibilities make ground and air reconnaissance trips. Orders for these trips should specify the area to be reconnoitered, route(s) to be traveled, special features or structures to be observed, whether aerial photography is desired, and any other data desired and in what detail. Personnel must be trained to recognize and report on intercepted enemy communications, documents, maps, photographs, and materiel. Climatic data and the observation of enemy activity, or lack of it, may provide clues to vital information. Maximum use should be made of ground and aerial photography (par. 27c).

b. *Interrogation.* Enemy civilians and military personnel, including prisoners of war and deserters, are the chief sources of information gained from interrogation. The techniques of interrogation are explained in FM 30-15.

c. *Liaison with Other Military Units.* Transportation Corps personnel must take advantage of opportunities to obtain transportation information from combat units, other technical services, civil affairs units, military police units, and Naval and Air Force intelligence elements. Trained transportation intelligence personnel and/or technically qualified specialists should be made available to the units with which liaison is necessary. Personnel should be assigned sufficiently in advance to be thoroughly briefed. Liaison with military units is necessary for both tactical and strategic planning.

(1) *Tactical planning.* This is normally accomplished through liaison with the units concerned. Combat units are usually the first to discover information that can be used in transportation tactical planning. Continuous liaison with combat units, civil affairs units, military police units, the other technical services, particularly the combat engineers, and with supported or supporting Air Force and Navy elements is of prime importance. Accurate and current information will eliminate delays and duplication of effort, thus facilitating rapid formulation of transportation tactical plans.

(2) *Strategic planning.*

(a) Coordination with the same agencies shown in (1) above is also necessary for strategic planning and for research and development. The Corps of Engineers is the principal technical service with which the Transportation Corps is concerned. Responsibility for production and maintenance of lines of communication intelligence rests jointly with these two technical services.

(b) Transportation systems in the proposed area of operations must be evaluated. New construction of roads, bridges, railways, and water and air terminal facilities must be considered and planned. The impact on the land transportation system of Air Force and Navy requirements must also be considered well in advance. Finally, essential civilian use of lines of communication must be determined by intelligence activities before the actual outbreak of hostilities.

22. Collection in Arctic, Desert, and Jungle-Areas

a. Arctic.

- (1) *Winter operations.* In arctic and subarctic areas the enemy's movement capability is of primary importance. Personnel and equipment must be moved over snow and ice by either air or surface transportation. Surface movement is usually over roads, frozen waterways, or cross-country. The local situation determines the transportation mode; sled dogs and motor transport are the usual modes. To determine the enemy's transport capability, information must be obtained about—
 - (a) Type, quality, and quantity of enemy equipment, including skis, snowshoes, special purpose vehicles (snow removal equipment, sleds, winter clothing, mobile shelters, and animals).
 - (b) The most suitable mode of transport for the area under consideration (pack or draft animals, air, rail, motor transport).
 - (c) Effect of weather and terrain conditions upon each possible mode of transport, including the load-bearing capacity of surfaces.
 - (d) Number of personnel available and the extent of their training in the operation and maintenance of transportation equipment.
 - (e) Status of supplies required for movement (POL, repair parts, etc.).
 - (f) Road and rail net available.
 - (g) Aviation facilities available, including aircraft by type, airfields and helicopter landing sites (approaches, exists, obstacles, topography, location, concealment, takeoff and landing directions, and condition of surface).
 - (h) Ability of the enemy to navigate in the Arctic.
 - (i) Ports and beaches available, degree of usability, ability of the enemy to discharge and receive cargo at each, and adequacy of connecting interior lines of communication.
 - (j) Ability of the enemy to stage air-transported operations.
 - (k) Movement capability of the enemy by each mode of transport, including foot marches.
 - (l) Rail equipment available and its condition.

(2) *Summer operations.* In addition to the information described in (1) above that applies also to summer operations, information will be needed about—

- (a) Bridging equipment, rafts, and boats available to the enemy.
- (b) Tides and swiftness of currents in streams and rivers.
- (c) Swamps, mud, dust, and rough, undeveloped roads; ability of the enemy to improve these conditions.
- (d) Location, description, and characteristics of inland waterway network.
- (e) Number and type of special purpose cross-country vehicles available to the enemy.

b. Desert. Securing information about the enemy's ability to move personnel and equipment under adverse conditions—rugged terrain, limited water supply, deep sand, windstorms, salt marshes, and extreme temperature ranges—is a chief objective of collection agencies. Although temperature above 130° F is common in the desert in the daytime, such a drop may occur in the night that heavy clothing and warm bedding are necessary. Usually all the water needed for both men and machines has to be transported because sources are rare. Surface conditions and the lack of roads make special training in operating transport equipment mandatory. Information about the subjects listed below will help determine movement capability of the enemy.

- (1) Type, quantity, and quality of transport equipment, including an evaluation of the capability of equipment to traverse rugged terrain and sand without overheating.
- (2) Status of driver training, including ability to operate special traction equipment.
- (3) Status of critical supplies required for movement, such as POL, water, and repair parts.
- (4) Conduct of maintenance, including special provisions for avoiding excessive abrasive wear.
- (5) Ability to navigate in the desert.
- (6) Employment of aircraft.

c. Jungle. Human bearers, pack and draft animals, inland waterway craft, aircraft, and motor vehicles are the transportation media used in jungle operations. The particular nature of the area determines the medium. The principal modes of jungle transport are usually human bearers and pack animals. Inland waterways are used to the maximum extent possible, because this mode is economical and practical. Aircraft can be employed frequently.

Parachute and free-fall supply techniques can be used when landing is not possible. The use of motor transport in jungles is limited—being used only where there are roads or where vegetation is not heavy. Small wheeled-vehicles and trailers, and small tracked-vehicles can be used on trails; however, this usually requires the use of pioneer troops. Transportation information for jungle operations should include—

- (1) Availability and dependability of human bearers and of pack and draft animals.
- (2) Availability and characteristics of inland waterways.
- (3) Type, quantity, and quality of aircraft and inland waterway craft.
- (4) Motor transport availability and suitability for employment.
- (5) Nature of the terrain, including amount and quality of vegetation.
- (6) Enemy transportation personnel, including pioneer troops.
- (7) Effect of deterioration upon supplies, such as rations, forage for animals, POL, and repair parts. (It should be borne in mind that jungle vegetation is normally not suitable food for domesticated animals. Food for such animals must be carried.)
- (8) General transportation capability analyses for both dry and wet seasons.
- (9) Ability of the enemy to navigate in jungles.

23. Estimating the Effect of Nuclear and CBR Operations on Transportation Capability

Although the collection of nuclear and CBR information is primarily a function of the chemical officer at each level of command, the transportation officer, through liaison with the chemical officer, must assess the presumptive impact of nuclear and CBR operations on transport capability. Before a nuclear or CBR attack, data must be evaluated to estimate the probable effect on transport capability. After an attack, the damage to personnel, facilities, and equipment must be determined. Generalizations about these operations and assessing the resulting damage are discussed below.

a. Nuclear and CBR Operations.

- (1) *Nuclear warfare.* Nuclear warfare may cause mass destruction and radioactive contamination. Nuclear weapons can be employed against personnel, equipment, supplies,

and facilities and are especially effective when used against advanced civilizations. The scale of nuclear warfare determines the type and degree of protection required for adequate security of units and installations. Knowledge of enemy nuclear capabilities permits the commander to judge the degree of vulnerability a command can accept in accomplishing a mission. This knowledge can be the deciding factor in selecting a course of action and in locating units and facilities.

- (a) Limited use of nuclear weapons dictates that forces adopt measures which permit speed, dispersion, and a high degree of air and ground mobility. Information concerning routes available to the enemy assists in determining enemy capabilities and vulnerabilities and courses of action for our own forces.
 - (b) Unlimited nuclear warfare further increases the importance of ground and air mobility. It increases reliance upon flexible modes of transport, such as motor and air, while decreasing the use of fixed facilities, such as major ports, main rail lines, and large transportation centers. It also increases the importance of counterintelligence, reconnaissance, surveillance, target acquisition, dispersion, and communications. A command must be dispersed so as not to expose disproportionate parts to destruction.
 - (c) Employment of nuclear weapons on any scale requires that maximum advantage be taken of terrain configuration if the transportation mission makes this possible. The effects of heat and blast in particular are greatly minimized when deflected by irregularities in the terrain. For example, routes of communication located in gorges, steep valleys, or in mountainous areas present less favorable nuclear targets than routes located on flat terrain if the axis of the valley or ravine points well away from ground zero. If the axis of the valley points toward ground zero, there is little or no shielding effect and blast damage may be increased because of channelizing the blast wave. Furthermore, such routes as these may be blocked by obstacles and induced radiation patterns that cannot be circumvented.
- (2) *Toxic agents and living organisms.* Chemical and biological agents can completely destroy transport capability by rendering ineffective the required number of personnel

and animals. They can be used either directly or indirectly against personnel. They can be used indirectly by contaminating corps, water supplies, and equipment. These agents may be employed for either tactical or strategic reasons. Particularly in backward areas of the world where decontamination procedures, sanitation facilities, and medical supplies are lacking, chemical and biological weapons could be decisive by destroying vast segments of the population.

- (3) *Dispersion.* Because of the potential of nuclear and CBR weapons, large concentrations of enemy personnel offer the most profitable targets. Consequently the enemy will probably disperse both personnel and equipment to the maximum extent possible. Dispersal capability has been greatly increased by improved communications. For example, miniaturization of equipment and use of automatic data processing systems make it possible to disperse depots, supply points, and collecting areas. It must be assumed that the enemy has made progress similar to ours in these fields and will disperse his personnel, equipment, and supplies over a wide area.
- (4) *Flexible supply system.* Dispersion of personnel and equipment necessitates the use of a flexible supply system. The enemy may be expected to employ a system of mobile replenishment: large quantities of materiel will not be stockpiled. Underground shelters will probably be used to avoid nuclear and CBR hazards.

b. *Assessing Damage.* General, tactical, and strategic assessment of damage is necessary after a nuclear or CBR attack.

- (1) *General.* After an attack, it is of paramount importance to determine the enemy's ability to recover. The degree to which his transportation system has been destroyed—including personnel, equipment, and facilities—must be assessed without delay. It is of equal importance to estimate his ability to replace personnel and equipment, to employ reserve supplies, to repair or rebuild facilities, and to make use of such recovery methods as rescheduling, rerouting, and decontamination. In addition to assessing the enemy's ability to recover, the possibility of our own forces using the area must also be determined. Information is needed about the time involved before our own forces can enter the area because of residual radiation or other contamination; the extent

of destruction of transportation facilities for all modes of transportation and the repairs required; the radioactive, chemical, or biological contamination of transportation facilities in the area; and the decontamination and individual protective measures required.

- (2) *Tactical.* When assessing tactical damage, it is almost always desirable to base the analysis on casualties rather than on damage to materiel, with the exception of bridges and key structures. If transportation has been immobilized because of casualties that are not readily replaceable, sufficient effect has been obtained. Casualties from chemical and biological weapons will depend primarily upon the availability and use by the enemy of protective masks, cover, medical supplies, and immunizations. Important considerations in the assessment of casualties from nuclear and CBR weapons are—

(a) *Temperature.*

1. Nuclear attacks delivered during extremely low temperatures normally result in fewer casualties because of the tendency of personnel to seek shelter from the weather.
2. Low temperature reduces flash burns and the effects of thermal radiation because of the heavy clothing worn.

- (b) *Haze, mist, and fog.* These atmospheric conditions reduce the thermal radiation and flash effects of nuclear explosions, but tend to increase radioactive contamination.

- (c) *Rainfall.* Rainfall reduces the effects of thermal radiation by raising the ignition point of personnel and objects. It can also wash a certain amount of chemical, biological, and radioactive contamination from personnel, equipment, and facilities, but in turn produces greater contamination of drainage systems and low areas.

- (d) *Wind.* Wind direction and velocity do not greatly affect blast, thermal radiation, and initial nuclear radiation; they do affect residual radiation caused by fallout and the distribution of chemical and biological agents.

(e) *Terrain.*

1. Ravines, deep valleys, and mountainous terrain in

general greatly reduce personnel casualties from blast, flash burns, and initial nuclear radiation.

2. Forests or heavily wooded areas minimize the effects of thermal radiation; however, the resulting hazard of forest fires and falling limbs and trees is great. Fallen trees and the induced radiation pattern may increase the number of casualties and restrict use of the area.

(f) *Built-up areas.*

1. Built-up areas shield personnel from heat, radiation, and moderate blast; severe blast increases the hazard in these areas because of falling debris.
2. Personnel protected by well-prepared and deeply dug fortifications experience relatively few casualties from nuclear bursts.

(g) *Enemy training status.* The number of casualties is affected by the enemy's nuclear and CBR training, particularly his detection and identification capabilities.

- (3) *Strategic.* Damage assessment in the strategic sense is based primarily on the enemy's war-making potential. This includes evaluation of damage to structures, factories, transportation systems, crops, and natural resources. Strategic damage assessment is made by theater special damage assessment teams; these teams obtain technical information and increase our knowledge of nuclear and CBR weapons effects.

c. *Commander's Evaluation.* After considering the factors discussed in a and b above, the commander must evaluate transportation capability before and after a nuclear or CBR attack. Evaluation must be continuous and must keep pace with changing situations; it must include estimating both enemy and friendly force capability in the specified area.

24. Determining Enemy Capability to Transport Missiles and Nuclear Weapons

The enemy's missile and nuclear weapon transport capability is a primary concern of the transportation planner. The sizes and weights of missiles and their component systems, the special problems involved in transporting fuel and oxidizers, and the characteristics of the enemy's transportation modes must be considered when collecting information. The topics listed below may be used as a collection guide.

a. *General.*

- (1) Transport responsibilities of individuals, units, staffs, and agencies.
- (2) Safety regulations in effect or lacking.
- (3) Methods of transporting classified shipments.
- (4) Labels, seals, and placards in use.
- (5) Missile description (operational and in research and development).
 - (a) Nomenclature, model, and type.
 - (b) Classification.
 1. Use and range (surface-to-surface, surface-to-air, etc.).
 2. Purpose and employment.
 3. Propulsion and guidance systems: rocket engine, booster engine, guidance system.
 - (c) Characteristics.
 1. Missile components (explosive, nonexplosive) and containers.
 2. Propellants (liquid and solid) and containers.
- (6) Tactical organization.
 - (a) Command and organizational structure.
 - (b) Deployment.
 1. Mobile.
 2. Fixed: missile launching sites, assembly or recycling areas, storage areas, depots, or area defense complexes.
 - (c) Movement. This refers to the normal modes of transportation and includes types of equipment used in administrative and tactical movements for initial deployment and resupplying of missiles and supporting equipment.

b. *Sizes and Weights of Transportable Items.* The sizes and weights of the items listed below should be obtained. Whenever possible, diagrams of shipping containers should also be procured.

- (1) Delivery vehicle (shell, motor) and integral propellants.
- (2) Warhead and adaptation kits.
- (3) Propellant containers if not an integral part of the delivery vehicle.
- (4) Ground support equipment.
 - (a) Transporting, erecting, and launching.
 - (b) Ground guidance and antenna.
 - (c) Testing and maintenance.

- (d) Propellant manufacturing and storage.
- (e) Auxiliary: compressor and power generating, assembling and fueling.

c. *Enemy Capability of Handling Shipping Problems.* The enemy's capability to transport oxidizers, such as hydrogen peroxide and liquid oxygen; radioactive materials; conventional explosives; radioactive materials with conventional explosives; deadly unstable material, such as plutonium; solid and liquid fuels; and all flammable liquids that present shipping problems must be assessed. Special consideration must be given to—

- (1) *Movements limitations.*
 - (a) Dimensions and configuration.
 - (b) Weight and center of gravity.
 - (c) Other limitations, such as stability, speed, gradeability, braking, turning radius of vehicles, including tractor-semitrailer combinations.
- (2) *Sensitivity.*
 - (a) Shock and vibration.
 - (b) Temperature and humidity.
 - (c) Evaporation.
- (3) *Hazards and countermeasures.*
 - (a) Detonation or explosion.
 - (b) Flammability.
 - (c) Corrosion.
 - (d) Acid burns and toxic poisons.
 - (e) Chemical, biological, and radiological.
 - (f) Protective clothing and equipment.
- (4) *Handling and intransit storage.*
 - (a) Proximity limitations that control quantity and distance.
 - (b) Surveillance restrictions and inspections.
 - (c) Decontamination and disposal.
 - (d) Security.

d. *Methods of Shipment.* The number or quantity of the item to be shipped and the type, characteristics, cargo dimensions, and number of carriers involved must be determined. Missiles and nuclear weapons are usually transported by—

- (1) *Rail.*
 - (a) Conventional rolling equipment, such as boxcars, flatcars, and tank cars.
 - (b) Special purpose rail equipment.

- (2) *Motor transport.* Commercial and military motor vehicles—conventional and special purpose.
- (3) *Water carriers.* Commercial and military.
- (4) *Aircraft.* Commercial and military.

25. Determining Enemy Transportation Order of Battle

Order of battle is the manner in which transportation forces are organized, disposed, maneuvered, and supplied. Intelligence concerning these forces consists of processed information about their composition, disposition, strength, training, tactics, logistics, and efficiency. Particular areas of interest in the collection of order of battle information are outlined below. See FM 30-19 for detailed discussion of order of battle intelligence.

a. General Information on Ground Forces and Army Air Transportation.

- (1) Strengths, weaknesses, and trends (short and long range).
- (2) Significant foreign influences.
 - (a) Advisory groups.
 - (b) Sources of military aid.

b. Administrative Organization.

- (1) Army high command.
 - (a) Departmental or ministerial organization.
 - (b) Overall transportation organizations.
 - (c) Chain of command—through territorial headquarters and field forces.
 - (d) Organizational charts of high command transportation and transportation support sections.
 - (e) Proposed changes in the event of war.
- (2) Functions, including internal organization of each transportation bureau and staff division.
- (3) Arms and services, including status, concept, and functions of transportation service.

c. Tactical Organization and Location of Transportation Service Units.

- (1) Tables of organization for all modes.
- (2) Implementation of tables of organization—personnel and equipment.
- (3) Mission, capability, and normal assignment.
- (4) Location.

d. Strategy and Defenses.

- (1) Permanent fortifications within transportation installations.
- (2) Fortifications for any transportation facility with a potential military use.

e. Training and Tactics.

- (1) Quality and effectiveness of transportation training system.
- (2) Strengths, weaknesses, and current trends.
- (3) Influence of foreign military missions.
- (4) Tactical doctrine for transportation operations.
- (5) Types of units, training, and equipment for special transportation operations.
- (6) Individual training.
 - (a) Basic, advanced, and specialized training courses for officer and enlisted transportation personnel.
 - (b) Organization and function of transportation training installations.
 - (c) Replacement training system in wartime.
 - (d) Transportation training in schools of allied countries (student exchange program).
- (7) Unit training.
 - (a) Systems employed and effectiveness.
 - (b) Number and type of units involved.

f. Logistics.

- (1) Classification of transportation equipment and supplies.
- (2) Procurement.
 - (a) Planning and control.
 - (b) Design, placement of orders, acceptance, and testing.
 - (c) Role of other governmental agencies.
 - (d) Amount produced domestically by private industry and government arsenals, and amount imported.
- (3) Peacetime storage and issue.
 - (a) System of storage and issue in zone of interior.
 - (b) Installations, depots, and other storage installations.
- (4) Wartime supply and movement.
 - (a) Requisition and supply in time of war.
 - (b) Efficiency of system.
 - (c) All transportation organization responsibilities and functions in army-unit movement and resupply requirements.

- (d) Military use of civilian transport.
- (5) Echelons of maintenance and repair.
- (6) Evacuation.
 - (a) Transportation equipment and personnel.
 - (b) Captured material and prisoners of war.
- (7) Transportation materiel.
 - (a) Quality and quantity.
 - (b) Existing condition and efficiency.

g. Personalities. Biographical data on key transportation personalities: name, rank, age, and present position.

h. Quasi-Military Forces.

- (1) Transportation organizations receiving military training as preparation for wartime military service.
- (2) Transportation organizations within military forces used for security or border guard work.

26. Evaluating Political, Economic, and Scientific Aspects of Enemy Transportation System

a. The political situation vitally affects national unity and defense and must be considered when evaluating the enemy's overall transport capability. Decisions that immediately affect national defense can be made in countries that have centralized governments. The transportation intelligence officer should be informed about—

- (1) Legislation.
 - (a) Current transportation codes.
 - (b) Budgetary provisions for transportation.
 - (c) Trends favoring one or more modes of transportation.
 - (d) Neglect of one or more modes of transportation.
- (2) Attitude of national government on transport matters.
 - (a) Governmental control measures.
 - (b) Plans for improving transportation.
 - (c) Attitudes of political leaders toward transportation.
- (3) Public interest in improved transportation.
- (4) Political personalities favoring rapid expansion of transportation.

b. The status of transportation in the economy of a nation can be judged by the effectiveness of transportation systems, their history and development, plans for future development, importance of the various modes, and national needs. Economic information can be obtained by studying—

- (1) Industrial supply for all modes of transportation.
 - (a) Sources of supply of aircraft, land vehicles, marine craft, equipment, supplies, raw materials.
 1. Domestic production (adequacy and capacities).
 2. Foreign sources of supply (agreements in force).
 3. Government controls and operating agreements with industry.
 4. Contracts, agreements, and labor relations within industry.
 - (b) Research and development (production techniques, industrial expansion, modification of product, efficiency).
 - (c) Brochures.
- (2) Statistical transportation information.
 - (a) Transportation factors influencing production.
 - (b) Extent of government subsidization of privately owned common carriers.
 - (c) General reports of transportation associations and companies.
 - (d) Self-sufficiency of government-owned transportation.
 - (e) International organizations' reports reflecting conditions in the area.
 1. United Nations Transportation and Communications Commission.
 2. North Atlantic Treaty Organization.
 - (a) Planning Board for Ocean Shipping.
 - (b) Planning Board for European Inland Surface Transport.
 - (c) Planning Committee for International Civil Aviation Organization.
 3. International Civil Aviation Organization.
 4. Pan-American Railway Congress.
 5. Pan-American Highway Congress.
 6. United Nations Regional Commission.
 - (a) Economic Commission for Europe.
 - (b) Economic Commission for Latin America.
 - (c) Economic Commission for Asia and the Far East.
 7. Southeast Asia Treaty Organization.
 8. American-British-Canadian Agreements.
 9. Organization of American States.

c. Information essential to the development of transport knowledge touches upon the entire scope of scientific and technical

analysis, including both materiel and methods. This information can be obtained by studying—

- (1) Aviation (army aircraft, airfields, and heliports).
- (2) Capabilities and capacities of equipment and transport facilities.
- (3) Chemical, mechanical, and nuclear applications.
- (4) Centers of gravity of equipment.
- (5) Combat development (materiel and methods).
- (6) Cost and efficiency studies.
- (7) Engine and power train research and development.
- (8) Energy (thermoelectric, thermochemical, and nuclear) conversion and storage.
- (9) Hydraulics of liquids.
- (10) Hydrology.
- (11) Marine transport, including lighterage, amphibians and over-the-beach operations.
- (12) Material handling devices.
- (13) Missile transport by modes.
- (14) Motor transport development, including overland trains.
- (15) Physical forces: their use and applications.
- (16) Pressure-volume-temperature ratios and applications of gases.
- (17) Processing systems for data and their effects on dispersion of forces.
- (18) Properties of materials (solid, liquid, gaseous) at different temperatures.
- (19) Propulsion devices for water, air, and vacuum.
- (20) Rail transportation facilities.
- (21) Roll-on, roll-off cargo operations.
- (22) Shock and vibration effects.
- (23) Subsurface marine carriers and underwater storage.
- (24) Surface skimming craft and vehicles.
- (25) Terminal layouts and facilities.
- (26) Transportation communications.
- (27) Transportation equipment research and development materiel, designs, and specifications.
- (28) Vulnerability studies, including heat, blast, radiation, biological, and chemical effects.

27. Reporting

a. *General.* Reporting information is as important as collecting it. Data is of little or no value unless it is transmitted through proper channels so that appropriate action can be taken. Reports must be accurate, clear, concise, complete, and timely. Whenever practicable, they should include operational experience data. Applicable documents (par. 20b) should be appended to each report if possible; if applicable documents are not appended, reference should be made in the report to their location and availability. In addition to a written or an oral report, maps and photographs should be submitted when appropriate. If the time limit precludes the submission of a written report, an oral report may be submitted. A report may also be submitted piecemeal as the information is received. Normally information is reported through specified staff and/or command channels (fig. 2). If it is necessary to act immediately on information obtained and at the level on which obtained, the report must include the action taken. The person submitting a report must be guided always by *what the commander needs to know and when he needs to know it.*

b. *Maps.* Maps may be attached to reports to show terrain conditions, communication routes, and trafficability. Adequate legends are of the utmost importance; all markings should be explained. Communication routes should be emphasized by depicting land routes in black and water routes in blue. Varying widths of black lines or dashes may be used to indicate different types of roads or pathways. Water routes should be marked heavily enough to distinguish them from streams. Trafficability may be indicated by a system of crosshatching in black; different types of soil or various kinds of vegetation may be shown by a crosshatching scheme in colors. The reporter may use any system of marking that is easily comprehensible.

c. *Photographs.*

- (1) Aerial and ground photographs may also be attached to reports to illustrate or supplement the information. A good photograph, when examined by experts, may give more and better information than many pages of narrative. Photographic coverage should be well planned. Whenever possible, all scenes and objects should be photographed from several angles. It is important that distances and dimensions in photographs be indicated by inclusion of people, vehicles, and other objects of known size. Photographs should be annotated and amply referenced. The date and exact time of day a photograph

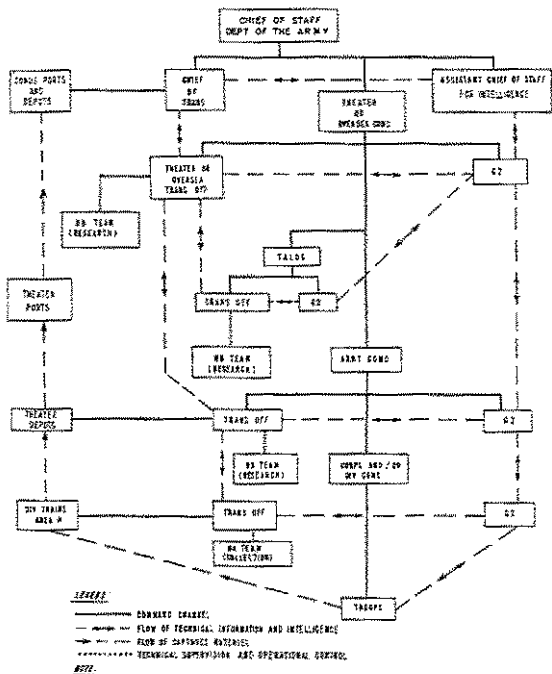


Figure 2. Flow of Transportation Corps information, intelligence, and material.

was taken must be included; otherwise, the information may be of little or no value. Vertical aerial photographs in stereoscopic pairs taken so as to provide scales of 1 inch equal to 500 feet to 1 inch equal to 1,000 feet provide sufficient detail. Sample photographs of intelligence value are shown in appendix VIII.

(2) The Signal Corps provides photographic service. In the

field army, photographic units are located at division, corps, and army levels. In the continental United States, photographic service is furnished by Signal Corps photographic laboratories strategically located within each continental army area. Although photographic coverage is normally the responsibility of the Signal Corps, photographs obtained from any source are useful.

28. Evaluation by Collection Agency

The collection agency should put an evaluation rating (par. 30b) on all reports. This evaluation indicates to the next user (normally the processor) of the information, the credibility and reliability of the source and of the information itself. The source and date of information should be given whenever possible.

Section IV. PROCESSING INFORMATION AND PREPARING INTELLIGENCE FOR DISSEMINATION

29. General

The transportation officer produces and maintains the transportation intelligence required within his headquarters. He also prepares and maintains such additional transportation intelligence as may be directed by higher headquarters, including maintenance of files of special transportation studies and sections of the National Intelligence Surveys that concern transportation within his area of operations. Transportation intelligence is produced by processing transportation information: processing consists of recording, evaluating, and interpreting information collected.

30. Processing Procedure

a. *Recording.* Recording is the systematic selecting, sorting, grouping, cataloging, and filing of information. Recording must be systematic to insure minimum delay in evaluating the information obtained. Common aids used in recording are G2 journals, enemy situation maps, and G2 worksheets and intelligence files. See FM 30-5 for a detailed description of these aids.

b. *Evaluating.* Each processor evaluates items of information for pertinence, meaning, reliability of source, and probable accuracy. Methods of evaluation are discussed in FM 30-5. Evaluation is essential because in many instances the processing agency has knowledge about the credibility and reliability of the information that is not available to the collecting agency. The proc-

essor assigns his own evaluation rating to each item of information. The evaluation rating system explained below is used to indicate the reliability of information sources and the probable accuracy of the information itself.

(1) *Reliability of source.*

- A—completely reliable
- B—usually reliable
- C—fairly reliable
- D—not usually reliable
- E—unreliable
- F—reliability cannot be judged

(2) *Degree of accuracy.*

- 1—confirmed by other sources
- 2—probably true
- 3—possibly true
- 4—doubtful
- 5—improbable
- 6—truth cannot be judged

(3) *Examples of use.*

- A-1 completely reliable, confirmed by other sources
- B-3 usually reliable, possibly true
- D-4 not usually reliable, doubtful

c. Interpreting. Interpretation is the process of critical analysis: it is judging information in the light of previously acquired knowledge and experience and determining its significance in terms of capabilities, limitations, and courses of action. The intelligence officer must decide what the data means when compared with what is already known: he must decide whether it verifies, alters, adds significance to, or refutes information already processed and whether it tends to confirm or change the existing estimate of a situation. Interpretation consists of analysis and integration.

(1) *Analysis.*

- (a) Analyzing information consists of sorting the information and arranging the same or related subjects in basic groups. This systematic arrangement facilitates a critical comparison of the elements and clarifies their relationship. Each new piece of information received and processed to the point of interpretation may affect, to some degree, the transportation intelligence estimate: old capabilities may be replaced with new ones, evaluations upgraded or downgraded, and conclusions changed. If conflicting information about the enemy is obtained from sources with the same relia-

bility rating, the possibility of enemy counter-intelligence must be carefully considered.

- (b) Only pertinent information must be integrated into the transportation plan: information that has no possible bearing on transportation should be discarded. Nevertheless before information is discarded as not pertinent, coordination must be effected with other agencies because the information may be pertinent to them.

- (2) *Integration.* Integration is the combining of basic groups of information into a logical and reasonable pattern—the converting of information into true intelligence. This requires judgment and the same type of transportation background that analyzing information requires. Depending upon the situation, the process of integration may be a short mental sifting of pertinent data, or it may be a lengthy and detailed sorting of information.

31. Maintaining Transportation Intelligence

Collectors, processors, and particularly the users of transportation intelligence should never be satisfied with any given status of the intelligence situation. The transportation estimate should be continuously revised and kept up to date in the light of new information received. Because the intelligence process is continuous, close and systematic, liaison with all pertinent agencies, including operating units, is mandatory. To insure the production and maintenance of authentic and timely intelligence—

- a. Question and requestion all enemy personnel.
- b. Obtain and examine new documents and reexamine old ones.
- c. Continue to study and evaluate transportation equipment and facilities.
- d. Evaluate and reevaluate communication systems, terrain, geography, climate, season, weather, hydrology, contaminated areas, and concealment.
- e. Repeat reconnaissance and field trips, including aerial and ground photography.
- f. Maintain contact with military units and civilian agencies.
- g. Maintain continuous liaison with collection agencies.

32. The Transportation Intelligence Estimate

The transportation intelligence estimate is a study that de-

scribes, discusses, and applies interpreted data that are directly or indirectly applicable to the transportation mission. The transportation intelligence estimate helps the commander make sound and timely decisions; it is a part of the overall transportation estimate that is used to formulate the transportation plan. An intelligence estimate is made after all available information has been collected and processed; however, an estimate must be kept current. It must be revised when new or additional information is received and processed. Estimates must be disseminated to appropriate planners in sufficient time to be useful. Should time not permit the making and publishing of formal transportation plans, intelligence estimates may be disseminated directly to the ultimate users—the operating units. Elements that should be considered in a transportation intelligence estimate are listed below. Each estimate will not necessarily contain all of the elements listed: content will depend upon the transportation mission.

a. Statement of the transportation mission.

b. Characteristics of the area of operations that will affect this mission.

- (1) Weather and climate.
- (2) Terrain features.
- (3) Road and rail nets, including traffic bottlenecks.
- (4) Bridges and tunnels.
- (5) Port and beach facilities and wharves.
- (6) Airfields and other aircraft facilities.
- (7) Inland waterways, locks, ports.
- (8) Warehouses and other storage facilities.

c. Characteristics of enemy transportation equipment.

- (1) Locomotive characteristics and inventory.
- (2) Freight and passenger equipment characteristics and inventory.
- (3) Vehicle characteristics and inventory.
- (4) Crane data.
- (5) Waterway craft census.
- (6) Aircraft characteristics and inventory.

d. Transport capability of the enemy: air, water, motor, rail, miscellaneous.

e. Conclusions, including effect of the intelligence estimate on our own forces.

33. Security Classification of Transportation Information and Intelligence

a. Transportation intelligence consists principally of our knowl-

edge of the enemy's transportation system or of transportation systems under his control; this knowledge should be classified if the enemy's awareness of it could help him. We classify documents and materiel that deal with our own forces to deny the enemy knowledge concerning them; it follows that we must exercise the same caution in denying the enemy our intelligence about his forces. Failure to do this will give him an opportunity to accomplish effective counterintelligence.

b. For information and intelligence not already classified, the degree of classification is determined by the commander of the echelon in which the information originates; subsequent reclassification by higher authority may follow. All transportation personnel must bear in mind that if the enemy is aware of what we know about him, his countermeasures may partly or completely neutralize our intelligence effort.

Section V. DISSEMINATION AND USE OF INTELLIGENCE

34. Objective

Intelligence may be used as a basis for command decisions; it must be available in sufficient time to be useful. The primary objective of dissemination is the timely placing of intelligence in the hands of the ultimate user for the formulation of capability estimates and operational plans.

35. Methods

Intelligence required by specific transportation sections or units is disseminated to them through staff, technical, and command channels (fig. 2). Exchange of intelligence with intelligence agencies of other branches and services is through the G2 of the command. Media used to disseminate intelligence depend upon the detail, pertinence, urgency, and intended use of the intelligence. Transportation intelligence may be disseminated by any of the means outlined in FM's 30-5, 30-16, and 101-5. Methods of dissemination are formal reports, documents, maps, photographs, informal messages, displays and exhibits, personal contacts, and telecommunication systems. Figure 3 shows dissemination agencies and important uses of transportation intelligence. Media commonly used to disseminate transportation intelligence are described below.

a. *National Intelligence Surveys.* Transportation sections of the National Intelligence Surveys contain intelligence on railways, motor transport, water terminals, inland waterways, and aviation

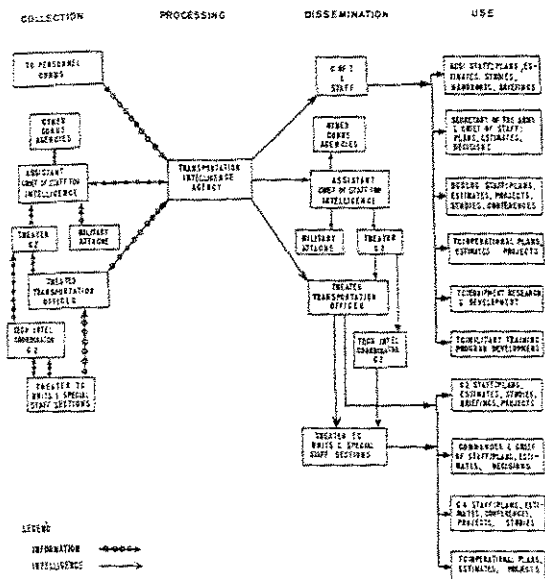


Figure 3. Intelligence Produced by the Transportation Intelligence Agency.

produced by the Office of the Chief of Transportation in coordination with the Corps of Engineers and Office of Naval Intelligence. Other sections of these surveys contain intelligence on subjects of interest to, but not the responsibility of, the Transportation Corps, such as pipelines and airfields.

b. Transportation Intelligence Summary. Periodic summaries of current transportation intelligence are prepared by transportation special staff sections. Such summaries are provided the Assistant Chief of Staff for Intelligence; the transportation staffs of higher, lower, and adjacent headquarters; and other interested agencies as authorized by the Assistant Chief of Staff for Intelligence.

c. Recurring Reports.

- (1) *The intelligence summary.* This summarizes in telegraphic style intelligence for a specified period.
- (2) *Periodic intelligence reports.* These are written reports that cover a longer period than an intelligence summary.

d. Studies and Reports Made as Required.

- (1) *Special transportation studies.* Special transportation studies prepared by the office of the Chief of Transportation and by field agencies on railways, motor transport, water terminals, inland waterways, and aviation are given limited distribution. These studies are analyses of basic transportation facilities and resources as they relate to given operational situations in actual or potential areas of military operations. Transportation studies prepared by theaters and armies encompass smaller areas and normally contain more detailed and up-to-date intelligence on specific routes and modes than studies prepared by the Office of the Chief of Transportation.
- (2) *Climatic studies.* These studies are prepared by supporting Air Weather Service detachments.
- (3) *Spot reports.* Spot reports contain information and intelligence that must be disseminated immediately.
- (4) *Prisoner-of-war interrogation and translation reports.*
- (5) *Photointerpretation reports.*
 - (a) *Immediate.* Supplement oral spot reports.
 - (b) *Mission review.* Contain a summary of information and intelligence on installations, activities, and areas.
 - (c) *Detailed.* Contain precise information and intelligence based on photography and other sources.
 - (d) *Summary.* Consolidate information and intelligence from earlier photographic reports.
 - (e) *Special.* Prepared as required at corps and higher headquarters.
- (6) *Summaries of weather and climate.* Usually prepared by supporting Air Weather Service detachments.
- (7) *Technical intelligence bulletins and summaries.* Report results of examination of enemy equipment and facilities.
- (8) *Order of battle books and handbooks.* Contain information and intelligence on foreign units and nations.

e. Operation Plans and Orders. Paragraph 1 of the intelli-

gence annex of operation plans and orders is commonly used to disseminate information and intelligence.

36. Uses

a. Strategic Planning. Intelligence concerning transportation modes, systems, facilities, and materiel is an essential element in the making of strategic plans. Other intelligence affecting the making of these plans pertains to terrain (rivers, mountains, deserts, swamps, forests, etc.), weather and climate, and the agricultural and industrial economy of the theater of operations. Transportation Corps personnel concerned with transportation planning and intelligence activities use transportation intelligence to determine the capabilities, vulnerabilities, and probable uses of transportation facilities by the enemy. Intelligence is also used to determine the capacities, capabilities, and potentialities of the use of foreign transportation facilities by our own and friendly military forces. Strategic intelligence planning is usually the result of assembling and studying a large volume of detailed information; it is normally accomplished at field-army level or above. At the beginning of military operations, the greater part of strategic intelligence is derived from studies of maps; ports and beaches; rivers; towns and terrain features; lines of communication; and technical, economic, operational, and communications intelligence summaries. Sociological, political, and biographical intelligence summaries are also of vital importance to strategic planning.

b. Tactical Planning. Transportation intelligence is essential for planning tactical operations because it includes terrain features, road nets and their condition, bridges and other structures affecting movement, weather and climate, and other considerations affecting tactical movement by the enemy or friendly forces. Transportation intelligence may also include knowledge about enemy installations and equipment suitable for the tactical use of our forces. Anticipation of intelligence needs is a part of tactical planning: information about items of current interest and those of probable value in the immediate future should be collected and analyzed. The intelligence obtained is normally used at corps level and below.

c. Research and Development. Transportation intelligence developed in peacetime, as well as that developed during hostilities, is a great aid in the research and development of transportation concepts, materiel, and facilities. Captured enemy plans, facilities, or equipment provide research and development personnel with valuable knowledge about the enemy's status of supply, technological advancement, and ability to wage war. This knowledge

is a factor in the timely development of appropriate countermeasures. Research and development intelligence is normally used in CONUS by the Director of Research and Development, in coordination with the other assistant secretaries of the Army. The military chiefs in the Department of the Army who are primarily concerned with this intelligence data are the Assistant Chief of Staff for Intelligence, the Chief of Research and Development, the Deputy Chief of Staff for Logistics, and the Chief of Transportation. Transportation research and development is accomplished at class II installations under the Chief of Transportation. The Army research and development program is coordinated with the Air Force, Navy, and other interested governmental agencies.

APPENDIX I

REFERENCES

1. DA Pamphlets

- DA Pam 20-79 Individual Training: Defense Against Enemy Propaganda
- DA Pam 20-291 Effects of Climate on Combat in European Russia
- DA Pam 30-26 A Guide to the Collection of Technical Intelligence
- DA Pam 30-50-1 Handbook on the Soviet Army
- DA Pam 30-50-2 Handbook on the Satellite Armies
- DA Pam 30-51 Handbook on the Chinese Communist Army
- DA Pam 30-100 Intelligence Collection Guide: Telecommunications (U)
- DA Pam 30-101 Communist Interrogation, Indoctrination, and Exploitation of Prisoners of War
- DA Pam 30-102 Intelligence Collection Guide: Identification of SMD (U)
- DA Pam 30-103 Intelligence Collection Guide for Joint Usage; Infrared (U)
- DA Pam 30-104 Intelligence Collection Guide: Transportation
- DA Pam 30-105 Intelligence Collection Guide, Chemical, Biological, and Radiological Warfare (U)
- DA Pam 30-110 Department of the Army Consolidated Statement of Intelligence Requirements (U)
- DA Pam 30-115 Weapons and Equipment Recognition Handbook, Middle East
- DA Pam 39-2 The Effects of High-Yield Nuclear Explosions
- DA Pam 39-3 The Effects of Nuclear Weapons
- DA Pam 108-1 Index of Army Motion Pictures, Film Strips, Slides, and Phono-Recordings
- DA Pam 310-series Military Publication Indexes

2. Army Regulations and Special Regulations

- AR 220-50 Regiments; General Provisions
- AR 220-60 Battalions, Battle Groups, Squadrons; General Provisions

AR 220-70	Companies; General Provisions
AR 320-5	Dictionary of United States Army Terms
AR 320-50	Authorized Abbreviations and Brevity Codes
AR 345-274	Records Administration; Intelligence and Security Administration Files
AR 380-5	Safeguarding Defense Information
AR 380-8	Policy Guidance for Security of Special Forces Activities
AR 380-15	Safeguarding Classified NATO Information (U)
AR 380-16	Safeguarding Classified Central Treaty Organization Information (U)
AR 380-17	Safeguarding Classified SEATO Information (U)
AR 380-31	Classification of Aerial Photography
AR 380-46	Radiation of Intelligence Bearing Information by Communications, Communications Security, and Duplicating Equipments (U)
AR 380-55	Safeguarding Defense Information in Movements of Persons and Things
AR 380-83	Civil Censorship
AR 380-150	Security of Restricted Data
AR 380-165	Security Classification Assignments of Identification Friend or Foe (IFF) Information and Equipment (U)
AR 380-200	Armed Forces Censorship
AR 381-1	Control of Dissemination and Use of Intelligence and Intelligence Information (U)
AR 381-7	Requests for Intelligence Documents
AR 381-12	Subversion and Espionage Directed Against U.S. Army and U.S. Army Personnel (U)
AR 381-25	Army Intelligence Collection Instructions (U)
AR 381-28	National Intelligence Surveys
AR 381-45	Military Intelligence
AR 381-100	Counterintelligence Corps; Mission and Employment (U)
AR 381-115	Counterintelligence Investigative Agencies
AR 381-127	Priority of Counterintelligence Investigations
AR 381-131	Counterintelligence Investigations; Procedures and Reports (U)
AR 381-141	Provisions for Administration, Control, Supervision, and Utilization of Intelligence Contingency Funds (U)

AR 381-205	Procedures Facilitating Intelligence Exploitation of Captured Enemy Personnel (U) (Title Classified)
AR 381-220	Restrictions of Assignment and Travel of Personnel Having Access to Special Intelligence (U)
AR 614-32	
AR 640-98	Filing of Adverse Matter in Individual Records and Review of Intelligence Files Consulted Prior to Taking Personnel Action
AR 705-8	Department of Defense Engineering for Transportability Program
SR 380-160-12	Investigation and Clearance of Foreign Personnel Entering the United States Under Auspices of Joint Intelligence Objective Agency (U)
SR 380-160-13	Investigation and Clearance of Aliens in the United States Army (U)
SR 380-305-10	Standardization of Photo Intelligence Reports, Designation and Content
SR 605-150-30	Intelligence Specialization

3. Field Manuals

FM 3-130	U.S. Army Chemical, Biological and Radiological (CBR) Intelligence (U)
FM 5-30	Engineer Intelligence
FM 5-36	Route Reconnaissance and Classification
FM 11-30	Signal Corps Technical Intelligence
FM 11-40	Signal Corps Pictorial Operations
FM 19-40	Handling Prisoners of War
FM 21-5	Military Training
FM 21-6	Techniques of Military Instruction
FM 21-26	Map Reading
FM 21-30	Military Symbols
FM 21-31	Topographic Symbols
FM 21-77	Evasion and Escape
FM 30-5	Combat Intelligence
FM 30-7	Combat Intelligence, Battle Group, Combat Command, and Smaller Units
FM 30-10	Terrain Intelligence
FM 30-15	Intelligence Interrogation (U)
FM 30-16	Technical Intelligence
FM 30-19	Order of Battle Intelligence
FM 30-28	Armed Forces Censorship (Army)
FM 30-30	Aircraft Recognition Manual

FM 30-101	Aggressor, the Maneuver Enemy
FM 30-102	Handbook on Aggressor Military Forces
FM 30-103	Aggressor Order of Battle
FM 31-25	Desert Operations
FM 31-71	Northern Operations
FM 33-5	Psychological Warfare Operations
FM 41-5	Joint Manual of Civil Affairs/Military Government
FM 41-10	Civil Affairs/Military Government Operations
FM 45-25	Field Press Censorship
FM 54-1	The Logistical Command
FM 55-6	Transportation Services in Theaters of Operation
FM 55-15	Transportation Corps Reference Data
FM 55-21	Rail Transportation Higher Units
FM 55-31	Highway Transportation Service in Theaters of Operations
FM 55-54	Highway Capability Estimating Guide
FM 57-35	Airmobile Operations
FM 101-5	Staff Officers' Field Manual; Staff Organization and Procedure
FM 101-10, Part 1	Staff Officers' Field Manual; Organization, Technical, and Logistical Data
FM 101-31	Staff Officers' Field Manual: Nuclear Weapons Employment
FM 110-101	Intelligence: Joint Landing Force Manual
FM 110-115	Amphibious Reconnaissance

4. Technical Manuals

TM 5-240	A Guide to the Compilation and Revision of Maps
TM 5-243	Cartographic Aerial Photography
TM 5-248	Foreign Maps
TM 5-250	Roads and Airfields
TM 5-260	Principles of Bridging
TM 11-401	Elements of Signal Photography
TM 30-235	Military Intelligence; Civil Censorship (U)
TM 30-245	Photographic Interpretation Handbook
TM 30-246	Tactical Interpretation of Air Photos
TM 30-248	Photographic Interpretation Keys: European U.S.S.R. (U)
TM 30-251	Inventory of Military Photo Interpretation Keys and Related Material (U)

TM 30-258	Photographic Interpretation Keys: Railroad and Highway Bridges (U.S. Naval Photographic Intelligence Series)
TM 30-482	Japanese-English Technical Terms Dictionary
TM 30-495	Chinese-English Glossary; Technical Communication Terms
TM 30-500	Spanish Military Dictionary; English-Spanish, Spanish-English
TM 30-501	Portuguese Military Dictionary; Portuguese-English, English-Portuguese
TM 30-502	French Military Dictionary; English-French, French-English
TM 30-506	German Military Dictionary; German-English, English-German
TM 30-533	Chinese Military Dictionary; Chinese-English, English-Chinese
TM 30-541	Japanese Military Dictionary; Japanese-English, English-Japanese
TM 30-544	Glossary of Soviet Military Terminology; English-Russian, Russian-English
TM 30-546	Glossary of Soviet Military and Related Abbreviations
TM 30-547	Soviet Military Symbols
TM 30-548	Soviet Topographic Map Symbols
TM 32-220	Basic Cryptography
TM 45-225	Field Press Censorship Guidance (U)

5. Technical Bulletins

TB 5-550-2	Compilation of Intelligence on Military Hydrology
TB 380-1	Communications Security; The Plain Language Dilemma (U)
TB 381-1	Combat Equipment Technical Intelligence Bulletin

6. Army Training Tests

ATT 7-32	G-2 Section, Infantry Division
ATT 57-3	G-2 Section, Airborne Division (TOE 57-6 TROTAD)

7. Army Training Programs

ATP 30-15	Military Intelligence Units
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ATP 30-203	Army Training Program for Strategic Intelligence Research and Analysis Units, Teams FA, FB, and FC
ATP 33-301	Army Training Program for Psychological Warfare Units.
ATP 41-200	Civil Affairs and Military Government Groups and Companies
ATP 45-201	Army Training Program for Field Press Censorship Detachments
ATP 55-207	Army Training Program for Transportation Intelligence Teams HA and HB

8. Army Subject Schedules

ASubjSed 5-12	Security of Installations and Work Parties
ASubjSed 6-2	Air Observer Training
ASubjSed 6-4	Combat Intelligence
ASubjSed 17-29	Scout Training
ASubjSed 19-13	Security of Military Installations
ASubjSed 19-14	Security of Vital Installations
ASubjSed 21-7	Intelligence Training
ASubjSed 21-13	Elementary Signal Communications
ASubjSed 30-3	Organization, Mission, and Function of Military Intelligence Units
ASubjSed 30-4	Organization, Mission, and Capabilities of Military Intelligence Specialist Teams
ASubjSed 30-5	Military Censorship Teams
ASubjSed 30-6	Sources of Information Available to Strategic Intelligence Research and Analysis Units
ASubjSed 30-7	Message Center and Communications Security
ASubjSed 30-9	Combat Intelligence
ASubjSed 30-10	Counterintelligence
ASubjSed 30-11	Tactical Terrain Studies
ASubjSed 30-14	Military Intelligence Specialists
ASubjSed 30-15	Advanced Map and Photograph Reading
ASubjSed 30-17	Strategic Intelligence Research and Analysis
ASubjSed 30-19	Document Examination (Unit Training)
ASubjSed 30-20	Intelligence Analysis
ASubjSed 30-21	Investigative Photography
ASubjSed 30-28	Counterintelligence Corps with Division in Attack and Defense
ASubjSed 30-29	Counterintelligence Corps Field Equipment
ASubjSed 30-32	Fingerprinting
ASubjSed 30-33	Identification of Eastern Forces (Unit Training)

ASubjScd 30-34	Intelligence Agencies of Eastern Forces
ASubjScd 30-52	Security of Military Personnel
ASubjScd 30-53	CIC in Maneuvers
ASubjScd 30-54	Port Counterintelligence Operations
ASubjScd 30-55	Intelligence Agencies of the United States
ASubjScd 30-60	Counterespionage
ASubjScd 30-62	Surveillance
ASubjScd 30-63	Observation and Description
ASubjScd 30-64	Defense Against Methods of Entry
ASubjScd 30-65	Collection and Preservation of Evidence
ASubjScd 30-66	Liaison Procedures
ASubjScd 33-2	Propaganda
ASubjScd 33-3	Staff Organization for Psychological Warfare
ASubjScd 33-4	Organization, Mission, Functions, and Capabilities of Psychological Warfare Units
ASubjScd 33-5	Principles of Intelligence for Psychological Warfare
ASubjScd 33-18	Psychological Warfare Units; Field Exercises
ASubjScd 33-22	Clandestine and Intelligence Operations (U)
ASubjScd 33-28	Sabotage (U)
ASubjScd 33-29	Weapons (Including Foreign Weapons)
ASubjScd 44-2	Recognition of Aircraft and Armor
ASubjScd 55-10	Collection of Transportation Intelligence
ASubjScd 55-14	Transportation Intelligence

9. Tables of Organization and Equipment

TOE 3-500D	Chemical Service Organization
TOE 5-500C	Engineer Service Organization
TOE 8-500C	Medical Service Organization
TOE 9-500R	Ordnance Service Organization
TOE 10-500R	Quartermaster Service Organization
TOE 11-500R	Signal Service Organization
TOE 30-15D	Military Intelligence Battalion, Field Army
TOE 30-16D	Headquarters and Headquarters Company, Military Intelligence Battalion, Field Army
TOE 30-17D	Military Intelligence Detachment, Divisional
TOE 30-18D	Military Intelligence Detachment, Corps or Airborne Corps
TOE 30-19D	Military Intelligence Collection Company
TOE 30-21D	Military Intelligence Linguist Company
TOE 30-22D	Military Intelligence Security Company