Army Regulation 700–8

Logistics

Logistics Planning Factors and Data Management

Headquarters
Department of the Army
Washington, DC
21 July 2021

UNCLASSIFIED

SUMMARY of CHANGE

AR 700–8
Logistics Planning Factors and Data Management

This major revision, dated 21 July 2021—

- Moves responsibilities (chap 2).
- Adds responsibilities for the Deputy Chief of Staff, G–8 (para 2–3).
- Moves logistics planning factors applications (para 3–2).
- Adds population-based planning factors (para 3–4).
- Adds equipment-based planning factors (para 3–5).
- Adds equipment usage profiles (para 3–6).
- Changes class V functional proponent to Deputy Chief of Staff, G–3/5/7, Munitions Management Division (para 3–5*c*).
- Adds chapter on Dissemination and Publication of Approved Logistics Planning Factors and Updates (chap 4).
- Updates office symbols and addresses (throughout).

Headquarters
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Effective 21 August 2021

Logistics

Logistics Planning Factors and Data Management

By Order of the Secretary of the Army:

JAMES C. MCCONVILLE
General, United States Army
Chief of Staff

Official:

KATHLEEN S. MILLER
Administrative Assistant
to the Secretary of the Army

History. This publication is a major revision.

Summary. This regulation establishes policy and responsibilities for managing Army logistics planning data that include a variety of information, such as consumption rates, data tables, reference data, and planning factors. Army logistics planning data and factors are used at strategic, operational, and tactical levels to estimate the amount and type of effort and/or resources required for a given operation.

Applicability. This regulation applies to the Regular Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve, unless otherwise stated.

Proponent and exception authority. The proponent of this regulation is the Deputy Chief of Staff, G–4. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency, in the grade of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forwarded through their higher headquarters to the policy proponent. Refer to AR 25–30 for specific guidance.

Army internal control process. This regulation contains internal control provisions in accordance with AR 11–2 and identifies key internal controls that must be evaluated (see appendix B).

Supplementation. Supplementation of this regulation and establishment of command and local forms are prohibited without prior approval from the Deputy Chief of Staff, G–4 (DALO–OPS–F), 500 Army Pentagon, Washington, DC 20310–0500.

Suggested improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the Deputy Chief of Staff, G–4 (DALO–OPS–F), 500 Army Pentagon, Washington, DC 20310–0500.

Committee management. AR 15–39 requires the proponent to justify establishing/continuing committee(s), coordinate draft publications, and coordinate changes in committee status with the Office of the Administrative Assistant to the Secretary of the Army, Department of the Army Committee Management Office (AARP–ZA), 9301 Chapek Road, Building 1458, Fort Belvoir, VA 22060–5527. Further, if it is determined that an established "group" identified within this regulation, later takes on the characteristics of a committee, as found in AR 15–39, then the proponent will follow AR 15–39 requirements for establishing and continuing the group as a committee.

Distribution. This regulation is available in electronic media only and is intended for the Regular Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

Contents (Listed by paragraph and page number)

*This regulation supersedes AR 700–8, dated 15 March 2011.

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Chapter 1
Introduction

1–1. Purpose
This regulation provides policy and assigns responsibilities for managing, collecting, developing, maintaining, validating, and disseminating Army logistics data and planning factors for use in Total Army Analysis (TAA), Operational Logistics (OPLOG) Planner, Logistic Factors File (LFF), and other Army, Joint, and Department of Defense (DoD) logistics processes and planning tools.

1–2. References and forms
See appendix A.

1–3. Explanation of abbreviations and terms
See the glossary.

1–4. Responsibilities
Responsibilities are listed in chapter 2.

1–5. Records management (recordkeeping) requirements
The records management requirement for all record numbers, associated forms, and reports required by this publication are addressed in the Records Retention Schedule–Army (RRS–A). Detailed information for all related record numbers, forms, and reports are located in Army Records Information Management System (ARIMS)/RRS–A at https://www.arims.army.mil. If any record numbers, forms, and reports are not current, addressed, and/or published correctly in ARIMS/RRS–A, see DA Pam 25–403 for guidance.

1–6. Policy overview
The Deputy Chief of Staff (DCS), G–4 (DALO–OPS–F) is responsible for the central management of the collection and dissemination of logistics planning data. The Commanding General (CG), U.S. Army Combined Arms Support Command (CASCOM) (ATCL–CDF–MP) is responsible for collecting, developing, maintaining, validating, storing, and disseminating logistics planning factors. The CG, CASCOM (ATCL–CDF–MP) will provide Army logistics planning factors and data to authorized users. For the purposes of this regulation, authorized users are defined as any U.S. military service member, DoD Civilian employee, or DoD contractor with duties related to logistics planning.

1–7. Inquiries and requests
Mail inquiries and requests for logistics planning factors to CG, CASCOM (ATCL–CDF–MP), 2221 A Avenue, Fort Lee, VA 23801–2102. Email inquiries and requests to usarmy.lee.tradoc.mbx.oplog@mail.mil.

Chapter 2
Logistics Planning Factors Responsibilities

2–1. Deputy Chief of Staff, G–3/5/7
The DCS, G–3/5/7 will—

a. Evaluate the DCS, G–4 approved planning factors and equipment usage profile (EUP) for inclusion in TAA modeling.

b. Direct the use of data from timeframes and operations that best represent the notional phases (as explained in Joint Publication (JP) 3–0, Joint Operations) used by the U.S. Center for Army Analysis (CAA) in their TAA modeling efforts. Currently, Major Combat Operations (MCO) from Operation Iraqi Freedom (OIF) is defined as March–June 2003, Phase IV from OIF is defined as July 2003–May 2009, and Phase V from OIF is defined as June 2009–December 2011.

2–2. Deputy Chief of Staff, G–4
The DCS, G–4 will—

a. Implement Army logistics planning data management policies and develop functional guidance.

b. Coordinate Army logistics planning data needs of the Army Staff and as requested by the Joint Chiefs of Staff (JCS) and the Secretary of Defense.

c. Conduct an annual general officer (GO) level review, evaluation, and approval of Army logistics planning data and factors.

d. Define and maintain the Management Decision Evaluation Package (MDEP)–Validate Wartime Planning Factors (VWPF) support to the DCS, G–4 to fund the collection of logistics planning data and development and dissemination of logistics planning factors, to include dissemination through OPLOG Planner by CASCOM (ATCL–CDF–MP).

e. Manage Army funding for developing, maintaining, and enhancing management information systems and/or programs and the staff resources necessary for collecting logistics data, developing and disseminating (including OPLOG Planner) logistics planning factors required by this regulation.

f. Provide logistics support concepts to Army components and others as required to update logistics planning data.

g. Assign proponency for each class of supply, or a portion thereof (see paras 3–4 and 3–5).

h. Request data identified in paragraphs 3–4 and 3–5 and other lessons learned prior to the annual GO review.

i. Request data identified in paragraphs 3–4 and 3–5 and other lessons learned at intervals required for maintaining and validating current data and factors.

j. Provide guidance and historical fully mission capable (FMC) rates to support the factor and EUP update.

k. Request data identified in paragraph 3–6 prior to the biennial EUP GO review.

l. Ensure that approved and current logistics planning data and factors are posted on an approved Army data repository and available for authorized users to discover and apply consistent with Army data plans and policies.

2–3. Deputy Chief of Staff, G–8

The DCS, G–8 will oversee the Director, CAA. The Director, CAA will—

a. Provide an independent assessment of resource impacts to TAA of proposed changes to Army logistics planning data and factors, as required.

b. Provide independent assessment of EUP data for force structure impact.

c. Participate in working groups and conferences, as necessary.

2–4. Commanding General, U.S. Army Training and Doctrine Command

The CG, TRADOC will—

a. Serve as the DCS, G–4 agent for the management, collection, development, maintenance, validation, and dissemination (including OPLOG Planner) of logistics planning data and factors.

b. Provide doctrine that shows how support is executed on the battlefield, as necessary.

c. Oversee the CG, CASCOM (ATCL–CDF–MP) who, on behalf of TRADOC, will—

(1) Exercise operational direction and provide guidance for the collection, development, maintenance, validation, and dissemination (including OPLOG Planner) of Army logistics planning data and factors.

(2) Participate in planning and coordination of collection, validation, and development of logistics planning data and factors with other Army commands (ACOMs), Army service component commands (ASCCs), and direct reporting units (DRUs).

(3) Coordinate with Army proponents on any system design for databases and information systems, including OPLOG Planner, that support Army logistics planning data management.

(4) Program, budget, and execute the funding provided by the MDEP–VWPF for the logistics planning data management and factor development and dissemination (to include OPLOG Planner) mission of the Army.

(5) Manage the collection, development, maintenance, validation, review, and dissemination (including OPLOG Planner) of Army logistics planning data and factors.

(6) Serve as the central source for Army logistics planning factors used by all Army, Joint, and DoD activities (to include acquisition programs and DoD-sponsored contractors).

(7) Respond to requirements for Army logistics planning factors.

(8) Identify and resolve inconsistencies in logistics data, factor development methodologies, and recommend appropriate changes to the DCS, G–4 (DALO–OPS–F).

(9) Design, develop, and maintain processes or procedures, databases, application programs, and information systems (including OPLOG Planner) to produce, record, and disseminate Army logistics planning data and factors.

(10) Prior to the annual DCS, G–4 GO review, examine Army documents that specify logistics planning data for consistency, adherence to doctrine, necessity, identification of sources, rationale of methodology, assumptions, and limits in applying the data. Report findings and current logistics planning data upon request by the DCS, G–4 to Headquarters, Department of the Army (DALO–OPS–F), 500 Army Pentagon, Washington, DC 20310–0500.

(11) Review proponency assignments (see paras 3–4 and 3–5) at least annually and provide the DCS, G–4 (DALO–OPS–F) with recommendations for changes in assigning proponency.

(12) Conduct annual reviews of logistics planning factors and EUP and forward validated proponent recommendations for changes to logistics planning data, EUP, methods, or factors to the DCS, G–4 for review and approval.

(13) Conduct updates of approved planning factors and EUP on a continuing basis, but at a minimum, once a year.

(14) Develop and maintain the EUP data collection tool and instructions for dissemination.

(15) Participate in working groups and conferences, as necessary.

2–5. Proponents: Deputy Chief of Staff, G–3/5/7 Munitions Management Division; Commanding General, U.S. Army Materiel Command; Commanding General, U.S. Army Training and Doctrine Command; Director, U.S. Army Center for Army Analysis; The Surgeon General; and Commanding General, Army and Air Force Exchange Service

The proponents will—

a. Provide data per the DCS, G–4 data call letter to CASCOM (ATCL–CDF–MP).

b. Convene working groups to resolve inconsistencies in those data elements for which they are the proponent and to develop standard methodologies and policies for computing logistics planning factors.

c. Participate in designing and developing databases, information systems, and system interfaces to enhance the development of standard logistics planning data and factors.

d. Provide the most up-to-date logistics planning data and EUP (as applicable), along with supporting methodology, data sources, and assumptions used in their computation to CASCOM, to be included in the appropriate database for consolidation and release to users.

e. Review existing approved logistics planning factors and EUP that are on file with CASCOM. Submit results of reviews to CASCOM prior to the DCS, G–4 GO annual review of the data and factors. Submit reviews and updates to CASCOM at intervals required for maintaining and validating current data and factors.

f. Participate in data collection workshops, as necessary.

g. Participate in working groups and conferences, as required.

2–6. Commanders of Army commands, Army service component commands, and direct reporting units

Commanders of ACOMs, ASCCs, and DRUs will—

a. As requested or assigned and as supported by Tactical Enterprise Logistics Systems and/or software, review, collect, update, and provide data to CASCOM (ATCL–CDF–MP) to develop standard logistics planning factors. Provide results of reviews and updates to CASCOM (ATCL–CDF–MP) for validation by data call suspense. Also provide reviews and updates to CASCOM (ATCL–CDF–MP), on request, at such other intervals as may be required for maintaining valid and current data.

b. Assist in confirming logistics data during field training, command post exercises, operational readiness tests, and other training events or tests.

c. Provide feedback on CASCOM (ATCL–CDF–MP) developed tools identified in paragraph 3–2 that estimate consumption for unit operations.

Chapter 3
Army Logistics Planning Factors

3–1. Overview

a. Army logistics planning factors are major elements in the Army and DoD planning processes.

b. The central management of Army logistics planning data and factors result in a single source for approved logistics planning factors. The DCS, G–4 approves these factors for use in DoD, Joint, and Army planning, programming, and budgeting.

c. All sources of maneuver, exercise, and modeling data are reviewed for suitability to support development of planning factors. Therefore, each Army unit and test facility is a potential data source and candidate to validate existing data elements.

d. Central management of logistics planning data requires close coordination between the central manager and various Army functional proponents for logistics concepts, doctrine, data, and factor development. This coordination determines the methodologies and quantitative information appropriate to the development of Army logistics planning factors.

e. Commands that develop their own tools, or have recommendations for new or existing tools, are encouraged to consult with the CASCOM Planning Data Branch (PDB). Only the tools described in paragraph 3–2 use DCS, G–4 approved planning factors.

3–2. Logistics planning factors applications

a. Operational logistics planning. The following tools are used as means to disseminate the approved DCS, G–4 planning factors.

(1) *Operational Logistics Planner:* OPLOG Planner is an unclassified Windows-based program that resides on the user's computer. OPLOG Planner may be accessed on Sustainment Unit One Stop or by emailing usarmy.lee.tradoc.mbx.oplog@mail.mil. OPLOG Planner—

(a) Uses the latest DCS, G–4 approved planning data or factors. It also uses annual force structure updates from the U.S. Army Force Management Support Agency (USAFMSA). OPLOG Planner features user-friendly screens, sequenced logically with step-by-step processes enabling logistics planners to quickly and easily obtain estimated requirements. It also provides an extensive on-screen help capability and the training guide for OPLOG Planner.

(b) Uses a modular approach to supply planning and is used from the tactical to the operational level. OPLOG Planner enables users to obtain estimated mission requirements for each class of supply, to include water, ice, and mail.

(c) Assists logistics planners in estimating requirements in support of operations and deployment—specifically to support operations typically associated with multiphase operational plans and operational orders. All data are linked to task organizations and phases of the operation. The user builds the task organizations and then determines the sequence and length of each phase and what missions each task organization will perform during each phase found in JP 3–0 (shape, deter, seize initiative, dominate, stabilize, and enable civil authority). Default TAA or theater-level rates can be used for quick planning estimates, or the user can define custom planning rates for each class of supply for each task organization operating in any phase-mission combination. The user can also set custom EUPs versus standard EUPs (see para 3–6 for more details). This feature enables unit-level planners to adjust rates and equipment usage to any given situation.

(d) Offers a wide selection of reports that provide estimated requirements by line item number (LIN), unit, and task organization. The reports provide results in weight and cube for dry products and in gallons and the number of containers for liquid products. Results can be rolled up and totaled for the entire operation, or the user can drill down to the unit or LIN level of detail. Report results are available in portable document format and Microsoft Excel formats.

(2) *Food and water tool.* This tool estimates class I (food, water, and ice). It allows the user to enter meal plans desired and population served to get pounds per person per day estimation.

(3) *Platform calculator.* This tool allows the user to enter pounds or a rate and the population to get an estimate of how many pallets and platforms (flatrack, 463L pallet, stake and pallet trailer, 20or 40-foot containers, and supply vans) are required.

(4) *Quick logistics estimation tool.* This tool allows the user to develop a quick estimation of requirements for each class of supply, based on desired standard requirements codes (SRC). The user can modify the unit strength for the SRCs and select the particular phase and climate for the estimate. The final results are a breakout of requirements by weight (or gallons), short tons, pallets, and platforms.

(5) *Class III bulk estimation tool.* This tool allows the user to develop class III (B) estimates, at the LIN level, by varying the usage profile.

(6) *Convoy planning tool.* This tool estimates the time a convoy will take based on factors such as distance, speed, and number of vehicles in the convoy.

b. Total Army analysis support. Annually, the Office of the Deputy Chief of Staff (ODCS), G–4 submits approved planning factors to the ODCS, G–3/5/7 Director of Force Management for use in modeling for TAA. The data is used to estimate the required workloads that determine the quantity and mix of supply, transportation, and maintenance units necessary to sustain major ground campaigns. Ultimately, the results of these campaigns inform the Program Objective Memorandum (POM) Force, a key part of the Army's budget process.

c. Modeling and simulation. Several organizations use the logistics planning factors for modeling and simulation. For example, the factors are used to confirm consumption rates and capabilities and determine required units.

d. Joint logistics planning. Annually, the ODCS, G–4 submits the approved logistics planning factors to the JCS, J–4 for use in Joint logistics planning. Per Chairman of the Joint Chiefs of Staff Manual (CJCSM) 3150.23C, the LFF feeds the Joint Operation Planning and Execution System (JOPES), which is used to monitor, plan, and execute mobilization, deployment, employment, and sustainment activities associated with Joint operations.

3–3. Logistics planning factors

Army logistics planning factors are consumption estimates developed for classes of supply I through IX, water, ice, and mail. The planning factors vary by phase when supported by data inputs, and fall into two categories: population-based logistics planning factors and equipment-based logistics planning factors.

a. Population-based logistics planning factors are single point estimates, usually expressed in pounds per person per day. Population-based logistics planning factors cover class I, II, IV, VI, VIII, mail, water, and ice. Exceptions to the pounds per person per day expression are class VIII, which is expressed as pounds per admission (for the entire time the patient is in the medical system) and water, which is expressed in gallons per person per day.

b. Equipment-based logistics planning factors are a variable set of factors based on operation and phase. Equipment-based logistics planning factors cover class III (B), III (P), V, VII, and IX and vary based on equipment LIN and SRC. Class III (B) and III (P) use EUPs which are based on equipment utilization (see para 3–6 for more detail). The rates are expressed as pounds or gallons per LIN per hour or kilometer and are often grouped together to give an estimate per SRC per day.

3–4. Population-based logistics planning factors

a. Class I: subsistence. The estimated daily average meal requirements are expressed in pounds per person per day.

(1) *Proponent.* CASCOM [Joint Culinary Center of Excellence].

(2) *Factor components:*

(a) Item-level meal, supplement, and enhancement (for example, ultra-high temperature processing milk, fresh fruits, and vegetables), weights, cubes, and composition (perishable or nonperishable).

(b) Characteristics data (weights, cubes, and designation as perishable or nonperishable).

(c) Health and Comfort Pack weights, cubes, and components.

(d) Meal plans.

(e) Feeding plans.

(f) Policy and guidance from Office of the Surgeon General, Office of Secretary of Defense, and U.S. Army.

(3) *Data output.* Class I supply planning factors are driven by the meal and feeding plan in Army Techniques Publication (ATP) 4–41, Army Field Feeding and Class I Operations. Ration weights are applied to the feeding plan to generate a planning factor expressed as pounds per person per day by phase.

b. Water. Average daily bulk planning rate (potable and nonpotable) for use in food preparation, hydration, maintenance, medical, and so forth, expressed in gallons per person per day.

(1) *Proponent.* CASCOM [Quartermaster School (QMS)].

(2) *Factor components:*

(a) Item-level proportional potable gallon requirements for soldier consumption, feeding, medical, personal hygiene consumption, and showers.

(b) Additional requirements for potable organizational consumption (Field Hospitals and Force Provider) along with nonpotable requirements for laundry, mortuary affairs, and maintenance and engineer operations.

(3) *Data output:*

(a) Population. Gallons per person per day by phase.

(b) Force provider. Gallons per person per site per day.

(c) Level III and IV Medical. Gallons per bed per day.

Note. The nonpotable factors are linked to their respective organizational rate in the event that modeling can accommodate that particular usage and distribution requirement for corresponding SRCs. Nonpotable factors for the remainder of requirements (organizational rate not linked to SRCs) are provided in gallons per person per day format and should be added to the arid requirements for potable soldier factors.

c. Ice. Average daily ice planning rate for use in food preparation, mortuary affairs, and hospitals, expressed in pounds per person per day.

(1) *Proponent.* CASCOM [QMS].

(2) *Factor components.* Requirements for food preparation, mortuary affairs, and hospitals.

(3) *Data output:*

(a) Population: pounds per person per day by climate.

(b) Mortuary Affairs: pounds per remains per day by climate.

d. Class II: general supplies. Class II data is based on historical demand data from OIF for the MCO period, Phase IV and Phase V for the Army-only supported population and is expressed in pounds per person per day.

(1) *Proponent.* U.S. Army Materiel Command (AMC).

(2) *Factor components:*

(a) OIF class II daily demand data from Logistics Data Analysis Center (LDAC) (includes MCO period (Mar–Jun 03), Phase IV combat period (Jul 03–May 09), and Phase V combat period (Jun 09–Dec 11)).

(b) National Stock Number (NSN)-level weights from LDAC.

(c) OIF Population from JCS, J–1.

(3) *Data output.* The class II planning factor is expressed in pounds per person per day by phase.

e. Class IV: construction and barrier-fortification. Each class IV planning factor is developed from tasks that include the descriptions and are based off projects bills of materials down to the NSN level of detail. The weights of the NSNs data are also included, the frequency and populations in previous TAA processes (Force Generator Model). Barrier-Fortification is based on OIF after-action report and configured loads. The class IV factors are expressed in pounds per person per day.

(1) *Proponent.* Maneuver Support Center of Excellence (MSCoE).

(2) *Factor components:*

(a) Construction task table.

(b) Quantity of tasks performed.

(c) Previous TAA data.

(3) *Data output.* The class IV planning factor is expressed in pounds per person per day by phase.

f. Class VI: personal consumption items. Class VI planning factors are based on OIF historical demand data for a supported population that includes all uniformed (Army, Navy, Marines, Air Force, and Coast Guard) personnel plus those civilians and contractors with special permission to use Army and Air Force Exchange Services (AAFESs). Class VI planning factors are expressed in pounds per supported person per day.

(1) *Proponent.* AAFES

(2) *Factor components:*

(a) Pounds of supply shipped.

(b) Population serviced from Military—JCS, J–1; Civilians and contractors—JCS, J–4.

(3) *Data output.* The class VI planning factor is expressed in pounds per supported person per day by phase.

g. Class VIII: medical. Class VIII planning factors are based on historical data of hospital admissions of a supported population broken down by category (Wounded In Action, Disease Nonbattle Injury, and Chemical patients) and separated by echelons of care (Echelon I and II, III, and IV). The factors are expressed in pounds per patient per day.

(1) *Proponent.* U.S. Army Medical Center of Excellence (MEDCoE).

(2) *Factor components:*

(a) For Phases I through III, patient distribution types, generic patient count of 500k, type of wounds categories, medical material used to treat patient categories.

(b) For Phases IV through V, the patient streams which were pulled from the Standard Inpatient Data Record and Theater Enterprise Wide Logistics Systems—CL VIII (Medical Materiel consumption).

(c) In addition, class VIII has a population supported items (PSI) rate. This is composed of class VIII items through unit supply, such as lip balm, powder, camouflage sticks, antibiotics.

(3) *Data output.* Pounds per admission. Pounds per person per day by phase for PSI.

h. Mail. Mail planning factors are based on bulk mail tonnage from OIF MCO period (Mar 2003–Jun 2003), Phase IV (Jul 2003–May 2009), Phase V (Jun 2009–Dec 2011), additional demand data is collected, to include Operation Enduring Freedom (OEF) and OIF 2012–Present), and validated population data. The mail factor is expressed in pounds per supported person per day.

(1) *Proponent.* Human Resources Command—Department of the Army Postal Program.

(2) *Factor components:*

(a) Bulk mail tonnage.

(b) Population serviced from: Military—JCS, J–1; Civilians and contractors—JCS, J–4.

(3) *Data output.* The mail planning factor is expressed in pounds per supported person per day by phase.

3–5. Equipment-based logistics planning factors

a. Class III (B): bulk fuel. Class III (B) technical burn rate data (gallons per hour or gallons per kilometer), the DCS, G–4 FMC rates, and the appropriate EUP combinations (equipment code (EC) or proponent code (PC)) are linked together with the approved DCS, G–3/5/7 or USAFMSA consolidated Table of Organization and Equipment (TOE) update (CTU) download to get consumption in gallons at the LIN equipment level. Fuel densities are applied to convert the gallons to pounds of fuel. The LIN quantity is also applied. This data is then rolled up to the SRC level

for all phases and Army operation combinations for a factor format of pounds or gallons per SRC per phase or military operation combination per day.

(1) *Proponent.* AMC.

(2) *Factor components:*

(a) The burn rate data table consists of all known fuel consuming equipment and is indexed by LIN. The units of expression for its data are dependent on equipment type: Aviation equipment report fuel consumption as gallons per hour in each of the operational modes (idle, cruise maximum endurance, maximum range, and hover/maximum speed). Tracked vehicles and wheeled vehicles report fuel consumption as gallons per hour in each of the operational modes (idle, primary road, secondary road, and cross-country) and its respective speed for that terrain condition. All other equipment types (such as generators and material handling equipment) report consumption by a single gallons per hour rate.

(b) EUP.

(c) LIN densities and LIN quantity from DCS, G–3/5/7 or USAFMSA CTU.

(d) FMC rates from DCS, G–4.

(3) *Data output.* Pounds and gallons per SRC per phase or military operation combination per day.

b. Class III (P) packaged petroleum: Class III (P) data is calculated to a mile, kilometer, or hour rate at the single ounce level for each LIN. As with fuel, it is linked to EUP. Class III (P) data is broken down into specific national item identification number (NIIN) subgroups such as cleaning compounds, motor oil, grease, hydraulic fluids, coolants, and so forth. Those NIIN subgroups are then rolled up to their respective LINs and LINs to SRCs for pounds per SRC per day in each phase or operation combination.

(1) *Proponent.* AMC.

(2) *Factor components:*

(a) LIN-level service and burn off rates based on Army lube orders, lube instructions, and technical manuals.

(b) NIIN-level weights (provided by LDAC).

(c) EUP.

(d) LIN densities and LIN quantity from DCS, G–3/5/7 or USAFMSA CTU.

(e) FMC rates from DCS, G–4.

(3) *Data output.* The class III (P) planning factor is expressed in gallons or pounds per SRC per day by phase.

c. Class V: ammunition. The class V planning factors are based on model outputs and theater provided data. Weapons densities and characteristics data are applied to the expenditure data for each phase and type to develop a pounds per LIN per day rate. This is applied to the CTU to get a pounds per SRC per day rate.

(1) *Proponent.* DCS, G–3/5/7, Munitions Management Division (DAMO–TRA).

(2) *Factor components:*

(a) Total rounds expended by weapon system by DoD Identification Code (DODIC) per day provided by the CAA (Quantitative War Reserve Requirements for Munitions and historic OIF or OEF data for Phase IV).

(b) Weapons densities.

(c) DODIC-level characteristics data from Conventional Ammunition Packaging and Unit Load Data Index, catalog, and Joint Munitions Command.

(3) *Data output.* The class V planning factor is expressed in pounds per SRC per day by phase.

d. Class VII: major end items. The estimated daily average requirement for replacement of major end items expressed in pounds per SRC per day by transportability code by phase.

(1) *Proponent.* Headquarters, Department of the Army, CAA Field Operating Agent of DCS, G–8.

(2) *Factor components:*

(a) Loss rates by ECs, LIN and phase (Quantitative War Reserve Requirements for Losses process) for modeled rates.

(b) ECs, LIN and phase (Estimate of Wartime Attrition and Replacement of Materiel process) for nonmodeled rates.

(c) System densities (USAFMSA–CTU).

(d) LIN-level weights and transportability categories (Supply Bulletin (SB) 700–20 and Technical Bulletin (TB) 55–46–1).

(3) *Data output.* Pounds per SRC per day by Transportability Category (TC) code by phase.

e. Class IX: repair parts. Class IX planning factor is based on historical OIF data and is expressed in pounds per SRC per day.

(1) *Proponent.* AMC.

(2) *Factor components:*

(a) OIF class IX daily demand data, MCO period (Mar–Jun 03).

(b) OIF class IX daily demand data, Phase IV combat period (July 03–May 09).
(c) OIF class IX daily demand data, Phase V combat period (June 09–Dec 11).
(d) NSN-level weights.
(e) End-to-Spares List (which lists the individual parts (for example, bolts) that are associated with a particular end item (for example, tanks).
(f) Equipment densities by month.
(3) *Data output.* The class IX planning factor is expressed in pounds per SRC per day.

3–6. Equipment usage profiles

a. Overview. EUPs are operational descriptions of how Army equipment is used during all phases of combat operations. EUPs are used to derive planning factors for the consumption of class III bulk and class III packaged based on how Army equipment consumes the commodity. The accuracy of the usage data impacts the accuracy of planning factors which influences future Army logistics structure and other budgetary considerations. The EUP must allow for the data to be applied across the full spectrum of operations.

b. Proponents. TRADOC, Army Sustainment Command, U.S. Army Special Operations Command, and U.S. Army Space and Missile Defense Command.

c. Components:

(1) *Equipment code.* The EC identifies specific groups of equipment, based on similarity and function that require usage data. The EC is a four-position code that defines a set of LINs for which a common EUP is reported. The EC is used to group similar LINs together for the purpose of reporting EUP.

(2) *Proponent code.* The PC identifies specific groups of units (SRC or TOE) that contain equipment requiring usage data. It is a three-position alpha-numeric code that defines the proponent series (01, 03, 05, 07, and so forth) of TOE followed by an alpha code (A, B, C, and so forth) for all units for which have common missions or functions. The PC is used to group similar TOE together for the purpose of reporting EUP.

(3) *Phase.* This includes data for six notional phases (shape, deter, seize the initiative, dominate, stabilize, and enable civil authority).

(4) *Military operation.* This includes data for four military operations (offensive, defensive, stability, and mission staging).

(5) *Aviation* :

(a) Idle (Hours)—skids or wheels on ground, engine idling, and rotors turning.

(b) Total Flight Hours—total flight hours in a day.

(c) Percent Cruise at Maximum Endurance—cruising at minimum power required for flight, which usually occurs around half of the helicopter's maximum velocity (for example, 73 knots for AH–64D). This represents a low speed cruise where flight time is maximized, like searching an area on-station.

(d) Percent Cruise at Maximum Range—cruising at the speed for best distance, which usually occurs around 85–90 percent of maximum velocity. This represents a higher speed cruise as one might do during ingress or egress to a combat area.

(e) Percent Hover Maximum Speed—due to the shape of the power curve, maximum power required occurs at hover and maximum speed (maximum speed power required is usually slightly higher). The larger of the two (power at maximum speed) values is used to be conservative.

(6) *Tracked Vehicles* :

(a) Idle (Hours)—Daily Hours at tactical idle for tracked vehicles.

(b) Total Movement (Hours)—Total daily hours spent traveling in an average day.

(c) Percent Primary Road—Percentage of daily hours traveling primary roads (terrain is level paved (for example, freeway or highway)) for tracked vehicles.

(d) Percent Secondary Road—Percentage of daily hours traveling secondary roads (terrain is level paved (less improved)) for tracked vehicles.

(e) Percent Cross Country—Percentage of daily hours traveling cross country (terrain is level soil (for example, silty sand or gravel)) for tracked vehicles.

(7) *Watercraft* :

(a) Idle (Hours)—Number of hours a watercraft spends at a dock or stationary with engines running.

(b) Underway Hours—Number of hours a watercraft spends underway (in movement) in an average day.

(8) *Wheeled Vehicles* :

(a) Idle (Hours)—Daily hours at tactical idle for wheeled vehicles.

(b) Total Movement (miles or kilometers (km))—Total daily miles or km traveled in an average day.

(c) Percent Primary Road—Percentage of daily miles or km traveled on primary roads (terrain is level paved (for example, freeway or highway), average speed of ~28 miles per hour (mph) (~45 km/hr.)) for wheeled vehicles.

(d) Percent Secondary Road—Percentage of daily miles or km traveled secondary roads (terrain is level paved (less improved), average speed of ~23 mph (~37 km/hr.)) for wheeled vehicles.

(e) Percent Cross Country—Percentage of daily miles or km traveled cross country (terrain is level soil (for example, silty sand or gravel), average speed of ~13 mph (~20 km/hr.)) for wheeled vehicles.

(9) *Stationary Equipment.* Other Hours = Daily (Hours)—Single usage category that describes the average total hours of use in a day. (Examples include generators, material handling equipment, construction, and so forth.)

d. Data processing. In general, proponents must provide their best estimates for equipment usage within the specified parameters (that is, doctrine, Defense Planning Guidance, theater, and so forth) during data collection. The data is developed to represent daily average or typical percentage of equipment usage at company and team levels during specific phases and averaged across all like units within a protracted 100+ day Joint campaign. An example of this might be: there are nine combat battalions in a theater, six of which, on any given day in the Seize Initiative phase, are in an Offensive Operations while two are in a Mission Staging Operations and one is in Stability Operations. The proponent must describe how the unit's equipment will be used in each one of those phase-military operation combinations and provide an estimate of the percentage of time the units spend in each combination. When developing the usage factors, proponents are encouraged to gather information from real world data, models, doctrine, operational mode summary profiles, and subject matter expertise. Equipment usage data is collected with equipment readiness in all TOEs at 100 percent operationally ready at all times. Maintenance float, battle damage, break downs, accidents, and so forth are not considered in this data. These issues will be considered in separate data adjustments through the employment of separate FMC factors.

e. Data output. Because EUP is an input piece there is no specific developed factor. Figure 3–1 is an example of an EUP entry showing the unique PC or EC combination for the same type of equipment in the same phase and military operation, within two different organizations and how they are used in that organization.

PC	03A	11A	WHEELED VEHICLE-UTILITY /CARGO LIGHT (1/4 - 5/4 TON): T56383
EC	WV10	WV10	
SRC	HHC, CBRN BRIGADE	BRIGADE SIGNAL COMPANY (ABCT/IBCT)	
Phase	Dominate	Dominate	**24 combinations** of 6 Phases (Shape, Deter,Seize the Initiative, Dominate, Stabilize, and Enable Civil Support) x 4 Army Military Operations (Offense, Defense, Stability, Mission Staging)
Military Operation	Offensive Ops	Offensive Ops	
Other Hours	**0**	**0**	SRC Proponent Input - TRADOC or Command
Idle Hours	**4**	**1**	
Total Movement	**15**	**240**	
Primary Road	**70**	**90**	
Secondary Road	**20**	**5**	
Cross Country	**10**	**5**	
Total Hours	**4**	**1**	
Total Kilometers	**15**	**240**	
FMC Rate	G4		Separate and Adjustable

LEGEND	**ABCT**- Armored Brigade Combat Team **IBCT** - Infantry Brigade Combat Team

Figure 3–1. Equipment usage profile entry example

Chapter 4
Dissemination and Publication of Approved Logistics Planning Factors and Updates

4–1. General process

a. The Planning Factor Development Process chart (fig 4–1) shows the general process used to develop the DCS, G–4 approved Army logistics planning factors and EUP. This process begins with data received from the various proponents. Additional data and assumptions are applied to develop the planning factor.

b. There is continuous coordination between the PDB, the proponents, and other data providers.

c. The planning factors and EUPs go through a GO approval process. See paragraph 4–2 for more detail on the approval process.

d. Once the planning factors and EUP have obtained DCS, G–4 approval, they are disseminated. See paragraphs 4–3 and 4–4 for more detail on the dissemination process.

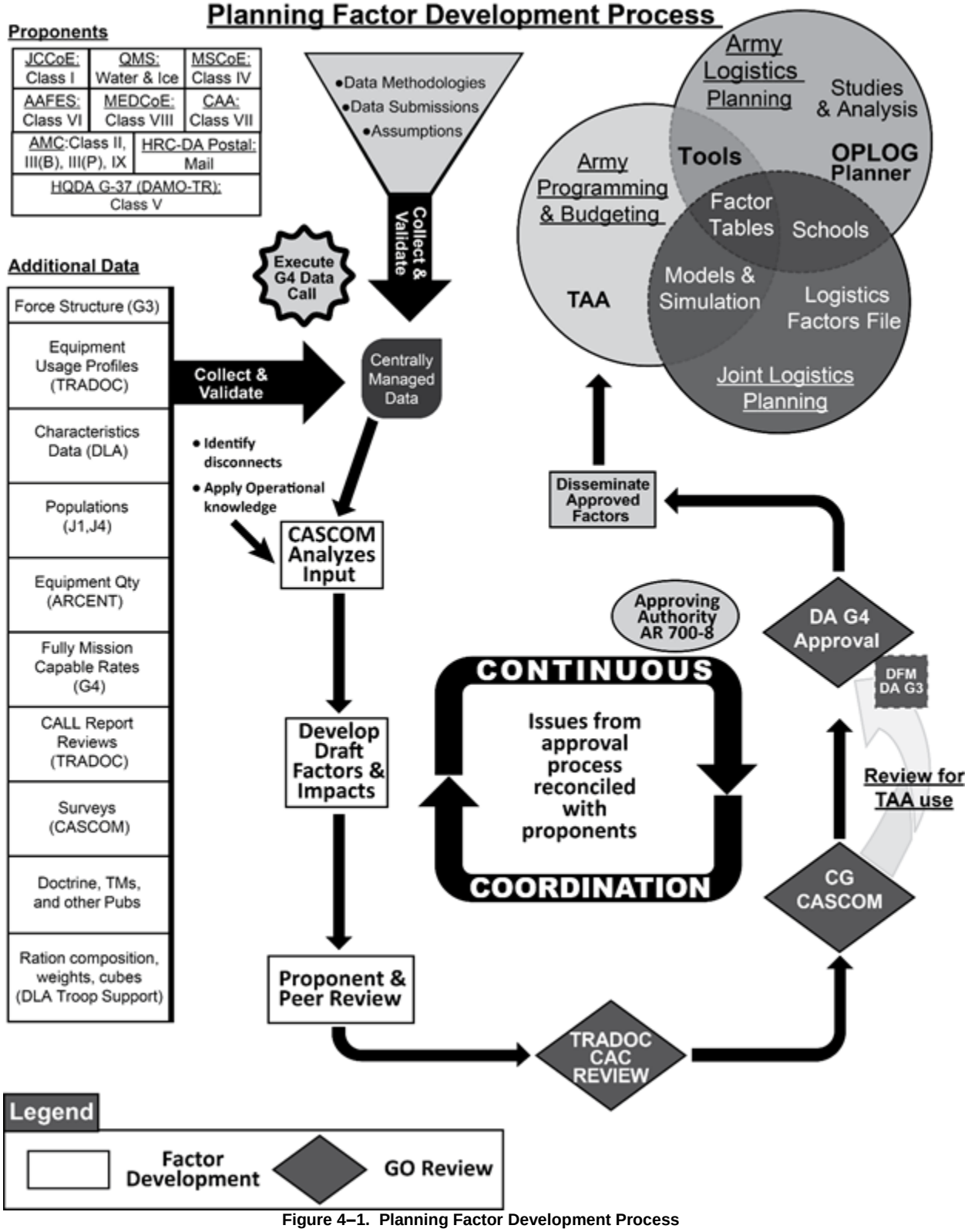

Figure 4–1. Planning Factor Development Process

4–2. Approval process

a. The Army logistics planning factors and EUPs are updated every other year, on alternating years. The approval process begins once the factors have been developed and reviewed with the proponent. The Army logistics planning factors and EUP updates require continuous coordination. Any issues during the approval process are reconciled with the proponents throughout the approval process.

b. The GO approval process starts with the CG, CASCOM. Once the factors are approved, the approval proceeds to the Commanding General, TRADOC, with approval authority delegated to TRADOC Combined Arms Center. The final approval authority for dissemination of the Army logistics planning factors is the DCS, G–4.

c. The DCS, G–3/5/7 will evaluate the DCS, G–4 approved planning factors and EUP for inclusion in TAA.

4–3. Dissemination

There are three main dissemination categories for the Army logistics planning factors and EUP update. The areas of dissemination are not all-encompassing, but represent the vast majority of uses for the Army logistics planning factors.

a. Army programming and budgeting. The Army logistics planning factors are used in TAA and Modeling and Simulation.

(1) *Total Army Analysis.* The Army logistics planning factors are used to estimate required workloads that determine the quantity and mix of supply, transportation, and maintenance units necessary to sustain major ground campaigns. Ultimately, the results of these campaigns inform the POM Force, a key part of the Army's budget process.

(2) *Modeling and Simulation.* Data is used to confirm consumption rates and capabilities and determine required units.

b. Army logistics planning. The Army logistics planning factors are used in OPLOG Planner and other tools. OPLOG Planner is used to forecast supply requirements for military operations and training. OPLOG Planner and other tools are used for studies and analysis. Army Logistics University and Command and General Staff College teaches instructional courses on OPLOG Planner for current logistics planners.

c. Joint logistics planning. The Army logistics planning factors are used to update the LFF, which feeds the JOPES, which is used to monitor, plan, and execute mobilization, deployment, employment, and sustainment activities associated with Joint operations. OPLOG Planner has also been taught to members of the Joint community.

4–4. Notification

The Army logistics planning factors are disseminated to the field annually through OPLOG Planner and the other dissemination tools discussed in paragraph 3–2*a*. They are also posted on an approved Army data repository, accompanied by the required cataloging and contextual data allowing authorized users to discover and apply them consistent with Army data plans and policies.

4–5. Logistics planning factor development path

The collection, development, maintenance, validation, review, and dissemination of the Army logistics planning data and factors is very complex and requires strict timelines in order to meet various submission dates. As shown in the planning factor development path (see fig 4–2), which shows only the EUP plus CTU path as this is the longest update, changes to submission requirements must be determined in advance in order for that update to be used.

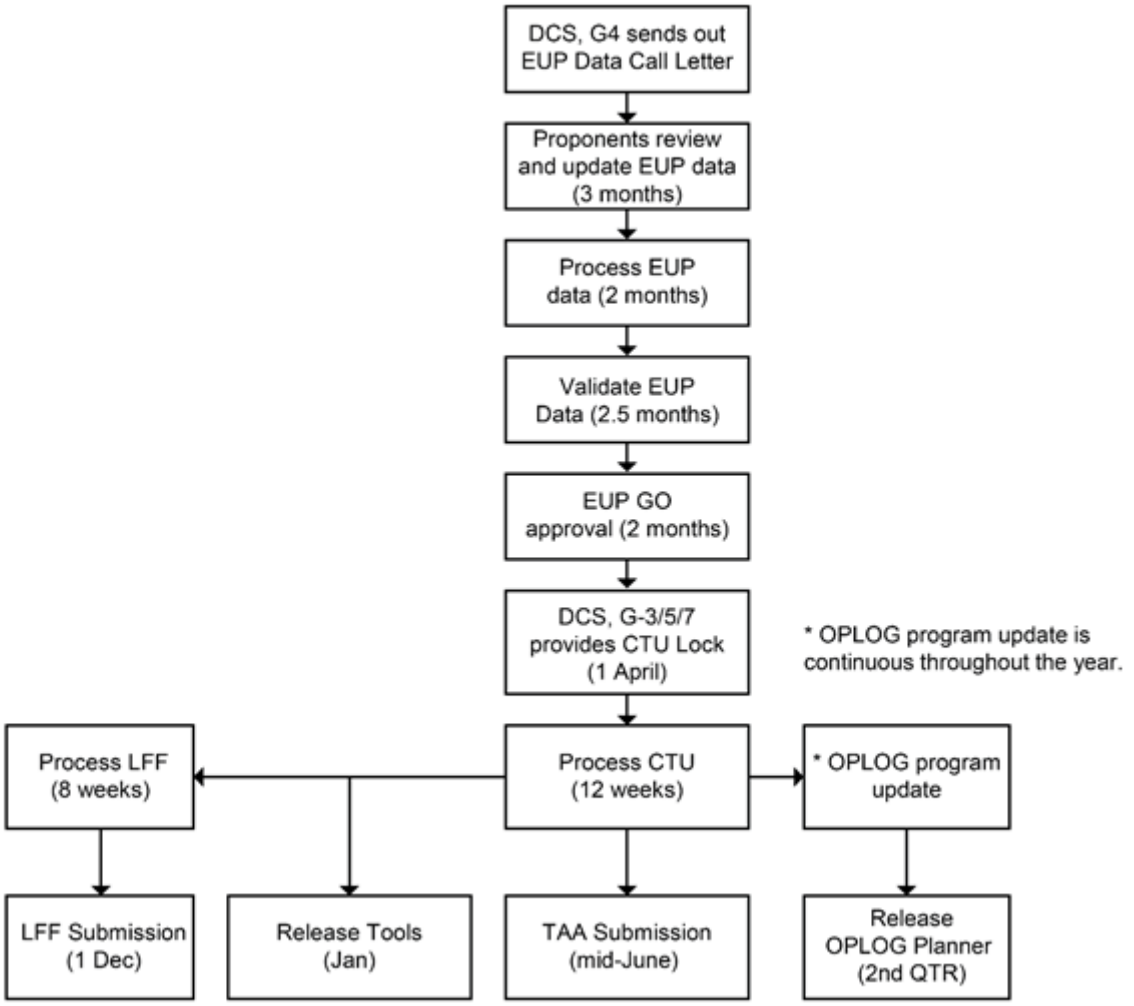

Figure 4–2. Logistics Planning Factor Development Path

4–6. Timeline

Figure 4–3 is a notional timeline that shows how the various logistics planning factor development processes function given the time constraints. The process to gather logistics planning factor data, develop the factors (to include analysis and validation), and obtain factor approval typically takes 9 months, and occurs biannually. The process to gather EUP data from proponents, analyze and validate the information, and get the update approved typically takes 10 months, and occurs biannually. The time to process the CTU (which includes receiving the files, processing them into a usable database format, and applying the DCS, G–4 approved planning factors and EUP), analyze the information, and submit to TAA is an additional 12 weeks, and occurs annually. However, there is continuous validation and methodology review, which overlaps the major update processes.

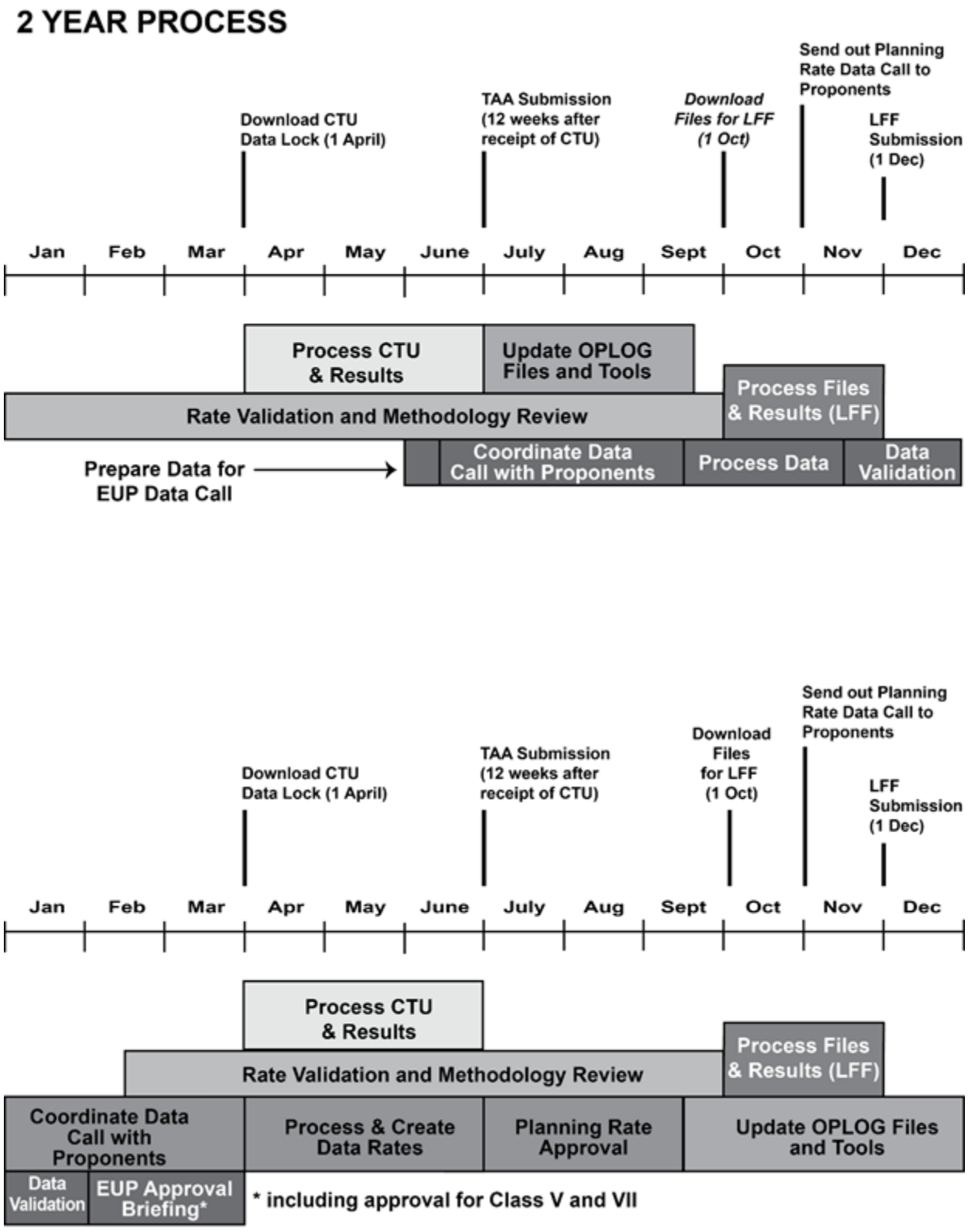

Figure 4–3. Logistics Planning Factor Development Timeline

4–7. Key processing times

a. Processing of the CTU requires 12 weeks.

b. Processing of the LFF requires 8 weeks.

c. Processing of EUPs requires 16 weeks (does not include data collection from proponents).

d. Updating OPLOG Files and tools requires 14 weeks.

Appendix A

References

Section I

Required Publications

JP 3–0
Joint Operations (Cited in para 2–1*b*.) (Available at https://www.jcs.mil/doctrine/joint-doctine-pubs/.)

Section II

Related Publications

A related publication is a source of additional information. The user does not have to read it to understand this regulation. Chairman, Joint Chiefs of Staff publications are available at https://www.jcs.mil/library/. Joint doctrine publications are available at https://www.jcs.mil/doctrine/.

ADP 1
The Army

ADP 3–0
Operations

ADP 4–0
Sustainment

ADP 5–0
The Operations Process

AR 5–13
Total Army Munitions Requirements and Prioritization Policy

AR 11–2
Managers' Internal Control Program

AR 15–39
Department of the Army Intergovernmental and Intragovernmental Committee Management Program

AR 25–1
Army Information Technology

AR 25–2
Army Cybersecurity

AR 25–30
Army Publishing Program

AR 30–22
Army Food Program

AR 40–61
Medical Logistics Policies

AR 71–32
Force Development and Documentation Consolidated Policies

AR 190–8
Enemy Prisoners of War, Retained Personnel, Civilian Internees and Other Detainees

AR 415–16
Army Facilities Components System

AR 700–138
Army Logistics Readiness and Sustainability

AR 710–2
Supply Policy Below the National Level

AR 710–3
Inventory Management Asset and Transaction Reporting System

AR 725–50
Requisition, Receipt, and Issue System

AR 750–1
Army Materiel Maintenance Policy

Army Data Plan
(Available at https://www.milsuite.mil/wiki/army_data_plan.)

ATP 4–02.55
Army Health System Support Planning

ATP 4–35
Munitions Operations and Distribution Techniques

ATP 4–44
Water Support Operations

CJCSM 3150.23C
Joint Reporting Structure (JRS) Logistics Factor Report (LOGFACREP)

DA Pam 750–8
The Army Maintenance Management System (TAMMS) User's Manual

FM 3–0
Operations

FM 3–63
Detainee Operations

FM 4–01
Army Transportation Operations

FM 4–02
Army Health System

JP 4–0
Joint Logistics

JP 5–0
Joint Planning

OPLOG Planner Getting Started Guide
(Available at https://www.us.army.mil/suite/files/38799138.)

SB 700–20
Army Adopted/Other Items Selected for Authorization/List of Reportable Items

TB 55–46–1
Standard Characteristics (Dimensions, Weight and Cube) for Transportability of Military Vehicles and Other Outsize/Overweight Equipment (in TOE Line Number Sequence)

TM 3–34.73
Port Construction and Repair

TM 55–500
Watercraft Equipment Characteristics and Data

Section III

Prescribed Forms

This section contains no entries.

Section IV

Referenced Forms

Unless otherwise indicated, DA forms are available on the APD website (https://armypubs.army.mil).

DA Form 11–2
Internal Control Evaluation Certification

DA Form 2028
Recommended Changes to Publications and Blank Forms

Appendix B

Internal Control Evaluation

B–1. Function

The function of this evaluation is to determine the efficiency and effectiveness of the collection of Army logistics planning data.

B–2. Purpose

The purpose of this evaluation is to assist users in evaluating key internal controls listed. It is intended as a guide and does not cover all controls.

B–3. Instructions

Answers must be based on the actual testing of key internal controls such as document analysis, direct observation, interviewing, sampling, and simulation. Answers that indicate deficiencies must be explained and corrective action indicated in supporting documentation. These internal controls must be evaluated at least once every 5 years. Certification that the evaluation has been conducted must be accomplished on DA Form 11–2 (Internal Control Evaluation Certification).

B–4. Test questions

a. Has the DCS, G–4 notified the proponents of the data requirements prior to the GO annual review?

b. Have proponents submitted, reviewed, and validated data used in existing approved logistics planning factors to CASCOM (ATCL–CDF–MP) before the GO annual review?

c. Has CASCOM (ATCL–CDF–MP) provided the DCS, G–4 (DALO–OPS–F) with the updated logistics planning data and factors before the GO annual review?

d. Has the GO annual review been scheduled and conducted by the DCS, G–4?

e. Has the MDEP–VWPF transformation support to the DCS, G–4 been used to fund the development of Army logistics planning factors and maintenance of Army logistics data?

f. Has CASCOM reviewed proponency as designated in paragraphs 3–4 and 3–5 at least annually and provided the DCS, G–4 (DALO–OPS–F) with recommendations for changes within 30 days of review, if needed?

B–5. Supersession

This evaluation replaces the evaluation for evaluating efficiency and effectiveness of the collection of Army logistics planning data previously published in AR 700–8, dated 15 March 2011.

B–6. Comments

Help make this a better tool for evaluating internal controls. Submit comments to Deputy Chief of Staff, G–4 (DALO–OPS–F), 500 Army Pentagon, Washington, DC 20310–0500.

Glossary

Section I

Abbreviations

AAFES
Army and Air Force Exchange Service

ACOM
Army command

AMC
U.S. Army Materiel Command

AR
Army Regulation

ARIMS
Army Records Information Management System

ASCC
Army service component command

ATP
Army Techniques Publication

CAA
U.S. Army Center for Army Analysis

CASCOM
U.S. Army Combined Arms Support Command

CG
commanding general

CTU
consolidated Table of Organization and Equipment update

DCS
Deputy Chief of Staff

DoD
Department of Defense

DODIC
Department of Defense Identification Code

DRU
direct reporting unit

EC
equipment code

EUP
equipment usage profile

FMC
fully mission capable

GO
general officer

hr.
hour

JCS
Joint Chiefs of Staff

JOPES
Joint Operation Planning and Execution System

km
kilometer

LDAC
Logistics Data Analysis Center

LFF
logistic factors file

LIN
line item number

MCO
Major Combat Operations

MDEP
Management Decision Evaluation Package

mph
miles per hour

NIIN
national item identification number

NSN
national stock number

ODCS
Office of the Deputy Chief of Staff

OEF
Operation Enduring Freedom

OIF
Operation Iraqi Freedom

OPLOG
operational logistics

PC
proponent code

PDB
Planning Data Branch

POM
program objective memorandum

PSI
population supported items

QMS
Quartermaster School

SB
supply bulletin

SRC
standard requirements code

TAA
total Army analysis

TB
technical bulletin

TC
transportability category

TM
Technical manual

TOE
table of organization and equipment

TRADOC
U.S. Army Training and Doctrine Command

USAFMSA
U.S. Army Force Management Support Agency

VWPF
Validate Wartime Planning Factors

Section II

Terms

Consumption rate
The average quantity of an item consumed or expended, expressed in a unit of measure compatible with the appropriate EUP.

Equipment code
Identifies specific groups of equipment based on similarity and function that require usage data.

Equipment usage profile
Provides equipment usage by specific units in a set of Joint operational phase and military operation combinations.

Fully mission capable rate
Equipment considered operationally ready if it is determined to be FMC per the standards prescribed in the applicable technical manual (see "not ready if" column of the preventive maintenance checks and services in the TM 10/20 series).

Idle
Refers to the times when a vehicle, watercraft, or aircraft is stationary with the engine running.

Logistic factors file report
Report that identifies the reporting mechanism and process to enter and update the logistic factors file data and is a JOPES standard reference file. This reference file is used in conjunction with the Joint Strategic Planning System and the Joint Strategic Capabilities Plan to develop, evaluate, and implement Joint military operations and operations orders; to support deliberate planning, crisis action planning, wargaming, analyses of future amphibious and civilian sealift foot printing, analyses of pre-positioning requirements, and analyses of future air and sealift asset acquisition; and to establish the responsibilities of the Armed Forces to provide consumption rates and resupply information to develop and maintain the logistic factors file. Accurate logistic factors will assist the combatant commanders in projecting nonunit-related cargo sustainment requirements for conducting transportation feasibility of a Commander-in-Chief operation plan.

Logistics
The process of planning and executing the projection, movement and sustainment, reconstitution, and redeployment of operating forces in the execution of national security policy (JP 4–0). In its most comprehensive sense, it encompasses those aspects of military operations which deal with the following: design and development, acquisition, storage, movement, distribution, maintenance, evacuation, and disposition of material; movement, evacuation, feeding, clothing, and health service support of personnel; acquisition or construction, maintenance, operation, and disposition of facilities; and acquisition or furnishing of services.

Logistics planning data
For the purposes of this regulation, logistics planning data is used Armywide at strategic, operational, and tactical levels to estimate the amount and type of effort and/or resources required for a given operation. These data may be in the form of consumption rates, data tables, reference data, planning factors, or any other form deemed appropriate by the proponent to meet the needs of users.

Military operations
Category that reflects how unit equipment is used during a typical day (for example, offense, defense, and mission staging). Military operations are defined and illustrated in ADP 3–0.

Operational Logistics Planner
A tool developed by CASCOM (ATCL–CDF–MP) (available via the CASCOM website or other approved systems such as Army Knowledge Online) that estimates the logistics required to support an operation (see para 3–2).

Phase
Category that applies how unit equipment is used to perform Joint Campaign activities (for example, deter, seize, decisive, and stability). The phases are described in JP 3–0. Phases in conjunction with military operations are used to assist in describing how Army units use their equipment to perform their missions.

Planning factor
A multiplier used in planning to estimate the amount and type of effort involved in a contemplated operation. Planning factors are often expressed as rates, ratios, lengths of time, or consumption quantities.

Proponent code
Identifies specific groups of units by source requirement code and table of organization and equipment that contain equipment requiring usage data.

Proponents for planning data
Those organizations or staffs that have been assigned primary responsibility for developing planning data. Paragraphs 3–4 and 3–5 of this regulation identify proponents of selected planning data.

Situation modifier
Planning data variations caused by type and intensity of operations, types of units, force structure, terrain, climate, and geographic area.

Validation
The process involving the identification, documentation, and appropriateness of the source of raw data used in the development of logistics planning data and the procedures for the collection, processing, and reporting of those data; and the methodology by which logistics planning data are derived, tested, and applied.