

Financial Management Regulation (FMR) Modernization: Actionable Recommendations

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Executive Summary

The Department of Defense (DoD) Financial Management Regulation (FMR) (DoD 7000.14-R) is a comprehensive document, provided by the Office of the Under Secretary of Defense (Comptroller) (OUSD(C)), that gives guidance to financial management (FM), acquisition, and other DoD personnel. It compiles and implements statutory requirements and establishes regulations for DoD FM functions for all appropriated and nonappropriated funds, to include revolving and trust funds.

With over 7,000 pages of detailed technical guidance, the FMR can be difficult for users to navigate and understand. In its 2024 report, the Planning, Programming, Budgeting, and Execution (PPBE) Reform Commission recommended systematic revision and update to the FMR to ensure that it provides “clear, consistent, and current guidance that enables efficient and effective decision-making at the lowest levels.” OUSD(C) asked the Institute for Defense Analyses (IDA) to develop actionable recommendations to modernize the FMR, including reducing the size of the FMR, increasing its user friendliness, and enabling more timely and less labor intensive updates.

To develop these recommendations, IDA:

- Reviewed the FMR;
- Interviewed current and former DoD FMR experts;
- Conducted workshops with DoD FMR stakeholders;
- Benchmarked the FMR against policy documents in other federal organizations and other functions within DoD; and
- Assessed the potential capability of current technology to support a modernized FMR.

IDA’s research identified a number of friction points and organized them, along with other findings, into three broad categories: FMR usability, the FMR updating process, and FMR content.

The first category of findings and friction points is FMR usability. The size and scope of the FMR are so large that no one organization, entity, or individual can be considered expert in its entirety. In addition, the FMR is technically complex. Subject matter experts who IDA interviewed overwhelmingly indicated that searching for specific information and navigating in the FMR is too difficult, that available training and support are

insufficient, and that improving usability of the FMR should be a major focus of modernization.

The second category is the FMR updating process. Current policy for FMR revisions directs that updates for all chapters occur on a biennial cycle, with policy memos—used to communicate changes to specific sections on an interim basis—incorporated into the relevant FMR chapters within 12 months. FMR users expressed frustration with the length of time required to see a change published, the frequency of updates, and the cumbersome approval process internal to the Department.

The third category of findings and friction points is the content of the FMR. Users identified the FMR structure as (1) varying across volumes and chapters, and (2) containing a mix of policy and procedure guidance that is not always clearly or consistently differentiated. Although IDA found that instances of problematic (e.g., confusing, outdated, or inconsistent) content occasionally occur, most users specified that these types of content issues are neither common nor pervasive in the FMR.

Some stakeholders also noted the FMR is overly restrictive—i.e., more restrictive than the law requires—and that this hinders the timely fielding of new technology to the force. Indeed, this was a stated motivation for the PPBE Reform Commission’s Recommendation #12. To validate this claim, IDA interviewed finance and acquisition experts and fiscal attorneys in DoD to request examples of potentially unnecessary limitations in the FMR. With one exception, we were unable to substantiate this claim. Instead, the FMR’s mix of requirements and guidance reflects appropriate agency discretion to manage operations and activities in a responsible manner.

Although the FMR is long—a noted topic of concern in the IDA tasking—most users who IDA interviewed stated that the length of the FMR is not a problem. Most users indicated that the information in the FMR is required by some user community(s) and should be placed in an accessible repository. When raised with users, discussion about length usually turned into a discussion of usability and how to use modern information technology to make the FMR easier to search and navigate.

Based on our findings, friction points, benchmarking comparisons of the FMR with other policy documents and financial regulations across agencies, and an assessment of the capability of current technology, IDA identified seven actionable recommendations for modernizing the FMR.

Recommendation 1 is to create standardized structures across the FMR. IDA recommends a formalized four-tiered approach: (1) links to higher-level guidance that the FMR draws on (e.g., statutes and accounting standards) within the body of the text, (2) FM policy, and (3) procedures—guidance as to how to apply the policy requirements, including sample forms with instructions—that must be standardized across DoD with links, where feasible, to subordinate documents such as Components’ Standard Operating Procedures and policy

manuals. This recommendation also suggests greater use of standardized structures across all volumes and chapters within the FMR. For example, OUSD(C) could use standardized sections like purpose, summary of topics covered, policy, procedures, references, and templates.

Recommendation 2 is to update the presentation of information in the FMR. Most importantly, this includes improving readability during periodic chapter refreshes. OUSD(C) could also make greater use of special fonts, highlights, asterisks, and other creative presentation tools to signify archived sections, recent updates, and related policy memos. This could include using hyperlinks within the body of the text for duplicative material, applicable policy memos, and external references. OUSD(C) should also consider establishing a subscriber link on the FMR website so that users could automatically receive relevant updates as they occur.

Recommendation 3 is to update the information in the FMR. This would entail the inclusion within the FMR of additional topics of interest to FM stakeholders and other functional communities. Specific topics that stakeholders mentioned during interviews and workshops were Government (G)-invoicing and Robotic Process Automation, and additional content on Enterprise Risk Management.

Recommendation 4 is to improve FMR education, training, and reach-back support to the FMR user community. This could include a set of courses on FMR navigation and the content of individual volumes and chapters, as well as training on AI tools that may be adopted (see Recommendation 7). A reach-back process to FMR experts and authors, formalized with contact information, would be useful, as would be videos hyperlinked from within the document that address particular areas of concern. Similar to the current guiding DoD acquisition regulation supplement, a dedicated Procedures, Guidance, and Instruction section could be a useful tool for FMR users.

Recommendation 5 is to focus the updating process on prioritized content. In addition to the current process of automatic updates to chapters on a calendar period basis, OUSD(C) could focus updates on individual sections based on a checklist to determine high priority sections. For instance, OUSD(C) could use data on the number of searches and page views to identify priorities for updating, along with creating a feedback mechanism on the FMR website.

Recommendation 6 is to streamline the coordination and collaboration process for FMR updating. The Deputy Chief Financial Officer already uses a SharePoint site for administering updates;¹ however, a more collaborative implementation of such a tool that permits better horizontal coordination and communication could prove useful. This

¹ U.S. Department of Defense, Office of the Under Secretary of Defense (Comptroller), *Financial Management Regulation Revision Standard Operating Procedures*, revised August 2019.

collaboration tool should be accessible to the entire community (or at least to FM policy organizations in the Components) to share information and allow feedback. OUSD(C) could publish and maintain an updating schedule and an updated timeline for in-process updates. Finally, Components would appreciate more fulsome feedback when their coordinating comments are not accepted.

Recommendation 7, possibly the most far-reaching recommendation, is to leverage modern technology to improve the usability of the FMR. Most critically, the use of modern search technology and Generative AI (GenAI) tools would greatly improve users' ability to search and query the FMR. Technology could also track or anticipate when users would need to answer certain questions and to provide tips and background notes. GenAI tools could be used to assist in summarizing policy updates and changes, and identifying linkages (1) between related guidance across the FMR and (2) to subordinate documents when updating content.

We note that despite the commonly held belief that generative AI (e.g., Large Language Models [LLMs]) can (1) accurately generate summaries of documents or sets of documents, (2) comprehensively search documents for information, and (3) provide guidance based on document content, there are currently significant risks associated with its use including the retrieval of partial information and hallucinations. To mitigate the risks involved in a large-scale application of modern technology to the FMR, IDA recommends that the use of modernization tools, if adopted, be undertaken as a formal program with a Program Management Office-supported acquisition strategy coupled with a significant user training and education effort to mitigate the inherent risks involved in LLM usage. This implies that an OUSD(C) analyst or action officer should not, as a collateral duty, lead the acquisition element of a technology-enabled modernization effort.

Taken together, IDA's recommendations constitute a comprehensive modernization framework that would improve the FMR's usability, updating process, and content. The technology modernization recommendation would position OUSD(C) and the FM community to leverage the rapidly advancing capabilities of AI. Although implementation may present challenges, initiating the process is essential to advancing meaningful modernization.

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1. Introduction and Study Background

A. Project Tasking

The Department of Defense (DoD) Financial Management Regulation (FMR) (DoD 7000.14-R)¹ is a comprehensive document that provides guidance for financial management (FM), acquisition, and other DoD personnel. It was first introduced electronically in 1997 and was modernized in 2013. The Planning, Programming, Budgeting, and Execution (PPBE) Reform Commission recommended systematic revision and update to the FMR to ensure it provides “clear, consistent, and current guidance that enables efficient and effective decision-making at the lowest levels.”² The Office of the Under Secretary of Defense (Comptroller) (OUSD(C)) oversees the FMR and has sponsored this study.

The objective of the study is to provide OUSD(C) with actionable recommendations to modernize the FMR, including reducing the size of the FMR, increasing its user friendliness, and enabling more timely and less labor intensive updates.

The scope of this study is to:

1. Review the full FMR with Institute for Defense Analyses (IDA) subject matter experts (SMEs) to identify key friction points and areas for modernization, including shortening and streamlining.
2. Interview current and former DoD experts to identify key friction points and areas for modernization, including shortening and streamlining.
3. Organize and facilitate approximately five workshops with DoD personnel, which focus on specific friction points, to identify options for modernization, including shortening and streamlining.
4. Develop comprehensive modernization recommendations that consolidate the insights gained from (1) to (3).
5. Have technology experts develop options for reenvisioning the display and searchability of the FMR.

¹ Department of Defense, Office of the Under Secretary of Defense (Comptroller), *Financial Management Regulation, DoD 7000.14-R (FMR)*, revised March 2024.

² Commission on Planning, Programming, Budgeting and Execution Reform, *Final Report: Defense Resourcing for the Future*, March 6, 2024, 89–90.

6. Have policy and legal experts develop options to enable more timely and less labor intensive updates to the FMR.

B. The FMR

1. Purpose of the DoD FMR

The purpose of the FMR is to consolidate into a single source all of the statutory, regulatory, and policy requirements that relate to FM systems and functions for appropriated, nonappropriated, working capital, revolving, and trust fund activities within DoD.

2. The FMR user community

The user community for the FMR is diverse and extensive. It involves tens of thousands of personnel across DoD. It includes civilian and military personnel in the Office of the Secretary of Defense (OSD), the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the DoD Office of the Inspector General, the Defense Agencies, the DoD Field Activities, and other organizations within DoD. Primary users include civilians involved in the occupational categories of financial administration, accounting, auditing, and budget analysis (the General Schedule 500 job series as well as certain Wage Grade employees), along with officer and enlisted personnel performing similar FM functions. In addition to these primary users, stakeholders from other functional communities refer to the FMR for guidance regarding financial compliance matters, for example involving acquisition, logistics, and human resources policy. Fiscal attorneys also use the FMR as a primary reference when issuing legal opinions involving financial matters and adjudicating potential Anti-Deficiency Act violations.

3. FMR content and structure

The FMR contains a mix of policy and procedure. It comprises 20 volumes with 394 total chapters. As of April 2025, it has 7,391 pages, of which 549 pages are Tables of Contents. Primary topics include regulatory guidance pertaining to financial systems, budget formulation and execution, accounting policy, financial reporting/statements, payment of entitlements, reimbursable operations, security assistance, and debt management. Table 1 displays the FMR volume structure along with the number of pages associated with each volume. A summary of each volume and a list of the chapters contained within them appears in Appendix A.

Table 1. FMR volumes

Volume number	Volume Title	Number of active chapters	Number of pages	Managing Organization
	Front matter		4	
1	General Financial Management Information, Systems, and Requirements	10	87	OUSD(C)
2A	Budget Formulation and Presentation (Chapters 1-3)	3	641	OUSD(C)
2B	Budget Formulation and Presentation (Chapters 4-19)	19	630	OUSD(C)
3	Budget Execution – Availability and Use of Budgetary Resources	19	296	OUSD(C)
4	Accounting Policy	28	542	OUSD(C)
5	Disbursing Policy	16	356	DFAS
6A	Reporting Policy	15	263	OUSD(C)
6B	Form and Content of the Department of Defense Audited Financial Statements	13	142	OUSD(C)
7A	Military Pay Policy – Active Duty and Reserve Pay	68	1,263	DFAS
7B	Military Pay Policy – Retired Pay	64	777	DFAS
8	Civilian Pay Policy	11	498	DFAS
9	Travel Policy	8	104	DFAS
10	Contract Payment Policy	23	270	DFAS
11A	Reimbursable Operations Policy	19	279	OUSD(C)
11B	Reimbursable Operations Policy – Working Capital Funds (WCF)	15	130	OUSD(C)
12	Special Accounts, Funds and Programs	34	482	OUSD(C)
13	Nonappropriated Funds Policy	11	78	DFAS
14	Administrative Control of Funds and Antideficiency Act Violations	3	76	OUSD(C)
15	Security Cooperation Policy	8	247	OUSD(C) ^a
16	Department of Defense Debt Management	7	195	DFAS
00	Glossary		31	
	Totals:	394	7,391	

^a Volume 15 was scheduled to transition from DFAS to OUSD(C) in October 2024.

4. FMR updating drivers and process

The FMR is a living document. It must be reviewed and updated periodically to incorporate current policy. Changes in the FMR are driven primarily by three organizational areas. These include policy and entitlement changes established by

Congress, new or revised accounting standards released by the Federal Accounting Standards Advisory Board (FASAB) (released on an ad hoc basis), and DoD policy changes driven by executive branch decisions and directives (released on an ad hoc basis). There can be other drivers as well, such as Comptroller General decisions, Office of Management and Budget (OMB) directives, Department of Justice directives, and Office of Personnel Management (OPM) directives. Policy officials must work to stay abreast of any such changes and make updates accordingly.

Two organizations are responsible for publishing FMR updates. Table 1 indicates the 12 volumes that the Deputy Chief Financial Officer (DCFO) manages and the eight volumes that the Defense Finance and Accounting Service (DFAS) manages on behalf of OUSD(C). Regardless of who has the lead role, updates tend to follow the same process, which includes such things as informal coordination with Components followed by formal coordination, receipt of Component coordinating comments, adjudication of those comments by DCFO and DFAS, refinement of policy guidance based on coordination, internal quality checks, legal reviews, and leadership approvals (to include the USD(C) and, for two chapters in Volume 14, OMB). The entire process averages approximately six months, although certain updates can take longer. A detailed flow diagram of this process is included in the DoD Financial Management Regulation Revision Standard Operating Procedures.³

C. Modernizing the FMR

In recent years, stakeholders within DoD have become increasingly concerned about (1) the effort required to obtain desired guidance from the FMR, (2) a perceived lack of consistency between different parts of the FMR, and (3) the time and effort spent ensuring that the FMR reflects current policy. In response to these concerns, both the 2024 PPBE Commission's report and the Fiscal Year 2025 National Defense Authorization Act (FY25 NDAA) address the issue of modernizing the FMR.

1. The PPBE Commission's FMR Recommendation

The PPBE Commission's report⁴ is clear in its recommendation to modernize the FMR. Figure 1 shows the text of Recommendation #12 of the report: "Review and Update PPBE-Related Guidance Documents."

³ U.S. Department of Defense, Office of the Under Secretary of Defense (Comptroller), *Financial Management Regulation Revision Standard Operating Procedures*, revised August 2019.

⁴ Commission on Planning, Programming, Budgeting and Execution Reform, *Final Report, Defense Resourcing for the Future*, March 6, 2024, 89–90.

“The Commission repeatedly heard about the undue burden and confusion caused by unclear guidance, which creates increased workloads for programs and the legal community and often delays moving at the speed necessary to support modern warfighting requirements. A key component in enabling the PPBE process (or its successor the DRS) is providing clear, consistent, and current guidance that enables efficient and effective decision-making at the lowest levels. This includes systematic updates and revisions of key finance, acquisition, and program guidance documents, such as the FMR, to provide a more useful and timely resource to DoD managers. The Commission understands that such a review may have to take place on a rolling basis given the volume of documents and may take time to complete. The Commission recommends the USD(C) dedicate staffing to ensure sufficient review and more frequent updates to PPBE-related guidance documents, with an update cycle initiated at least every three years starting in calendar year 2024. This includes a systematic revision and update of the FMR, as well as and DoDD 7045.14, “The Planning, Programming, Budgeting, and Execution (PPBE) Process,” which establishes policy and assigns responsibilities for the PPBE process (or its successor DRS).

“As part of this review of guidance documents, the Commission recommends the USD(C) establish a dedicated cross-functional team to review and issue updates to the FMR. Commissioner experience suggests that this important document has not been fully reviewed for decades, though it is periodically updated. The team should include finance, acquisition, and program stakeholders to systematically revise and update the FMR to remove obsolete and unnecessary language, clearly communicate intent, and limit the FMR to binding rules while placing transient guidance or advice in other documents. The team should also coordinate with the congressional defense committees and seek input from affected parties, including those outside the Department as appropriate. After the completion of the initial review, the Department should establish a process to systematically maintain and update the FMR on an ongoing basis.

“Recommended actions in support of this initiative include updating volumes with last review date in addition to indicating the date of most recent update; developing an expedited staffing plan for the acceptance of updates; incorporating AI into the plan for updates; and having USD(C) provide a report on the initial establishment and composition of the team as well as the plan to keep the FMR current. The Commission recommends that DoD carry out these activities within 180 days of issuance of this Final Report. Updating the FMR will constitute a major effort. The DoD should consider the use of contractor staff to orchestrate this process, and if possible, outside subject matter experts with DoD fiscal law knowledge to assist DoD in accomplishing this action.”

Figure 1. PPBE Commission’s Recommendation #12

2. FY25 NDAA language on the FMR

The FY25 NDAA,⁵ which the President signed into law on 23 December 2024, underscores the importance of the PPBE Commission’s findings and recommendations. It directs OUSD(C) to revise the FMR and to provide “systematic and comprehensive updates.”

Figure 2 contains the relevant text.

⁵ U.S. Congress. *Servicemember Quality of Life Improvement and National Defense Authorization Act for Fiscal Year 2025*, 118th Cong., 2nd sess., 2024, H.R. 5009, Public Law No. 118–159.

TITLE X--GENERAL PROVISIONS

Subtitle A--Financial Matters

“SEC. 1005. REVISION OF DEPARTMENT OF DEFENSE FINANCIAL MANAGEMENT REGULATION. (a) Not later than September 30, 2026, the Under Secretary of Defense (Comptroller) shall revise the Department of Defense Financial Management Regulation 7000.14-R. The Under Secretary shall ensure that the revised regulation— (1) is consistent and clear throughout; (2) includes updated guidance with respect to legislative and regulatory requirements; and (3) does not include any outdated guidance or guidance subject to change annually in an annual appropriations Act. (b) CONSIDERATIONS.—In revising the regulation under subsection (a), the Under Secretary shall— (1) prioritize clarity and accessibility in the language and direction provided, including improvements to the coordination and approval process for recommended changes; (2) review and adopt modern financial practices that better align to current development and production cycles; (3) consider information technology solutions to improve the accessibility and usability of the Financial Management Regulation; and (4) in consultation with the Cross-Functional Team established under section 1006 consider the recommendations of the Commission on Planning, Programming, Budgeting, and Execution Reform. H. R. 5009—276.”

Figure 2. FY25 NDAA language on the FMR

FMR modernization could take a variety of forms. These include such considerations as streamlining content, changing the FMR structure, using modern technology solutions to enable a better user search experience, and enabling more timely and less labor intensive updates. The specific recommendations included in this report are based on friction points that IDA identified through interviews and workshops, and through research involving DoD senior leaders, the FMR user community, IDA SMEs, and industry experts.

D. Report Outline

This report is structured as follows. Chapter 2 describes the study methodology employed by IDA, which includes reviewing the FMR, interviews, workshops, benchmarking, and assessing emerging technology. Chapter 3 summarizes and discusses the findings and friction points that IDA identified, in the areas of usability, the updating process, and content. Chapter 4 benchmarks the structure and length of the FMR against other organizations’ FM policy documents. Chapter 5 reviews the capabilities and limitations of current information technology—such as Artificial Intelligence (AI), Large Language Models (LLMs), and Natural Language Processing (NLP)—to support FMR use and updating. Chapter 6 presents recommendations for modernizing the FMR and the processes that support it. Chapter 7 provides a potential roadmap for implementing these recommendations. Chapter 8 concludes the main body of the report. Finally, four appendices contain lists of (1) FMR volume and chapter titles, (2) illustrations, (3) references, and (4) abbreviations.

2. Study Methodology

To address the goals stated for the project—to identify key friction points and areas for modernizing the FMR—the IDA team engaged in five separate Lines of Effort (LOE). This chapter focuses on the methodology that we used for each of the LOEs. Later in this report, we discuss what we learned from each of these LOEs. The LOEs were:

1. Team review of the FMR;
2. Interviews with current and former DoD FMR experts;
3. Workshops with DoD FMR stakeholders and users;
4. Benchmarking the FMR against policy documents in comparable organizations;
and
5. Assessing the potential capability of emerging technology to support a modernized FMR.

A. Team Review of the FMR

The team review of the FMR was the LOE in which the IDA team engaged. This activity involved independent reading and study of the FMR, deeper dives into specific volumes and chapters, and group discussions of overall findings. The purpose was to come to a common understanding of (1) how the FMR is organized and (2) the breadth of topics that the FMR addresses.

B. Interviews

The second LOE was a series of interviews. Given our initial, high-level understanding of the purpose and function of the FMR, we interviewed FMR stakeholders across DoD and the Services. These included DoD budget, finance, and acquisition SMEs, and general counsel. The purpose was to deepen our understanding of the nuances of how the FMR is perceived across DoD; to gather specific information and examples of shortcomings and friction points within the FMR’s content, structure, and supporting business processes; and to identify potential areas for modernization. Most interviews lasted an hour or more. To encourage open discussion, all interviews were held on a non-attribution basis.

Table 2 lists the FMR stakeholders that the IDA team interviewed, along with their organization and role within DoD. These included 22 current and former members of the

DoD Senior Executive Service (SES), five of whom either were on the PPBE Commission or served as advisors to it, and 17 DoD GS civilian staff members. Organizations represented were Army, Air Force, Navy, Marine Corps, Defense Logistics Agency (DLA), DFAS, and OUSD(C).

Table 2. FMR stakeholders interviewed

Stakeholder Organization	Stakeholder Title
Army OASA(FM&C)	Director, Financial Operations & Accounting (FOA)
Army OASA(FM&C)	FOA Highly Qualified Expert, Audit Transformation
Army OASA(FM&C)	Director, Financial Operations and Accounting Oversight
Army OASA(FM&C)	Staff Accountant
Army OASA(FM&C)	Staff Accountant
Army OASA(FM&C)	Financial Management Analyst, Policy and Accounting Oversight
AMC	Deputy G8, HQ Army Materiel Command G8
AF	Associate Deputy Assistant Secretary for Financial Operations
AF, PPBE	HAF SAF/FML, PPBE Commission Contributor
Navy	Chief Strategy Officer, Office of the Deputy Assistant Secretary of the Navy (Financial Operations) (FMO)
USMC	Assistant Deputy Commandant for Resources, Programs and Resources
DLA	Deputy CFO
DLA	Finance J8 Director and CFO
DLA	Chief, Administrative & Civil Law, OGC, DLA
DFAS	Principal Deputy Director
DFAS	Director, DFAS Strategy, Policy and Requirements
DFAS	Deputy Director, Operations
DFAS	Deputy Director, Strategy and Support
DFAS	Executive Officer
DFAS	Director of Accounting and Policy
DFAS	Supervisor for FMR Volume 7A
DFAS	Supervisor for FMR Volumes 5, 10, 13, & 16
DFAS	Senior Financial Management Analyst, Supervisor for FMR Volumes 8 and 9
OUSD(C)	Deputy CFO
OUSD(C)	Assistant Deputy CFO
OUSD(C)	Director, Financial Management Policy and Reporting
OUSD(C)	Division Chief, Policy and Standards, Financial Management Policy and Reporting
OUSD(C)	Director for Program & Financial Control (P&FC)

Stakeholder Organization	Stakeholder Title
OUSD(C)	Deputy Director, Program and Financial Control (P/B)
OUSD(C)	Budget Analyst
OUSD(C)	Director for Financial Management Operations and Analysis, Enterprise Financial Transformation (EFT)
OUSD(C)	Financial Systems Analyst
OUSD(C)	Director, Financial Workforce Management Division (FWMD)
OUSD(C)	Financial Management Analyst, FWMD
Formerly OUSD(C)	Professor of Financial Management, Defense Systems Management College, Defense Acquisition University (DAU); Former Deputy Chief Financial Officer (DCFO), OUSD(C); PPBE Commission Contributor
Formerly OUSD(P&R) and ODCMO	Former AUSD(P&R), former DoD DCMO, PPBE Commissioner
Formerly OUSD(A&S)	Former ASD(A), Assistant Secretary of the Army for Acquisition, Logistics, and Technology, and President of DAU, PPBE Commission Contributor
OUSD(A&S)	Deputy General Counsel
OUSD(A&S)	Principal Director, Defense Pricing, Contracting, and Acquisition Policy

Figure 3 lists the questions that formed the basis for the interviews with FMR stakeholders, which we provided ahead of time. In some cases, we followed a formal interview process, covering the questions one at a time. In other cases, the conversation was free-form. Some interviewees provided written responses from their team for each of the questions—the majority did not.

Administration and Management:

1. Who are the major users in your organization of the DoD Financial Management Regulation (FMR)?
2. Who has responsibility in your organization for FMR issues, including coordination and updating? How many people are involved in this function?
3. What are your principal concerns with the FMR (i.e., what are the key challenge areas and/or areas that generate the most complaints)?
4. How do you communicate your concerns on the FMR to the Comptroller?

Usability:

5. What elements of the FMR work well today?
6. How difficult is it to find information needed when searching the FMR?
7. What automated capabilities would you find most helpful?
8. How does your Component nest policy or procedures underneath the FMR?
9. What recommendations do you have for how FMR volumes are organized?

Content:

10. How can the FMR guidance be improved, streamlined, or made more user-friendly?
11. Do you know of instances where FMR guidance is outdated? If so, please elaborate.
12. Do you know of areas where FMR guidance is inconsistent? If so, please elaborate.
13. Do you know of instances where FMR guidance is difficult to understand or needs interpreting? If so, please elaborate.
14. Is FMR guidance sufficient, confusing, or overly complex? Are there areas that should be added or amended? If so, please elaborate.
15. Are there examples of guidance that perhaps should be codified in a subordinate document (i.e., procedures instead of high-level policy)?

Updating Process:

16. What concerns do you have regarding coordination of policy updates (e.g., timeliness, stakeholder involvement, labor intensity, tasking system, and tracking and adjudicating edits)?
17. What processes exist within your organization to support FMR updates?
18. What frequency would you recommend for the update cycle?

Figure 3. FMR stakeholder interview questions

C. Workshops

The purpose of the workshops was to gather input from a larger group of DoD stakeholders than we were able to interview by letting them engage in an open discussion in a semi-structured setting. This was particularly useful in identifying areas of agreement and disagreement among the FMR stakeholder community with respect to FMR friction points and areas for improvement. It also enabled us to deepen our understanding of the needs of FMR users and of those responsible for maintaining and updating the FMR.

1. Workshop #1: Principles of FMR modernization

This 2½ hour workshop was directed at the senior executive level. It focused on two topics:

1. What purpose should the FMR serve?
2. What would a modernized FMR look like?

To examine these topics, we sought to gather leadership-level perspectives from key stakeholders and users on principles that should guide the structure, content, and user-friendliness of a modernized FMR. Specifically, we wanted to:

1. Identify stakeholder views and priorities on modernization objectives, including reducing the size of the FMR, increasing its user friendliness, and enabling more timely and less labor intensive updates.
2. Formalize the distinction between policy and procedure from a definitional perspective. Determine the appropriate balance between high-level policy guidance and standard operating procedure in the FMR.
3. Determine the kinds of information that should and should not be included in the FMR and discuss opportunities for streamlining content.
4. Determine principles surrounding when procedural guidance should be prescriptive versus discretionary in terms of policy implementation.

The workshop was held in-person at the Pentagon, with DFAS attending virtually.

Figure 4 lists the questions that we used to drive the discussion during workshop.

Workshop #1: “Principles of FMR modernization”	
Discussion Session 1: What purpose(s) should the FMR serve?	
1.	What purpose(s) does the FMR serve?
2.	What types of information should it convey?
3.	What user communities and organizations need this information?
4.	What gaps or concerns exist?
5.	What level of detail should the FMR provide on source references, policy, and procedure?
Discussion Session 2: What would a modernized FMR look like?	
1.	How well does the FMR serve its function as organized and structured?
2.	What could be improved?
3.	What does FMR “modernization” mean in terms of content, structure, navigation/search, and updating?
4.	What end-state is desirable for the FMR?

Figure 4. Workshop #1 discussion questions

2. Workshop #2: “Modernizing FMR structure and search”

This was a four-hour workshop at the working group level. It was held in-person at IDA Headquarters in Alexandria, VA. It focused on articulating potential actionable recommendations for improving the search, retrieval, and display of FMR information. The purpose was to gather working group-level perspectives from key stakeholders and users on potential actionable options for improving the search, retrieval, and display of FMR information.

After demonstrations of two AI-enabled search tools by Army (CamoGPT) and Air Force (NIPRGPT), the IDA team led two discussion sessions:

1. Priorities for Information Technology (IT) and AI-enabled functionality in a modernized FMR, and
2. Options for organizing the structure of a modernized FMR.

Figure 5 lists the questions that we used to direct the discussion during Workshop #2.

Workshop #2: “Modernizing FMR structure and search”
<u>Discussion Session 1: Priorities for IT and AI-enabled functionality in a modernized FMR</u> <ol style="list-style-type: none">1. What would AI-enabled tools like CamoGPT & NIPRGPT offer for the search, retrieval, and display of FMR information?<ol style="list-style-type: none">a. What are the tools’ capabilities and limitations?b. How would these address FMR priorities with respect to search and usability?2. What might the use of such tools look like in practice?<ol style="list-style-type: none">a. What storage and presentation structure of the material in an IT environment would be the easiest to use, e.g., PDF files, webpages, separate pages per chapter, etc.?b. What other IT functionalities should be prioritized, e.g., flagging updates, identification of confusing material and questions, hyperlinks to sources and subordinate SOPs, etc.?c. What business process changes might be necessary to adapt to AI-enabled functionality?
<u>Discussion Session 2: Options for organizing a modernized FMR</u> <ol style="list-style-type: none">1. How should a modernized FMR be structured, including with respect to policy versus procedures?2. Should a modernized FMR have a standardized structure across chapters?3. Should there be more formal nesting between the FMR and subordinate Component policies and SOPs?4. How would this be impacted by the availability and use of an AI-enabled search tool?

Figure 5. Workshop #2 discussion questions

3. Workshop #3: “Modernizing the FMR updating process”

This was a four-hour, hybrid workshop at the working group level. It was held in-person at IDA Headquarters in Alexandria, VA. The purpose was to gather working group-level perspectives from key stakeholders and users on modernizing the FMR updating

process. It focused on articulating potential actionable recommendations for the timely dissemination, availability, and archiving of evolving FMR information in a modernized FMR.

There were four discussion sessions:

1. How could the existing FMR updating process be revamped to be timelier?,
2. Continuous updating,
3. Presentation of information, and
4. Ensuring consistency.

Figure 6 lists the questions that we used to guide the discussion during Workshop #3.

Workshop #3: “Modernizing the FMR updating process”

Discussion Session: Priorities for the timely dissemination, availability and archiving of evolving FMR information in a modernized FMR.

1. How could the existing FMR updating process be revamped to be timelier?
 - What would an expedited staffing plan for the acceptance of updates look like?
 - Could AI help in the staffing process?
 - Would multiple levels of effort and scope for capturing changes be feasible? e.g. three levels of updating (mandatory / statutory, discretionary small, discretionary whole chapter)
2. Continuous updating
 - a. How could it occur?
 - b. Impacts to archived positions for the legal community
 - c. How would continuous updating affect archiving?
3. Presentation of information
 - a. Temporary links to policy memoranda, etc.
 - b. How to display new updates?
 - c. How to display archived positions?
4. Ensuring consistency
 - a. What process is needed to detect and correct inconsistencies in the FMR?
 - b. How might collaborative software tools for updating (e.g. Teams, other formal solutions) be used?
 - c. How might AI-enabled technology be used?

Figure 6. Workshop #3 discussion questions

4. Workshop #4: “Modernizing training for the FMR user community”

This was a two-hour workshop, held virtually at the working group level. The purpose of this workshop was to gather working group-level perspectives from key stakeholders and users on options for modernizing FMR training. It focused on articulating potential actionable recommendations for FMR training in a modernized FMR.

There were two discussion sessions:

1. FMR Training Needs and Requirements: needs and priorities for creating and sustaining a high level of FMR literacy across the FMR user community.
2. Standing Up and Resourcing FMR Training: what would be needed to address the training gaps to create and sustain an FMR training program.

Figure 7 lists the questions that we used to facilitate the discussion during Workshop #4.

Workshop #4: “Modernizing training for the FMR user community”

Discussion Session 1: FMR Training Needs and Requirements: Needs and priorities for creating and sustaining a high level of FMR literacy across the FMR user community.

- How do FMR users become proficient in the current environment?
- What training gaps currently exist:
 - a. “What do you wish you knew?”
 - b. How do training needs differ for the various FMR user communities?
- What training gaps are most detrimental to users, particularly novice users?
- How might training needs be impacted by the deployment of AI-enabled search?

Discussion Session 2: Standing Up and Resourcing FMR Training: what would be needed to address the training gaps – to create and sustain an FMR training program.

1. Should there be a formal FMR training program?
- How should FMR training be structured?
 - a. Should it be embedded in the FMR, or separate?
 - b. Delivery method (e.g., user manual, self-paced on-line, formal classroom, ad hoc, etc.)?
- What implementation timeline would be appropriate?
- What institutional support would be necessary?
- What resources would be needed?

Figure 7. Workshop #4 discussion questions

5. Workshop participation

Table 3 lists the participants in each workshop, along with their organization and role within DoD. These include seven members of the DoD SES, two military personnel, and 23 DoD GS civilian staff members. Organizations represented were Army, Air Force, Navy, Marine Corps, DLA, DFAS, and OUSD(C).

Table 3. FMR workshop participation

Workshop:		#1	#2	#3	#4
Number of Attendees:		10	14	13	17
Number of SES Attendees:		6	1	2	1
Participant Organization	Participant Title/Office				
ARMY	Financial Management Analyst		Y		Y
	Analyst			Y	Y
	FinOps and Policy			Y	Y
	Army Budget Office	Y			
	Staff Accountant OASA(FM&C)			Y	
	Data Scientist, Artificial Intelligence Integration Center (AI2C)		Y		
AIR FORCE	Associate Deputy Assistant Secretary for Financial Operations	Y			
	AF Financial Management - Budget (FMB)	Y	Y		Y
	AF Financial Management -Financial Services Office (SAF/FMFF)		Y	Y	
	AF Financial Management -Accounting Operations and Policy (SAF/FMFO)			Y	
	AF Financial Management -Accounting Operations and Policy (SAF/FMFO)		Y		Y
	NIPRGPT		Y		
	AF Financial Management – Financial Operations (SAF/FMF) MilPay policy				Y
NAVY	Chief Strategy Officer, Office of the Deputy Assistant Secretary of the Navy (Financial Operations) (FMO)	Y			
	Director, Program/Budget Coordination OASN (FM&C) FMB3	Y		Y	
	Antideficiency Act (ADA) / Budget Policy Analyst		Y		
	Acct, ASN - FM&C FMO		Y		
	Analyst		Y	Y	Y
DLA	Deputy CFO			Y	Y
	Staff Director, Financial Policy Compliance, DLA	Y	Y	Y	Y
	DLA Finance			Y	Y
DFAS	Director, DFAS Strategy, Policy and Requirements	Y			
	Director of Accounting and Policy		Y	Y	Y
	Analyst				Y
	Analyst				Y

Workshop:		#1	#2	#3	#4
Number of Attendees:		10	14	13	17
Number of SES Attendees:		6	1	2	1
Participant Organization	Participant Title/Office				
OUS(D)	Director, Financial Management Policy and Reporting	Y			
	Division Chief, Policy and Standards, Financial Management Policy and Reporting	Y	Y	Y	Y
	Director, Program and Financial Control		Y		
	Budget Analyst / FMR coordinator		Y	Y	Y
	Analyst				Y
OGC	OGC Fiscal Attorney	Y			
Other					Y

D. Benchmarking Other Federal Regulations and Policy Documents

The IDA team benchmarked the FMR against other organizations' FM policy documents, and against the Federal Acquisition Regulation (FAR), Defense Federal Acquisition Regulation Supplement (DFARS), Joint Travel Regulation (JTR), and Joint Ethics Regulation (JER).

1. Benchmarking purpose

The benchmarking analysis assessed the relative length and structure of the FMR compared to FM policies of other federal agencies. It aimed to determine whether the FMR is significantly longer than comparable regulations and to identify opportunities for streamlining while preserving essential guidance. By examining both overall document length and specific topic coverage, the analysis provided insights into structural differences, redundancies, and variations in the level of detail across agencies.

IDA conducted the benchmarking process in two phases: (1) a structural comparison of FM policy documents across agencies and within DoD, and (2) a comparative analysis of overall document length and specific topic coverage.

2. Benchmarking Phase 1: Structural Comparison

Phase 1 involved identifying (1) federal agencies other than DoD with publicly available FM policy documents, and (2) other publicly available policy documents that are comparable to the FMR. The broad Phase 1 review focused on how regulations are structured, including their online presentation, format, and navigability. The structural assessment considered whether documents included links to source and subordinate materials, whether they contained only policy or both policy and procedural guidance, their

searchability, and whether they were presented as single PDFs, web-based formats, or modular documents.

Figure 8 lists the agencies and policy documents included in this structural review.

Agencies and policy documents included in the structural review	
1.	Agency for International Development
2.	Department of Agriculture
3.	Department of Commerce
4.	Department of Defense
5.	Department of Energy
6.	Department of Housing and Urban Development
7.	Department of Interior
8.	Department of Justice
9.	Department of State
10.	Department of Transportation
11.	Department of Treasury
12.	Department of Veterans Affairs
13.	General Services Administration
14.	National Aeronautics and Space Administration
15.	Nuclear Regulatory Commission
16.	Joint Travel Regulation (JTR)
17.	Joint Ethics Regulation (JER)
18.	Federal Acquisition Regulation (FAR)
19.	Defense Federal Acquisition Regulation Supplement (DFARS)

Figure 8. Benchmarked agencies and documents

In the first part of the Phase 1 structural review, the team interviewed officials at the Department of Homeland Security (DHS) responsible for the DHS Financial Management Policy Manual (FMPM):

1. Director, Financial Management;
2. Assistant Director, Financial Management; and
3. Manager, Financial Management Policy Manual, Office of the CFO.

The next component of the structural review examined whether agencies employed a standardized structure within the chapters of their FM policy documents. This assessment included both the agencies listed in Table 8 and relevant DoD documents, including DoD Directives (DoDDs) and DoD Issuances (DoDIs). The final part of the Phase 1 review involved analyzing the organizational structure of the FAR and DFARS. This included a review of how the DFARS is structured in relation to the FAR, with particular attention to numbering conventions, document hierarchy, and how content is presented.

3. Benchmarking Phase 2: Comparative Analysis

Following the structural review, a subset of agencies was selected for in-depth comparison based on the comprehensiveness of their FM policies. The Departments of Agriculture (USDA), Commerce (DOC), Energy (DOE), State (DOS), and Veterans Affairs (VA) were chosen for this phase.

The second phase focused on document length and content analysis, comparing the overall size of FM regulations and examining key areas of policy structure, level of detail, and prescriptive requirements. The primary topics reviewed included travel policy, debt management and collection, financial reporting, and managerial cost accounting.

Finally, scope differences were taken into account. DoD's financial operations cover a broader range of activities than other federal agencies, necessitating more comprehensive regulatory guidance. This analysis aimed to quantify the differences between DoD and the other selected agencies.

E. Assessment of Emerging Technology

1. Purpose

IT tools comprise an important element of a modernized FMR. As part of this study, IDA examined both in-house and commercially available IT solutions to try and ascertain how improvements could be made to the user experience as well as to the management of the updating process. This assessment focused on current technological capabilities as well as attempting to understand what capability improvements might be available in the near term (six months to one year in the future) given the speed of technological evolution.

2. Technology demonstrations and interviews

IDA conducted interviews with a variety of experts. These interviews began with demonstrations and examination of DoD in-house tools, which included CamoGPT, NIPRGPT, Air Force Wingman, and GameChanger. We asked several questions designed to understand the current capabilities and limitations of AI technology. These questions addressed the potential ability of currently available AI-enabled systems to facilitate FMR search and to adequately respond to queries from budget and accounting personas, which are typical FMR user groups. The goal of these questions was to (1) understand if technology could be used to point users to the correct FMR citations to find information, (2) evaluate whether technology could detect examples of conflicting guidance, and (3) see how well technology could support rewriting technical information in simpler or plainer language. These demonstrations were critical in developing a clear understanding of the limitations of currently available LLM technology and the risks inherent in its use.

In addition to in-house interviews, we spoke with industry experts and executives from Amazon Web Services, AskSage, and weElevateIT. These experts provided useful insights regarding potential pros and cons of in-house development versus commercially available tools and services, and provided insight into the direction of evolution of AI technology solutions.

We also interviewed SMEs from the DoD Chief Digital and Artificial Intelligence Office (CDAO) to obtain their perspectives on how OUSD(C) could best leverage evolving AI technology and tools for this project. Table 4 lists these SMEs.

Table 4. CDAO Subject Matter Experts

SME Position/Title
Chief of Staff for Scaled Capabilities
Division Chief for AI Scaffolding/Integration
Gamechanger Government Product Manager
Gamechanger Product Lead
Business Transformation Portfolio Lead
Contract Project Manager
Solutions Architect

3. Demonstrations of current AI-enabled systems in DoD and industry

IDA prepared a series of questions to evaluate the capabilities of commercially available AI-enabled technology.

4. Independent technology research

In addition to engagements with technology executives and SMEs, IDA performed independent research in areas of AI and IT that are relevant to the FMR. This research included developing a list of DoD and external LLM tools, independently reviewing and testing such tools, and reviewing background literature as well as recent developments in the field. IDA also conducted analysis of the current FMR website search capability as well as research about the technology underlying search engines such as Google.

3. FMR Findings and Friction Points

Discussion of the questions posed during the interviews and workshops with FMR stakeholders provided the IDA team with the perspectives and concerns from numerous FMR user communities. Analysis of these issues revealed three broad areas:

1. The FMR's usability – the ease of search and retrieval of FMR information;
2. The FMR's updating process – the timely dissemination and availability of continually evolving FM policy information; and
3. The FMR's content – the information that appears in the FMR.

In this chapter, we discuss what we heard from FMR stakeholders in each of these areas.

A. FMR Usability

During the course of interviews and workshops, the IDA team heard many comments from stakeholders about the usability of the FMR, and about how the user experience could be improved from a purely process perspective. These viewpoints led us to identify the friction points for (1) search and navigation and (2) user training and support that are listed in Table 5.

Table 5. Friction points related to FMR usability

FMR Usability Friction Points
<ul style="list-style-type: none">• FMR search and navigation is challenging
<ul style="list-style-type: none">• User training and support for navigation and content is limited

1. FMR search and navigation is challenging

Because of the technical complexity and scope of the material within the FMR, no one organization or entity can be considered expert in its entirety. This is appropriate given that stakeholders typically specialize in a particular area, for example, accounting or budgeting. Within budgeting, users further sub-specialize depending on what appropriation or fund activity they work with on a daily basis. In addition to challenges with the size and scope of the FMR, it can be technically complex. For example, users need an understanding of basic fiscal law precepts, particularly if involved in budget formulation and/or execution responsibilities. Similarly, accounting terms and concepts are important in order to understand how to properly code transactions, reconcile account balances, and make

adjustments to correct inaccuracies. Specific procedures must be followed to ensure the reliability of financial reports, and this level of technical complexity is not easy for the layperson to understand. Because of this complexity, more junior analysts and analysts from other functional communities (e.g., acquisition, logistics, and human resources) may find the FMR difficult to use.

Although the general consensus is that the FMR is not overly lengthy given the quantity of the substantive policy material that it includes, its length precludes a simple, manual search of its contents. For this reason, the FMR currently incorporates a basic keyword search capability. Despite this capability, however, SMEs that we interviewed expressed universally that searching for specific information in the FMR is difficult due to a combination of factors. For example, FMR users do not always know the exact search term or terms needed to find relevant information, and sometimes needed information can be contained in multiple volumes or chapters. FMR search functionality requires fairly specific inputs in order to access the right chapter and/or section content. As a consequence, users can spend significant time trying to find the exact information being sought. Organic FMR search capability on the Department's website is fairly robust, as advanced searches can return results based on "All of these words," "This exact phrase," "Any of these words," and "None of these words." Search results often generate numerous responses, which can be a combination of current as well as archived FMR content. The only way a user can recognize that content is outdated is to note whether the word "archive" appears in the URL. This process can be prone to human error. Another challenge with existing organic FMR search capability is that when a user selects a particular link for retrieval, the user is directed to the beginning of the chapter rather than to the specific content desired. This process requires the user to conduct another search within a chapter to find relevant content. Because of this, many users resort to using Google or other commercial search engines when conducting research. The risk with this approach though, is that users can retrieve archived (outdated) information without knowing it.

2. User training and support for navigation and content is limited

Another challenge that users face, particularly novice users or users external to the finance community, is that there is no formal training or support for FMR navigation and content other than a four-minute video available on the FMR website. This brief orientation is insufficient when it comes to the complexity of navigating 20 FMR volumes and DoD FM requirements in general.

Some stakeholders indicated that PPBE reform is likely to be a relevant directional vector for the FM community for the next few years, and thus FM training writ large, including FMR training, will need to be responsive to that demand.

Stakeholders in Workshop #4 were in general agreement that a mixture of formal and informal training would be beneficial to FMR users. Training gaps that they mentioned

include how to read and interpret the FMR, understand the context and language of the different chapters and volumes, search for specific topics, check for updates, and understand the risks inherent in using AI. Different user communities have distinct training needs, so that a variety of training offerings would be useful, such as formal courses on technical content and reach-back support from a designated group of SMEs.

B. FMR Updating Process

The FMR updating process relates directly to the timely dissemination and availability of continually evolving FM policy information. Significant changes in policy are typically quickly incorporated into policy memos issued by OUSD(C) or DFAS that supersede the information in the FMR and in any relevant Standard Operating Procedures (SOPs) that are in place. In this way, implementation of policy changes is incorporated as the policies go into effect. The FMR updating process then incorporates the new policy information into each of the affected volumes and chapters of the FMR.⁶

The IDA team heard comments from many stakeholders about the FMR's updating process. These perspectives led to findings for (1) the length of the updating cycle and (2) the frequency of updates.

Per DoD guidance and FMR revision standard operating procedure, FMR updates are to occur on a biennial cycle, with policy memos incorporated into their relevant FMR chapters within 12 months. As discussed earlier in this report, policy memoranda exist to provide interim guidance until a full FMR chapter update can occur. As of March 2025, approximately 20 policy memoranda older than 12 months exist and have not been fully incorporated into the FMR, but are authoritative and enforceable.

Policy changes that drive FMR updates can occur fairly frequently. The FMR must be reviewed and updated periodically based on changes driven primarily in three areas. These are policy and entitlement changes established by the Congress, new or revised accounting standards released by the FASAB (released on an ad hoc basis), and DoD policy changes driven by executive branch decisions and directives (released on an ad hoc basis). There can be other drivers as well, such as Comptroller General decisions, OMB directives, Department of Justice directives, and OPM directives. Policy officials must work to stay abreast of any such changes, issue any necessary policy memos, and make FMR updates accordingly.

For reference, over the past three fiscal years, Congress has made entitlement changes for such things as basic pay raises, along with certain provisions associated with the basic allowance for housing, special and incentive pays, and permanent change of station

⁶ U.S. Department of Defense, Office of the Under Secretary of Defense (Comptroller), *Financial Management Regulation Revision Standard Operating Procedures*, revised August 2019.

entitlements. During the same period, the FASAB averaged approximately four issuances annually, which represented a combination of revised accounting standards and technical bulletins and releases.^{7,8,9}

Two organizations are responsible for publishing FMR updates. Table 1 indicates the 12 volumes that DCFO manages and the eight volumes that DFAS manages on behalf of OUSD(C). Regardless of who has the lead role, updates tend to follow the same process, which includes such things as informal coordination with Components followed by formal coordination, receipt of Component coordinating comments, adjudication of those comments by DCFO and DFAS, refinement of policy guidance based on coordination, internal quality checks, legal reviews, and leadership approvals (to include USD(C) and, for two chapters in Volume 14, OMB). The entire process averages approximately six months, although certain updates can take longer. A flow chart of this process appears in Appendix E of the OUSD(C)'s FMR Standard Operating Procedures.¹⁰

The updating process involves substantial time and effort to coordinate policy changes and achieve consensus. This focus on consensus is part of DoD culture, but more notably, is driven by a formal process instituted under DoD Instruction (DoDI) 5025.01, DoD Issuances Program. When a Component nonconcur with a particular policy change, the Office of Primary Responsibility (OPR) must attempt to resolve the nonconcur in a process that can escalate to more senior levels of authority on both sides of the issue until resolution is achieved or, ultimately, until a deliberate decision is made to override the nonconcur. Although highly unlikely in the case of the FMR, serious issues that remain unresolved can be elevated to the DEPSECDEF for adjudication. The DoDI outlines steps to be taken as part of the formal coordination process. These steps include guidance specifying with whom to coordinate. For example, OSD and DoD Component heads with equity in an issuance must be consulted, and specific steps must be taken to try and resolve a nonconcur. If the OPR is unable to resolve a nonconcur, the steps taken to resolve the nonconcur must be addressed in an action memorandum. "Both sides of the disagreement must be clearly and succinctly addressed in the memo, along with a recommendation for the approving authority to make an informed decision to approve or disapprove the issuance."¹¹ In addition to guidance on coordination and resolving nonconcurrences in the DoDI, the FMR revision SOP also provides detailed guidance on this topic.

⁷ Federal Accounting Standards Advisory Board (FASAB), *Annual Report: Fiscal Year Ended September 30, 2022*, 13.

⁸ FASAB, *Annual Report: Fiscal Year Ended September 30, 2023*, 12.

⁹ FASAB, *Annual Report: Fiscal Year Ended September 30, 2024*, 2.

¹⁰ U.S. Department of Defense, Under Secretary of Defense (Comptroller), *Financial Management Regulation Revision Standard Operating Procedures*, revised August 2019.

¹¹ U.S. Department of Defense, DoD Instruction 5025.01, *DoD Issuances Program*, June 7, 2023, 28.

Table 6 lists the updating process friction points noted by FMR stakeholders.

Table 6. Friction points related to the FMR updating process

FMR Updating Process Friction Points	
1.	The FMR updating process takes too long
2.	FMR updates are too infrequent

Although closely related, these two friction points are distinct. The first one refers to the amount of calendar time that it takes the Department to complete the updating process for an individual chapter or volume. This can include time for writing, editing, staffing, and consensus building. The second refers to the frequency at which the updating process is initiated for an individual chapter or volume. For instance, the length of the process might be six months, while the frequency of process initiation might be once every two years. Multiple processes may be at play simultaneously for one chapter, and one updating process can affect multiple chapters. Current processes in play may or may not be independent of what triggers chapter updates.

1. The FMR updating process takes too long

Users have expressed concerns over the updating process, such as the length of time required to see a change published. Many users indicated that the FMR needs to be more responsive to changes in order to remain relevant across the user base.

The following anecdote provides an example of the length of time required to implement an FMR change: The FY23 DoD Appropriations Act increased the expense/investment threshold for the Department from \$250,000 to \$350,000. This threshold determines whether Operation and Maintenance funds or Procurement funds must be used to buy items of enduring utility. On the surface, it would seem such a relatively simple, *de facto* change, substituting one dollar value for another, could be codified in the FMR quickly; however, this update has yet to be made and remains available to financial analysts and other users via policy memorandum only. Per the FMR revision SOP, a statutory change to the expense/investment threshold qualifies as a non-discretionary revision, which can be implemented without the more extensive electronic coordination process required for new additions and discretionary revisions.¹²

The approval process also remains a concern. The Department tries to achieve consensus to the extent possible when it comes to cross-cutting policy. While this is an important objective, it slows the coordination and update process from the perspective of some users. The coordination process also occurs with limited collaboration, which makes

¹² U.S. Department of Defense, Under Secretary of Defense (Comptroller), *Financial Management Regulation Revision Standard Operating Procedures*, revised August 2019, 4, 8.

it more difficult to come to consensus rapidly. Components lack visibility of one another's policy positions and rationales, so DCFO and DFAS SMEs expend significant manual effort coordinating comments from across the Department to refine policy guidance and to re-coordinate this guidance to achieve consensus.

In addition to challenges with the coordination and consensus-building process, inconsistent FMR content can result because similar or related guidance on specific topics can be spread across several FMR volumes of chapters, each of which would then need to be updated. If one section of FMR guidance gets updated but related sections do not, guidance can get out of synch. Because of the size and complexity of the FMR, it can be difficult for SMEs to know of all the linkages that exist. To mitigate this challenge, the FMR SOP instructs that Action Officers must coordinate research to ensure that other chapters are also updated for consistency.¹³

2. FMR updates are too infrequent

The timing (frequency) of updates remains a concern. Although the entire FMR is to be reviewed and updated on a biennial cycle, this is a challenge across the Department given competing mission priorities. Although the DCFO and DFAS build internal schedules for what sections of the FMR are to be reviewed and updated in a given fiscal year, stakeholders within the Components involved in the coordination process do not appear to know this information in advance and tend to have to “play catch-up” when it comes to FMR review and the preparation of various policy positions. Also, given the strategic importance of achieving an unmodified audit opinion to the Department and the role compliance with regulatory guidance plays in that process, some users have expressed that FMR updates need to be made more frequently than the current biennial cycle. While this more frequent or ad hoc approach to updates makes sense, there is a balance to be struck. The legal community and OUSD(Personnel and Readiness) need sufficient time to ensure updates comply with all applicable legal and policy requirements.¹⁴ This can take extensive time and effort and risks compliance issues down the road if performed too rapidly.

Regarding the above comment on the importance of achieving audit readiness, the FMR is critical to this effort based on the quality and sufficiency of guidance it provides. Independent Public Auditors (IPAs) contracted by the DoD Inspector General conduct audits, in part, by reviewing policies and procedures used in important end-to-end processes and feeder systems contributing to the accuracy and reliability of financial

¹³ U.S. Department of Defense, Under Secretary of Defense (Comptroller), *Financial Management Regulation Revision Standard Operating Procedures*, revised August 2019, 7.

¹⁴ U.S. Department of Defense, Under Secretary of Defense (Comptroller), *Financial Management Regulation Revision Standard Operating Procedures*, revised August 2019, 10.

statements. After reviewing policies and procedures, IPAs test to see whether these policies and procedures are sufficient and are being followed. The FMR is important to the audit because policies and procedures must exist, must be followed, and must leave no gaps in key processes contributing to financial statement information and supporting documentation.

C. FMR Content

The content of the FMR refers both to the kinds of information contained within it and to the information itself.

The PPBE Commission report raised various concerns associated with FMR content. These included “the undue burden and confusion caused by unclear guidance, which creates increased workloads for programs and the legal community,” and the need for “clear, consistent, and current guidance that enables efficient and effective decision-making at the lowest levels.” The report goes on to recommend that the FMR should be updated “to remove obsolete and unnecessary language, clearly communicate intent, and limit the FMR to binding rules while placing transient guidance or advice in other documents.”¹⁵ This study attempted to validate these concerns and understand the magnitude of content challenges.

During the course of interviews and workshops, stakeholders raised a number of issues concerning the content of the FMR. By cross-checking these concerns with other FMR users, and by successfully or unsuccessfully requesting specific examples of these concerns, the IDA team was able to validate some of the claims and to invalidate the others. Table 7 lists the friction points that we were able to identify in the area of FMR content.

¹⁵ Commission on Planning, Programming, Budgeting and Execution Reform, *Final Report, Defense Resourcing for the Future*, March 6, 2024, 89–90.

Table 7. Friction points related to FMR content

FMR Content Friction Points
1. The FMR contains both policies and procedures
2. There are some instances of problematic FMR content

In addition to these friction points, we identified several findings of interest. Table 8 lists these findings.

Table 8. Findings related to FMR content

FMR Content Findings
1. The FMR is not overly prescriptive or restrictive
2. For most users, the size of the FMR is not problematic
3. Some stakeholders would like the FMR to address additional content

This section summarizes what the IDA team heard from FMR stakeholders in the area of FMR content.

1. The FMR contains both policies and procedures

From a definitional perspective, policy tends to be associated with a defined course of action or end state to be achieved, while procedure tends to be associated with a series of actions or instructions to be followed in solving a problem or accomplishing a task. Currently, the FMR structure is a mix of policy and procedure, which affects the complexity of both usability and updating. In addition to policy, the FMR contains such information as budget exhibit templates and how to populate them, how to code certain accounting transactions, and what information should be included in financial reports. As such, quite a bit of information is focused on “how-to” as opposed to strictly providing policy guidance. Although this mix of information is useful to the FM community, it can make finding needed information complex and create challenges in the updating process. This mix of content is not necessarily detrimental to the FMR’s purpose. However, should the Department determine that it wants to streamline the FMR so that it contains only policy guidance, the procedures within it would still be relevant, and would need to be identified and placed in some other document repository.

2. There are some instances of problematic FMR content

Although instances of problematic content occasionally occur, content issues are neither common nor pervasive in the FMR. However, based on a review of the FMR by IDA SMEs along with input from Department leaders and other experts, we were able to

identify a few recent or current instances of outdated, inconsistent, and confusing guidance. Examples of such instances include:

- Outdated guidance – sections with obsolete language and a lack of awareness of pending updates as reflected in policy memos;
- Inconsistent guidance – in different sections; and
- Confusing guidance – technical jargon and opaque language.

a. Outdated guidance

FMR content can be outdated because of an external change driven by statute or by a new accounting standard. Significant changes are normally communicated through policy memoranda issued by DCFO. However, recent changes are sometimes incorporated into the FMR without a policy memorandum being issued. The only way that a user may ascertain whether existing FMR guidance has been superseded is to click on a menu option on the FMR website called “Policy Memoranda.” This link takes the user to a list of policy memoranda released by the Office of the DCFO. This list provides interim guidance pertinent to specific FMR volumes until codification in a future FMR update is complete. Not every user knows or remembers to check the Policy Memoranda link for the latest information.

Examples of outdated guidance include:

1. Inventory Valuation – Statement of Federal Financial Accounting Standards (SFFAS) 3 states that valuation can approximate historical cost using a variety of techniques.¹⁶ Despite this flexibility, the Department mandated use of a single approach, moving average cost. It has been difficult for Components to comply with this guidance requiring perpetual inventory revaluation because of system constraints.
2. Privatized Housing – According to one Component that we interviewed, the FMR does not correctly implement accounting standards in every case given the variety of contract instruments in use for privatized housing.
3. Budget Guidance – The FMR makes reference to several IT systems no longer used as part of the program budget process. These include the Comptroller Information System, the Program Resource Collection Process, and the Standard Data Collection System. The FMR also continues to reference a biennial budget

¹⁶ Financial Accounting Standards Board, *Statement of Federal Financial Accounting Standards 3: Accounting for Inventory and Related Property*, issued October 27, 1993.

process that was tried and abandoned more than a decade ago. For example, there are about 40 references to this process in FMR Volume 2A and Volume 2B.¹⁷

4. Expense/Investment Threshold – The FMR does not reflect the current expense/investment threshold even though the FY23 DoD Appropriations Act increased the threshold from \$250,000 to \$350,000. This threshold determines whether operating funds or procurement funds must be used to purchase a particular item that has enduring utility to the Department. References related to below-threshold reprogramming actions, or how much money can be shifted internal to an appropriation without congressional notification and approval, also need to be updated.

b. Inconsistent guidance

Examples of inconsistent guidance include Revenue Recognition for Defense Working Capital Funds (DWCF) Activities. One FMR reference states that revenue must be recognized when ordered goods are placed into an in-transit status (FMR Volume 4, Chapter 16, Paragraph 4.2.1). Another states that revenue should be recognized when goods are delivered to the customer, and further, that revenue should be recognized at the point of receipt of inventory by the customer (FMR Volume 11B, Chapter 11, Paragraph 3.1.2). Each of these statements may represent different points in time.

c. Confusing guidance

Examples of confusing guidance include:

1. Payment of Interest Penalties – The Prompt Payment Act directs agencies to use the same line of accounting to pay interest penalties as the original program or project line. The FMR cites special authority and states that DoD Components are permitted to use funds financing the operation of the military department or defense agency in lieu of program funds.¹⁸ This apparent flexibility has created confusion as to the appropriate course of action.
2. Foreign Currency Fluctuation Holding Account – due to unclear guidance, the budget and accounting communities sometimes arrive at differing interpretations.
3. DWCF Accumulated Operating Results – due to unclear guidance, the budget and accounting communities sometimes arrive at different recorded balances when in fact these balances should be the same.

¹⁷ See, for instance, U.S. Department of Defense *Financial Management Regulation (FMR)*, vol. 2A, ch. 1, paras. 1.7.2.7 and 1.7.2.59, revised March 2024.

¹⁸ U.S. Department of Defense, *Financial Management Regulation (FMR)*, vol. 10, ch. 7, para. 070209, revised March 2024.

4. Presidential Drawdown Authority – Components indicated that guidance in Volume 15 needs to be improved to accurately reflect complex replacement cost calculations when equipment items are donated to other countries.

Although there are instances where guidance could be improved as referenced above, examples of content issues appear relatively minor given the overall breadth and complexity of the FMR. There do not appear to be major issues with the content of the overall regulation.

3. Some stakeholders expressed that the FMR is overly prescriptive or restrictive

During interviews and workshops, some stakeholders asserted that FMR requirements go beyond the law or are more restrictive than the law requires. In an effort to validate this claim, we solicited feedback from a SME who explained that, while portions of the FMR may be more restrictive or prescriptive than applicable statutes require, agency regulations exist not only to ensure legal compliance but also “reflect appropriate agency discretion to manage operations and activities in a responsible manner.” This SME said that

...there are many instances where the law provides some latitude for decision-makers, expressly requiring a general statutory principle be implemented through agency regulations (e.g., 31 U.S.C. 1514). In such cases, there is not a law dictating the specifics of the regulations, but the Department may be legally required to have relevant regulations. Portions of the FMR reflect this requirement, so we are legally required to preserve them in some form.

Moreover, the language used in the FMR is often quoted directly from statute or other authoritative guidance for that particular section. To date, IDA has found only one specific example where the FMR could be made less restrictive without potentially compromising legal compliance. That example involves SFFAS 3, which permits a variety of asset valuation techniques. Despite this flexibility, the FMR mandates use of a single approach, moving average cost. It should be noted that, in part, because the USMC did not comply with the stricter FMR mandate and instead complied with the accounting standard, they were able to attain an unmodified audit opinion.

4. Some stakeholders indicated that the FMR needs additional content

FMR stakeholders were in general agreement that the FMR covers the necessary information the community needs to perform their functions. However, some stakeholders suggested that additional content would be useful—in the areas of software development funding, Government (G)-Invoicing, Robotic Process Automation (RPA), and Enterprise Risk Management (ERM).

The purpose of the FMR is to consolidate into a single source all of the statutory, regulatory, and policy requirements that relate to FM systems and functions for

appropriated, non-appropriated, working capital, revolving, and trust fund activities within DoD. Although none of the topic areas treated in this section are required to be part of the FMR based on statutory or regulatory considerations, their addition could prove useful based on the rationales provided below. OMB circular A-123, (Management's Responsibility for Internal Control) requires agencies to implement an ERM capability, but does not require that it be included in the FMR.

a. Software development funding

The PPBE Commission cited a “color of money” issue in one of its recommendations related to the development of software (recommendation 11a). DoD often struggles to develop software because doing so may require several different appropriations (or colors of money)—one to develop, another to procure, and another to sustain. Given the rapid pace at which software adapts and advances, the requirement to use various colors of money as controlled in budget and execution processes is perceived by some users as archaic and adding unnecessary complexity. These users have an expectation that the FMR establish policy to streamline software development, enabling the use of a single appropriation for the entire software lifecycle. Unfortunately, this is not permissible, as the FMR must comport with fiscal law principles, specifically in this case, the purpose statute (31 U.S.C Section 1301). Fiscal law, rather than the FMR, dictates what appropriations must be used for specific purposes. In the case of software, the FMR merely implements guidance related to current federal appropriations law. While we agree that the situation is problematic across the Department, responsibility for changing current software development funding policy is held by Congress.

b. G-Invoicing

G-invoicing is a program developed by the Treasury Department to manage intragovernmental buy/sell transactions between two federal agencies and to mitigate a long-standing audit challenge associated with something known as eliminations. Guidance related to G-invoicing in the FMR is mentioned in at least eight different volume and chapter combinations. In addition to guidance being dispersed, some users have suggested that G-invoicing guidance is vague with respect to recording and managing performance and could be improved.

c. RPA

RPA can provide a way to automate routine computer tasks and eliminate manual effort as well as human error. RPA is executed by software programs, known as BOTs, that perform specific tasks that can be attended (monitored by humans) or run unattended depending on the complexity of the functions required. Because of the increasing capability of and reliance on technology to assist with reconciliation and other tasks, some have

suggested that the FMR should provide guidance on use of this modern automation capability.

d. ERM

ERM is a deliberate process to identify and manage risks that can impede achievement of mission operations and objectives. In the context of business operations, it can help minimize the risk of such things as fraud, waste, and abuse. ERM also supports the path to a clean audit opinion, as it can help focus management and senior leader attention on areas that may fall beyond the scope of normal day to day operations. While the FMR does have a chapter devoted to internal controls around financial reporting, managers and senior leaders need to understand the importance of focusing on internal controls earlier and throughout a given process (both operational and financial). This focus can help detect and mitigate gaps/risks in processes and drive audit readiness objectives. Although a DoDI exists for ERM (DoDI 5010.40) under the purview of the Office of the Director of Administration and Management, the current focus on ERM appears bifurcated between financial reporting and mission operations. Audit readiness writ large recognizes no such distinction. As a consequence, some experts noted that a unity of focus on ERM is missing in the FMR.

D. FMR Size and Structure

For most users, the size of the FMR is not problematic. During the course of interviews and workshops the IDA team noted that, according to the preponderance of users, the length of the FMR (nearly 7,400 pages) is not a friction point. All the information in the FMR is needed by some user community(s) and needs to be accessible. The majority of users that IDA spoke with wants better search tools that improve usability rather than a reduction in the size of the FMR. Furthermore, senior leadership consensus is that the Components want more procedural guidance rather than less, particularly within the budgeting community where fiscal law considerations prevail.

Similarly, the existing volume and chapter structure of the FMR is not a friction point according to most users that we interviewed. Trying to combine all pertinent information in a single volume to aid one user community would simply degrade the user experience for another community.

4. Benchmarking Observations

The benchmarking analysis assessed the structure and the length of the FMR compared to the FM policy documents of other federal agencies, and to comparable federal regulations. The aim was to gain insights into the structural differences, redundancies, and variations in the level of detail across FM policy documents, so as to inform potential recommendations for streamlining or improving the FMR. The benchmarking process occurred in two phases: (1) a structural comparison of FM policy documents across agencies and within the DoD, and (2) a comparative analysis of overall document length and specific topic coverage. This chapter summarizes the findings from both phases.

A. Structure

1. Current organization of the FMR

The FMR is structured into 16 primary volumes, along with an introduction and a glossary. Some volumes are divided into separate parts, such as Volume 2A and Volume 2B, bringing the total number of volumes to 20. The regulation is available through a three-tiered system, which allows users to download individual chapters, complete volumes, or the entire FMR in Portable Document Format (PDF).

2. Structural Comparison with Other Federal Agencies

The structural assessment of FM policy guidance documents across various federal agencies focused on key aspects of document organization and presentation. This review examined whether documents incorporated links to source materials and subordinate guidance, whether they contained only policy-related content or included both policy and procedural instructions, their searchability, and how they were formatted. A comprehensive breakdown of the specific documents reviewed appears in Table 9.

Table 9. Benchmarking structural comparison

Agency/ Document	Policy only	Policy & procedure	Links to source materials	Links to external SOPs	Search -able	Format
Agency for International Development	Y	N	Y	Y	N	Single pdf
Department of Agriculture	Y	N	Y	N	Y	Individual chapter pdfs Embedded Acrobat
Department of Commerce	Y	N	Y	N	N	Individual chapter pdfs
Department of Defense (FMR)	N	Y	Y	N	N	Single pdf Individual chapter pdf Volume pdf
Department of Energy	Y	N	N	N	N	Single pdf Individual chapter pdfs
Department of Housing and Urban Development	Y	N	N	N	N	Individual chapter pdfs
Department of the Interior	Y	N	Y	Y	N	Individual chapter pdfs Embedded Acrobat
Department of Justice	Y	N	Y	Y	N	Website
Department of State	Y	N	N	N	Y	Sorted webpages
Department of Transportation	Y	N	N	N	N	Individual chapter pdfs
Department of the Treasury	Y	N	N	Y	Y	Sorted webpages
Department of Veterans Affairs	Y	N	Y	Y	Y	Sorted webpages
General Services Administration	Y	N	Y	N	N	Website
National Aeronautics and Space Administration	Y	N	N	N	N	Individual chapter webpages
Nuclear Regulatory Commission	Y	N	Y	Y	N	Individual chapter pdfs
Joint Travel Regulation (JTR)	Y	N	Y	Y	Y	Website Single pdf
Joint Ethics Regulation (JER)	Y	N	Y	Y	N	Single pdf

A distinctive characteristic of the FMR is that it integrates both policy and procedural guidance within a single document. The review found that, across the agencies examined, all other FM policies were structured to separate procedural guidance from policy directives, with procedural details documented in separate companion materials or guidance manuals. This structural distinction in the FMR means that users accessing the document encounter both high-level policies and the associated procedural guidance within the same source, rather than needing to consult a secondary document for implementation details. The implications of this structural approach may depend on how users engage with the FMR and whether consolidating these elements in a single document enhances usability or presents challenges in navigation. Within the FMR user community, the general consensus is that the advantages of having both policy and procedure in the FMR outweighs the disadvantages.

The policy documents reviewed were presented in a range of formats. Most documents were available in PDF format, either embedded within an agency's website using Acrobat functionality or as standalone downloadable files. Another widely used format was web-based documentation, in which individual chapters were accessible through separate web pages rather than as a single compiled document. A key observation from this review is that the FMR's three-tiered access is useful as it offers flexibility. Most policy documents IDA reviewed were offered in either individual chapters or as a single document with the entirety of the policy, but both options were not provided simultaneously. In this regard, the FMR's format allows users greater flexibility in accessing the information they need based on their preferences or requirements.

The review examined the use of hyperlinks within FM regulations to connect users with higher-level references. The FMR contains hyperlinks to external source documents, giving users direct access to statutory and regulatory references. This approach was not consistently observed across other agencies' documents. Some agency documents lacked hyperlinks altogether, requiring users to manually find references in external sources. Others provided hyperlinks that directed users to the specific subsection of a cited statute or regulation. The FMR's hyperlinks have limited utility—they provide direct access to the overarching source document, but they do not always take users directly to the cited subsection. This means that users must sometimes search the source document themselves to find the referenced section. The FMR SOP appears to address this issue and instructs that, "Hyperlinks should direct readers to the lowest practical level reference cited in the document (e.g., statute, circular, public law, or directive) when possible." It goes on to

state, “Avoid hyperlinks that direct readers to a higher-level reference when the lower level is cited within the chapter.”¹⁹ It appears this guidance is not consistently followed.

The review also examined the inclusion of links to subordinate SOPs. Approximately half of the documents provided links to SOPs within their FM policies. The SOPs that currently exist nested below the FMR would be Component-level directives that detail how specific sections of the FMR should be implemented. Whether such procedures should be linked within the FMR would depend on various considerations, including Component policies regarding public access to implementation details.

The final area of the review was search capability. Among the 19 policy documents reviewed, 12 did not include search tools with functionality beyond simple keyword searches. The FMR’s website has an advanced keyword search tool that allows users to refine searches by combining multiple keywords. This search functionality provides an additional layer of specificity compared to many other agencies’ offerings. However, given the size and scope of the FMR, the demand for an advanced search tool or additional technological enhancements is particularly pronounced.

Overall, the structural assessment of FM policy documents indicates that the FMR aligns with many of the formats and features present in comparable federal agencies’ documents, and is generally more comprehensive than the others.

3. Standardized Structure within Chapters

Another component of the structural comparison involved assessing whether agencies structured their FM policies in a standardized way within their chapters. The chapters of the FMR follow a general structure, beginning with a standardized first section labeled “General,” which includes the subparts “Purpose” and “Authoritative Guidance.” Beyond this introductory section, the organization of each chapter varies based on the specific subject matter, with subsequent sections structured to align with the unique content requirements of that chapter. This required structure (i.e., “Purpose” and “Authoritative Guidance”) standardizes the chapter beginning and provides uniformity across the FMR in accordance with FMR SOP guidance.²⁰

Among the agencies reviewed, USDA, DOC, and VA were identified as having FM policies that incorporate standardized sections within each chapter. This approach was also observed in the JTR and JER, both of which maintain a consistent format across their respective chapters. The use of standardized sections in these documents provides

¹⁹ U.S. Department of Defense, *Financial Management Regulation Revision Standard Operating Procedures*, revised August 2019, 18.

²⁰ U.S. Department of Defense, *Financial Management Regulation Revision Standard Operating Procedures*, revised August 2019, 16.

uniformity in presentation, which may facilitate navigation and comprehension for users who engage with multiple chapters or need to compare content across different sections of the regulation.

As part of the benchmarking task, IDA compared the internal structure of the FMR with other policy documents issued by DoD. The assessment included DoDDs and DoDIs, both of which follow a consistent internal structure. These documents adhere to a standardized format that includes subsets of the following sections: “Subject,” “References,” “Purpose,” “Applicability and Scope,” “Definitions,” “Policy,” “Responsibilities,” “Procedures,” and “Effective Date.” For example, see DoDD 1344.10 and DoDI 1000.11. This structured format ensures that key elements are systematically addressed across all Directives and Issuances, promoting consistency in the way policy guidance is presented and interpreted across different areas of DoD governance.

4. Parallel Structures

The final part of the structural analysis involved reviewing the FAR and DFARS, which govern federal and defense acquisition practices. The two documents are structured using a consistent and hierarchical framework.

The FAR is organized into a hierarchical, multilevel, nested structure of parts and subparts, each of which addresses a specific aspect of acquisition policy, such as contracting methods or administrative requirements. The structure follows a standardized numbering convention, which supports uniform citation and reference across government entities.

The DFARS supplements the FAR with DoD-specific content and mirrors the FAR’s structural format. It uses the same part and subpart numbering to align its content directly with corresponding sections in the FAR. This alignment enables users to reference both documents in tandem.

Figure 9 and Figure 10 show the main webpages for the FAR and DFARS, which demonstrate their parallel structures.

FAR PARTS

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Chapter 99 (CAS)

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ACQUISITION.GOV FAR Overhaul Regulations Tools Policy Network

Home > Regulations > FAR

Federal Acquisition Regulation

Full FAR Download in Various Formats

FAC Number	Effective Date	HTML	DITA	PDF	Word	EPub	Apple Books	Kindle
2025-03	01/17/2025							

Browse FAR Part/Subpart and Download in Various Formats

Parts/Subparts	HTML	DITA	Print
+ Part 1 - Federal Acquisition Regulations System			
+ Part 2 - Definitions of Words and Terms			
+ Part 3 - Improper Business Practices and Personal Conflicts of Interest			
+ Part 4 - Administrative and Information Matters			

Figure 9. The Federal Acquisition Regulation webpage

DFARS PARTS

DFARS PGI

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DFARS APPENDIX

A B C D E

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Home > Regulations > DFARS

Defense Federal Acquisition Regulation Supplement

Full DFARS Download in Various Formats

Change Number	Effective Date	DFARS Archive	HTML	DITA	PDF	Word
DFARS Change 01/17/2025	01/17/2025	Archive				

Browse DFARS Part/Subpart and Download in Various Formats

Parts/Subparts	HTML	DITA	Print
+ Part 201 - FEDERAL ACQUISITION REGULATIONS SYSTEM			
+ Part 202 - DEFINITIONS OF WORDS AND TERMS			
+ Part 203 - IMPROPER BUSINESS PRACTICES AND PERSONAL CONFLICTS OF INTEREST			
+ Part 204 - ADMINISTRATIVE AND INFORMATION MATTERS			

Figure 10. The Defense Federal Acquisition Regulation Supplement webpage

The FAR and DFARS illustrate an example of how a primary regulation and its supplemental guidance can be structured in parallel. The DFARS is organized in a manner that corresponds directly with the FAR, enabling users to locate DoD-specific elaborations within the same overall framework. This layered arrangement reflects one approach to nesting agency-level policy alongside department- or component-level supplements while maintaining alignment across documents.

B. Length

1. Overall and Specific Topic Length Comparisons

At 7,387 pages, the FMR contains substantially more content than the FM policy documents of other federal agencies. The second-largest document reviewed, the VA's FM policies, spans 2,372 pages—less than one-third the length of the FMR. However, direct comparisons based solely on length do not account for variations in operational scope, policy integration, or the level of detail required by different agencies.

To better understand the relative length of the FMR, a comparison was conducted on select FM topics that are addressed across multiple agencies. Table 10 summarizes the findings:

Table 10. Benchmarking page count by category

	FMR	Agriculture	Commerce	Energy	State	VA
Financial Reporting	264	n/a	48	n/a	31	162
Managerial Cost Accounting	36	n/a	23	3	n/a	13
Debt Management/Collection	194	8	95	44	21	255
Travel Policy	103	25	129	n/a	31	327

Note: "n/a" entries indicate that a given topic does not appear in an agency's FM policy documents, implying that higher level FM guidance is followed.

The FMR is longer than all other agencies in the content areas of Financial Reporting and Managerial Cost Accounting. Financial Reporting is particularly detailed. While the FMR contains more Managerial Cost Accounting content than other agencies, it has relatively minimal coverage compared to other topics. DoD is not alone in neglecting this topic.

In the area of Debt Management/Collection, the FMR has the second-highest page count, with VA having the most extensive coverage. For Travel Policy, the FMR ranks third in length; however, this figure only accounts for the content within the FMR itself. The JTR, a separate document dedicated to DoD travel policy, spans an additional 539 pages, making the total amount of travel-related guidance within DoD significantly larger.

2. Factors Contributing to FMR Length

After making micro-level comparisons, the IDA team found that length comparisons were not particularly helpful. The FMR's length reflects the complexity and scale of DoD's FM responsibilities. As the largest federal agency, DoD oversees a broad spectrum of financial activities, including global operations, defense acquisitions, logistics, and

compensation structures for military and civilian personnel. The scale of these operations necessitates comprehensive guidance that accounts for diverse and highly specialized financial scenarios.

One of the main factors of the FMR's length is the structural organization of FM policies. All other reviewed agencies separate policy directives from procedural instructions, with implementation guidance provided in supplementary manuals. The FMR integrates both policy and procedural content within a single document, resulting in a more extensive regulatory framework.

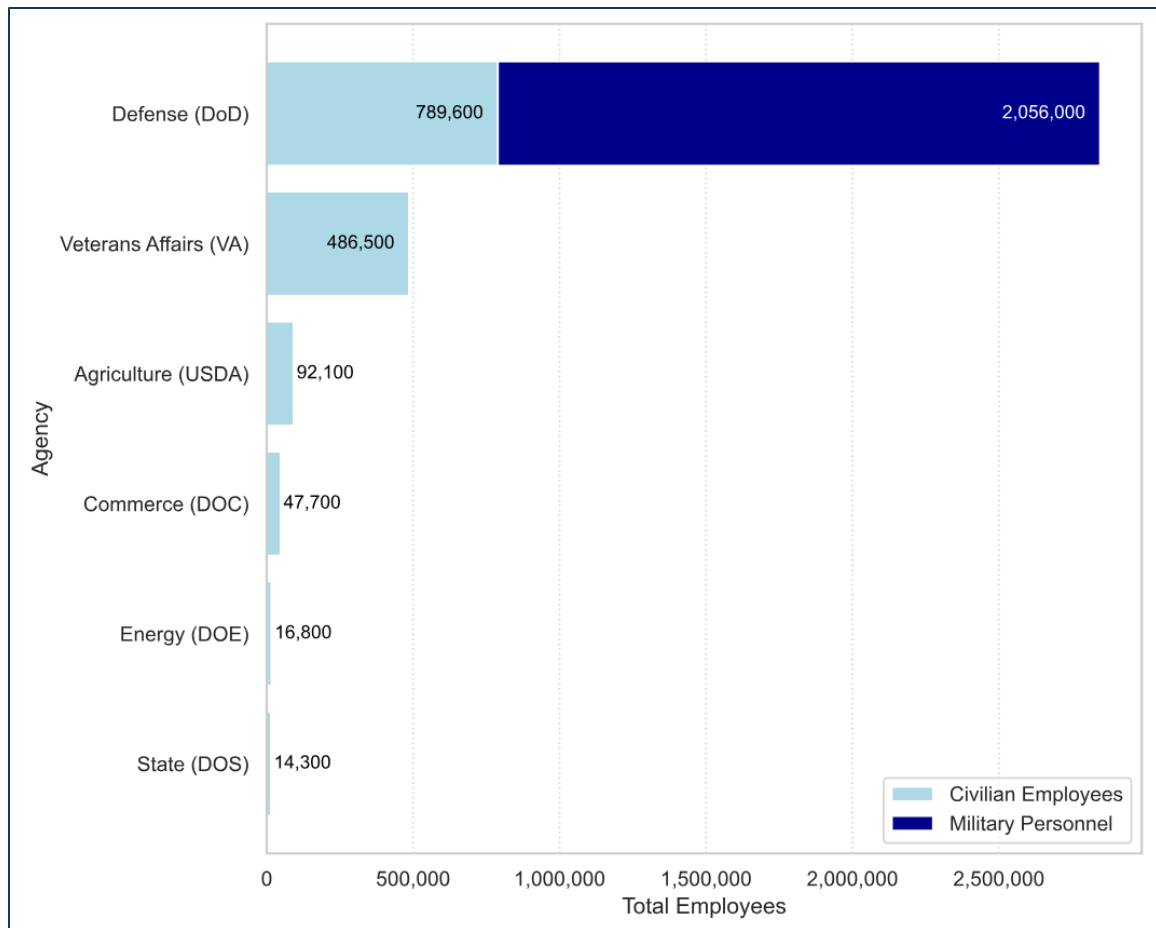
It would be difficult to assess how much of the FMR represents policy and how much represents procedural information without conducting a section-by-section analysis. Although largely thought of as a policy regulation, much of the FMR describes how to accomplish certain processes and contains procedural information. For example, volumes 2A and 2B deal largely with how to formulate and present budgets, volume 3 deals with how to control and execute funds, and volume 6B deals with how to prepare audited financial statements. There is clearly a lot of procedural information in the FMR.

Additionally, DoD manages financial operations for approximately 2 million service members across active duty, National Guard, and reserve components, along with a civilian workforce of approximately 790,000 personnel.²¹ No other federal department administers financial policies using a workforce of this scale, contributing to the level of detail required in the FMR's policies and procedures.

To compare the size of DoD to other agencies, the IDA team first analyzed workforce size and budget in relation to the federal agencies whose financial documents were reviewed. Figure 11 shows that the DoD workforce vastly outnumbers the employees in other federal agencies.²²

²¹ Defense Manpower Data Center, *Military and Civilian Personnel by Service/Agency by State/Country*, June 2024.

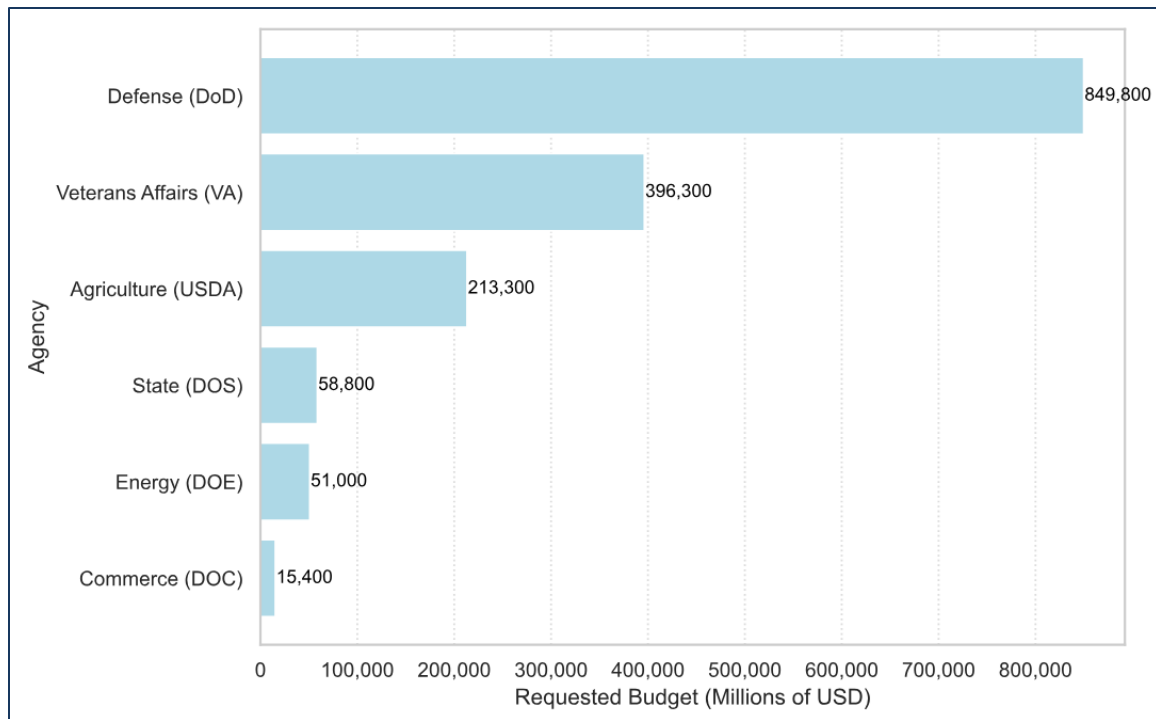
²² Office of Personnel Management, *FedScope: Federal Workforce Data*, March 2024.



Sources: U.S. Department of Defense, Office of the Under Secretary of Defense (Comptroller), Defense Budget Overview: Fiscal Year 2025 Budget Request, March 2024; U.S. Department of Veterans Affairs, FY 2025 Budget Submission: Budget in Brief, March 2024; U.S. Department of Agriculture, Office of Budget and Program Analysis, FY 2025 Budget Summary; U.S. Department of Energy, Office of the Chief Financial Officer, FY 2025 Budget in Brief: Congressional Justification, March 2024; U.S. Department of Commerce, Office of Budget, Budget in Brief: Fiscal Year 2025, March 2024; and U.S. Department of State, Congressional Budget Justification: Department of State, Foreign Operations, and Related Programs, Fiscal Year 2025.

Figure 11. Employment by federal agency

Figure 12 shows a similar disparity in comparing the DoD budget to the budget of other federal agencies.



Sources: U.S. Department of Defense, Office of the Under Secretary of Defense (Comptroller), Defense Budget Overview: Fiscal Year 2025 Budget Request, March 2024; U.S. Department of Veterans Affairs, FY 2025 Budget Submission: Budget in Brief, March 2024; U.S. Department of Agriculture, Office of Budget and Program Analysis, FY 2025 Budget Summary; U.S. Department of Energy, Office of the Chief Financial Officer, FY 2025 Budget in Brief: Congressional Justification, March 2024; U.S. Department of Commerce, Office of Budget, Budget in Brief: Fiscal Year 2025, March 2024; and U.S. Department of State, Congressional Budget Justification: Department of State, Foreign Operations, and Related Programs, Fiscal Year 2025.

Figure 12. FY 2025 Federal agency budget requests

Workforce size and budget of an agency do not necessarily correlate to the size of the policy and procedures documentation. It may be, for instance, that an agency has excessive overtime—or that eliminating duplication of content between sections could significantly reduce the length of policy and procedures documentation. For DoD, the scope of its mission and the variety of systems and infrastructure that it uses may be the strongest influence on the length of its FM policy and procedure documents. With a workforce nearly six times the size of the VA and close to 200 times larger than DOS, requested budgetary resources more than 55 times those of DOC and more than double those of the VA, DoD operates at a complexity whose magnitude necessitates a significantly more extensive FM framework. This disparity reflects not only the breadth of DoD’s responsibilities but also the inherent complexity of its financial operations.

Given the significant differences in scale and function, the length of the FMR should be considered within the broader context of DoD’s operational complexity rather than as a direct comparison to other agencies’ FM regulations. A straightforward page count comparison does not account for DoD’s expansive scope, the need for detailed guidance to

support its mission, or the structural decisions—such as integrating policy and procedure into a single document—that contribute to the regulation’s overall length.

5. Technology Support Observations

A. Current FMR Technology Support

1. Usability

A digitized version of the FMR is currently available via the OUSD(C) website. One can access the FMR in three ways as a PDF file: the entirety of the text, by a single volume, or by a chapter within one of the volumes. There is an “Advanced Search” link on the main page that supplies a search function. In addition, there is an archive of previous chapters, as well as a Policy Memoranda page. The Policy Memoranda page gives, by volume, recent policy changes and the issue date that they are to take effect. There is also a brief FMR Help document available to help navigate the FMR website. Lastly, there is a short training video intended to help new users of the FMR.

The current search function on the FMR website is a keyword-only search. When a query is entered, the search engine returns the full text of all volumes that mention the given query. Results are in the form of a matching volume. To access the results, the user must download the full text of the volume and manually find the text matching the query within the document. During conversations with interviewees and workshop attendees, numerous FMR stakeholders mentioned that many FMR users find it easier and faster to use Google search rather than the FMR’s “Advanced Search” function, when they wish to find a particular topic or section in the FMR. One SME indicated that the House of Representatives’ searchable version of the U.S. Code, available on the U.S. House of Representatives website, has a much better search engine whose features would be more appropriate for the FMR than the current functionality. Figure 13 shows a screen shot of a user-interface page from this website.²³

²³ U.S. House of Representatives, *United States Code*, <https://uscode.house.gov/>.

Office of the Law Revision Counsel
UNITED STATES CODE

Home

!!! CHANGE NOTICE !!!

Search & Browse

Currency and Updating

Classification Tables

Popular Name Tool

Other OLRC Tables and Tools

Understanding the Code

Positive Law Codification

Editorial Reclassification

Downloads

Other Legislative Resources

ADVANCED SEARCH OPTIONS

Search in version: Current

General Search Terms: [Dropdown]

Search In: [Title] [Section] [Dropdown]

+ Also Search In...

Search For: [Dropdown] Within: All Fields [Dropdown]

+ Also Search For...

Search Clear

Search for references to: [Title] [Section] [Dropdown] Search Clear

Developmental Deep Reference Searching

Search for references to: [Title] [Section] [Subsec./Par./Subpar./Etc.] [Dropdown] Search Clear

Figure 13. User-input page from searchable version of the U.S. Code

2. Updating process

The FMR website has a number of different sections intended to communicate both past and present changes and coordinate updates. One page, the “Chapters in eCoordination page,” lists chapters in electronic coordination. Presently, no chapters are listed, and there is no contact information on the website or further indication of which chapters may be considered in the future.²⁴ Another page is the “Recently Published Changes” website, which, at the time of this writing, lists changes to chapters as recently as January 2025.²⁵ However, the specific areas of change are not noted on the website; users must click on the link to download the relevant PDF to view changes.

Another section of the website is called “FMR Alert,” intended to communicate changes or relevant guidance that is important for the entire FMR community. According to the FMR Help document, it lists all FMR Alerts over the past 12 months; the current website lists all FMR alerts over the past few years, as early as 2021.²⁶ There is no present mechanism for notifying individual FMR users via e-mail or other bulletins of these changes; users must independently navigate to the FMR website and click the FMR Alert link to view the changes.

²⁴ U.S. Department of Defense, Office of the Under Secretary of Defense (Comptroller), *Financial Management Regulation Electronic Coordination*.

²⁵ U.S. Department of Defense, Office of the Under Secretary of Defense (Comptroller), *Financial Management Regulation Changes*.

²⁶ U.S. Department of Defense, Office of the Under Secretary of Defense (Comptroller), *Financial Management Regulation Alerts*.

Lastly, the “Policy Memoranda” page lists all chapters that currently have policy memoranda that supersede the present guidance given in the FMR. While the FMR SOP states that OUSD(C) will incorporate these changes into the FMR within 12 months,²⁷ at the time of this writing there are extant changes dating back to 2018.²⁸ Sometimes policy memoranda can be “dual purpose” and include other guidance (e.g., procedural information) that may not be incorporated into the FMR at the same time policy guidance is incorporated. This is a reason why some policy memoranda linger on the website for more than 12 months and are not cancelled. Per FMR SOP guidance, in situations like this, the preferred method is to separate FMR policy and non-FMR policy information rather than combining both in one memorandum.²⁹ In any case, members of the FMR community have noted that these policy memoranda require effort on the user’s part to check if there are any relevant changes, which could lead to action officers relying on outdated or incorrect guidance.

In summary, the FMR website offers links to the full text itself, a search engine, the FMR Alert website, a general “FMR Help” PDF, and policy memoranda. Modernization updates should prioritize user-friendly changes, such as a more robust search engine and more opportunities for user input and interaction. The current updating process as facilitated by the FMR website has helpful functionality but could be modernized in several ways, including automated update notifications sent to stakeholders, improved coordination, and timelier incorporation of changes and updates.

B. Potential Technology Support for FMR Modernization

While there are relatively straightforward technology enhancements, such as improved hyperlinking and interface-level upgrades, that could significantly improve FMR users’ experiences, an FMR equipped for the future may incorporate more advanced and emerging technologies. These may include modern search technologies, such as semantic search, or other AI tools including LLMs.

During Workshop 2 and other discussions with SMEs and FMR stakeholders, it became clear that there is not a common and complete understanding in the FM community about what these technologies are, what they can do, how they differ from one another, and what risks are inherent in their use. Given the rapid pace of development in this space, their capabilities will likely evolve even within the next year. Therefore, the following section

²⁷ Office of the Under Secretary of Defense (Comptroller), personal communication.

²⁸ U.S. Department of Defense, Office of the Under Secretary of Defense (Comptroller), *Financial Management Regulation Policy Memos*.

²⁹ U.S. Department of Defense, Office of the Under Secretary of Defense (Comptroller), *Financial Management Regulation Revision Standard Operating Procedures*, revised August 2019, 3.

provides a deeper examination of these technologies, explaining how they work and where they may be applicable to the FMR.

1. Defining AI

In recent years, the term “AI” has become widely used in the business and tech worlds to describe any technology that seems advanced or automated. Companies frequently label their products as AI-driven when they merely automate tasks or use basic algorithms that rely on predefined rules or simple pattern recognition. As a result, “AI” has become a buzzword, often used to make consumers think a system is more advanced or capable than it is.

Traditionally, AI refers to systems and technologies designed to perform tasks that typically require human intelligence, such as understanding language, recognizing patterns, and making decisions based on data. These systems can “learn” from experience and improve their performance over time through techniques like machine learning. Unlike the simple automation seen in traditional technologies, AI involves models that can adapt to new inputs and solve problems autonomously without needing explicit programming for every possible scenario.

A popular area of AI is GenAI, which focuses on creating new content like text or images based on patterns learned from large datasets. LLMs, like GPT-4 or Llama, are a subset of GenAI specifically trained on vast amounts of text to generate human-like language. However, it is important to distinguish that GenAI extends beyond LLMs, as it can also generate other forms of content like images or music.

Even as AI continues to influence many areas of technology, search technologies remain distinct—though they can benefit from AI. Traditional search engines are designed to retrieve relevant information in response to a user’s query, typically by matching keywords and ranking results based on relevance. Although search can be enhanced with AI techniques such as NLP to help systems better understand user intent, search itself is not inherently AI. The core function of search is to locate existing information, while AI is about processing, analyzing, and generating new information or decisions. Thus, while AI can improve the quality of search results, the technologies themselves remain separate.

2. Introduction to Natural Language Processing

Since 2022, great interest has been taken in the development, usage, and proliferation of LLMs in assisting with tasks including search, document drafting, and querying. LLM is a general term for a machine learning model designed for NLP with a large amount of training data. Generally, models referred to as LLMs use a specific type of neural network architecture called the transformer. Transformer models are designed to comprehend language in a context-dependent way. Well-known models such as OpenAI GPT-4o,

Anthropic Claude, and Google Gemini all rely on the transformer architecture. The objective of these models is to predict the next member of a given sequence of input text.

LLMs are a product of their training data. Training data form the backbone for how the model is able to learn patterns and make predictions. For example, general purpose models may be trained on WikiAnswers question-answer pairs, Reddit comments, or the text of Simple Wikipedia.³⁰ While these datasets are intended to promote a broad understanding of a variety of topics, LLMs can be fine-tuned to learn domain-specific vocabulary. Examples of this include experimental LLMs that have been fine-tuned on datasets with medical, legal, or aviation-specific terminology.^{31,32,33}

a. Improving usability using NLP

When applying any NLP algorithm, text must undergo a process called tokenization, where text is converted to smaller chunks and given a numerical representation. To be tokenized, input data frequently require significant data engineering in the form of cleaning, processing, standardization of formatting, and Optical Character Recognition (OCR) when required. Once text has been tokenized and encoded, LLMs can be used to assist with search, summarization, Q&A, document drafting, and rephrasing tasks that may support modernization of the FMR.

To improve search and usability of the FMR, the currently available version of the document will require editing. Many parts of the PDF are stored as images rather than free text. For example, in Volume 3 of the FMR, most of the pages 3-163 to 3-253 (86 pages in all) contain sample tables stored in the document either as screenshots or images rather than as free text. For the text to be machine readable, any part of the document presently stored as an image must be converted to text. This could be done either manually or by using OCR.

One of the concerns heard from the FM community relates to the present capability of the FMR website's search feature. Currently, the "Advanced Search" option on the FMR website relies on a keyword-based search that searches volumes for the word or phrase input by the user and then returns each chapter containing the exact keyword or phrase, but not the sections or line numbers. Several stakeholders noted during interviews and

³⁰ Hugging Face, *Sentence Transformers: all-MiniLM-L6-v2*.

³¹ Hugging Face, *SauLLM-7B: A pioneering Large Language Model for Law*, Published March 6, 2024.

³² Hugging Face, *The Open Medical-LLM Leaderboard: Benchmarking Large Language Models in Healthcare*, Published April 19, 2024.

³³ Liya Wang et al., "Adapting Sentence Transformers for the Aviation Domain," The MITRE Corporation.

workshops that users find the FMR search function to be inefficient and that they prefer to use Google search in place of the FMR website’s search.

FMR search capability would be substantially improved through the use of NLP technology, which is especially well-suited for search algorithms. For instance, in 2018, Google released an NLP model, Bidirectional Encoder Representations from Transformers (BERT), that was specifically designed to improve search results.³⁴ Presently, Google Search continues to use this language model to retrieve and rank search results. Similar technology may be of use with the FMR.

In addition to improving search, LLM-powered technologies such as agents and Retrieval Augmented Generation (RAG) could provide the backbone for tools designed to assist FMR users in their daily tasks.

b. Semantic search

Semantic search is a method used to extract meaning from a user query and utilize that meaning to retrieve, rank, and return search results. In contrast to traditional keyword-based search, which relies on exact term matching, semantic search uses NLP techniques to interpret the intent and contextual meaning behind a query.

In semantic search, a specific type of language model known as an embedding model is used to generate numerical representations, or embeddings, for both the user query and the text corpus being searched. These embeddings exist within a multi-dimensional space, where semantically similar pieces of text are positioned closer together according to a predefined distance function. When a query is executed, the semantic search mechanism identifies the most relevant objects within this space by determining which stored embeddings are nearest to the query embedding. The retrieved objects are subsequently ranked based on a developer-defined algorithm and returned back to the user.

An example of semantic search can be seen in Google’s implementation of BERT in 2019. Prior to this, Google Search primarily relied on keyword-based search techniques such as the TF-IDF (Term Frequency-Inverse Document Frequency) algorithm and the Best Match 25 (BM25) ranking function. These methods focused on exact word matches and statistical weighting but lacked an understanding of contextual meaning. The introduction of BERT allowed Google Search to better match the intent behind user queries. For instance, a keyword-based search for “Can you get medicine for someone at a pharmacy?” might return general results about buying medicine, while a semantic search would retrieve pharmacy policies regarding prescription pickup on behalf of another person.

³⁴ Pandu Nayak, “Understanding Searches Better Than Ever Before,” *Google Blog*, October 25, 2019.

Semantic search using AI has been widely in use since 2019. AI-based techniques can be augmented with traditional keyword or bag-of-words approaches like TF-IDF and the BM25 ranking function. Hybrid search approaches that combine both semantic embeddings and keyword-based techniques can enhance retrieval performance. In the context of querying a document repository, semantic search can provide more intuitive search for users by allowing them to phrase their queries in either conversational or domain-specific language.

Semantic search offers a key advantage over traditional keyword search by returning more relevant results based on meaning rather than exact wording. This is reflected in user behavior, as many already turn to tools like Google to locate information within the FMR. An advantage of semantic search over RAG-enabled search mechanisms, which are discussed in 5.2.1.3, is that users are still directed to the original source material and must interpret the results themselves. This avoids the risks associated with using LLM-generated responses, which may be partially or completely inaccurate and whose veracity must always be verified by users.

c. Retrieval augmented generation

In typical usage, LLMs are restricted to answering data from their pre-trained knowledge base. RAG is a method used in LLM applications to query and retrieve documents or other text from a user-provided database and formulate a response using the information from the documents. The purpose is to augment a language model’s knowledge base for better performance on knowledge-intensive tasks.³⁵

The first step in a RAG system is the semantic search mechanism. The user-provided set of documents is embedded using an embedding model and stored in a form accessible to an LLM, typically a vector database. When a query is executed by the user, the set of documents is queried and matching documents are retrieved and ranked. The resulting query and set of results are then input to the LLM, which summarizes a response based on the findings.

In the case of the FMR, the entirety of the FMR would be ingested, tokenized, and embedded into a form available to an LLM. A user interface would be developed where a user could enter queries in a conversational format. As an example, consider a user entering a query such as, “How would I calculate basic housing and family separation allowances for a family moving from [x] to [y]?” In an idealized situation, the semantic search mechanism would retrieve relevant paragraphs from the FMR on each respective

³⁵ Patrick Lewis et al., “Retrieval-Augmented Generation for Knowledge-Intensive NLP Tasks,” *arXiv*, April 12, 2021.

allowance. The LLM would then summarize an explanation of how to calculate each item, citing its sources from the paragraphs retrieved.

One advantage to a RAG-enabled search mechanism as opposed to a keyword search is that such a system accepts more conversational queries as input. For example, the present keyword search returns results only with keywords, such as “miscellaneous obligation document.” An LLM-powered search would allow users to query the document in more intuitive ways such as asking, “What is the guidance for the use of miscellaneous obligation documents?” with a response tailored to the particular question. Additionally, the LLM-powered search would supply a summarized response of the results to the user, as opposed to a list of matching results.

d. Agent based approaches

The concept behind an LLM agent is to prompt the LLM to reason and act on its own, without human involvement. LLM agents decide the next steps within an application. For example, when an LLM is prompted to make a simple calculation without further instruction, it will attempt to answer from its training data—which is often incorrect. The LLM agent, when given an equation or math problem as well as a calculator tool, then reasons whether to use the calculator and how to use it autonomously, eventually returning an answer.

An LLM agent can respond with information outside of its training data by using a tool, such as a search tool that pulls from the internet. This is distinct from RAG systems where the developer/user provides a static set of documents that the LLM can pull from outside of its training data. An emerging area is so-called “Agentic RAG”: programs that combine the two technologies. For example, one use of such a system could be to give an LLM access to two separate knowledge bases via RAG while an agent independently decides which knowledge base to use given a prompt. Another use could be to have an LLM agent that updates a knowledge base.

The following is an idealized example of an FMR agent system that has access to tools such as web search, a RAG system with the FMR, and a calculator. A user prompts the agent system for how to calculate total lodging adjustment for a service member in Guam for 15 days according to the FMR. The agent decides to query the RAG system and returns the guidance in the FMR. This generates a subtask for performing a web search for current per diem rates. The agent then returns a final answer by using the calculator to multiply the current per diem rate by 15.

In a RAG system, the LLM would be able to return and summarize the relevant guidance for a user, but not be able to update the per diem rates or calculate an adjustment for a given number of days. Agents are purported to simplify tasks, acting as AI-powered assistants.

e. Streamlining and improving content

NLP techniques may also address the problem of streamlining content within the FMR. One use case involves finding areas of contradiction or conflict between chapters. Potential strategies for this use case include using cosine similarity as induced by an embedding model to analyze the redundancy of text or using models trained for Natural Language Inference (NLI) tasks. The utility of LLMs with respect to summarization of text has been supported by research finding LLM-generated summaries to be on par with human-written summaries.³⁶ In areas that need to be simplified or shortened, LLMs could be used to rewrite chunks of text.

C. Limitations of AI

At a high level, challenges with implementing an LLM-based solution include hallucinations, incomplete responses, a lack of transparency, risks associated with autonomy, and a need for computational resources.

1. LLM Hallucinations and Incomplete Responses

A hallucination is defined as a spurious, incorrect statement from an LLM. While hallucinations can be monitored and guarded against, they are ultimately an inevitable issue that arises with the use of any LLM. Well-known LLMs have been found to produce hallucinations when generating summaries anywhere from 0.7 percent to 2.9 percent of the time.³⁷ In particular, hallucinations in applications in law and statutes are a recurring serious issue, with a 2024 paper showing that hallucinations occur in response to queries about federal law between 58 percent and 88 percent of the time using ChatGPT and Llama, respectively.³⁸ While user experience in phrasing prompts and in refining a sequence of prompts is useful, it does not eliminate the inherent risk. Because of this fact, it is essential that FMR SMEs diligently check all portions of any LLM output for factual errors, whether the LLM is used to summarize text, consolidate separate sections, or for other use with the FMR.

Incomplete responses occur when an LLM provides only a partial answer to a query. For example, when it bases its response on only a portion of the user-provided database in a RAG application. This presents a risk in operational settings where the task is to identify all instances that match the query criteria.

³⁶ Tianyi Zhang et al., Benchmarking Large Language Models for News Summarization, *Transactions of the Association for Computational Linguistics* 12 (2024): 39–57.

³⁷ Vectara, “Hallucination Leaderboard,” *GitHub*.

³⁸ Matthew Dahl et al., “Large Legal Fictions: Profiling Legal Hallucinations in Large Language Models,” *arXiv*, January 2, 2024.

Throughout the course of the project, the IDA team demonstrated both DoD-based and commercial RAG applications.

During Workshop 3, the IDA team focused on several DoD-based applications, including CamoGPT, NIPRGPT, and Wingman, using the FMR as source material. These demonstrations highlighted both the promise and limitations of RAG-enabled tools in an FM context. For instance, CamoGPT can support secure document handling and provides source citations, but it produced responses that contained inaccuracies or hallucinations that would go undetected by users without deep subject matter expertise. This issue was observed across *all* RAG-enabled tools tested by the IDA team, whether commercial or DoD-based. The CamoGPT representative also noted that the tool's performance is highly dependent on the quality of a user's prompt. Additionally, while the system allows multiple document uploads, the size of the content chunks often reduced the clarity and usefulness of its references to the document.

NIPRGPT faced scalability limitations and was unable to process the entire FMR as a single document. As with hallucinations, the inability to process the entire FMR was a universal limitation among all commercial and DoD-based tools evaluated by the IDA team. The developers acknowledged this constraint and indicated that the tool would not perform well when querying a document as large and complex as the FMR. Wingman showed comparatively stronger performance due to its ability to retrieve live information via Application Programming Interface (API) connections, which enhanced the relevancy of its responses. However, it still produced hallucinated content and occasionally cited outdated or archived versions of the FMR found online. While Wingman offered useful features such as confidence scores and source links, its overall reliability for high-stakes operational use with the FMR remains limited.

While the tools demonstrated during Workshop 3 showed promising technical capabilities that are broadly comparable to other commercially available systems, their current design and performance are not yet sufficient to meet the accuracy, completeness, and reliability standards required for effective operational use of the FMR. As experienced by the IDA team during testing, the limitations of DoD-based tools reflect broader challenges inherent to even the most advanced RAG-based tools, particularly when working with a document as large, complex, and nuanced as the FMR.

2. Lack of Transparency

Another related issue is a lack of transparency. By their nature, LLMs are considered black boxes because there is no way to trace how they arrive at a specific output based on a given input. This is due to the complexity of their underlying architecture. LLMs use billions of parameters that interact in non-linear ways, which make the decision-making process opaque and not directly interpretable, even to their developers. Guardrails can be

implemented to limit certain types of responses, including harmful or inflammatory content, but these do not make the internal workings of the model more transparent.

3. Autonomy Risks

There are also accompanying risks associated with autonomy. For example, if an agent-based system is given a code interpreter and a prompt to execute code, an LLM could independently execute faulty or dangerous code. Another risk could be exposing controlled or protected information. In the Guam scenario, if the user input the service member's name along with the location, the agent could then send that information to a third party through independently accessing an API. The location itself could also be sensitive information that would then be exposed to a third party.

6. Modernization Recommendations

As part of this study, IDA was tasked to formulate a set of actionable recommendations for modernizing the FMR and its updating process, which address the findings and friction points identified in FMR stakeholder interviews and workshops. Our modernization recommendations fall into seven major categories. They include FMR format and structural changes, training, process improvements, and use of evolving technology solutions.

For each recommendation, the report lists the following:

1. A set of supporting actions that provide the necessary details for implementing the recommendation.
2. The rationale and justification for the recommendation, based on the friction points that the recommendation addresses. There is a many-to-many relationship between the set of recommendations and the set of friction points: some recommendations address multiple friction points, and some friction points are addressed by multiple recommendations.
3. Considerations concerning implementation strategy for the recommendation and its supporting actions.

Given persistent and evolving constraints on available resources, the Department would need to carefully assess its priorities prior to deciding on a plan for implementing any of these recommendations.

Figure 14 summarizes our recommendations for modernizing the FMR.



Figure 14. Recommendation 1 supporting actions

A. Recommendation 1: Create standardized structures across the FMR

1. Recommended Actions

Figure 15 summarizes supporting actions for Recommendation 1.

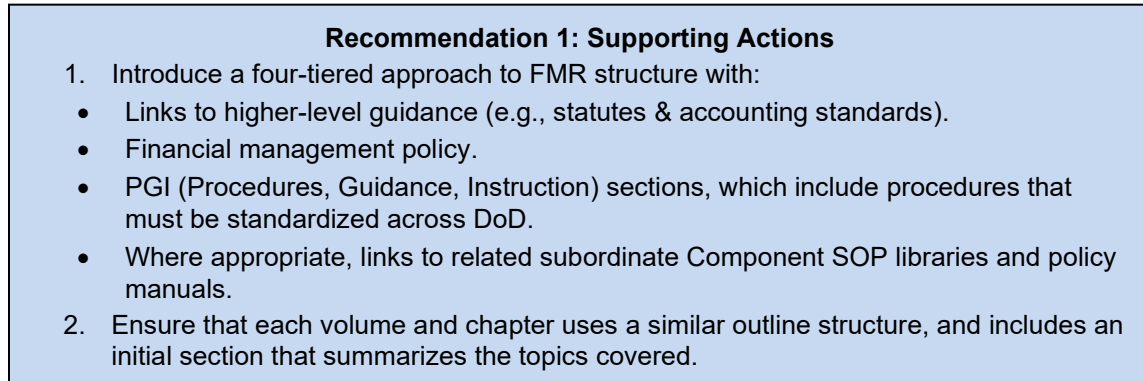


Figure 15. FMR modernization recommendations

2. Justification

Recommendation 1 addresses the following friction points:

1. Usability: FMR search and navigation is challenging.

A standardized, four-tiered structure for all volumes and chapters would improve usability and readability. This standard structure should also include important references, both listed at the start of each chapter (with hyperlinks), and references embedded within the narrative sections of each chapter (with hyperlinks) so users know what guidance is specifically tied to higher authority. Additionally, a Procedures, Guidance, and Instruction (PGI) section could be helpful for many users. For example, Figure 16 shows the DFARS PGI website, which links directly to the DFARS.



Figure 16. DFARS PGI main webpage

2. Updating process: The FMR updating process takes too long.

A clear separation of policy and procedure within each chapter would improve update cycle times by reducing the amount of FMR text involved in DoD FM policy updates. Once a restructuring of FMR content is completed, Components would need to update references in their subordinate SOPs to the new FMR structure to preclude confusion and audit issues.

3. Updating process: FMR updates are too infrequent.

With reduced cycle times, resources would be freed to increase the frequency of updates to chapters or sections.

4. Content: the FMR structure contains both policies and procedures.

Introducing a four-tiered structure in FMR chapters would have a synergistic effect on usability and updating across the Department.

5. Content: some stakeholders expressed that the FMR is overly prescriptive or restrictive.

Links to higher-level guidance would clarify the statutory and standards basis for FMR policies and procedures.

3. Implementation Strategy

Implementation for Recommendation 1 would need to account for the fact that, given the length and complexity of the FMR and of Component SOPs, a major structure and/or content overhaul would be labor intensive. In addition, FMR content and structure changes could require updates to related subordinate SOP references across DoD. Because of the inherent complexity and scope of creating standardized structures across the FMR, an

appropriate management strategy would need to be in place to implement this recommendation. A suitable strategy should involve:

- An empowered champion and a project leader within OUSD(C) or DFAS, each of whom has the appropriate authorities.
- Selection of a cross functional planning and implementation team—internal to the DoD FM community, with appropriate subject matter experts with designated roles and responsibilities from the appropriate organizations.
- Availability of suitable resources.
- Development of a formal plan to implement the supporting actions as prioritized by the Department.
- A process for development of alternatives and for decision-making/consensus concerning the selection of alternatives.

Adding PGI sections to the FMR would involve identifying and segregating procedures from policy and consolidating them in a single place within each volume or chapter of the FMR. This action could follow the normal writing and staffing process within OUSD(C) of revising the FMR.

B. Recommendation 2: Update the presentation of information in the FMR

1. Recommended Actions

Figure 17 summarizes supporting actions for Recommendation 2.

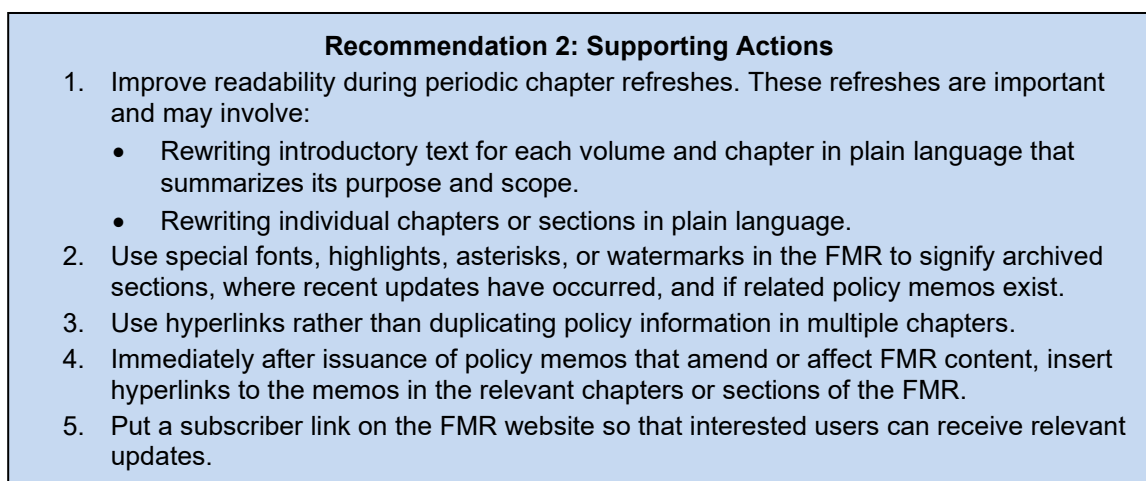


Figure 17. Recommendation 2 supporting actions

2. Justification

Improved readability makes the FMR more accessible and helps ensure that users find the most current guidance.

Recommendation 2 addresses the following friction point:

Usability: FMR search and navigation is challenging.

Improving readability may involve writing introductory text for each volume and chapter in plain language that is understandable to users who are not SMEs, while maintaining the technical language in the body of the text to ensure fidelity to policy and statute. A more understandable document would enable improved synchronization and compliance across functional communities. Although using plain language can be a worthy and desirable goal, some topics require nuanced descriptions and the complexity of detailed, technical language. In such cases, it may be appropriate to provide summary text in plain language of the topics addressed—this recommendation is situational.

When writing/rewriting sections or chapters, policy officials and SMEs could selectively use LLMs for suggestions on how to redraft specific phrases or sentences into more plain language. However, they would need to take great care in doing so, since LLMs can hallucinate and miss the importance of certain technical terms. For example, we have observed LLMs incorrectly treating the accounting use of the word “reconciliation.” Moreover, even changing the location of a single comma in a sentence may change the meaning of the statute in which it is found. Because of the necessity of ensuring that the FMR is entirely correct, great care must be taken when using LLMs to summarize text or consolidate different sections. It is imperative that, whenever LLMs are used in conjunction with the FMR, a comprehensive and detailed legal review of any such summary or rephrasing be undertaken.

Embedded hyperlinks to policy memoranda and clearly annotated archived sections of the FMR would inform users they have the latest guidance available. OUSD(C) and DFAS place policy memoranda on the FMR website when more current regulatory and policy guidance is available but is not yet codified in the FMR. Some users are unaware they need to check for policy memoranda to ensure that the particular guidance they need and are referencing in the FMR remains current. Embedded hyperlinks would help ensure users rely on the most current guidance available, and thus improve the quality of FM actions and decisions. These links would be taken down (or left for historical purposes only) when the content of the policy memo is incorporated into the FMR.

In addition to improving the process related to policy memoranda, users would be helped if archived sections of the FMR, of which there are many, were made easily identifiable in search results (e.g., using Google) by using either a specific font color or an “archived” watermark. Without this relatively simple improvement, users risk relying on outdated information without knowing it.

3. Implementation Strategy

Implementation for Recommendation 2 would require different strategies for different supporting actions once a decision is made to do them.

Action 1 (rewriting text or writing new text), Action 2 (using special fonts, highlights, asterisks, or watermarks), and Action 3 (using hyperlinks) could each be done on an ad hoc basis during the normal course of updating individual chapters. We recognize that OUSD(C) is currently implementing some of these suggestions as revisions take place.

Action 4 (including subscriber links) would require formal development of an IT capability on the FMR system. This should involve a formal software acquisition process: formation of a project team, requirements definition, vendor or in-house team selection, development, testing, and maintenance.

C. Recommendation 3: Update the information in the FMR

An objective of this study is to provide OUSD(C) with actionable recommendations to modernize the FMR, including increasing its user friendliness. Such an objective should consider the potential inclusion of additional topics of use to FMR stakeholders and other functional communities. Topics that FMR stakeholders specifically mentioned are G-Invoicing, RPA, and expanded and consolidated coverage of ERM.

1. Recommended Actions

Figure 18 summarizes supporting actions for Recommendation 3.

Recommendation 3: Supporting Actions	
1.	Determine the desirability of including additional topics such as G-Invoicing, RPA, and ERM in the FMR.
2.	Determine where in the FMR to place the additional topics and information.
3.	Write and/or rewrite the designated FMR chapters and/or sections.

Figure 18. Recommendation 3 supporting actions

2. Justification

a. G-Invoicing

Although Department of Treasury guidance exists related to G-invoicing, the FMR does not present an end-to-end discussion of how to manage intragovernmental transactions by DoD entities. OUSD(C) should consult with Component SMEs to ascertain whether dedicated guidance should be added to the FMR on this topic. We acknowledge some guidance already exists within Volume 6B, Chapter 13 related to eliminations and

reconciliation requirements, but guidance related to other aspects of G-invoicing, such as how to record and manage performance could be useful to the broader FM community.

b. RPA

Because of the increasing capability of and reliance on technology to assist with reconciliation and other tasks, OUSD(C) should consider adding guidance on the use of this modern automation capability in the FMR. Guidance should include a description of what this technology is, how it can help eliminate manual, error-prone repetitive tasks, and provide a list of resources to facilitate further education and implementation.

c. ERM

USD(C) should consider including ERM in the FMR. A recommendation to include ERM flows from both federal law and regulatory guidance. The Government Performance and Results Act Modernization Act (GPRAMA) of 2010 requires federal agencies to implement strategic planning and review processes to improve outcomes. OMB circular A-123 (Management's Responsibility for Internal Control) requires agencies to implement an ERM capability that is coordinated with GPRAMA planning and review processes to more effectively manage risks affecting achievement of agency strategic objectives. Although DoD already focuses on ERM, this focus is bifurcated between financial reporting and agency operations. The recommendation to bring these two elements together as part of a single regulatory framework stems from a need to better manage risks holistically and thereby drive audit readiness objectives. A more holistic approach considers not only financial reporting, but also operational activities that can contribute to the accuracy and reliability of financial information, such as managing risks related to inventory accountability as well as access controls associated with information technology systems.

An FMR section devoted to ERM could bolster needed understanding, help drive priority of effort/focus, and elevate the importance of internal controls writ large. Although a DoDI exists for ERM (DoDI 5010.40) under the purview of the Office of the Director of Administration and Management, the current focus on ERM appears bifurcated between financial reporting and mission operations. This bifurcation could and should be reduced, driving a more holistic focus on ERM by placing overarching guidance within the FMR with references to the DoDI. Elevating and codifying all enduring ERM guidance in one place will benefit not only the FM community, but also those in other functional areas who could access this information readily. It will also send a message that ERM is critically important to DoD operations and the audit. Volume 1 of the FMR may be the most appropriate location for ERM guidance.

This report acknowledges that while some members of the FM community specified that the FMR should include guidance on ERM, this perspective is not universal. Some

identified that ERM falls outside the scope of the FMR. Therefore, IDA recommends that OUSD(C) consult with other outside experts familiar with risk management and audit, such as DoDIG and IPAs, and make a final determination based on the aforementioned recommendation and rationale.

3. Implementation Strategy

This recommendation should follow the normal writing and staffing process within OUSD(C) of adding new material to the FMR. Given the technical and cross-cutting nature of the subject matter, OUSD(C) should assemble a cross-functional team from different areas of the FM and risk management communities within DoD to perform this supporting action.

D. Recommendation 4: Improve FMR education, training, and reach-back support to the workforce

1. Recommended Actions

Figure 19 summarizes supporting actions for Recommendation 4.

Recommendation 4: Supporting Actions	
1.	Institute an FMR training program. <ul style="list-style-type: none">• Develop a set of course materials on the content of individual volumes and/or chapters.• Develop additional videos on particular content areas of concern.• Develop additional tutorial videos on using and navigating the FMR.• As appropriate, use LLM and other tools to support training when the technology is mature enough.• Implement training on AI technologies if they are enabled for the FMR community.
2.	Formalize a DoD-wide, SME reach-back process. This could involve real-time access to SMEs.
3.	Insert hyperlinks to animations or training videos within FMR sections or chapters.

Figure 19. Recommendation 4 supporting actions

2. Justification

Recommendation 4 addresses the following friction point:

Usability: User training and support for navigation and content is limited.

In general, training improves understanding—and consequently the quality and efficiency of financial outputs. A set of course materials, designed to satisfy the particular needs of various FMR user groups and communities, would improve efficiency compared to current user learning via on-the-job training coupled with outreach to more experienced

users. For instance, given the size, scope, and complexity of the FMR, a set of training material on FMR navigation and structure would be useful in familiarizing users with the FMR and how to search for information. These users could include novice users, analysts moving into new positions with new responsibilities, and interested users from other functional communities outside FM (e.g., acquisition, human resources, and logistics). Similarly, acquisition managers and financial managers could benefit from training tailored to their particular use of the FMR—that emphasizes the content of the parts of the FMR relevant to the work of the professionals and action officers that they supervise. This training would strengthen their knowledge base and improve the quality and efficiency of the financial outputs of their organizations.

A virtual option for a modernized FMR could even include embedding hyperlinks within the FMR itself to provide more “hands on” guidance, animations, or “how to” videos. For example, training tools could include virtual options such as YouTube videos for most frequently used processes or policies, which could be ascertained by examining statistics for which volumes, chapters, and/or sections are viewed most often. This would help prioritize areas for training focus and could also help ascertain whether particular areas of the FMR cause confusion in order to prioritize updates.

In addition to static virtual training options, training courses could be developed and made available to users (either virtual or in-person) with live instructors. For example, a set of FMR courses could be developed on such things as FMR navigation and the content of individual volumes and chapters. Any training courses should count towards continuing education credits required for professional certification requirements. OUSD(C) could consult with DAU and other organizations for potential course development and hosting options.

Use of LLM tools to support training has the potential to increase efficiency and decrease labor requirements. A useful example of this kind of tool would be a chatbot or Q&A feature to answer common questions related to the FMR, using LLMs or other NLP techniques. This kind of interactive tool would make the FMR website more user-friendly if, for example, an interactive chatbot capability would allow users to ask questions and query the document. As a cautionary note, however, the use of AI-enabled applications is relatively new and could itself generate new training needs across the user community—for example, to be aware of hallucinations and incompleteness in LLM responses.

Embedded hyperlinks to training and embedded animations within the FMR would be especially useful for novice users. In addition, a formalized DoD-wide reach-back process to contact SMEs would improve consistency across DoD on FMR policy issues and understanding of FMR intent. Such a process would be useful because there is no single organization or individual with expertise that covers the breadth and depth of the FMR. If users with unique or highly complex information requirements could reach back through a

tiered helpdesk-like support structure, for example, they could obtain accurate information relatively quickly.

3. Implementation Strategy

Strategies for implementing Recommendation 4 would vary for different supporting actions once a decision was made to do them.

Action 1 (instituting FMR training) could involve partnering with OUSD(C)'s Human Capital and Resource Management (HCRM) directorate and/or outside entities such as the Society for Defense Financial Management and DAU to develop training courses. HCRM, in particular, already has contract vehicles in place to support training requirements for the FM community. In addition to traditional training courses, OUSD(C) should consider partnering with CDAO and/or government contractors to develop LLMs to support training or develop training for AI-enabled search. A formal project structure would be useful, including a needs assessment to focus training on the most useful topic areas. Training needs would depend on the extent of new technology adoption over time.

Action 2 (SME reach-back or substantive videos) could be labor intensive depending on its structure and the number of users. A reach-back system could be implemented simply as a resource list with names, areas of expertise, and contact information. Video production would require a project management team with a formal project charter, sufficient resources including a dedicated production team, a prioritized and vetted list of desired video topics, and access to a sufficiently large pool of SMEs.

For Action 3 (hyperlinks, animations, how-to-videos), hyperlinks could be easily inserted into the FMR, and might be economical means of providing training. Production of how-to animations and videos, however, would require a project manager, a formal project charter, and sufficient resources including a production team, a prioritized and vetted list of topics, and a sufficiently diverse team of users across DoD.

E. Recommendation 5: Focus FMR updating on prioritized content

1. Recommended Actions

Figure 20 summarizes supporting actions for Recommendation 5.

Recommendation 5: Supporting Actions	
1.	Allow updating of individual sections, rather than updating an entire chapter at a time.
2.	Determine if updates to a chapter are needed in addition to the regular update cycle. <ul style="list-style-type: none">a. Let user hits per volume, chapter, or page identify where the most useful (or most confusing) guidance exists.b. Let the number of queued policy memoranda be a driving factor in determining updating priority.

Figure 20. Recommendation 5 supporting actions

2. Justification

Recommendation 5 addresses the following friction points:

1. Updating process: The FMR updating process takes too long.
Updating smaller sections more frequently could help the overall update process move faster from the user perspective. More technically complex, lengthy, or controversial updates would then not slow down other updates that could be made easily and swiftly. In addition, cycle times would improve if ad hoc updates were allowed for individual sections of the FMR to incorporate policy memoranda and other important changes (e.g., new expense-investment thresholds), rather than having to wait for scheduled volume/chapter updates in the standard biennial cycle. This process would enable the FMR to be a more agile information repository while still preserving time for the required levels of legal and policy compliance review.
2. Updating process: FMR updates are too infrequent.
Use of a checklist to determine when updates are needed would reduce labor hours. It would proactively help those responsible for drafting FMR updates know when policy, organizational, or other changes have occurred that might warrant or drive updates to a particular FMR volume and chapter. Moreover, quantitative information such as most viewed chapters or sections may help set priority for where updates are most needed. OUSD(C) already collects the needed FMR usage information on a monthly basis, as Figure 21 and Figure 22 illustrate.

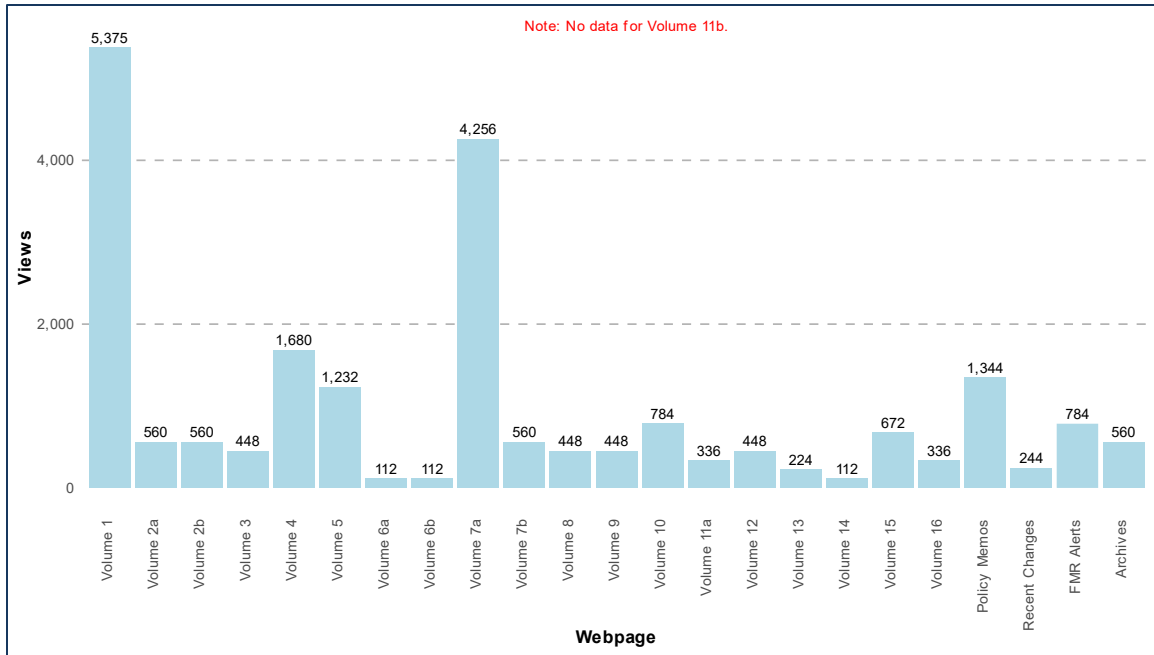


Figure 21. Total views per FMR volume, August 2024

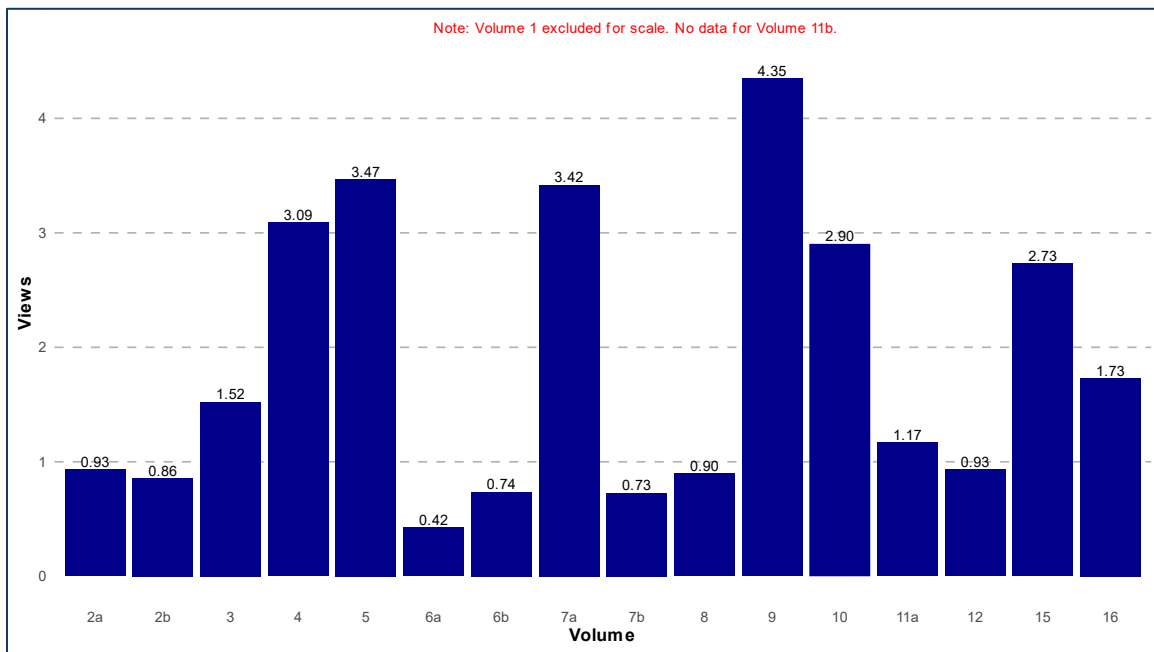


Figure 22. Total views per webpage for each FMR volume, August 2024

3. Implementation Strategy

Strategies for implementing Recommendation 5 would vary for different supporting actions once a decision was made to do them.

Action 1 (allowing individual section updates) would require modification of the FMR updating and review processes internal to OUSD(C), DFAS, and the stakeholder community. This would require vetting and consensus at the executive level. Legal and other compliance reviews may have difficulty keeping pace with the resulting increased op-tempo of FMR updates. Moreover, archiving processes might need to adapt to changes in updating scope or frequency. This issue would primarily affect DFAS and fiscal attorneys.

Action 2 (creating a checklist) could include such things as any change driven by an external authority (e.g., Congress, OMB, FASAB, GAO, OPM, and/or the Dept of Justice) as well as any internal DoD policy changes. If a SME had a comprehensive list of changes in the environment, that individual could more easily go to the relevant FMR sections to draft updates. Using a checklist could potentially entail development of an IT system to handle real-time, simultaneous updating from a large user community. This would require a formal software acquisition process including requirements definition, vendor selection, development, and maintenance. A simpler, spreadsheet-based checklist located on SharePoint could potentially be sufficient if it were limited to a small user-base in OUSD(C) and DFAS.

Given that the appropriate internal policies and procedures were in place, a single analyst could cost-effectively perform Action 3 (prioritizing gaps) on a periodic basis using the currently gathered monthly usage data by FMR volume and chapter. In addition to relying on checklists and empirical data (such as monthly usage information) to prioritize updates, OUSD(C) could create a feedback mechanism, such as a tab on the FMR website, where users could highlight confusing FMR sections that need to be updated.

F. Recommendation 6: Streamline coordination and collaboration processes for FMR updating

1. Recommended Actions

Figure 23 summarizes supporting actions for Recommendation 6.

Recommendation 6: Supporting Actions

1. Use a SharePoint site, Teams channel, or other collaboration tool accessible to those involved in the coordination of updates to share information on policy positions and to ask questions.
2. Publish and maintain a current FMR volume and chapter update schedule.
3. Publish and maintain an updated timeline for in-process updates so users know where they are in the FMR updating process.
4. Provide feedback to Components when coordinating comments are not accepted.
5. Examine the cost/benefit tradeoffs of conducting Business Process Reengineering for the entire updating process.

Figure 23. Recommendation 6 supporting actions

2. Justification

Making the coordination process less cumbersome, more informative, and more collaborative could accelerate reaching consensus, thereby making updating the process timelier and more efficient.

Recommendation 6 addresses the following friction point:

Updating process: The FMR updating process takes too long.

Stakeholders involved in the updating process are diverse. Components tend to have their own unique information technology systems to conduct business and accomplish a multitude of missions. This diversity increases complexity and the importance of coordinating updates across various FM system environments to reach consensus.

Currently, the FMR stakeholder environment is compartmentalized and email forms the primary means of communication among Component action officers. This situation hinders horizontal communication and slows the path to obtaining feedback on proposed FMR changes and arriving at consensus. To improve situational awareness as well as the coordination process for all stakeholders involved in the updating process, a more collaborative, less stove-piped process using technology tools such as SharePoint, DoD365, and Teams channels, may drive the FM community to consensus more quickly and facilitate rapid updates. While OUSD(C) currently uses SharePoint to coordinate updating with designated POC's within OUSD(C) and DFAS, collaboration with a broader stakeholder base could shorten the overall process. Horizontal communication across organizational boundaries would benefit the entire stakeholder community. Use of a collaboration tool would permit stakeholders to see and understand other Component policy positions, facilitate the flow of questions and answers, and permit coordination across Components—and aid in driving the FMR to a more unified policy position. This would speed up the updating process and reduce reliance on stove-piped information. In addition to implementation of a collaborative tool, DFCO should use face-to-face

stakeholder meetings for the most complex and/or significant revisions if not already doing so.

The standard biennial update cycle could also be improved if, for example, DCFO and DFAS were to publish an FMR volume and chapter update schedule so all stakeholders know what is coming and can prepare in advance for coordination actions and can respond quickly and comprehensively. Moreover, once an update cycle has been initiated, publishing a timeline would educate the user community and promote dialogue. In the same vein, providing feedback to Components when coordinating comments are not accepted and when updates have been made would improve the collaborative environment and promote dialogue. Finally, a summary of FMR changes made over the preceding year would increase situational awareness for all stakeholders.

3. Implementation Strategy

Implementation of the supporting actions for Recommendation 6 would not require new technology. Each of the first four supporting actions could use existing, available software such as: SharePoint, or Teams through DoD365 for Action 1 (using a collaboration tool); and MS Office software for Action 2 (publish an update schedule), Action 3 (publish in-process timeline), and Action 4 (provide feedback). Since these processes would be manual, DCFO and DFAS staff resources may not be sufficient, given the level of effort involved. However, an anticipated more rapid consensus for significant policy changes may offset this issue somewhat. The fifth supporting action would perhaps be most effectively undertaken by a Business Process Reengineering professional working in concert with a knowledgeable group of DCFO staff.

G. Recommendation 7: Leverage modern technology to improve usability

1. Recommended Actions

Figure 24 summarizes supporting actions for Recommendation 7.

Recommendation 7: Supporting Actions

1. Use modern user interface technology, including features such as a multi-level Navigation Pane with either user-defined or fixed hierarchies (e.g., four levels).
2. Use modern technology such as (1) semantic search or (2) GenAI tools such as RAG to improve the ability to search and query the FMR for needed information.
3. Use technology to track or anticipate when users will need to answer certain questions, and to provide tips and background notes.
4. Use GenAI to help summarize all policy updates and changes since the last update.
5. Use AI functionality to push updates to users based on personas.
6. Use AI to identify linkages between related guidance across the FMR, when updating a chapter.
7. Engage in a formal, PMO-supported process for implementing AI-enabled supporting technology.
8. Offer suitable education to the different FMR stakeholder communities, including executives and action officers, on the risks inherent to using LLMs and other AI technologies with the FMR.
9. Develop and implement procedures or processes to mitigate the risks involved in using LLMs and other AI technologies.

Figure 24. Recommendation 7 supporting actions

2. Justification

Recommendation 7 addresses the following friction points:

1. Usability: FMR search and navigation is challenging.

The current FMR search capability uses a keyword-only search and brings up the entire text of all chapters that match the keyword. This technology is sufficient for SMEs already familiar with the correct search terms. However, novice FMR users often struggle to find relevant information and, as a result, tend to rely on Google searches. This approach carries the risk of pulling archived information from the internet without user knowledge.

When coupled with a well-designed user interface, modern search technology would make it easier to search for information when users do not necessarily know the exact search terms they should use. A more user-friendly search mechanism would extract semantic meaning from the user query, rather than rely on keyword matches. Additionally, results should highlight and/or summarize relevant passages and present them to the user, as opposed to returning the full text of the chapter. In addition, these tools would improve user awareness of specific policy changes and ensure that linkages (related content) between volumes and chapters remain synchronized. Applicable technology that could potentially be integrated onto the FMR website includes semantic search, RAG, and other language model-enabled tools.

A process for pushing updates to users where content is personalized to their role, preferences, and/or function would improve the user experience. Users could indicate which chapters they are interested in, and AI-enabled recommendation engines could

predict which content updates would be most useful for different segments of the user community. For example, an accountant who works with funds from the DWCF may be more interested than other groups in updates to Volume 11B, Chapter 15. These updates could then be pushed to specific user groups to filter out unnecessary or irrelevant updates while ensuring stakeholders are aware of updates that directly impact their work.

LLMs could be useful in creating up-to-date summaries within the FMR for all policy updates and changes since the last update. The present FMR “Recently Published Changes” website lists the chapters that have been updated in chronological order. This requires users to individually click on each chapter that has been updated and read about the changes. It would be helpful to include a readily available summary of all changes on the website so that users will be more aware at a glance. A SME could use LLMs to rapidly generate draft summaries of changes to reduce workload.

While user experience in using LLMs is useful, it does not eliminate the risk inherent in their use. Because of this, it is essential that FMR SMEs diligently check all portions of any LLM output for factual errors, no matter how it is used with the FMR. Given the inherent risks involved in using LLMs and other AI technologies, significant education on those risks would be necessary for both action officers and executives, and processes would need to be in place to mitigate those risks.

2. Updating process: The FMR updating process takes too long.

Use of AI to identify linkages between related guidance across the FMR would make the update process less labor-intensive and facilitate consistency.

3. Implementation Strategy

Recommendation 7 focuses on leveraging modern technology to improve usability. Because of the technical and process complexity that would be involved with implementing Recommendation 7, a formal, thorough process from acquisition through deployment would be necessary. This section delineates some implementation considerations that may prove to be useful to OUSD(C).

Figure 25 summarizes these implementation considerations.

Recommendation 7: Implementation Strategy
1. Define User Groups and Access.
2. Determine Enclave Architecture.
3. Provide Guardrails and Quality Control.
4. Use a Formal Process to Acquire AI Functionality.
5. Define Project Timeline Phases and Milestones.

Figure 25. Recommendation 7 implementation strategy

a. Define User Groups and Access

Not all users require the same level of access or control when it comes to using and updating the FMR—tiered roles should be considered.

Since LLMs may be able to help with several tasks related to the FMR, such as updating, document search, and directly assisting members of the FM community with tasks, there would be several different use cases. Each use case may have a different user base, since different members of the FM community have different needs. As an example, Table 11 illustrates several of the major subgroups within the DoD FM community along with some of their associated LLM use cases.

Table 11. Some FMR user groups and use cases

FMR user group	Some associated use cases
OUSD(C)/DFAS Document Owners	Access and modify all files Add and remove files from enclave Access to all apps Find instances of overlapping policy Rewrite sections of the FMR Improve updating process
OUSD(C) and DFAS analysts and developers	RAG- or agent-based tools to improve workflow Document search
FM Policy Officials, including FM policy offices across Components	Access most apps Can add and delete subordinate policies and procedures under their jurisdiction if housed in the enclave
FMR user community	Access to apps related to AI query capability and flagging items Document search
Other DoD users, e.g., program managers, HR professionals	May have the same access as the FMR user community

Each of these use cases would require data engineering and cleaning of the FMR to effectively use an LLM. In addition, there would be many implementation concerns, including cloud services, the selection of documents to upload, and resource requirements for requirements definition, system development, and system maintenance. Cost/benefit/risk tradeoffs would need to be considered in the design and implementation of modernized FMR tools. Moreover, the pace of technology evolution and change could pose an ongoing challenge. Because of these issues, a Program Management Office (PMO) should be used for any implementation of AI-enabled technology, given the sophistication of the underlying models and the scope and complexity of modernizing the FMR.

b. Determine Enclave Architecture

Application of AI technology and tools requires a dedicated enclave to serve as a repository for user access. This could be a cloud-based enclave. It would contain the FMR record documents—and may contain historic copies of FMR, source and guidance documents that the FMR draws from, and references to those documents if they are stored elsewhere.

The enclave may contain subordinate policies and procedures from Components if they want to store them in the OUSD(C) sponsored enclave, or references to these documents if they are stored elsewhere. Vendor apps would be usable from the enclave. It may have single sign-on capability integrated with other sign-on control applications used by DoD.

c. Provide Guardrails and Quality Control

New AI tools that use generative functionality cannot be applied without considering the quality of results generated, e.g., LLM hallucinations and incomplete responses. Because of this, AI-enabled webpages and systems should have a welcome banner and message that direct that (1) all applications are merely aids to assist users in searching and understanding FMR text and (2) any decisions or actions must be based on the FMR text itself and not on an AI-generated response or summary. It should include a statement that officials will be held accountable based on the text of the FMR. An additional warning should be added for users in OUSD(C) and DFAS to avoid relying on the AI tool to draft new FMR language.

To mitigate potential errors, vendor-provided applications commonly offer automated quality control. However, human-in-the-loop monitoring is essential. This can include regular (e.g., weekly or monthly) review of query results selected by criteria like “most asked questions,” “most complex questions asked,” etc. Moreover, users may be given an opportunity to flag AI-generated responses as questionable or of concern. Users may also be given functionality in the enclave to identify confusing text, inconsistencies, out of date text, etc.

d. Use a Formal Process to Acquire AI Functionality

OUSD(C) should rely on acquisition expertise to field this new capability. Figure 26 lists several key steps that would be necessary for successful implementation of AI-enabled systems or capability for the FMR. The importance of relying on a PM to implement modern technology, along with an integrator to help select the right solutions, cannot be understated. There is too much complexity involved and too much room for error to do otherwise. A PM can help develop requirements, evaluate costs, and analyze alternatives to deliver the best solutions(s) given a wide array of industry options.

Key Steps for Comptroller for Implementing Recommendation 7

1. Establish a relationship with a Program Executive Office (PEO) with acquisition experience in AI. Perhaps the business systems PEOs in the Military Departments (e.g., PEO-EIS in the Army) or acquisition organizations in Washington Headquarters Services (WHS), DFAS, or DLA. Comptroller would likely need to talk to several different organizations to evaluate experience and competence, understand available contract vehicles, etc. There may be guidance or convention directing Comptroller to use a particular acquisition office, but Comptroller should assert itself enough to ensure that it builds a relationship with an organization that can deliver results.
2. Identify key requirements for the acquisition. This should include consideration of using an integrator to help select the optimal tools for given functions.
3. Work with the Components to understand if they have existing cloud-based enclaves for their FM documents, if they are interested/willing to join Comptroller-hosted space (or if Comptroller wants to direct participation in Comptroller-sponsored enclave), what documents should be contained in the enclave or linked to the enclave, etc.
4. Define Project Timeline Phases and Milestones. Major milestones will likely include (1) development of the prototype environment, (2) initial user testing of the prototype environment, (3) going live with the Full Operational Capability (FOC) environment, and (4) sustainment and ongoing refresh/upgrade of the FOC environment. Development of the prototype environment will likely include defining, compiling, preparing, and ingesting the documents to be housed in the enclave; training the AI applications; establishing access controls; etc.

Figure 26. Key steps for AI implementation

7. Roadmap For Modernizing the FMR

In this report, IDA provides a number of actionable recommendations and supporting actions for modernizing the FMR. Given current resource limitations within OUSD(C), however, we recognize that it may be neither feasible nor desirable to attempt to implement all of these recommendations in the near term. Instead, DoD leadership would be better served by first prioritizing the recommendations and their supporting actions, and then creating an implementation plan and schedule that accounts for congressional guidance such as the FY25 NDAA, applicable Executive Orders, and internal Department priorities.

The plan of action and milestones displayed in Table 12 lays out a potential approach for implementing an FMR modernization program. We do not suggest that OUSD(C) follow this draft plan exactly. Rather, we propose it as an example of a program structure that may be useful as the Department thinks about how best to modernize the FMR given the limited resources available for the task.

This plan lists potential actions and an associated timeline, and lays out an organizing construct that would help drive the effort forward. This construct involves the formation of four teams of varying size. Team 1 would focus on the first three recommendations, which are related to usability. Given the complex manual effort that would be involved with these recommendations, this should be a fairly large team composed of highly qualified SMEs. Team 2 would focus on recommendation four, which is related to training. It should be a medium-sized team. Team 3 would focus on recommendations five and six, which are related to the updating process. It should also be a medium-sized team. Team 4 would focus on recommendation seven. This should be a small team focused on working with a PM to help define technology modernization requirements. Each team should comprise experts from across the Components, DFAS, and OUSD(C). It is imperative that these individuals receive sufficient support from their respective leaders so that they can focus on and accomplish their assigned tasks.

Table 12. Example FMR Modernization POAM

FMR MODERNIZATION PROJECT PLAN	Responsible	Duration	Target Due	Accountable	Consulted	Informed
1.0 Prioritize Recommendations and Form Teams						
1.1 Ensure senior management involvement and support	USDC	Ongoing	07/01/25	USDC	DFAS, Components	All Functional Communities
1.2 Decide what recommendations to implement	USDC	1 Month	08/01/25	USDC	DFAS, Components	
1.2.1 Consider prioritizing recommendations based on FY25 NDAA section 1005 and resource requirements	USDC	1 Month	08/01/25	USDC	DFAS, Components	
1.3 Build each team (Team 1 for recommendations 1-3 [content], Team 2 for recommendation 4 [training], Team 3 for recommendations 5-6 [updating], Team 4 for recommendation 7 [technology implementation])	DCFO	3 Months	11/01/25	DCFO	DFAS, Components	
1.3.1 Appoint core team members from across the DoD FM community	DCFO	2 Weeks	08/15/25	DCFO	DFAS, Components	
1.3.1.1 Select a team leader	DCFO	2 Weeks	08/15/25	DCFO	DFAS, Components	
1.3.1.2 Select sub-task leads (as necessary)	DCFO	2 Weeks	08/15/25	DCFO	DFAS, Components	
1.3.2 Create a governance structure to monitor progress of all teams, ensure quality, and track timelines	DCFO	1 Month	09/01/25	DCFO	DFAS, Components	
1.3.2.1 Select a project champion to oversee all work conducted by teams	USDC	2 Weeks	08/15/25	USDC	DFAS, Components	
1.3.2.2 Set a meeting battle rhythm	DCFO	2 Weeks	09/01/25	DCFO	DFAS, Components	

FMR MODERNIZATION PROJECT PLAN	Responsible	Duration	Target Due	Accountable	Consulted	Informed
1.3.2.3 Obtain project champion approval for all decision points	TBD	Ongoing	09/01/26	USDC	DFAS, Components	
1.3.3 Empower Teams	DCFO	1 Month	09/01/25	DCFO	DFAS, Components	
1.3.3.1 Vision, mission statement, charter, MOU, etc.						
1.3.3.2 Develop rules of conduct						
1.3.3.3 Develop a preliminary project plan/projected timeline, and update regularly						
1.3.3.4 Document key tasks, action items, and schedule constraints, and update regularly						
1.3.4 Align workload to team members	DCFO	1 Month	09/01/25	DCFO	DFAS, Components	
1.3.4.1 Tap multi-disciplinary expertise						
1.3.4.2 Define roles and responsibilities						
1.3.5 Identify gaps between workload and resources	DCFO	2 Months	10/01/25	DCFO	DFAS, Components	
1.3.5.1 Obtain additional civilian personnel						
1.3.5.2 Obtain additional military personnel						
1.3.5.3 Obtain contractor support to augment sourcing team (if needed)	DCFO	3 Months	11/01/25	DCFO	DFAS, Components	
1.3.5.3.1 Estimate cost						
1.3.5.3.2 Obtain approval and funding						

FMR MODERNIZATION PROJECT PLAN	Responsible	Duration	Target Due	Accountable	Consulted	Informed
1.3.5.3.3 Identify length of time required for support						
1.3.5.3.4 Develop a solicitation or a task order (on an existing contract)						
2.0 Create standardized structures across the FMR (Recommendation 1)						
2.1 Introduce a four-tiered approach to FMR structure	Team 1 (Large)	6 Months	03/01/26	DCFO	DFAS, Components	
2.1.1 Define policy versus procedure	Team 1	2 Weeks	09/15/25	DCFO	DFAS, Components	
2.1.1.1 Train the team to recognize the distinction	Team 1	2 Weeks	10/01/25	DCFO	DFAS, Components	
2.1.2 Insert links to higher level guidance (e.g., statutes & accounting standards) where possible	Team 1	2 Months	11/01/25	DCFO	DFAS, Components	
2.1.3 Identify financial management policy sections in the FMR	Team 1	3 Months	03/01/26	DCFO	DFAS, Components	
2.1.4 Identify PGI (Procedures, Guidance, Instruction) sections, which include procedures that must be standardized across DoD	Team 1	3 Months	02/01/26	DCFO	DFAS, Components	
2.1.5 As appropriate, identify where links to subordinate Component SOP libraries and policy manuals could be inserted	Team 2	1 Month	03/01/26	DCFO	DFAS, Components	
2.2 Ensure that each volume and chapter uses a similar outline structure, and includes an initial section that summarizes the topics covered	Team 1	2 Months	05/01/26	DCFO	DFAS, Components	
2.2.1 Decide on the outline structure (to include distinguishing policy from procedure)						

FMR MODERNIZATION PROJECT PLAN	Responsible	Duration	Target Due	Accountable	Consulted	Informed
3.0 Update the presentation of information in the FMR (Recommendation 2)						
3.1 Improve readability during periodic chapter refreshes. These refreshes are important and may involve: (1) rewriting individual chapters or sections in plain language; and (2) rewriting introductory text for each volume and chapter in plain language	Team 1	Ongoing	10/01/26	DCFO	DFAS, Components	
3.1.1 Perform this task on an ad hoc basis during the normal course of updating individual chapters						
3.2 Use special fonts, highlights, asterisks, or watermarks in the FMR to signify archived sections, where recent updates have occurred, and if related policy memos exist	Team 1	Ongoing	10/01/26	DCFO	DFAS, Components	
3.2.1 Perform this task on an ad hoc basis during the normal course of updating individual chapters						
3.3 Use hyperlinks rather than duplicating policy information in multiple chapters	Team 1	Ongoing	10/01/26	DCFO	DFAS, Components	
3.3.1 Perform this task on an ad hoc basis during the normal course of updating individual chapters						
3.4 Immediately after issuance of policy memos that amend or affect FMR content, insert hyperlinks to the memos in the relevant chapters or sections of the FMR	DCFO, DFAS	Ongoing	10/01/26	DCFO	DFAS, Components	
3.5 Put a subscriber link on the FMR website so that interested users can receive relevant updates	Team 4	12 Months	10/01/26	DCFO	DFAS, Components	
3.5.1 Tie this action to Team 4 (technology implementation) as part of an acquisition requirement						

FMR MODERNIZATION PROJECT PLAN	Responsible	Duration	Target Due	Accountable	Consulted	Informed
4.0 Update the information in the FMR (Recommendation 3)						
4.1 Determine the desirability of including additional topics such as G-Invoicing, Robotic Process Automation, and Enterprise Risk Management	Team 1	6 Months	09/01/26	DCFO	DFAS, Components, Current DoD ERM lead	
4.2 Determine where in the FMR to place the additional topics and information	Team 1	1 Month	04/01/26	DCFO	DFAS, Components, Current DoD ERM lead	
4.3 Write and/or rewrite the designated FMR chapters and/or sections	Team 1	6 Months	10/01/26	DCFO	DFAS, Components, Current DoD ERM lead	
4.3.1 Follow the normal writing and staffing process within OUSD(C) of adding new material to the FMR						
5.0 Improve FMR education, training, and reach-back support to the workforce (Recommendation 4)						
5.1 Institute an FMR training program	Team 2 (Medium)	12 Months	09/01/26	DCFO	DFAS, Components	
5.1.1 Develop a set of courses on the content of individual volumes and/or chapters	Team 2	4 Months	11/01/25	DCFO	DFAS, Components	
5.1.2 Develop additional tutorial videos on using and navigating the FMR	Team 2	1 Month	12/01/25	DCFO	DFAS, Components	

FMR MODERNIZATION PROJECT PLAN	Responsible	Duration	Target Due	Accountable	Consulted	Informed
5.1.3 Develop additional videos on particular content areas of concern	Team 2	12 Months	9/1/2026	DCFO	DFAS, Components	
5.1.4 As appropriate, use LLM and other tools to support training when the technology is mature enough	Team 2	7 Months	09/01/26	DCFO	Team 4	
5.1.5 Implement training on AI technologies if they are enabled for the FMR community	Team 2	TBD	08/01/26	DCFO	Team 4	
5.2 Formalize a DoD-wide, SME reach-back process. This could involve real-time access to SMEs	Team 2	12 Months	09/01/26	DCFO	DFAS, Components	
5.2.1 Determine the structure of a reach-back process or system	Team 2	6 Months	03/01/26	DCFO	DFAS, Components	
5.2.1.1 Identify additional resources required, personnel involved, areas of expertise, and contact information	Team 2	3 Months	06/01/26	DCFO	DFAS, Components	
5.2.1.2 Implement the reach-back process/system and monitor program	Team 2	3 Months	09/01/26	DCFO	DFAS, Components	
5.3 Develop animations or how-to videos and insert hyperlinks to them within FMR sections or chapters	Team 2	12 Months	09/01/26	DCFO	Team 4, DFAS, Components	
5.3.1 Develop a project management structure to develop animations or how-to videos	Team 2	5 Months	02/01/26	DCFO	DFAS, Components	
5.3.1.1 Identify a project manager	Team 2	2 Weeks	09/15/25	DCFO	DFAS, Components	
5.3.1.2 Develop a project charter	Team 2	2 Weeks	10/01/25	DCFO	DFAS, Components	

FMR MODERNIZATION PROJECT PLAN	Responsible	Duration	Target Due	Accountable	Consulted	Informed
5.3.1.3 Identify resources, to include a production team	Team 2	1 Month	11/01/25	DCFO	DFAS, Components	
5.3.1.4 Develop a prioritized and vetted list of topics	Team 2	3 Months	02/01/26	DCFO	DFAS, Components	
5.3.2 Create the animations and/or videos	Team 2	6 Months	08/01/26	DCFO	DFAS, Components	
5.3.3 Implement embedded hyperlinks within the FMR to animations and/or videos	Team 2	1 Month	09/01/26	DCFO	DFAS, Components	
6.0 Focus FMR updating on prioritized content (Recommendation 5)						
6.1 Allow updating of individual sections, rather than updating an entire chapter at a time	Team 3 (Medium)	3 Months	02/01/26	DCFO	DFAS, Components, OSD Legal and Policy Experts	
6.1.1 Modify the FMR updating and review processes internal to OUSD(C), DFAS, and the stakeholder community	Team 3	1 Month	10/01/25	DCFO	DFAS, Components	
6.1.2 Make any changed needed to the archiving process	Team 3	2 Months	12/01/25	DCFO	DFAS, Components, OSD Legal Experts	
6.1.3 Document process changes in the SOP	Team 3	2 Months	02/01/26	DCFO	DFAS, Components, OSD Legal Experts	

FMR MODERNIZATION PROJECT PLAN	Responsible	Duration	Target Due	Accountable	Consulted	Informed
6.2 Determine if updates to a chapter are needed in addition to the regular update cycle	DCFO	Up to 12 Months	09/01/26	DCFO	DFAS, Components, OSD Legal and Policy Experts	
6.2.1 Let user hits per volume, chapter, or page identify where the most useful (or most confusing) guidance exists	Team 3					
6.2.2 Let the number of queued policy memoranda be a driving factor in determining updating priority	Team 3					
7.0 Streamline coordination and collaboration processes for FMR updating (Recommendation 6)						
7.1 Use a SharePoint site, Teams channel, or other collaboration tool accessible to those involved in the coordination of updates to share information on policy positions and to ask questions	DCFO, DFAS	6 Months	03/01/26	DCFO	DFAS, Components	
7.1.1 Select an available collaboration tool for this purpose (e.g., SharePoint, Teams, DoD365)	Team 3	3 Months	12/01/25	DCFO	DFAS, Components	
7.1.2 Host the tool in a CAC-enabled location for stakeholders to use	Team 3	3 Months	03/01/26	DCFO	DFAS, Components	
7.2 Publish and maintain a current FMR volume and chapter update schedule	DCFO, DFAS	3 Months	06/01/26	DCFO	DFAS, Components	
7.2.1 Use an MS Office software tool to publish a schedule for stakeholder use						
7.3 Publish and maintain an updated timeline for in-process updates so users know where they are in the FMR updating process	DCFO, DFAS	3 Months	09/01/26	DCFO	DFAS, Components	

FMR MODERNIZATION PROJECT PLAN	Responsible	Duration	Target Due	Accountable	Consulted	Informed
7.3.1 Use an MS Office software tool to publish an in-process update schedule for stakeholder use						
7.4 Provide feedback to Components when coordinating comments are not accepted	DCFO	Ongoing	Ongoing	DCFO	DFAS, Components	
7.4.1 Use an MS Office software tool provide feedback to Components						
7.5 Examine cost/benefit tradeoffs of conducting Business Process Reengineering for the entire updating process	Team 3	6 Months	03/01/26	DCFO	DFAS, Components	
8.0 Leverage modern technology to improve usability (Recommendation 7)						
8.1 Use modern user interface technology, including features such as a multi-level Navigation Pane with either user-defined or fixed hierarchies (e.g., four levels).	Team 4 (Small)	12 Months	09/01/26	DCFO	DFAS, Components	
8.2 Use modern technology such as (1) semantic search or (2) GenAI tools such as RAG to improve the ability to search and query the FMR for needed information	Team 4	12 Months	09/01/26	DCFO	DFAS, Components	
8.3 Use technology to track or anticipate when users will need to answer certain questions, and to provide tips and background notes	Team 4	12 Months	09/01/26	DCFO	DFAS, Components	
8.4 Use GenAI to help summarize all policy updates and changes since the last update	Team 4	Ongoing	09/01/26	DCFO	DFAS, Components	
8.5 Use AI functionality to push updates to users based on personas	Team 4	12 Months	09/01/26	DCFO	DFAS, Components	
8.6 Use AI to identify linkages between related guidance across the FMR, when updating a chapter	Team 4	Ongoing	09/01/26	DCFO	DFAS, Components	
8.7 Engage in a formal, PMO-supported process for implementing AI-enabled supporting technology	Team 4	12 Months	09/01/26	DCFO	DFAS, Components	Acquisition Community

FMR MODERNIZATION PROJECT PLAN	Responsible	Duration	Target Due	Accountable	Consulted	Informed
8.7.1 Establish a relationship with a PEO with acquisition experience in AI	Team 4	1 Month	10/01/25	DCFO	DFAS, Components	
8.7.2 Identify key requirements for the acquisition, to include consideration of using an integrator to help select the optimal tools for given functions	Team 4	2 Months	11/01/25	DCFO	DFAS, Components	
8.7.3 Work with the Components to understand if they have existing cloud-based enclaves for their FM documents, if they are interested/willing to join Comptroller hosted space (or if Comptroller wants to direct participation in Comptroller sponsored enclave), what documents should be contained in the enclave or linked to the enclave	Team 4	3 Months	12/01/25	DCFO	DFAS, Components	
8.7.4 System design	Team 4	4 Months	01/01/26	DCFO	DFAS, Components	
8.7.4.1 Define user groups and access requirements	Team 4	1 Month	10/01/25	DCFO	DFAS, Components	
8.7.4.2 Define and compile documents for inclusion in the enclave	Team 4	2 Months	11/01/25	DCFO	DFAS, Components	
8.8 Offer suitable education to the different FMR stakeholder communities, including executives and action officers, on the risks inherent to using LLMs and other AI technologies with the FMR	Team 4	Ongoing	10/01/26	DCFO	Team 2, DFAS, Components	
8.9 Develop and implement procedures or processes to mitigate the risks involved in using LLMs and other AI technologies	Team 4	3 Months	12/01/25	DCFO	DFAS, Components	

8. Conclusion

Modernizing the FMR was a key recommendation of the PPBE Commission's 2024 report, and is mandated by the FY 2025 NDAA. The study summarized in this paper presents OUSD(C) with seven recommendations and 29 supporting actions for modernizing the FMR. Implementing these recommendations would allow OUSD(C) to (1) improve the FMR's usability, (2) make its updating process more efficient and responsive to the needs of the user community, and (3) address content issues within the FMR. These recommendations constitute a comprehensive framework to better position OUSD(C) and the FM community to deliver world-class, responsive financial management to DoD.

Appendix A. FMR Volumes

Volume 1 – General Financial Management Information, Systems, and Requirements

Volume 1 provides a foundational overview of general financial management policies, systems, and requirements within the DoD. It addresses a broad range of critical topics, including the role of the Chief Financial Officer, compliance with statutory requirements, and adherence to federal accounting standards. Additional guidance is provided on structuring financial data, maintaining financial records, and the enterprise data repository (Advana). This information is necessary to ensure Components understand and comply with cross-cutting guidance.

Volume 1, Chapter 1: CHIEF FINANCIAL OFFICER OF THE DEPARTMENT OF DEFENSE

Volume 1, Chapter 2: FEDERAL ACCOUNTING STANDARDS HIERARCHY

Volume 1, Chapter 3: FEDERAL FINANCIAL MANAGEMENT IMPROVEMENT ACT COMPLIANCE

Volume 1, Chapter 4: STANDARD FINANCIAL INFORMATION STRUCTURE

Volume 1, Chapter 5: ARCHIVED

Volume 1, Chapter 6: UNDER SECRETARY OF DEFENSE (COMPTROLLER) FINANCIAL MANAGEMENT AWARDS PROGRAM

Volume 1, Chapter 7: DEPARTMENT OF DEFENSE STANDARD CHART OF ACCOUNTS

Volume 1, Chapter 8: ARCHIVED

Volume 1, Chapter 9: FINANCIAL RECORDS RETENTION

Volume 1, Chapter 10: ADVANA – COMMON ENTERPRISE DATA REPOSITORY FOR THE DEPARTMENT OF DEFENSE

Volume 1, Appendix A: OBJECT CLASSIFICATION

Volume 2A – Budget Formulation and Presentation (Chapters 1–3)

Volume 2A outlines the principles and procedures for formulating and submitting budget requests within the DoD. It provides detailed guidance on the program and budget review process, including the preparation of materials for submission to the Office of the Secretary of Defense and the presentation of budget justifications to Congress for Military Personnel and Operation and Maintenance appropriations. Topics addressed include the roles and responsibilities of budget officers, the integration of appropriations into the

budgetary process, and methods for aligning budget requests with organizational priorities. This volume serves as a critical tool for ensuring that the DoD's budget formulation processes comply with federal regulations and effectively support defense objectives.

Volume 2A, Chapter 1: GENERAL INFORMATION

Volume 2A, Chapter 2: MILITARY PERSONNEL APPROPRIATIONS

Volume 2A, Chapter 3: OPERATION AND MAINTENANCE APPROPRIATIONS

Volume 2B – Budget Formulation and Presentation (Chapters 4–19)

Volume 2B builds on the foundational principles of budget formulation outlined in Volume 2A by providing specialized guidance for preparing and presenting budget requests for various appropriations, funds, and program categories within the DoD. This volume ensures consistency and accuracy in budget development, addressing unique requirements for specific funding areas. It incorporates detailed instructions on presenting justification materials, conducting cost analyses, and complying with federal financial reporting standards.

Volume 2B, Chapter 4: PROCUREMENT APPROPRIATIONS

Volume 2B, Chapter 5: RESEARCH, DEVELOPMENT, TEST, AND EVALUATION APPROPRIATIONS

Volume 2B, Chapter 6: MILITARY CONSTRUCTION/FAMILY HOUSING APPROPRIATIONS

Volume 2B, Chapter 7: BASE REALIGNMENT AND CLOSURE APPROPRIATIONS

Volume 2B, Chapter 9: DEFENSE WORKING CAPITAL FUND BUDGET JUSTIFICATION ANALYSIS

Volume 2B, Chapter 10: PUBLIC ENTERPRISE, MANAGEMENT, AND TRUST FUNDS

Volume 2B, Chapter 11: OFFSETTING RECEIPTS

Volume 2B, Chapter 12: DEFENSE HEALTH PROGRAM

Volume 2B, Chapter 13: DEFENSE ENVIRONMENTAL RESTORATION

Volume 2B, Chapter 14: DRUG INTERDICTION AND COUNTER -DRUG ACTIVITIES

Volume 2B, Chapter 15: OVERSEAS COST REPORT

Volume 2B, Chapter 16: INTELLIGENCE PROGRAMS/ACTIVITIES

Volume 2B, Chapter 17: CONTINGENCY OPERATIONS (BASE BUDGET)

Volume 2B, Chapter 18: INFORMATION TECHNOLOGY (Including Cyberspace activities)

Volume 2B, Chapter 19: OTHER SPECIAL ANALYSES

Volume 3 Budget Execution – Availability and Use of Budgetary Resources

Volume 3 provides guidance for the execution phase of the DoD budget process, ensuring the proper allocation, distribution, and use of budgetary resources. It details policies and procedures for managing apportionments, reprogramming of funds, and appropriation transfer authorities. It includes guidance for the preparation and submission of the Apportionment and Reapportionment Schedule (Standard Form [SF] 132) required by OMB Circular No. A11. The SF 132 provides authority to use budgetary resources and typically limits obligations for specified time periods, programs, activities, projects, objects, or any combination thereof. This volume also outlines standards for recording and reviewing financial commitments and obligations to ensure compliance with statutory requirements and internal controls. Specific guidance is provided for handling specialized funding scenarios, such as military construction and family housing, as well as managing expired and closed accounts. By establishing clear procedures for budget execution, this volume helps Components use funds effectively to achieve operational goals while adhering to federal financial regulations.

Volume 3, Chapter 1: ARCHIVED

Volume 3, Chapter 2: APPORTIONMENT/ REAPPORTIONMENT AND FUNDS DISTRIBUTION

Volume 3, Chapter 3: APPROPRIATION TRANSFER AUTHORITIES

Volume 3, Chapter 4: FUNCTIONAL TRANSFERS

Volume 3, Chapter 5: SPECIAL MILITARY CONSTRUCTION/FAMILY HOUSING FUND RELEASE PROCEDURES

Volume 3, Chapter 6: REPROGRAMMING OF DOD APPROPRIATED FUNDS

Volume 3, Chapter 7: REPROGRAMMING OF MILITARY CONSTRUCTION AND FAMILY HOUSING APPROPRIATED FUNDS

Volume 03, Chapter 8: STANDARDS FOR RECORDING AND REVIEWING COMMITMENTS AND OBLIGATIONS

Volume 3, Chapter 9: ARCHIVED

Volume 3, Chapter 10: ACCOUNTING REQUIREMENTS FOR EXPIRED AND CLOSED ACCOUNTS

Volume 3, Chapter 11: UNMATCHED DISBURSEMENTS, NEGATIVE UNLIQUIDATED OBLIGATIONS, AND IN-TRANSIT DISBURSEMENTS

Volume 3, Chapter 12: POLICIES AND PROCEDURES GOVERNING THE USE OF THE FEED AND FORAGE AUTHORITY OF SECTION 3732, REVISED STATUTES

Volume 3, Chapter 13: RECEIPT AND DISTRIBUTION OF BUDGETARY RESOURCES – DEPARTMENTAL-LEVEL

Volume 3, Chapter 14: RECEIPT AND DISTRIBUTION OF BUDGETARY RESOURCES – INTERMEDIATE -LEVEL

Volume 3, Chapter 15: RECEIPT AND DISTRIBUTION OF BUDGETARY RESOURCES – EXECUTION LEVEL

Volume 3, Chapter 16: ARCHIVED

Volume 3, Chapter 17: ACCOUNTING REQUIREMENTS FOR MILITARY CONSTRUCTION PROJECTS

Volume 3, Chapter 18: PUBLIC ENTERPRISE AND TRUST FUNDS

Volume 3, Chapter 19: DEFENSE WORKING CAPITAL FUND

Volume 4 – Accounting Policy

Volume 4 provides a framework for accounting within the DoD to help ensure accurate and consistent treatment of all financial transactions. It emphasizes compliance with Generally Accepted Accounting Principles, the U.S. Standard General Ledger, and other federal accounting standards. Topics include financial control of assets; accounting for liabilities, receivables, and revenue; and detailed guidance on recording and reporting financial information. This volume also addresses specialized accounting requirements, such as environmental and disposal liabilities, managerial cost accounting, and the financial treatment of heritage assets and capital leases. This guidance ensures that accounting practices are consistent not only across the DoD but also across fiscal years, providing a reliable foundation for financial reporting and decision-making.

Volume 4, Chapter 1: FINANCIAL CONTROL OF ASSETS

Volume 4, Chapter 2: ACCOUNTING FOR CASH AND FUND BALANCES WITH TREASURY

Volume 4, Chapter 2, ANNEX 1: SUPPORTING FUND BALANCE WITH TREASURY BALANCES BROUGHT FORWARD

Volume 4, Chapter 3: RECEIVABLES

Volume 4, Chapter 4: INVENTORY AND RELATED PROPERTY

Volume 4, Chapter 5: ADVANCES AND PREPAYMENTS

Volume 4, Chapter 6: ARCHIVED

Volume 4, Chapter 7: INVESTMENTS AND OTHER ASSETS

Volume 4, Chapter 8: LIABILITIES

Volume 4, Chapter 9: ACCOUNTS PAYABLE

Volume 4, Chapter 10: ACCRUALS FOR PERSONNEL RELATED LIABILITIES

Volume 4, Chapter 11: COMPONENT DEBT

Volume 4, Chapter 12: OTHER LIABILITIES

Volume 4, Chapter 13: ENVIRONMENTAL AND DISPOSAL LIABILITIES

Volume 4, Chapter 14: PAYMENT INTEGRITY

Volume 4, Chapter 15: NET POSITION

Volume 4, Chapter 16: REVENUE, OTHER FINANCING SOURCES, GAINS AND LOSSES

Volume 4, Chapter 16, Appendix A: TABLE OF TRANSACTIONS

Volume 4, Chapter 17: EXPENSES AND MISCELLANEOUS ITEMS

Volume 4, Chapter 18: ARCHIVED

Volume 4, Chapter 19: MANAGERIAL COST ACCOUNTING
Volume 4, Chapter 20: ARCHIVED
Volume 4, Chapter 21: ARCHIVED
Volume 4, Chapter 22: ARCHIVED
Volume 4, Chapter 23: ARCHIVED
Volume 4, Chapter 24: REAL PROPERTY
Volume 4, Chapter 25: GENERAL EQUIPMENT
Volume 4, Chapter 26: ASSETS UNDER CAPITAL LEASE
Volume 4, Chapter 27: INTERNAL USE SOFTWARE
Volume 4, Chapter 28: HERITAGE ASSETS, MULTI-USE HERITAGE ASSETS AND STEWARDSHIP LAND

Volume 5 – Disbursing Policy

Volume 5 establishes the policies, standards, and responsibilities related to disbursing activities across the DoD. It ensures proper accountability for public funds and compliance with pecuniary liability standards for Disbursing Officers, Certifying Officers, and other accountable officials. The content covers topics such as safeguarding public funds, managing disbursements, and addressing questionable or fraudulent claims. Additionally, it provides guidance on electronic commerce and the use of smart cards for financial applications, ensuring modernized and secure disbursing practices.

Volume 5, Chapter 1: PURPOSE, ORGANIZATION, AND DUTIES
Volume 5, Chapter 2: DISBURSING OFFICES, OFFICERS, AND AGENTS
Volume 5, Chapter 3: OBTAINING AND SAFEGUARDING PUBLIC FUNDS
Volume 5, Chapter 4: ACCOMMODATION EXCHANGE
Volume 5, Chapter 5: CERTIFYING OFFICERS, DEPARTMENTAL ACCOUNTABLE OFFICIALS, AND REVIEW OFFICIALS
Volume 5, Chapter 6: PHYSICAL LOSSES OF FUNDS, ERRONEOUS PAYMENTS, AND OVERAGES
Volume 5, Chapter 7: U.S. TREASURY CHECKS
Volume 5, Chapter 8: COLLECTIONS
Volume 5, Chapter 9: DISBURSEMENTS
Volume 5, Chapter 10: SMART CARDS FOR FINANCIAL APPLICATIONS
Volume 5, Chapter 11: ELECTRONIC COMMERCE AND DEPOSIT OF PUBLIC FUNDS
Volume 5, Chapter 12: QUESTIONABLE AND FRAUDULENT CLAIMS
Volume 5, Chapter 13: FOREIGN DISBURSING OPERATIONS
Volume 5, Chapter 14: LIMITED DEPOSITARY CHECKING ACCOUNTS
Volume 5, Chapter 15: DISBURSING OFFICER ACCOUNTABILITY REPORTS
Volume 5, Chapter 16: SAFEKEEPING FUNDS AND VALUABLES FOR INDIVIDUALS AND MORALE, WELFARE, AND RECREATION ACTIVITIES

Volume 6A – Reporting Policy

This volume provides guidance for a number of requirements. These include defining roles and responsibilities in preparation and issuance of financial reports for DoD Components; prescribing reporting requirements and policy when preparing appropriation and fund status reports at the departmental level; establishing reporting requirements for tracking all transactions that increase or decrease the foreign currency fluctuation accounts; providing accounting support for Family Housing Operation and Maintenance requirements; establishing policies and requirements for the accounting and reporting of DoD international transactions related to U.S. balance of payments data including grants and credits extended to foreign countries; and prescribing reporting requirements and policies when preparing the DWCF Accounting Report [Accounting Report (Monthly) 1307].

Volume 6A, Chapter 1: ARCHIVED

Volume 6A, Chapter 2: FINANCIAL REPORTS, ROLES AND RESPONSIBILITIES

Volume 6A, Chapter 3: REPORTING OF OUTLAYS, RECEIPTS, AND ADJUSTED TRIAL
BALANCES

Volume 6A, Chapter 4: APPROPRIATION AND FUND STATUS REPORTS

Volume 6A, Chapter 5: ARCHIVED

Volume 6A, Chapter 6: ARCHIVED

Volume 6A, Chapter 7: FOREIGN CURRENCY REPORTS

Volume 6A, Chapter 8: ARCHIVED

Volume 6A, Chapter 9: ACCOUNTING AND REPORTING FOR OPERATION AND
MAINTENANCE OF THE FAMILY HOUSING PROGRAM

Volume 6A, Chapter 10: ARCHIVED

Volume 6A, Chapter 11: ARCHIVED

Volume 6A, Chapter 12: ARCHIVED

Volume 6A, Chapter 13: INTERNATIONAL BALANCE OF PAYMENTS REPORTING AND
ESTIMATING

Volume 6A, Chapter 14: DEPOT MAINTENANCE REPORTING

Volume 6A, Chapter 15: DEFENSE WORKING CAPITAL FUND ACCOUNTING REPORT

Volume 6B – Form and Content of the Department of Defense Audited Financial Statements

Volume 6B establishes policies and procedures for the preparation of the Department's annual audited financial statements. It serves as a guide to ensure accurate and consistent financial reporting across the DoD. Topics covered include instructions for preparing balance sheets, statements of net cost, changes in net position, and budgetary resources. Supplementary information requirements and reconciliation processes are also addressed to ensure compliance with federal financial reporting standards.

Volume 6B, Chapter 1: INTRODUCTION TO THE FORM AND CONTENT OF THE FINANCIAL STATEMENTS

Volume 6B, Chapter 2: GENERAL INSTRUCTIONS FOR THE FINANCIAL STATEMENTS

Volume 6B, Chapter 3: AGENCY FINANCIAL REPORT SECTIONS

Volume 6B, Chapter 4: BALANCE SHEET

Volume 6B, Chapter 5: STATEMENT OF NET COST

Volume 6B, Chapter 6: STATEMENT OF CHANGES IN NET POSITION

Volume 6B, Chapter 7: STATEMENT OF BUDGETARY RESOURCES

Volume 6B, Chapter 9: ARCHIVED

Volume 6B, Chapter 10: NOTES TO THE FINANCIAL STATEMENTS

Volume 6B, Chapter 11: ARCHIVED

Volume 6B, Chapter 12: REQUIRED SUPPLEMENTARY INFORMATION

Volume 6B, Chapter 13: ADJUSTMENTS, ELIMINATIONS, AND OTHER SPECIAL INTRAGOVERNMENTAL RECONCILIATION REQUIREMENTS

Volume 7A – Military Pay Policy – Active Duty and Reserve Pay

Volume 7A provides comprehensive guidance on active duty and reserve military pay and allowance entitlements. It covers basic pay, special pay programs, bonuses, allowances, and benefits for Service members. Additional topics include policies for hardship duty, hazardous duty, housing, and family separation allowances, as well as specific guidance on deductions, garnishments, and tax-related matters. This volume ensures that military pay is accurately computed, administered, and disbursed in compliance with federal regulations.

Volume 7A, Chapter 1: BASIC PAY

Volume 7A, Chapter 2: REPAYMENT OF UNEARNED PORTION OF BONUSES AND OTHER BENEFITS

Volume 7A, Chapter 3: SPECIAL PAY – OFFICERS ONLY

Volume 7A, Chapter 4: ARCHIVED

Volume 7A, Chapter 5: HEALTH PROFESSIONS OFFICER (HPO) SPECIAL AND INCENTIVE PAY

Volume 7A, Chapter 6: ARCHIVED

Volume 7A, Chapter 7: ARCHIVED

Volume 7A, Chapter 8: SPECIAL PAY - SPECIAL DUTY ASSIGNMENT PAY

Volume 7A, Chapter 9: ACTIVE DUTY ENLISTED MEMBERS ENLISTMENT, REENLISTMENT, AND RETENTION BONUSES

Volume 7A, Chapter 10: SPECIAL PAY - DUTY SUBJECT TO HOSTILE FIRE OR IMMINENT DANGER

Volume 7A, Chapter 11: SPECIAL PAY – DIVING DUTY

Volume 7A, Chapter 12: PURPORTED MARRIAGES

Volume 7A, Chapter 13: ILLNESS OR INJURY PAYMENT PROGRAMS

Volume 7A, Chapter 14: INCENTIVE FOR QUALIFIED MEMBERS EXTENDING DUTY AT DESIGNATED LOCATIONS OVERSEAS

Volume 7A, Chapter 15: SPECIAL PAY – ASSIGNMENT INCENTIVE PAY (AIP)

Volume 7A, Chapter 16: ARCHIVED

Volume 7A, Chapter 17: SPECIAL PAY – HARDSHIP DUTY

Volume 7A, Chapter 18: SPECIAL PAY – CAREER SEA PAY (CSP)

Volume 7A, Chapter 19: FOREIGN LANGUAGE PROFICIENCY BONUS

Volume 7A, Chapter 20: AVIATION BONUS (AvB)

Volume 7A, Chapter 21: ARCHIVED

Volume 7A, Chapter 22: AVIATION INCENTIVE PAYS

Volume 7A, Chapter 23: SUBMARINE DUTY PAY

Volume 7A, Chapter 24: INCENTIVE PAY - HAZARDOUS DUTY OTHER THAN AERIAL FLIGHTS

Volume 7A, Chapter 25: SUBSISTENCE AND BASIC NEEDS ALLOWANCES

Volume 7A, Chapter 26: HOUSING ALLOWANCES

Volume 7A, Chapter 27: FAMILY SEPARATION ALLOWANCE (FSA)

Volume 7A, Chapter 28: ARCHIVED

Volume 7A, Chapter 29: CLOTHING MONETARY ALLOWANCES

Volume 7A, Chapter 30: OFFICERS' UNIFORM AND EQUIPMENT ALLOWANCE

Volume 7A, Chapter 31: PERSONAL MONEY ALLOWANCE

Volume 7A, Chapter 32: ADVANCE, LOCAL, PARTIAL, AND EMERGENCY PARTIAL PAY

Volume 7A, Chapter 33: PAYMENTS ON BEHALF OF MENTALLY INCOMPETENT MEMBERS

Volume 7A, Chapter 34: PAY ENTITLEMENT OF MEMBERS MISSING, MISSING IN ACTION (MIA), INTERNED, AND PAYMENTS TO DEPENDENTS

Volume 7A, Chapter 35: SEPARATION PAYMENTS

Volume 7A, Chapter 36: PAYMENTS ON BEHALF OF DECEASED MEMBERS

Volume 7A, Chapter 37: BENEFITS FOR MEMBERS HELD AS CAPTIVES

Volume 7A, Chapter 38: SERVICE ACADEMY CADETS, MIDSHIPMEN, AND SERVICE ACADEMY PREPARATORY SCHOOL STUDENTS

Volume 7A, Chapter 39: PAY OF SERVICE ACADEMY OFFICIALS

Volume 7A, Chapter 40: GENERAL PROVISIONS GOVERNING ALLOTMENTS OF PAY (OTHER THAN CHILD AND SPOUSAL SUPPORT ALLOTMENTS REQUIRED BY LAW)

Volume 7A, Chapter 41: GARNISHMENTS AND OTHER INVOLUNTARY ALLOTMENTS

Volume 7A, Chapter 42: DISCRETIONARY ALLOTMENTS

Volume 7A, Chapter 43: NONDISCRETIONARY ALLOTMENTS

Volume 7A, Chapter 44: WITHHOLDING OF INCOME TAX

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Volume 7A, Appendix C: IMPLEMENTING PROCEDURES FOR MANDATORY ELECTRONIC FUNDS TRANSFER (EFT) OF MILITARY PAY

Volume 7A, DEFINITIONS

Volume 7B – Military Pay Policy – Retired Pay

Volume 7B focuses on entitlements and financial policies for retired military personnel and their annuitants. It provides guidance on the computation, administration, and reporting of retired pay, addressing topics such as cost-of-living adjustments, survivor benefit plans, and taxation. The volume also includes policies for waivers, garnishments, and benefits for victims of abuse. These guidelines are critical for ensuring the proper management of retirement benefits and compliance with legal requirements.

Volume 7B, Chapter 1: INITIAL ENTITLEMENTS – RETIREMENTS

Volume 7B, Chapter 2: INITIAL ENTITLEMENTS – FLEET RESERVE/FLEET MARINE CORPS RESERVE

Volume 7B, Chapter 3: GROSS PAY COMPUTATION

Volume 7B, Chapter 4: RECOUPMENT OF SEPARATION PAY

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Volume 7B, Chapter 7: ACTIVE/RESERVE DUTY AFTER RETIREMENT

Volume 7B, Chapter 8: BASIC PAY RATES, LEGISLATIVE CHANGES, AND COST OF LIVING ADJUSTMENTS (COLA) TO RETIRED PAY

Volume 7B, Chapter 9: ADVANCEMENTS ON RETIRED LIST

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Volume 7B, Chapter 12: WAIVER OF RETIRED PAY

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Volume 8 – Civilian Pay Policy

Volume 8 outlines the principles and requirements for the pay administration of DoD civilian employees. It provides guidance on time and attendance, leave management, payroll deductions, and allotments. Policies also address the use of electronic funds transfer for salary payments and the maintenance of accurate payroll records. Additionally, this volume includes specific guidance for special categories of employees, ensuring consistency and fairness in civilian pay administration.

Volume 8, Chapter 1: INTRODUCTION AND OVERALL REQUIREMENTS
Volume 8, Chapter 2: TIME AND ATTENDANCE (T&A)
Volume 8, Chapter 3: PAY ADMINISTRATION
Volume 8, Chapter 4: MANDATORY DEDUCTIONS
Volume 8, Chapter 5: LEAVE AND OTHER ABSENCES

Volume 8, Chapter 6: MISCELLANEOUS ACTIONS (SPECIAL ACTIONS)
Volume 8, Chapter 7: DEPARTMENT OF DEFENSE EDUCATION ACTIVITY (DoDEA)
EMPLOYEES
Volume 8, Chapter 8: UNDERPAYMENTS, COLLECTION OF NON-DOD DEBTS,
GARNISHMENTS, BANKRUPTCY ACTION, AND TAX LEVIES
Volume 8, Chapter 9: RECORDS, FILES, AND REPORTS
Volume 8, Chapter 10: SPECIAL CATEGORY EMPLOYEES
Volume 8, Chapter 11: ALLOTMENTS AND VOLUNTARY DEDUCTIONS
Volume 8, DEFINITIONS

Volume 9 – Travel Policy

Volume 9 provides policies and procedures for managing travel entitlements for all DoD personnel, including military members, civilian employees, and dependents on official travel orders. Topics include transportation allowances, temporary and permanent duty travel, evacuation allowances, and travel claim processing. This guidance ensures that travel expenses are properly computed, reviewed, and paid in compliance with federal and departmental standards, while also streamlining travel administration processes.

Volume 9, Chapter 1: GENERAL INFORMATION
Volume 9, Chapter 2: ARCHIVED
Volume 9, Chapter 3: ARCHIVED
Volume 9, Chapter 4: TRANSPORTATION ALLOWANCES
Volume 9, Chapter 5: TEMPORARY DUTY TRAVEL (TDY) AND TRAVEL ADVANCES
Volume 9, Chapter 6: PERMANENT DUTY TRAVEL
Volume 9, Chapter 7: EVACUATION ALLOWANCES
Volume 9, Chapter 8: PROCESSING TRAVEL CLAIMS
Volume 9, DEFINITIONS

Volume 10 – Contract Payment Policy

Volume 10 focuses on policies related to contract payments within the DoD. It covers financial controls, prompt payment requirements, vendor payment documentation, and special payment considerations for grants, rebates, and refunds. This guidance emphasizes proper internal controls for managing vendor payments and ensuring compliance with federal laws, including the Prompt Payment Act. It also addresses payment reconciliation and auditing processes to ensure transparency and accountability in procurement.

Volume 10, Chapter 1: FINANCIAL CONTROL OF VENDOR AND CONTRACT PAYMENTS
Volume 10, Chapter 2: DISCOUNT OFFERS AND REBATES/REFUNDS

Volume 10, Chapter 3: CONTRACTUAL CLAIMS
Volume 10, Chapter 4: MISCELLANEOUS ADVANCE PAYMENTS
Volume 10, Chapter 5: ARCHIVED
Volume 10, Chapter 6: FEDERAL, STATE, LOCAL, AND FOREIGN TAXES
Volume 10, Chapter 7: PROMPT PAYMENT ACT
Volume 10, Chapter 8: COMMERCIAL PAYMENT VOUCHERS AND SUPPORTING DOCUMENTATION
Volume 10, Chapter 9: ARCHIVED
Volume 10, Chapter 10: PAYMENT VOUCHERS – SPECIAL APPLICATIONS
Volume 10, Chapter 11: PAYMENT AS REIMBURSEMENT FOR PERSONAL EXPENDITURES
Volume 10, Chapter 12: MISCELLANEOUS PAYMENTS
Volume 10, Chapter 13: COMMERCIAL TRANSPORTATION PAYMENTS
Volume 10, Chapter 14: ARCHIVED
Volume 10, Chapter 15: ARCHIVED
Volume 10, Chapter 16: PAYMENT FOR POSTAL SERVICES AND SMALL PACKAGE DELIVERY COSTS
Volume 10, Chapter 17: ARCHIVED
Volume 10, Chapter 18: ARCHIVED
Volume 10, Chapter 19: PAYMENT PROVISIONS FOR GRANTS AND OTHER INSTRUMENTS OF ASSISTANCE
Volume 10, Chapter 20: CONTRACT RECONCILIATION
Volume 10, Chapter 21: JUNIOR RESERVE OFFICER TRAINING CORPS (JROTC) INSTRUCTOR PAY
Volume 10, Chapter 22: PAYMENT RECOVERY AUDITS
Volume 10, Chapter 23: PURCHASE CARD PAYMENTS

Volume 11A – Reimbursable Operations Policy

Volume 11A provides guidance on obtaining reimbursements for DoD Components that perform work or provide services to other federal agencies, private entities, or within the DoD. It outlines policies for project orders, user fees, international agreements, and the disposition of proceeds from sales. This volume emphasizes proper financial management practices and compliance with federal policies for cost-reimbursable operations, excluding activities covered by DWCFs.

Volume 11A, Chapter 1: GENERAL REIMBURSEMENT POLICY
Volume 11A, Chapter 2: PROJECT ORDERS
Volume 11A, Chapter 3: ECONOMY ACT ORDERS
Volume 11A, Chapter 4: USER FEES
Volume 11A, Chapter 5: DISPOSITION OF PROCEEDS FROM DEPARTMENT OF DEFENSE SALES OF SURPLUS PERSONAL PROPERTY

Volume 11A Chapter 6: ANNUAL REIMBURSABLE RATES
Volume 11A, Chapter 7: INTERNATIONAL NARCOTICS CONTROL PROGRAM
Volume 11A, Chapter 8: INTERNATIONAL ACQUISITION AND CROSS -SERVICING AGREEMENTS
Volume 11A, Chapter 9 SUPPORT OF INTERNATIONAL MILITARY ACTIVITIES
Volume 11A, Chapter 10: ARCHIVED
Volume 11A, Chapter 11: SPECIAL OR TECHNICAL SERVICES TO STATE AND LOCAL GOVERNMENTS
Volume 11A, Chapter 12 MAJOR RANGE AND TEST FACILITY BASE (MRTFB)
Volume 11A, Chapter 13: DOD SUPPORT TO UNITED STATES (U.S.) COMMERCIAL SPACE ACTIVITIES
Volume 11A, Chapter 14: DISPOSITION OF PROCEEDS OR FEES FOR SERVICES PROVIDED BY OR THROUGH THE USE OF A DOD LABORATORY, CENTER, RANGE, OR OTHER TESTING FACILITY
Volume 11A, Chapter 15: TRAINING OF SPECIAL OPERATIONS FORCES WITH FRIENDLY FOREIGN FORCES
Volume 11A, Chapter 16: ACCOUNTING FOR PRODUCTION AND SALE OF FOREST PRODUCTS
Volume 11A, Chapter 17: OFFSETTING RECEIPTS
Volume 11A, Chapter 18: NON-ECONOMY ACT ORDERS
Volume 11A, Chapter 19: DEFENSE SUPPORT OF CIVIL AUTHORITIES

Volume 11B – Reimbursable Operations Policy – Working Capital Funds (WCF)

Volume 11B establishes policies for managing DWCF. Guidance includes the responsibilities of management to ensure proper DWCF operations and cash management in support of customer requirements. Chapters within this volume provide guidance for establishing or closing DWCF activities, managing operations, recognizing revenue, capturing costs, and managing cash balances.

Volume 11B, Chapter 1: DEFENSE WORKING CAPITAL FUNDS GENERAL POLICIES
Volume 11B, Chapter 2: ESTABLISHMENT OF DEFENSE WORKING CAPITAL FUND ACTIVITIES, TRANSFER OF FUND FUNCTIONS AND CLOSURE OF FUNDS ACTIVITIES
Volume 11B, Chapter 3: DEFENSE WORKING CAPITAL FUNDS - BUDGETARY RESOURCES
Volume 11B, Chapter 4: ARCHIVED
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Volume 11B, Chapter 10: ARCHIVED

Volume 11B, Chapter 11: REIMBURSEMENTS AND REVENUE RECOGNITION - DEFENSE WORKING CAPITAL FUNDS

Volume 11B, Chapter 12: WORKING CAPITAL FUND COSTS

Volume 11B, Chapter 13: COST ACCOUNTING REQUIREMENTS FOR DEPOT MAINTENANCE

Volume 11B, Chapter 14: MOBILIZATION COSTS

Volume 11B, Chapter 15: SUPPLY MANAGEMENT ACTIVITIES

Volume 12 – Special Accounts, Funds and Programs

Volume 12 provides policies for managing a diverse array of DoD accounts, funds, and programs. Topics include direct loans, cooperative agreements, privatization of utility systems, energy conservation savings, contingency operations, and gift fund management. This guidance also covers financial management for defense health resources, international agreements, and educational assistance programs. These policies ensure the effective administration and accountability of specialized financial activities across the DoD.

Volume 12, Chapter 1: FUNDS

Volume 12, Chapter 2: ARCHIVED

Volume 12, Chapter 3: CONTRIBUTIONS FOR DEFENSE PROGRAMS, PROJECTS, AND ACTIVITIES

Volume 12, Chapter 4: DIRECT LOANS AND LOAN GUARANTEES

Volume 12, Chapter 5: GRANTS AND COOPERATIVE AGREEMENTS

Volume 12, Chapter 6: ARCHIVED

Volume 12, Chapter 7: FINANCIAL LIABILITY FOR GOVERNMENT PROPERTY LOST, DAMAGED, DESTROYED, OR STOLEN

Volume 12, Chapter 8: FOREIGN NATIONAL EMPLOYEES SEPARATION PAY ACCOUNT, DEFENSE

Volume 12, Chapter 9: INTERNATIONAL AGREEMENTS

Volume 12, Chapter 10: FUNDING CIVILIAN SEPARATION INCENTIVES AND CIVILIAN PERSONNEL TRANSITION INITIATIVE

Volume 12, Chapter 11: PRIVATIZATION OF DEFENSE UTILITY SYSTEMS

Volume 12, Chapter 12: IDENTIFICATION, RETENTION, AND USE OF ENERGY AND WATER CONSERVATION SAVINGS

Volume 12, Chapter 13: FISCAL POLICY FOR BASE CLOSURE AND REALIGNMENT

Volume 12, Chapter 14: TRANSFERRING, DISPOSING, AND LEASING OF REAL PROPERTY AND PERSONAL PROPERTY

Volume 12, Chapter 15: EDUCATIONAL ASSISTANCE PROGRAMS

Volume 12, Chapter 16: MILITARY PERSONNEL ENTITLEMENT PROGRAMS

Volume 12, Chapter 17: DoD REWARDS PROGRAM

Volume 12, Chapter 18: ARCHIVED

Volume 12, Chapter 19: FOOD SERVICE PROGRAM
Volume 12, Chapter 20: MILITARY ACADEMY DINING HALL OPERATIONS
Volume 12, Chapter 21 FINANCIAL MANAGEMENT FOR DEFENSE HEALTH PROGRAM
RESOURCES
Volume 12, Chapter 22: ARCHIVED
Volume 12, Chapter 23: CONTINGENCY OPERATIONS
Volume 12, Chapter 24: BURDENSARING AND OVERSEAS RELOCATION
CONTRIBUTIONS BY FOREIGN ALLIES
Volume 12, Chapter 25: DISPOSITION OF NON-DOD PERSONAL PROPERTY
Volume 12, Chapter 26: ARCHIVED
Volume 12, Chapter 27: ARCHIVED
Volume 12, Chapter 28: ARCHIVED
Volume 12, Chapter 29: ADMINISTERING, USING, AND ACCOUNTING FOR SEIZED
AND/OR VESTED FUNDS AND PROPERTY DURING CONTINGENCY OPERATIONS
Volume 12, Chapter 30: OPERATION AND USE OF GENERAL GIFT FUNDS
Volume 12, Chapter 31: DOD BRANDING AND TRADEMARK LICENSING PROGRAM
Volume 12, Chapter 32: COLLECTION AND RETENTION OF CONFERENCE FEES FROM
NON -FEDERAL SOURCES
Volume 12, Chapter 33: FINANCIAL INSTITUTIONS ON DOD INSTALLATIONS
Volume 12, Chapter 34: DIRECT ACCEPTANCE OF GIFTS BY MEMBERS OF THE ARMED
FORCES, DEPARTMENT OF DEFENSE EMPLOYEES AND THEIR FAMILIES AND
SURVIVORS

Volume 13 – Nonappropriated Funds Policy

Volume 13 provides guidance on accounting and financial reporting for Nonappropriated Fund (NAF) activities within the DoD. It emphasizes the separation of NAF from appropriated funds and ensures proper internal controls are in place. This volume covers topics such as payroll, financial reporting, and accounting for defined benefit pension plans, ensuring transparency and compliance with DoD policies for NAF instrumentalities.

Volume 13, Chapter 1: INTRODUCTION TO NONAPPROPRIATED FUND ACCOUNTING
Volume 13, Chapter 2: NONAPPROPRIATED FUND STANDARD GENERAL LEDGER
Volume 13, Chapter 3: ASSETS, LIABILITIES, AND NET WORTH
Volume 13, Chapter 4: ARCHIVED
Volume 13, Chapter 5: INCOME AND EXPENSES
Volume 13, Chapter 6: ARCHIVED
Volume 13, Chapter 7: FINANCIAL REPORTING
Volume 13, Chapter 8: NONAPPROPRIATED FUND PAYROLL
Volume 13, Chapter 9: ARCHIVED

Volume 13, Chapter 10: ARCHIVED

Volume 13, Chapter 11: ACCOUNTING FOR DEFINED BENEFIT PENSION AND OTHER
POSTRETIREMENT PLANS

Volume 14 – Administrative Control of Funds and Antideficiency Act Violations

Volume 14 prescribes the policies for the administrative control of funds and compliance with the ADA. It defines statutory restrictions, explains the causes of ADA violations, and outlines preventive measures such as training requirements. The guidance also provides procedures for investigating and reporting ADA violations, ensuring accountability and adherence to federal fiscal laws across the DoD.

Volume 14, Chapter 1: ADMINISTRATIVE CONTROL OF FUNDS

Volume 14, Chapter 2: ANTIDEFICIENCY ACT VIOLATIONS

Volume 14, Chapter 3: ANTIDEFICIENCY ACT VIOLATION PROCESS

Volume 15 – Security Cooperation Policy

Volume 15 provides guidance on the financial management of Security Cooperation (SC) programs. It ensures compliance with administrative requirements for DoD-administered Security Assistance programs and international cooperation initiatives. The policies promote the development of allied defense capabilities, build defense relationships, and support U.S. security objectives. Topics include pricing, cash management, billing, and reimbursement for SC transactions.

Volume 15, Chapter 1: GENERAL INFORMATION

Volume 15, Chapter 2: FINANCE

Volume 15, Chapter 3: ACCOUNTING

Volume 15, Chapter 4: CASH MANAGEMENT

Volume 15, Chapter 5: ARCHIVED

Volume 15, Chapter 6: CASE FILES

Volume 15, Chapter 7: PRICING

Volume 15, Chapter 8: BILLING AND REIMBURSEMENT

Volume 16 – Department of Defense Debt Management

Volume 16 establishes policies for managing debts owed to the DoD by individuals, contractors, and foreign entities. It includes procedures for debt collection, hearings,

waivers, and remissions. Additional topics include the imposition of interest, penalties, and administrative charges. The guidance ensures proper handling of DoD debts, promoting fiscal accountability and compliance with federal regulations. Policy and requirements regarding debts owed to the DoD by Federal agencies are contained in Volume 4, Chapter 3.

Volume 16, Chapter 1: GENERAL PROVISIONS FOR DOD DEBT MANAGEMENT

Volume 16, Chapter 2: GENERAL INSTRUCTIONS FOR COLLECTION OF DEBT OWED TO THE DOD

Volume 16, Chapter 3: COLLECTION OF DEBTS OWED BY INDIVIDUALS TO THE DOD

Volume 16, Chapter 4: HEARINGS, INFORMAL DISPUTES, WAIVERS, AND REMISSIONS/CANCELLATIONS OF DEBT OWED BY INDIVIDUALS

Volume 16, Chapter 5: COLLECTION OF DEBTS OWED BY CONTRACTORS

Volume 16, Chapter 6: DEBT OWED TO THE DOD BY FOREIGN ENTITIES

Volume 16, Chapter 7: INTEREST, PENALTIES, AND ADMINISTRATIVE (IPA) CHARGES

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Abbreviations

ADA	Antideficiency Act
AI	Artificial Intelligence
API	Application Programming Interface
BERT	Bidirectional Encoder Representations from Transformers
BM25	Best Match 25
CDAO	Chief Digital and Artificial Intelligence Office
DAU	Defense Acquisition University
DCFO	Deputy Chief Financial Officer
DFARS	Defense Federal Acquisition Regulation Supplement
DFAS	Defense Finance and Accounting Service
DHS	Department of Homeland Security
DHS FMPM	Department of Homeland Security Financial Management Policy Manual
DLA	Defense Logistics Agency
DOC	Department of Commerce
DoD	Department of Defense
DOE	Department of Energy
DOS	Department of State
DWCF	Defense Working Capital Fund
ERM	Enterprise Risk Management
FAR	Federal Acquisition Regulation
FASAB	Federal Accounting Standards Advisory Board
FM	Financial Management
FMR	Financial Management Regulation
FOC	Full Operational Capability
IDA	Institute for Defense Analyses
IT	Information Technology
JER	Joint Ethics Regulation
JTR	Joint Travel Regulations
LLM	Large Language Model
LOE	Lines of Effort
NAF	Nonappropriated Fund
NDAA	National Defense Authorization Act
NLI	Natural Language Inference
NLP	Natural Language Processing

OCR	Optical Character Recognition
OMB	Office of Management and Budget
OSD	Office of the Secretary of Defense
OUSD(C)	Office of the Under Secretary of Defense (Comptroller)
PDF	Portable Document Format
PEO	Program Executive Office
PGI	Procedures, Guidance, and Instruction
PMO	Program Management Office
PPBE	Program, Planning, Budget, and Execution
RAG	Retrieval Augmented Generation
RPA	Robotic Process Automation
SC	Security Cooperation
SES	Senior Executive Service
SFFAS	Statements of Federal Financial Accounting Standards
SMEs	Subject Matter Experts
SOPs	Standard Operating Procedures
TF-IDF	Term Frequency-Inverse Document Frequency
USDA	United States Department of Agriculture
VA	Department of Veterans Affairs
WHS	Washington Headquarters Services

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