Previous Section

Appendix
Air Force

1.0 -- Introduction

This appendix includes additional information provided specifically for the Air Force.

2.0 -- Air Force CALS Guidance Documents

2.1 -- Air Force Digital Data Strategy: Technical Orders and Engineering Data -- June 1996

The "Air Force Digital Data Strategy: Technical Orders and Engineering Data" document was created by the Air Force CALS Program Office. The document was revised and placed onto the WWW in June 1996. It is being used by USAF/LGMM and SAF/AQ as source data for upcoming Air Force Policy on Digital Technical Data Acquisition. It is a strategy document, not a policy. Updates to this document can be obtained at:

http://wpaftb1.wpafb.af.mil/strategy.html

The primary AF CALS resource is the Product Data Systems Modernization (PDSM) Program Office available at:

http://www.pdsm.wpafb.af.mil

3.0 -- Air Force Automated Information Systems

This section provides brief descriptions of some of the Air Force's primary Automated Information Systems (AISs).

Air Force
Digital Data Strategy:
Technical Orders and Engineering Data
June 1996
Revision 1.0

I. -- Introduction

A. -- Background

The Air Force currently manages over 16 million Technical Order (TO) pages in a variety of non-digital and digital forms. Regardless of their original form, the majority of these TOs are currently stored, distributed and used in paper format. TO changes are very labor intensive and are currently accomplished either by the Automated Technical Order System (ATOS) or by overflow contractor or prime contractors. To date, approximately one million TO pages are organically maintained in ATOS, eight million pages are

organically maintained using overflow contractors, and over seven million are maintained by prime contractors.

The Air Force also manages over 42 million engineering drawing images in various formats. Of these, approximately 9.1 million active images currently exist in digital form within the Engineering Data Computer Assisted Retrieval System (EDCARS). Of the remaining images, 1.8 million active images remain in non-digital form and approximately 31.8 million drawing images are currently inactive.

B. -- Challenge

Although ATOS and EDCARS have been used for several years to maintain Air Force technical data, the functionality provided by these legacy systems will be replaced with two Department of Defense (DoD) standard systems -- the Joint Computer-aided Acquisition and Logistic Support (JCALS) System and the Joint Engineering Data Management Information and Control System (JEDMICS). Preparing the Air Force for these systems requires that existing technical data (legacy data) be converted to JCALS and JEDMICS-compliant formats. Also, standard and specific acquisition guidance is needed to ensure that newly acquired technical data is compatible with JCALS and JEDMICS. In addition, current TO processes must be re-engineered to accommodate sustainment of digital TOs. These critical needs -- data conversion, data acquisition guidance, and digital TO sustainment processes -- require immediate solutions. The challenge of this strategy is to define the optimal way to meet these needs while maximizing JCALS and JEDMICS return on investment and providing quality digital technical data for Air Force weapon system users and maintainers.

C. -- Scope

This strategy applies to all existing, planned, and future systems developed, deployed, or managed under the authority of the Air Force and encompasses legacy data conversion and digital technical data acquisition and sustainment processes. This strategy also contains an approach for converting the Air Force's legacy technical data, for acquiring digital TOs and engineering data, and for sustaining digital TOs.

D. -- Objectives

This Digital Data Strategy provides guidance for converting legacy technical data, reforming technical data acquisition, and sustaining digital technical orders. This guidance seeks to achieve three primary objectives: first, to produce a digital data management approach that provides the Air Force with JCALS and JEDMICS-compatible digital data; second, to facilitate user access to digitized technical data; and third, to exploit technology and significantly reduce the costs associated with hard-copy TO and engineering data management processes.

E. -- Assumptions

TO page integrity must be maintained for the reproduction and publication of page-oriented TOs. Without this integrity, any modification to the original document would require significant effort to ensure that all previous cross-references, tables of contents, and alphabetical indices are correct.

This strategy recognizes that Air Force Single Managers (SMs) may acquire and deploy Interactive

Electronic Technical Manuals (IETMs), however, presented explicitly herein are the minimum digital data standards for page-oriented TOs.

Infrastructure constraints will require some users to continue to use paper formatted TOs until the transition from paper to digital processes is complete, therefore, it will be necessary to ensure that TOs can be supplied to end users in paper and digital formats.

Until JCALS is implemented, it will be necessary to continue current TO sustainment processes as accomplished by the G022/ATOS system and overflow and prime contractors.

TO data currently maintained by overflow or prime contractors need to be accessible through a view and print-on-demand capability.

Contractors who currently maintain drawings will continue to do so until the Air Force assumes this responsibility.

A conversion engine will be used to convert active EDCARS digital engineering images to JEDMICS formats. This engine will be implemented and funded by the JEDMICS Program Management Office (PMO).

EDCARS will function until JEDMICS is operational. Active engineering data not in EDCARS will be loaded into EDCARS and migrated to JEDMICS or converted after JEDMICS implementation based upon backlog growth trend analysis.

Inactive engineering drawing images will not be converted to digital form and will continue to be stored and indexed by location.

II. -- Legacy Data Conversion Approach

A. -- Technical Orders

The Air Force will convert approximately 16 million TO pages from paper to digital format for input to JCALS. Complete TO books currently tagged and maintained in ATOS will be converted to a JCALS-compatible format enabling view and print-on-demand capability. Approximately eight million overflow contractor maintained TO pages and seven million prime contractor maintained pages will be converted to a view and print-on-demand format. This TO conversion approach is an intermediate step to enable maximum legacy data use by JCALS users.

The Air Force Product Data Systems Modernization (PDSM) Program Office has produced a Technical Order Conversion Implementation Plan that outlines the implementation of the above TO conversion approach. This plan defines the amount and type of data requiring conversion, the technical solution(s) to be applied, and the methodology to be used to prioritize and deliver data for conversion. The plan also discusses digital data acceptance, quality control criteria, conversion output media, interim configuration management, and formal government acceptance of digital TO data.

Air Force weapon system Single Managers (SMs) are encouraged to confer with their program contractors

to determine if program legacy data is already in digital form. If program data is not in digital form, then the Air Force PDSM Program Office can assist SMs in producing the financial analysis necessary to determine the most appropriate legacy data conversion strategy. If program legacy data is already in digital form, then the Air Force PDSM Program Office can streamline the formal conversion process of that program.

SMs who elect to acquire Interactive Electronic Technical Manuals (IETMs) should ensure that display devices and accompanying software have the capability to view Indexed Portable Document Format (IPDF) files so digitized legacy data can be viewed without the need for conversion to IETM format.

B. -- Engineering Data

Approximately ten million active engineering data images, including accompanying and associated documents, will be migrated into JEDMICS. Prior to JEDMICS installation, a migration system, implemented and funded by the JEDMICS Program Management Office (PMO), will be used to migrate engineering data from EDCARS to JEDMICS formats. The JEDMICS PMO will convert all active non-digital engineering data to JEDMICS formats. Inactive engineering data will be converted to a JEDMICS format as needed and will continue to be stored and indexed by location until it is destroyed. Contractor-maintained engineering data will continue to reside at its maintenance location until the Air Force assumes responsibility.

III. -- Digital Data Acquisition Approach

A. -- Technical Orders

Development

Page-oriented TO source data should be tagged in the Standard Generalized Markup Language (SGML) format with the appropriate and approved Air Force content specific DTD. If an Air Force DTD does not exist for a particular TO type, then the contractor should produce a DTD only after coordinating its development and approval with the Air Force PDSM Program Office. These TOs may be developed in a contractor native format; however, a business case should prove that the cost of developing TOs in this format and converting them to Air Force approved SGML is more cost effective than initially developing the TOs in SGML. This strategy is consistent with the Technical Manual Contract Requirements (TMCR) Document, TM-86-01. IETM files/databases should be developed according to the appropriate DoD performance specification commensurate with the type and level of functionality required.

Delivery

Organically Maintained TOs

For page-oriented TO delivery prior to JCALS implementation, an IPDF file of the SGML-authored TO should be delivered to the government. For on-line access, organically maintained TOs should be made accessible to the government through a Contractor Integrated Technical Information Service (CITIS) contract in accordance with MIL-STD-974.

For page-oriented TO delivery after JCALS implementation, JCALS-compliant SGML formatted TOs accompanied by the appropriate and approved Air Force DTDs should be delivered to the government. TO deliveries should include SGML tagged instances of the TOs; including Initial Graphics Exchange Specification (IGES), Computer Graphics Metafile (CGM), or raster graphics files. Again, for on-line access, SGML TOs should be made accessible to the government through CITIS.

Contractor Maintained TOs

For access to contractor maintained TOs, CITIS should also be employed. This contractor data should be accessible for view and distribution in IPDF format. If this data will be delivered to the Air Force as source data, then an SGML tagged instance of the data should be provided as well. These formats should be included in the Contract Data Requirements List (CDRL).

Implementation Policy

The above digital TO acquisition approach will be published in TO 00-5-3, Air Force Technical Manual Acquisition Procedures. It is outlined in the draft Air Force Acquisition Policy on Digitized Technical Orders (Appendix I). Also appended are the core format guidelines for producing IPDF TOs (Appendix II) . Air Force SMs and other acquisition activities should consult with the Air Force PDSM Program Office regarding any functional or technical IETM, SGML, or IPDF issues to ensure that TO acquisition requirements are met.

B. -- Engineering Data

Engineering documentation, drawings, mechanical engineering models, electronic/electrical models, and manufacturing data should be delivered to the government in a CALS format authorized by the current version of MIL-STD-1840 and compatible with the data user's engineering data repository. The contractor's native data files may be acquired when the neutral data file cannot satisfy the data user's requirement. The requirement to acquire native data will decrease as the various standards mature and become more capable of transferring data without significant loss of data functionality. For access to contractor maintained engineering data, a Contractor Integrated Technical Information Service (CITIS) should be employed. This digital engineering data acquisition approach has been outlined in the draft Air Force Acquisition Policy on Digitized Engineering Data. (Appendix III)

IV. -- Digital Technical Order Sustainment Approach

Once delivered to the Air Force, the effective use of digital TOs will require a sound sustainment methodology. Sustaining paper TOs so that users have the latest TO configuration requires management of formal changes. To establish IPDF TO sustainment guidance, the Air Force Digital Technical Order Update Policy and Procedures was produced. (Appendix IV) This document is designed to meet the Air Force need of maintaining page-oriented, IPDF TOs in a combination paper/digital environment -- the "real world" scenario for weapon system operators and maintainers for the foreseeable future.

The procedures identified in Appendix IV are based on re-engineered TO processes that define how to handle changes in a digital environment. Routine TO changes will be released as digital TO revisions on a block cycle update basis. Changes of a time-compliant nature would be handled as "rapid action changes"

and incorporated into a TO update revision. Local supplements will continue to remain a local responsibility.

Prior to JCALS implementation, the TO Conversion Operation at Wright-Patterson AFB will deliver IPDF TOs to their respective TO Management Agencies (TOMAs) at each Air Logistic Center (ALC) for storage in the Digital Legacy Data Storage System (DLDSS). The DLDSS is a digital storage system based on Redundant Array of Inexpensive Disks (RAID) 5 technology. DLDSS will store and index legacy IPDF TOs at each ALC and make these TOs available to the TO Manager for sustainment. Furthermore, these TOs will be made available to reproduction facilities, such as the Defense Printing Service, for print-on-demand and/or digital delivery. The DLDSS production and deployment schedule is provided at Appendix V. and should be used to plan for phase out of paper TO delivery, storage, and sustainment requirements.

V. -- Summary

This legacy data conversion and digital technical data acquisition strategy offers the least expensive investment opportunity, satisfies current technical data management requirements, and presents the most flexible means to meet future technical data management needs. This strategy provides near-term and long-term solutions for digital technical data acquisition, management, and sustainment. Implementation of this strategic approach will be a major step toward implementing an Air Force integrated data environment.

Appendix I.
Air Force Acquisition Policy on
Digitized Technical Orders Memorandum

Acquisition Policy 96X-XXX
Memorandum for Distribution

Subject: Air Force Acquisition Policy on Digitized Technical Orders -- **Action Memorandum**

The Air Force is committed to implementing an Integrated Data Environment (IDE) to effectively use and manage digital Technical Orders (TOs). To prepare for this, the Air Force must now adopt a TO acquisition policy to take advantage of the technology and improved business processes now available.

To maximize IDE effectiveness, TOs must first be acquired in digital form. Although Air Force Single Managers may acquire Interactive Electronic Technical Manuals (IETMs), this policy presents the minimum standards for digital, page-oriented TO delivery and/or access. Further, the form in which Air Force TOs are delivered should be based on whether or not the TOs are delivered prior to or after implementation of the DoD standard Joint Computer-aided Acquisition and Logistics Support (JCALS) System.

Page-oriented TOs should be developed in the Standard Generalized Markup Language (SGML) format with the appropriate and approved Air Force content specific Document Type Definition (DTD). If an Air Force DTD does not exist for a particular TO type, then the contractor should produce a DTD only after coordinating its development and approval with the Air Force PDSM Program Office. These TOs may be developed in a contractor native format; however, a business case should prove that the cost of developing TOs in this format and converting them to Air Force approved SGML is more cost effective than initially developing the TOs in SGML.

Regarding delivery of page-oriented TOs prior to JCALS implementation, an IPDF file of the SGML-authored TO should be delivered to the government. For on-line access to organically maintained TOs, a Contractor Integrated Technical Information Service (CITIS) contract in accordance with MIL-STD-974 should be arranged. For page-oriented TO delivery after JCALS implementation, JCALS-compliant SGML formatted TOs accompanied by the appropriate and approved Air Force DTDs should be delivered to the government. TO deliveries should include SGML tagged instances of the TOs; including Initial Graphics Exchange Specification (IGES), Computer Graphics Metafile (CGM), or raster graphics files. Again, for on-line access, SGML TOs should be made assessable to the government through a CITIS contract.

For access to contractor maintained TOs, CITIS should also be employed. This contractor data should be accessible for view and distribution in IPDF format. If this data will be delivered to the Air Force as source data, then an SGML tagged instance of the data should be provided as well.

Upon issuance of this policy memo, these acquisition strategies will apply to all new and follow-on TO contracts. This policy represents a necessary and critical start to implementing IDE and to supporting Air Force combat units in the very near future.

Appendix II.
Core Format Guidelines for Indexed Portable Document Format (IPDF) Technical Orders

I. -- Visual Presentation

A. -- Opening View

The Technical Order (TO) cover page will be the first page displayed in the Indexed Portable Document Format (IPDF) TO.

The entire cover page and bookmarks shall be visible in a "fit page" view upon opening the file.

Bookmarks shall be collapsed into their respective sections as explained in Section I B, below.

Standard Adobe fonts shall be used in the IPDF file to match the typeface and font characteristics of the original TO. When a substitute typeface is unavailable, a typeface shall be selected within the same typeface class as used in the source document.

Identifying Technical Publication Sheets and Identifying Technical Orders (in the case of legacy data) are issued to identify a change or supplement to a commercial or contractor manual and, as such, shall be posted at the rear of the basic manual in reverse date order (latest date on top).

B. -- Bookmark Generation

Bookmarks shall be generated based on indexed entities appearing in the Table of Contents and shall appear in uppercase format.

Bookmarks generated as a result of embedded links shall not appear as bookmarks unless they appear in the Table of Contents.

In the absence of any links, one bookmark shall be created entitled "**Cover**" which links to the TO cover page.

A bookmark entry for the Table of Contents shall be labeled "TOC".
A bookmark entry for the List of Illustrations shall be labeled "LOI".
A bookmark entry for the List of Tables shall be labeled "LOT."
A bookmark entry for the List of Effective Diagrams shall be labeled "LED."

All section, chapter, and paragraph bookmark entries shall be correctly sequenced and grouped under a heading entitled "**Sections**."

All figures shall be grouped under "LOI" or simply "Figures" if an LOI does not appear in the TOC.

All tables shall be grouped under "LOT" or simply "Tables" if an LOT does not appear in the TOC.

As appropriate, each bookmark shall be linked to its applicable destination and/or shall serve as a drop-down menu.

The following hierarchy exhibits the required bookmark sequence and labeling format. No more than three levels of indenture shall be used in bookmarks.

Bookmark hierarchy:

- **Cover**
- **TOC**
  1. **Introduction**
  2. **Glossary**
  3. **Sections** (drop-down)
     1. **Section**
     2. **Chapter**
     3. **Paragraph**
- **LOI** (drop-down and linked)
- **LOT** (drop-down and linked)
- **LED** (drop-down and linked)
- **Appendix** (identify specific appendices in drop-down form)
- **Figures** (if no LOI)
- **Tables** (if no LOT)
- **Indices** (identify specific indices in drop-down form)

C. -- Thumbnail Creation

Thumbnails shall be created for all Air Force IPDF TO pages.

D. -- Graphics

Graphics, illustrations, drawings or diagrams shall be presented as an image consistent with the paper copy

to insure 100% visual accuracy. TOs that contain graphic errors impacting safety of flight, protection of resources and operational readiness will be returned for correction.

Text within a graphics frame shall be treated as a graphic. A graphics frame is defined as a visible or invisible rectangle around the artwork.

Two-tone graphics shall appear with the same level of clarity as in the original.

Contrast, light and dark adjustment shall be implemented to insure a quality scan.

II. -- Text

A. -- Spelling Accuracy

The spelling of all text in the IPDF TO shall be identical to the source document.

B. -- Searchability

All text including titles, warnings and cautions, figure and table numbers, index numbers, TO numbers, page numbers and Hardness Critical Indicators (HCI) shall be 100% searchable text.

The TO number on each TO cover page shall be 100% visually accurate, searchable text.

If present on the source document, TO numbers on all remaining pages shall be visually accurate, intelligent text.

Text that falls within the frame of a graphic shall be treated as part of that graphic and need not be searchable.

If non-standard symbols cannot be recreated from a typeface symbol selection, the raster image of that symbol shall be displayed.

III. -- Indexing

A. -- Linking of Non-embedded References

The electronic document will be indexed (i.e., linked) from the table of contents, list of illustrations, list of figures, Alphabetical Indices, and embedded references (see B.1., below).

The frame around source links shall be invisible.
The frame around destination links shall be deleted.

When accessed, each linked destination shall appear in a "fit-page" format providing a full view of the entire page.

Links shall be established:

- From each chapter, section, appendix, or paragraph number* in the Table of Contents to the corresponding chapter, section, appendix, or paragraph.
- From each figure number* in a list of illustrations/figures to the corresponding figure. (In the case of multi-sheet figures, to the first sheet unless the sheet number* is specifically called out in the reference.)
- From each table number* in a list of tables to the corresponding table. (In the case of a multi-page table, to the first page.)
- From the page numbers* in the table of contents, list of figures, and list of tables to the corresponding pages.
- From the page numbers* in the alphabetical index to the corresponding pages.
- From the TO number* on the cover page of the TO to the first page of the Table of Contents.

Note *: ***The term "number" (as in "paragraph number") is <u>not</u> meant to imply that these identifying numbers must consist strictly of digits. For example, "4-3.A" is a valid paragraph number. Sections which are identified purely by a letter, such as appendices, shall also be recognized. Both Arabic and Roman page numbers shall be linked, and Roman numerals shall be accepted for chapter numbers.***

<u>B. -- Linking of Embedded References</u>

Any instance within the text of the document where the words "chapter", "section", "appendix", "paragraph", "figure", or "table" appear, followed by the number of such an entity, shall be linked to the corresponding entity.

The following abbreviations shall be recognized: fig, par, para, chap, sec, tbl. These shall be recognized with or without a terminating period and regardless of capitalization.

References to multiple entities, such as "see figures 2-3 and 2-7", shall link each reference number to the appropriate entity.

References to ranges, such as, "as described in paragraphs 2-3.1 through 2-3.4", shall be linked only to the first reference.

IV. -- Delivery

<u>A. -- Media</u>

The original paper copy of the TO shall be delivered with the electronic file.

Electronic TO files shall be delivered via 4mm Digital Audio Tape (DAT), Compact Disk-Recordable (CD-R), or Compact Disk-Read Only Memory (CD-ROM).

B. -- Format

If delivery is made via 4mm DAT, the format of the tape shall be mutually agreed upon.

If delivery is made via CD-R or CD-ROM, only single sessions shall be used.

A unique number shall appear on each DAT/CD and on each DAT/CD label.

An index.txt file shall accompany each DAT/CD identifying the TO number(s), Conversion Project Control (CPC) Management System reference number(s), and TO date(s).

The fields in the index.txt file shall be separated by commas.
Each record shall be separated by a carriage return.

A current, digital copy of the Rich Text Format (RTF) file shall be delivered with each IPDF TO.

A current, digital copy of the rule file used to generate links automatically shall be delivered with each IPDF TO.

Appendix III.
Air Force Acquisition Policy on
Digitized Engineering Data Memorandum

Acquisition Policy 95X-XXX
Memorandum for Distribution

Subject: Air Force Acquisition Policy on Digitized Engineering Data -- **Action Memorandum**

The Air Force is committed to implementing an Integrated Data Environment (IDE) to effectively use and manage digital engineering data. IDE will enable cost-effective digital engineering data interchange and access by weapon system acquirers, users and maintainers. Most notably, the advances made by the Continuous Acquisition and Life-cycle Support (CALS) initiative over the past ten years have made possible the acquisition of digital engineering data in standard, platform and system independent formats needed to support weapon system design, manufacture, test, and operations. In view of this, the Air Force must now adopt an engineering data acquisition policy to take full advantage of the technology and improved business processes now available.

Engineering data, such as drawings, associated lists, accompanying documentation, engineering models, and manufacturing data, must be acquired in digital form to maximize IDE effectiveness. More specifically, engineering data for all new acquisition or follow-on contracts should be delivered in a CALS format identified in the current version of MIL-STD-1840 and in a format compatible with official Air Force digital engineering data repositories. The contractor's native engineering file format may be acquired in addition to the CALS neutral format only when data utility associated with using the neutral file is sub-optimized.

Non-digital delivery of engineering data no longer supports the logistics processes being implemented in preparation for a twenty-first century Air Force. This acquisition policy will ensure digital engineering data sharing within our IDE, and will represent a necessary and critical step to supporting Air Force combat units in the very near future.

Appendix IV.
Air Force Digital Indexed Portable Document Format (IPDF) Technical Order (TO) Update Policy and Procedures

1. Purpose. To establish policy and procedures for updating Air Force IPDF TOs.

2. Scope. This guidance establishes terms and responsibilities for digital TO update and distribution processes and applies to all types of page-based TO changes as well as MAJCOM and base-level supplements for IPDF TOs.

3. Background. Since 1995, the Air Force has been converting its paper TO inventory to IPDF. These digital TOs will be distributed electronically by the Joint Computer-aided Acquisition and Logistics Support (JCALS) System at most Air Force bases worldwide. Prior to fielding JCALS for distribution of digital TOs, two processes need to be in place: incorporating all changes into digital TOs; and ensuring user access to complete and accurate TOs. In view of this, the Air Force requires digital TO update policy and procedures that ensures maximum utility of IPDF TOs in an environment where digital as well as paper TOs are utilized by operators and maintainers.

4. Policy.

4.1 A digital TO must be complete and current to be used. No combination TO will be used (i.e., part digital and part paper).

4.2 This policy applies to all Air Force personnel who manage or use digital TOs.

4.3 Existing policy and procedures apply unless otherwise noted.

5. Procedures.

5.1 The Technical Order Distribution Office (TODO) will receive complete, updated IPDF TOs from a TO Reproduction Facility or the JCALS system.

5.1.1 Changes to digital, page-oriented TOs will include an updated IPDF TO with the latest change incorporated.

5.2 The TODO will receive complete revised TOs through electronic means. Rapid Action Changes will be used to facilitate the distribution of time-compliant updates to the TO.

6. Responsibilities.

6.1 TO Manager

6.1.1 Receive and enter TO improvement reports in the tracking system.

6.1.2 Forward reports to Technical Content Managers (TCMs) for evaluation.

6.1.3 Determine appropriate publication format (digital and/or paper) based upon existing

capabilities and user's requirements.

6.1.4 Accomplish quality assurance (pre-publication review) of the revised TO.

6.1.5 Submit approved updated revisions for reproduction and distribution. Perform electronic distribution of files, if applicable.

6.2 TO Reproduction Facility

6.2.1 Produce and distribute TOs on digital media to the TODOs per distribution instructions received from G022/JCALS.

6.3 Technical Content Manager (TCM)

6.3.1 Evaluate reports and generate a Publication Change Request (PCR) for approved reports. Submit the PCR to the TO Manager.

6.3.2 assist the TO Manager with quality assurance of TO revisions.

6.3.3 Prepare and distribute revised TOs.

6.4 TODOs

6.4.1 Receive digital TO files, transfer the file to local magnetic media (i.e., file server, hard drive, etc.) and store the original distribution medium as backup.

6.4.2 Replace updated digital TOs as required.

6.4.3 Make the updated digital file available concurrent with distribution of paper TOs.

6.4.4 Local supplements will be the responsibility of each base and will be kept separate from the baseline TO.

Appendix V.
Digital Legacy Data Storage System
(DLDSS) Implementation Schedule

3.0 -- Air Force Automated Information Systems (AISs)

3.1 -- Air Force Technical Order System (ATOS)

ATOS is a publication (stand-alone, loose-leaf) and document management system for Air Force Technical Order (TO) changes. ATOS receives, stores, and maintains digital TO change page data and produces postscript TO pages. ATOS is intended to be replaced by JCALS.

3.2 -- Engineering Data Computer Assisted Retrieval System

The Engineering Data Computer Assisted Retrieval System (EDCARS) automates the engineering data repositories at the five Air Logistics Centers. The system changes and updates engineering data in an on-line, real time environment and electronically disseminates digitized images of engineering drawings and related documents to local and remote users. It also provides for the automated creation of bid set packages used to reprocure spare parts for critical Air Force weapon systems. EDCARS has thousands of end users at sites around the world, including Air Combat Command, the Air Force Reserves, Air Force Materiel Command, Air National Guard, Army, Defense Logistics Agency, Pacific Air Forces, and United States Air Forces in Europe.

The Joint Engineering Data Management Information and Control System (JEDMICS) will replace EDCARS in the FY96-97 time frame.

Next Section