CONTRACT DATA REQUIREMENTS LIST (1 Data Item)	Form Approved QMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing da sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any oth aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Informatic Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Proje (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government issuing Contracting Officer f the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO.	B. EXHIBIT D	C. CATEGORY: TDP XXXX TM OTHER
D. SYSTEM / ITEM ALR69	E. CONTRACT / PR NO.	F. CONTRACTOR

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE
D001	PRODUCT DRAWINGS AND ASSOCIATED LISTS	GROUP A LEVEL III

4. AUTHORITY (Data Acquisition Document No.)	5. CONTRACT REFERENCE	6. REQUIRING OFFICE
DI-DRPR-81000A/T	TRD PARA 4.2	WR-ALC/TILCC

7. DD 250 REQ	9. DIST STATEMENT REQUIRED	10. FREQUENCY	12. DATE OF FIRST SUBMISSION
SD	BLOCK 16	ONE/R	SEE BLK 16
8. APP CODE		**11. AS OF DATE**	**13. DATE OF SUBSEQUENT SUBMISSION**
A		BLOCK 16	SEE BLK 16

16. REMARKS

NOTE: Air Force (Cage Code 98752), drawings 9579776, and 9579777, latest revision are part of this CDRL. A copy of the drawings may be requested through the Procurement Contracting Officer

[SEE CONTINUATION SHEET]

LN 12-9-01

14. DISTRIBUTION

a. ADDRESSEE	b. COPIES Draft	FINAL Reg	FINAL Repro
WR-ALC/TILCC			
420 SECOND STREET			
SUITE 100			
ROBINS AFB GA			
31098-1640			
PAPER COPY	1		
DIGITAL DATA			1
(CLASSIFIED)			
DIGITAL			1
15. TOTAL	1	1	1

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Bob Yohe	8 Dec 1999		

CONTINUATION OF DD FORM 1423 (DI-DRPR-81000A/T) Dtd 8 Dec 1999
Amended 8 Nov 2000, BLOCK 16, para 3, & 7

BLOCK 4:

DI-DRPR-81000A is tailored as follows:

a. Paragraph 7.1, delete in its entirety.

b. Paragraph 10.1, delete in its entirety and replace with "10.1 Reference Documents. The applicable documents apply as cited in the DD Form 1423 and continuation sheets."

c. Paragraph 10.2, delete "Product drawings and associated lists shall meet the requirements of MIL-DTL-31000A".

d. Delete Paragraph 10.3 in its entirety and replace with "10.3 Drawing Forms. The contractor shall utilize their own forms for Product Drawings and Associated Lists which meets the requirements of ANSI Y14.1. (The government does not furnish forms for drawing formats)"

e. Paragraph 10.4, delete "Product Drawings and Associated Lists shall conform to the requirements of ASME Y14.100M, ASME Y14.34M and, where DoD peculiar requirements must be met, MIL-STD-100" and replace with "Product Drawings and Associated Lists shall conform to the requirements of MIL-STD-100F, ASME Y14.24, ASME Y14.35M, ASME Y14.34M and DD Form 1423."

f. Paragraph 10.6, delete "Selection Work Sheet incorporated in the contract or purchase order." and replace with "DD Form 1423."

g. Paragraph 10.7, delete "The Selection Work Sheet incorporated in the contract or purchase order will specify whether the contractor or the Government is responsible for selecting the types of drawings and lists." and replace with "The contractor is responsible for selecting the types of drawings and lists."

BLOCK 9:

DISTRIBUTION STATEMENT. Distribution statements shall be in accordance with DoD Directive 5230.24 and included on the first sheet of each drawing near the title block, and shall be as follows:

"DISTRIBUTION STATEMENT C. Distribution authorized to US Government agencies and their contractors; Critical Technology; 08 Dec 1999. Other requests shall be referred to
WR-ALC/LNRC."

Note: Certain types of technical data preclude placing the entire notice on the document. To accommodate this problem an abbreviated version is authorized as follows:

"Statement C, Gov't and contractors, (WR-ALC/LNRC)"

EXPORT CONTROL NOTICE. The Export Control Notice shall be in accordance with
DoD Directive 5230.24.

DESTRUCTION NOTICE. Mark documents with one of the following:

a. For unclassified limited documents: "DESTRUCTION NOTICE. Destroy by any method that will prevent disclosure of contents or reconstruction of the document."

b. For classified documents: "DESTRUCTION NOTICE. Follow the procedures in DoD 5220.22-M, *Industrial Security Manual,* section 11-19, or DoD 5200.1R, *Information Security Program Regulation,* chapter IX."

BLOCK 10: Revisions/changes to the final delivered data shall be furnished quarterly, commencing the first quarter after destination acceptance of the final reproducible data and continue until the contract is closed. Quarterly updates shall include an updated IDL, reference A.F. Drawing 9579776. Negative reports shall be submitted to WR-ALC/TILCC.

BLOCK 11: 15 days

BLOCK 12, AND 13:

1. All data submittals shall contain a shipping list prepared to include as a minimum, the document number, revision level, and number of sheets/pages. Part number, noun and drawing size is optional. The data delivered shall be in the same sequence as the shipping list. Unless prior approval is granted by WR-ALC/TILCC, shipments of data must be for complete assemblies, i.e., LRU's and SRU's. Shipping list shall specify whether the shipment is updates, final or make-up.

2. When a specific revision of an engineering document has been previously furnished and approved by a USAF Engineering Data Repository in microfilm or digital form as a result of any government contract, and is required by this DD Form 1423, the same data shall not be resubmitted providing it meets the requirements in the DD Form 1423 for existing data. This data shall be identified as being previously submitted and approved and shall include the document number, revision, and contract number under which the data were submitted. The receiving USAF Engineering Data Repository shall be identified. This action is required concurrent with all submittals.

3. Within 90 days after successful signed completion of PCA, an Indentured Data List (IDL) per Air Force (CAGE 98752) drawing 9579776 shall be delivered.

4. Within 90 days after successful signed completion of final Physical Configuration Audit (PCA), one set of paper copies of all "final reproducible data" (reference Block 14 of the DD 1423) shall be delivered. Submittal shall be accompanied by a letter of transmittal. Paper copy submittal will be reviewed within 120 days after receipt of data, unless additional time is required, at which time the contractor will be notified.

a. Submittal of programming files, per Air Force (CAGE 98752) drawing 9579776, Software and Firmware Data is not required for this (paper) submission.

b. Concurrent with the paper copies the contractor shall submit four (4) representative samples of each digital data format per Air Force (CAGE 98752) drawing 9579776, (Native, Neutral, HPGL, Drawing Metadata Spreadsheet, etc.)

5. Within 60 days after approval of paper copy, one set of all "final reproducible data" (reference Block 14 of the DD 1423) shall be delivered to WR-ALC/TILCC, 420 Second Street Suite 100, Robins AFB GA 31098-1640. If changes have been required to the IDL since delivery in 3 above, resubmittal shall be required.

BLOCK 16:

1. Contractor Activity and Part Identification: The contractor shall use his own design activity identifier (CAGE) and shall assign his own design activity drawing numbers. This number shall be or shall include the drawing number on which the item is described. Where more than one item is described on a drawing, unique identification shall be provided by the addition of a suffixed dash number with the following limitations:

a. The total length of the part number including dash numbers and spaces shall not exceed 15 characters.

b. The dash number shall have the same characteristics as drawing numbers and may be composed of numbers, letters, or any combination thereof.

c. Part numbers shall not include the drawing revision letter, the contractor CAGE, or the drawing format size letter.

2. Content, format, and media requirements for delivery of Digital Engineering Data: The contractor shall comply with Air Force (CAGE 98752) drawing 9579776.

3. Engineering Data: Product Drawings and Associated Lists shall document complete item design and manufacturing processes necessary to obtain and test hardware to the lowest reprocureable level, i.e., Shop Replaceable Unit (SRU) level, Circuit Board, Cable Assembly, Etc. This includes but is not limited to special tooling, interface hardware, special test equipment, and support equipment.

4. Relationship of Contractor with Subcontractors/Vendors: The contractor shall levy on subcontractors/vendors the same requirements for Technical Data Packages (TDPs) as are levied on them by this contract. This requirement shall be flowed down to the lowest tier subcontractor/vendor associated with the program. In the event the subcontractor is claiming proprietary rights for their data, the prime contractor is responsible for delivering Control Drawings/Performance Specification Drawings to the Government.

5. Order of Preference:

Priority I
Documents mandated for use by law or regulation pursuant to law.

Priority II
Performance Oriented Documents: (a) Non-Government Standards; (b) Commercial Item Descriptions; (c) Federal Specifications and Standards; (d) Military Specifications and Standards.

Priority III
Design Based Documents: (a) Non-Government Standards; (b) Federal Specifications and Standards; (c) Military Specifications and Standards

Priority IV
Standards, specifications and related publications issued by the Government outside the military or federal series for the non-repetitive acquisition of developmental items.

Priority V
Company Specifications

6. ENGINEERING DRAWING PRACTICES: The contractor shall use the practices described in MIL-STD-100F. For clarification the documents listed in paragraph 2 of MIL-STD-100F shall be considered first tier and shall apply. ANSI Y14.1 is tailored as follows: "Para 7.1 , the contents of the basic arrangement as shown shall apply. Paragraph 12.2 add, "Sheets shall be numbered beginning with one (1) and continue, using consecutive whole integers. The contractor may find it useful to incorporate the concepts of MIL-HDBK-288 into the preparation of the TDP. MIL-HDBK-288 refers to Engineering Drawing Package (EDP); this term shall be considered synonymous with TDP.

7. Control Drawings: The contractor shall not identify his own company as a source on control drawings, unless one additional source is also shown. A separate division of the contractor's company, with a different manufacturers code (CAGE) may be shown, if it is actually a source. Control drawings not developed for this contract (existing drawings) shall be updated, to show current information (i.e., performance/qualification requirements, vendors/sources names and part numbers).

8. Existing Data: When existing data meets the following criteria, or will be modified or revised to meet the following criteria, it shall be used in lieu of preparing new data:

a. It is furnished with rights-in-data consistent with the contract stipulations regarding data rights;

b. It is furnished at a cost to the government equal to or less than preparing new data;

c. It meets the highest quality of legibility and reproducibility available in the commercial world. (Reproduced paper copies shall be direct reading and shall not require magnification).

d. It meets the design disclosure requirements of the TDP element of which it is to be a part of.

e. It is identified by a Commercial and Government Entity (CAGE) Code, document number, title and applicable contract number(s).

f. Any nonstandard symbols, drawing or documentation practices used are explained in the document or in a document referenced on the document containing the nonstandard symbol or practice.

9. Legibility and Reproducibility: All documents prepared or submitted shall meet the highest legibility and producibility requirements available in the commercial market controlling the media in which the data is to be delivered.

10. Parenthetical Information: Design activity identifying numbers may be referenced parenthetically to identify in-house peculiar documents (documents not necessary for the production and quality of the item). Parenthetically identified documents are not a required deliverable; however, if the government deems this document necessary, it shall be delivered. Engineering drawings and Part Lists (PL) using parenthetical identification shall carry a note thereon indicating parenthetical identities are for reference only.

11. Referenced Documents: Documents referenced in a TDP shall be furnished as an integral part of that TDP except where the documentation meets the requirement of the paragraph titled Existing Data above, and has been furnished and approved under a previous contract in the same revision to any USAF repository. When first tier references do not provide the technical information required by the TDP element, subordinate reference documents shall be provided until the design disclosure requirements are met. Technical manuals/orders, procedural manuals, and maintenance manuals shall not be referenced within the TDP. When information essential to meeting TDP design disclosure requirements (such as default surface finish values) are contained in such documents, that information must be incorporated in a document acceptable for inclusion in the TDP.

12. **Protecting Classified Information**: TDPs or parts thereof, containing classified information shall be protected and marked in accordance with the Department of Defense Industrial Security Manual for Safeguarding Classified Information, DoD Manual 5220.22-M.

13. **Contract Numbers**: When a TDP document is prepared under a Government contract, the Government contract number under which it is prepared shall appear on the first sheet of the document original. When a TDP document is delivered under a Government contract other than the one under which it was prepared, the Government contract number under which it is delivered shall also appear on the first sheet of each copy submitted. If the document is prepared and submitted under the same contract, only the entry for the contract under which it is prepared is required.

14. **Application of Contract Numbers**: When TDP documents or copies thereof are to be delivered under a subsequent or other contract, cost effective techniques may be used to apply the delivery contract numbers. Examples of such techniques are using a rubber stamp for paper copies, photographic overlays for microfilm, or electronic application to digital data.

15. **Application Block:** All new and revised drawings shall contain an Application Block. The Application Block is mandatory for all drawings. The Application Block shall be near the Title Block. The Application Block shall show the "Next Assembly" and "Used On". When an item is used in more than three applications, the entry "general usage" may be used.

16. **Environmental Stress Screening (ESS):** TDP documents shall contain ESS criteria, and the implementation of that criteria, necessary to ensure system performance at design levels directly or by reference on TDP elements.

a. Selected item drawings are required for all items and assemblies that require the application of ESS selection criteria to meet system requirements. The TDP element shall define, directly or by reference, the ESS selection criteria applied to the item or assembly identified.

b. Incoming ESS inspection procedures used on materiel/items which do not require selected item drawing delineation shall be required directly or by reference on the TDP element identifying that materiel/item.

c. Any ESS utilized during manufacturing/production in addition to the selected item ESS or incoming inspection criteria, shall be required either directly or by reference on applicable TDP documents.

17. **Traceability:** The contractor shall prepare the TDP in such a manner to insure that all applicable documents i.e., Artwork, Schematics, and Test Criteria, etc., are referenced within the TDP for traceability.

18. **Preparation Method**: American English language shall be used in the preparation of this TDP. All drawings shall be prepared using Third Angle Orthographic Projection

method of presentation. The symbol for angle of projection shall be delineated in the Title Block of newly prepared or revised engineering data. (see ANSI Y14.3 figure 2).

19. TDP Validation: The contractor shall validate that the TDP and elements thereof conform to the contractual requirements, and that they accurately depict the item(s) developed, modified, or produced under the contract. Successful use of the TDP in producing, inspecting and testing the item(s) is considered acceptable evidence that the validation requirement has been met.

20. Test Criteria: Test criteria is an inherent part of the TDP. Test criteria shall be incorporated, either directly on each TDP document or by reference, for each end item, top assembly item, configured item, and lowest assembled item IAW Air Force (CAGE 98752) drawing 9579777, titled "Clarification of Detailed Test Criteria for Electrical and Avionics Items.

21. Associated Lists: Parts Lists per ASME Y14.34M-1989 are required. Parts Lists are required at assembly level. Parts Lists for Contractor Activity identifier CAGE code may be an integral part of a document or it may be a separate document. An Indentured Data List at top assembly/system level is required per Air Force (CAGE 98752) drawing 9579776.

22. Software and Firmware Documentation: Software and Firmware documentation is to be delivered as a part of this data requirement per Air Force (CAGE 98752) drawing 9579776.

23. Marking: Drawings shall specify requirement for marking part number identification on items as required by MIL-STD-130. The drawings shall identify the method and location of marking on the part.

24. Engineering Data Updates and Revisions: The contractor shall (and shall cause subcontractors and vendors to) update and maintain engineering data for the item(s) designed/ developed/modified/produced by this contract for the life of this contract and shall incorporate all changes in accordance with the following:

a. All engineering changes shall be incorporated into the applicable engineering data within 90 days after engineering release/Government concurrence or at intervals of five changes, whichever occurs first, except a change involving safety, which shall be incorporated immediately.

b. All engineering changes shall be incorporated into the applicable engineering data prior to delivery of preliminary data for review.

c. All engineering changes shall be incorporated into the applicable engineering data prior to delivery of final media (this includes all EO's generated as a result of the preliminary data review).

25. Contractor Quality Control System: The contractor shall develop and maintain a quality control system for the detailed examination and technical review of the TDP, to be supplied under the terms of the contract or purchase order. The quality control system shall assure conformance of the TDP to all requirements specified herein. The quality control system shall be documented and subject to review by the Government's representative. If the contractor's methods and procedures do not comply with the quality control system or do not attain their objectives, the quality control system shall be subject to disapproval by the Government.

26. TDP Quality Control System Requirements: The contractor's quality control system shall address:

a. The methods and procedures to be used to control the development, maintenance and delivery of the TDP, including the use of electronic approvals or authorizations, if applicable.

b. Assignments of responsibilities and procedures for the detailed examination, review and final approval of the TDP by the contractor.

c. Qualifications of the personnel performing the examinations and reviews of the TDP.

d. Procedural flow of information and documentation within the organization for the development, review and approval processing of the TDP and components thereof.

e. Procedures for ensuring that nonstandard items used in the design have been documented as required for the TDP.

f. Methods of ensuring that approved engineering changes have been incorporated into the TDP in accordance with contract requirements.

g. Procedures for ensuring that security markings, distribution statements, and right-in-data legends are assigned and applied in accordance with applicable specifications, standards, regulations and public laws.

h. Methods of detecting, correcting, and preventing the recurrence of deficiencies with the TDP and discrepancies between the elements and components thereof.

27. Inspection of TDP: The TDP components thereof, including data prepared by subcontractors, shall be inspected for the following:

a. Compliance with the requirements of this contract.

b. Inclusion of all documents, including sub-tier references, required to meet the design disclosure requirements of the TDP, except those already furnished to the government as referenced in paragraph above titled "Referenced Documents".

28. In-Process Review (IPR) of the TDP (Engineering Data IPT Review): The contractor shall host, support, and cochair (at his facility) an IPR of the engineering

drawings and associated lists and other documentation to be included in the TDP. The contractor will have a copy of all data available at IPR. The IPR will be conducted only after the contractor's quality assurance personnel have completely reviewed the data and determined that data are of sufficient quality that Government time will be effectively utilized during the review. IPR may be scheduled when data has reached the 50% percent completion point and shall be held, when possible, in conjunction with other reviews (i.e., PDR, CDR). The contractor shall notify WR-ALC/TILCC a minimum of 30 days prior to the anticipated date of completion point. The IPR shall focus on the contractor's progress in the preparation of the TDP. The contractor shall support and provide the necessary resources, i.e., meeting agenda, conference room, applicable data, minutes, and appropriate personnel available to answer any questions to perform the IPR effectively. The contractor shall correct all discrepancies identified in the IPR. All subcontractor/vendor data shall be made available for review. If quantity is sufficient, the Government may schedule a separate IPR at the subcontractor's/vendor's facility.

29. Engineering Data Guidance Conference (Engineering Data Post Award IPT Meeting): The contractor shall support and cochair a Guidance Conference for engineering data within 60 days after contract award. The Conference shall be convened at a site and on a date agreed upon by the Government contracting officer and the contractor. The contractor shall prepare an agenda and record the minutes of the Guidance Conference. The contractor shall address, discuss, and provide status on the following: [DI-ADMN-81249, DI-ADMN-81250]

a. Understanding of all CDRL requirements, applicable DIDs, specifications and standards.

b. TDP review requirements and schedules.

c. TDP delivery requirements and schedules.

d. Contractor's drafting practices/procedures/TDP drawing formats.

e. The contractor's quality assurance procedures relating to TDP documents, including
quality control of subcontractor and vendor data.

f. The role of subcontractors and vendors who may deliver TDP documents under this contract.

g. The contractor's configuration management system, including methods for releasing documents, approving documents, and incorporating changes into documents.

h. Digital Technical Data Package (TDP) deliverables.

30. Printed Board Artwork Master Drawing. The master drawing shall include images of all artwork required to manufacture the printed board. These images will serve

as a referenced to those images produced from the digital data files such as Gerber and IPC-D-350 formatted files IAW Air Force (CAGE 98752) drawing 9579776, titled "Digital Data Description Requirement". This requirement is an addition to those in ASME Y14.24M and IPC-D-275.

31. Restrictions:

a. Wiring whose jacket or insulation material that contains Polyvinyl chloride (PVC) or other potentially corrosive elements shall not be used for Air Force aerospace equipment. This encompasses multiconductor cable, internal hookup wire, and interconnection cable and wire. Use of PVC in any other application requires prior approval from the office identified in block 6 of this DD Form 1423.

b. MIL-W-16878 shall not be used for Air Force aerospace equipment.

c. Wiring whose jacket or insulation material that contains Aromatic polyimide film shall not be used.

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)	Form Approved OMB NO. 0704-0188

Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for previewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden, estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Butget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract/PR NO listed in Block E.

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY:
	D	TDP TM X OTHER

D. SYSTEM/ITEM	E. CONTRACT/PR NO.	F. CONTRACTOR
SIMNET RF Simulator Acquisition		

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE
D002	**Technical Contract Requirements**	SOURCE AND GROUP B REDLINED DATA

4. AUTHORITY	5. CONTRACT REFERENCE	6. REQUIRING OFFICE
Data Acquisition Doc No. TM 86-01T	**TRD PARA. 3.8.**	**WR-ALC//LNCA**

7. DD 250 REQ DD	9. DIST STATEMENT REQUIRED (A)	10. FREQ	12. Date of first submission	14. DISTRIBUTION
TM 86-01H(T)		SEE BLK 16	SEE BLK 16	
8. APP CODE		**11. As Of Date**	**13. Date of subsequent sub**	
A	TBD	SEE BLK 16	SEE BLK 16	

16. REMARKS

Block 4: *General and Specific Technical Manual Requirements, see attached TM 86-01.*

Block 7; The final Invoice or DD form 250 are applicable for inspection and acceptance in accordance with section 2, para.3 of TM 86-01 and shall be submitted to account for all previous submittals.

Block 8: Approval in accordance with TM-86-01, see section 1.

Block 9: Distribution statement toTOs will be required and provided by WR-ALC/LNCA prior to delivery of data.

Block 10 through 16: See sect 2 to the attached TM-86-01

LN 12-9-01

CHERLYN THOMIE
Data Management Officer (DMO)
WR-ALC/LNCA/6-0784

a. ADDRESSEE	b. COPIES Draft	Final Digital	Final Repro
WR-ALC/LNCA	0	2	1
265 Perry St.			
Robins AFB, GA 31093-1607			
15 TOTAL	0	2	1

G. PREPARED BY:	H. DATE	I. APPROVED BY:	J. DATE
SHERI JONES	17 Dec 99	JOHN E. SHAWHAN Chief, Program Control Div Electronic Warfare Mgt Dir	

WILSON ROBINSON	28 Jan 2000		00/07/11
			Page 1 of 1 Pages

DD Form 1423-1, JUN 90 (COMPUTER GENERATED) *Previous editions are obsolete*

Air Force Technical Manual Contract Requirements (TMCR)

for

AN/ALR-69 (PLAID)

(Program/Modification/Military System)

ATTACHMENT ____ TO CDRL SEQUENCE NUMBER X EXHIBIT _

REQUEST FOR PROPOSAL/CONTRACT: FD2060-00-52073

Date: 20 SEP 2000

Technical Manual/Technical Order requirements contained herein have been cleared for use by OMB No. 0704-0188, 21 July 1986.

*NOTE: Items in italics must be tailored by the TO Manager **before** placing the TMCR in an exhibit to the RFP, system performance specification or in the proposal technical library. The TMCR must be referenced in RFP section J. If some or all of the TO program requirements are included in RFP Section L (Instructions to Offeror), remove them from the TMCR. Delete this note prior to placing the TMCR in the RFP.*

SECTION 1. TECHNICAL ORDER (TO) PROGRAM REQUIREMENTS

1. TMCR Tailoring. Offerors MUST tailor this TMCR document, including the associated tables, matrices and Specification/Standard Interface Requirements (SIRs). The tailored TMCR shall be attached to the CDRL for TO delivery, and shall be included in the proposal as a separate exhibit, referenced in the proposal SOW. Proposals shall be compatible with the Air Force infrastructure and support the (AN/ALR69(PLAID)) Program's CALS implementation strategy as documented in the Government Concept of Operations (GCO, *Defense Acquisition Deskbook (DAD), Section 3.7*), located (*enter RFP location of GCO*). Air Force TO Acquisition procedures, including procedures for tailoring this document, are found in TO 00-5-3, located on the World Wide Web (WWW) at http://www.pdsm.wpafb.af.mil/toprac/ to-syste.htm. Any terms or procedures found in this document may be researched there.

2. TO Program Scope. The offeror shall tailor Section 2 to propose the TO types (Table 1) and source data, TO updates and commercial manuals (Table 2) required to support the *(AN/ALR-69)* program's objectives. Page-oriented Military Specification (MILSPEC) TOs must be formatted according to MIL-STD-38784 and applicable performance (MIL-PRF) specifications, with text, graphics and delivery according to MIL-STD-1840. The offeror may propose use of Non-Government Specifications or Standards (NGS) for development of TOs, but must justify this choice based on life-cycle cost savings to the government and compatibility with existing systems identified in the GCO and the System Support Plan.. **NOTE:** If Interactive Electronic Technical Manuals (IETMs) are proposed (MIL-PRF-87268 and MIL-PRF-87269), contact the Procuring Contracting Officer (PCO) and TO Manager to obtain guidance from the Air Force Preparing Activity (PA), MSG/ILMP, 4375 Chidlaw Rd Suite 6, WPAFB OH 45433-5006.

3. Commercial Manuals. Offerors shall propose the use of existing commercial manuals to the maximum extent possible without impairing program support objectives. The proposal will describe the method used to recommend and submit specific manuals to the government for review and approval. **NOTES:** a) Contractor Furnished Aeronautical Equipment/Contractor Furnished Equipment (CFAE/ CFE) Notices, Data Item Description (DID) DI-TMSS-80067, may be used to provide recommendation data. b) The government will use MIL-HDBK-1221 as a guide for review and acceptance of all recommended commercial manuals, and MIL-PRF-7700 as an additional guide for commercial Flight Manual contents.

4. Technical Manual Specifications and Standards (TMSS) Tailoring. TMSS are tailored by deleting requirements not needed for program TOs, and by selecting between options offered. The tai-

loring is recorded in SIRs and added to Section 3 of this document. AF options in some Joint-Service TMSS have been documented in preliminary SIRs included in Section 3. Offerors shall complete tailoring of the Joint-Service TMSS SIRs and provide recommended SIRs for other TMSS or NGS as applicable. Questions and conflicts with TMSS requirements may be resolved by written request and justified suggestions for resolution submitted through the PCO to (*enter name, office symbol, address and phone number of TO Manager*). Approved recommendations, corrections and clarifications will be maintained with contract documentation. **NOTE**: Tailoring must not change or delete mandatory requirements which are part of the DTD structure.

5. Subsequent TO/Data Requirements. Offerors shall propose a process for notifying the government when additional TO or source data requirements are identified subsequent to contract award. This process shall require government review and approval of recommended additional requirements prior to contractual approval. **NOTE:** The recommended notification process is to use CFAE/CFE Notices (DI-TMSS-80067).

6. TO Development. The offeror shall propose TO development practices and procedures which ensure TOs and data are compatible with the AF Digital Data Strategy (http://www.pdsm.wpafb.af.mil/datamgt/ data_mgt.htm) and the JCALS JTMS. The preferred method is through use of the TMSS specified in Section 2 to produce TO files tagged using Standard Generalized Markup Language (SGML) according to the Document Type Definitions (DTDs) appended to MIL-STD-38784 and each specification. The offeror must submit any DTDs developed to support use of NGS or canceled TMSS through the PCO and TO Manager to MSG/ILMP for validation of JCALS compatibility. SGML-tagged TO files shall include required illustrations in one of the three approved graphics exchange specifications; MIL-PRF-28000, 28002, or 28003.

7. TO Numbering. Offerors shall propose a method for notifying the government of which manuals require TO numbers. TO numbers are not required for manuals to be used exclusively by contractor personnel. (**NOTE:** DI-TMSS-80067 may be used to provide the notification.) AF procedures for numbering TOs are described in TO 00-5-3 and AFMCMAN 21-1 (http://www.pdsm.wpafb.af.mil/toprac/to-syste.htm).

8. Data Rights. Government rights in data are specified in the Defense Federal Acquisition Regulation Supplement (DFARS), paragraphs 227-7102 through 227-7104, located *(enter the RFP location containing the applicable DFARS paragraphs)*. Offerors shall propose Unlimited Rights for all source data and TOs prepared specifically for the contract. If some TOs or source data are copyrighted or contain proprietary data or procedures, offerors may propose Limited Rights or Government Purpose License Rights (GPLR) only. Proposed commercial manuals should be provided with at least GPLR or Limited Rights. Copyrights shall be according to DFARS paragraphs 227-7103, 7105 or 7106.

9. Classification, Distribution, Destruction, Disclosure, and Export Control Notices. Offerors shall propose methods for determining, marking and controlling classified and restricted distribution data and TOs. Processes must conform to government requirements specified in DOD 5200.1-R, DODD 5230.24, AFIs 31-401 and 61-204, and MIL-STD-38784. **NOTE:** Distribution limitations are normally determined on a case-by-case basis as TOs are developed, dependent upon TO content.

10. TO Quality. Offerors shall propose a quality assurance program which ensures TOs prepared are: a) 100% technically accurate; b) written to a scope and depth of coverage sufficient to support the operations and maintenance concepts, and to the Reading Grade Level (RGL) specified in MIL-

STD-38784; c) compatible with the JCALS JTMS; and d) properly classified and marked with export control and distribution limitation statements. Recommended QA methods include actual performance of procedures and use of desk-top analysis for non-procedural data. Simulation (walk-through/talk-through) should be reserved for those procedures which would activate explosive devices or present a hazard to personnel or equipment. Offerors' proposals should describe how the government will be allowed to interact with the contractor's TO development team. **NOTE:** Quality requirements for the Joint Nuclear Weapons Publications System (JNWPS) and for Non-nuclear Explosive Ordnance Disposal (EOD) Data are contained in TO 11N-1-1 and DOD Directive 5160.62, respectively. The government performance-tests all JNWPS and EOD TOs.

10.1. Conferences and Technical Reviews. Offerors shall propose sufficient conferences and reviews to allow insight into TO development processes and ensure contract compliance. Offerors normally host an initial Guidance Conference or Technical Interchange Meeting (TIM) within 60 days of contract award to ensure mutual understanding of TO contract requirements, schedules, points of contact, etc. Periodic In-Process Reviews (IPRs) and Prepublication Reviews (PPR) ensure TOs are being developed according to contract requirements and that open discrepancies are cleared prior to publication. **NOTE:** PPRs are required for critical safety and nuclear surety procedures TOs, and may be required for other complex procedures TOs.

10.2. TO Certification. Offerors shall propose their method for documenting certification that TO procedures are accurate, adequate, current, and usable for their intended purposes.

10.3 Verification Support. Offerors shall propose the methods, equipment and personnel required to support government TO Verification. This support should consist of at least (*insert minimum program requirements, such as writers and/or engineers to resolve problems during verification, program-peculiar equipment and supplies, maintenance of TO configuration, incorporation of government comments, and participation on TO Review Boards (TORBs) and Flight TORBs*).

11. TO and Source Data Maintenance. Offerors shall propose methods for maintaining accuracy, currency and configuration of TOs and source data throughout the contract period of performance. Maintenance includes preparation of TO and source data updates to incorporate corrections, equipment configuration changes, and maintenance and operational concept changes.

12. TO Delivery. Offerors shall propose practices and procedures for access to or delivery of digital TO files, including those for Preliminary TOs (PTOs), source data, reproduction masters, and program support data. Practices and procedures shall be compatible with the program's Contractor Integrated Technical Information Service (CITIS) agreement (if on contract) and Government Concept of Operations (GCO – found in *(specify RFP location of GCO)*). TO file delivery formats shall be according to applicable CDRLs and the tailored TM Delivery Requirements Matrices included in Section 2 of this document. Paper TO delivery is not acceptable for final delivery of TOs. **EXCEPTION:** When cost analysis proves the paper delivery is more cost effective over the life-cycle of the program or project, and for some Commercial Manuals not available digitally.

12.1. SGML-Tagged Files. The government will parse SGML TO document files prior to acceptance. **NOTE:** The Internet address for the public domain "SGMLS Parser" software is "ftp://ifi. uio.no:/pub/SGML."

12.2. Indexed Adobe™ Portable Document Format (IPDF) Files. Indexing specifications for PDF TO files are contained in the AF Digital Data Strategy (http://www.pdsm.wpafb.af.mil/datamgt/ data_mgt.htm).

12.3. Additional digital delivery media requirements are specified in MIL-STD-1840 (SIR, Section 3).

13. Schedules. Offerors shall include TO program events and schedules in their proposed Integrated Master Plan (IMP) and Integrated Master Schedule (IMS), and update the IMS throughout the period of performance. **NOTE:** AF policy requires delivery of verified TOs prior to or concurrently with delivery of operational equipment to the field (AFPD 21-3). This policy will determine TO development and delivery schedules throughout the acquisition phase of a program.

If applicable for the specific program, add the following:
14. Time Compliance Technical Orders (TCTOs). Offerors shall propose practices and procedures to develop AF TCTOs and related TO updates when tasked as part of the approval process for Engineering Change Proposals (ECPs) to configured items. Costs for TCTO package development must be included in ECP Costs – not included as direct proposal costs. **NOTE:** ECPs are reviewed and approved by the Government's Configuration Control Board (CCB). When the CCB decides that a TCTO is the appropriate method of implementation, the contractor may be requested to develop the TCTO package for Air Force coordination and approval. See TO 00-5-15 (http://www.pdsm.wpafb.af.mil/toprac/to-syste.htm) for a detailed description of the TCTO system.

15. TO Reproduction Management. Offerors shall propose practices and procedures for managing the program's reproduction requirements. **NOTE:** Reproduction management for printing includes assembly of a print package (reproduction media, a reproduction assembly sheet , and TO Initial Distribution (ID) labels) and submission of the package for government printing. (ID labels are provided by the TO Manager) In some cases, the contractor may perform the printing. Reproduction management for digital media consists of reproduction of the digital file on magnetic/optical media and distribution according to ID labels. Reproduction Management may also include configuration control and storage of reproduction masters.

SECTION 2. TM TYPE AND DELIVERY REQUIREMENTS

NOTES:

- Mark the TM Type Selection Tables indicating the applicable TO types and related specifications. For additional interface requirements see the program-specific Government Concept of Operations (GCO) and DOD 5000.2-R.
- Manuals delivered using this table and DI-TMSS-80067, CFAE/CFE Notices, must be reviewed and approved by the Air Force prior to delivery.
- IPBs are developed IAW MIL-PRF-38807, except that MIL-PRF-87929 will also be used for IPBs combined with work packages.
- All checklists, except aircrew and nuclear weapons checklists, are developed IAW MIL-PRF-5096.
- MIL-PRF-83495 requires DOD-STD-863 requirements to be levied on engineering data for preparation of end item wiring data and schematic diagrams.
- Delivery requirements are indicated in the TM Delivery Requirements matrices.
- Digital data media format requirements are specified in MIL-STD-1840. Use MIL-STD-1840 as a guide when completing Part B - TM Delivery Requirements.
- For further information on Air Force Digital Data Strategy, see WWW address http://www.pdsm.wpafb.af.mil/datamgt/data_mgt.htm.

1. **Inspection.** Unless otherwise specified in the contract, inspection and acceptance of TO reproducible media will be performed by the Government activity having cognizance over the contractor facility involved, following approval of formal copy by TOMA letter (See Para. 2 below). If TOMA letter indicates technical compliance and style and format acceptance, the inspection need only ensure that the deliverables are accounted for and in ready-to-ship condition. **The DD Form 250 shall display the TO number and issue date of each publication.**

2. **Prepublication Review (PPR).** The contractor shall host and co-chair, with the TOMA, a prepublication review. This review affords examination of facsimile copy of formal TOs to assure incorporation of changes resulting from verification, and a final check on compliance with contract requirements upon completion of formal copy, but prior to preparation of reproduction media. The PPR may be conducted at a designated site, or less formally, at the discretion of the TOMA, in accordance with schedule and quality considerations. **Successful PPR completion will enable timely approval, inspection, acceptance and delivery** (See Para. 3 below).

3. **Reproduction Media**. Each item, with DD Form 250 (See Para 1 above) and **three reproduction assembly sheets**, shall be delivered in accordance with the TO schedule, program schedule, or as directed by the TOMA, generally sixty (60) days prior to delivery of the first production article supporting initial operating capability. The appropriate contract number shall be displayed on each TO title page. Master reproduction copies of these products may be retained as described in paragraph 4 of this section.

4. **Retention of master reproducible media**. The contractor is authorized to retain master media (digital) resulting from these requirements, to facilitate preparation of future changes or revisions. This will be accomplished subject to the following conditions: (1) that no cost to the Government shall be incurred by such storage; (2) storage provisions shall provide ample protection, and (3) the contractor shall deliver the master media to the Air Force at any time upon request. Acceptance of the reproduction media by a government inspector or the TOMA shall be considered "delivery" as required by this contract, although master media may not be physically delivered until later because of this authorized retention and storage provision.

TECHNICAL ORDER NUMBER REQUEST

a. Prime Contractor Name, Address, and CAGE Code

b. Design Activity's name, address, and CAGE Code

c. Contract Number and Order Number

d. Equipment Nomenclature and Part Number

e. National Stock Number (NSN), or National Stock Class (NSC) if the NSN is unknown. Include Materiel Management Aggregation Code (MMAC) if applicable.

f. Support Equipment Recommendation Data (SERD) Number if applicable

g. Model of Weapon System equipment is installed on or supports

h. Functional System/Subsystem which the equipment will support (Fire Control, Landing Gear, Radar, EW/ECM, etc.)

i. Motivation of equipment; (Electric, Hydraulic, Mechanical, etc.; include Current/Phase(s)/Voltage Range if Electric)

j. Whether or not Software Documentation is included.

k. Whether the equipment is Air or Ground; and ATE, TE, or SE.

l. Purpose of Request (Number assignment, cancellation or change to previous request, or "record" only)

m. For each manual recommended:

   (1) Type TO (Operation, OMI, IPB, Inspection, etc.)

   (2) Security Classification of Title and Contents

   (3) New/Rev/Change (TO number if revision or change, or "TBA")

   (4) TO Detail Specification Number, or "SS&F" (Same Style and Format)

   (5) Estimated cost, number of pages, and delivery time

1. PTOs for IPRs. IPR PTOs shall be technically edited, word-processed, and approved by contractor engineering. The following table may be used by the contractor to determine readiness for IPRs. The items and percentages are suggestions only and are not all-inclusive.

TM-86-01/T

Section of TO	Review Level:	35%	75%
TO Title Page		100%	
Front Matter			75%
Introduction		100%	
General Information		50%	90%
Installation Instructions		25%	70%
Operation Instructions		25%	70%
Theory of Operation		50%	100%
Maintenance Instructions		25%	75%
Checkout and Troubleshooting		75%	
Circuit Diagrams/Illustrations		25%	75%
Parts Lists		35%	80%

TECHNICAL MANUAL CONTRACT REQUIREMENTS

SECTION 2

SPECIFIC REQUIREMENTS

1. Specific Requirements.

1.1 Technical Manuals. Technical manuals required in this section provide complete instructions in accordance with the applicable SOW/SOO and requirements in this section. This section describes the processes of preparation, delivery, change and correction of TMs.

1.2 Readability. The contractor shall prepare new technical manuals to a Reading Grade Level (RGL) of (9) in accordance with MIL-STD-38784. Excluded from RGL requirements are:

a. Aircraft Flight Manuals (-1 Series)

b. Job Guide Manuals (-2JG Series)

c. Illustrated Parts Breakdown (IPB) Manuals (-4 Series)

d. Basic Weight Checklist and Loading Data Manuals (-5 Series)

e. Cargo Aircraft Loading Manuals (-9 Series)

f. Nuclear/Non-Nuclear Munitions Delivery Manuals (-25/-34 Series)

g. Acceptance and/or Functional Check Flight Manuals (-6CF-1 Series)

h. Work Unit Code (WUC) Manuals (-06 Series)

i. List of Applicable Publications (LOAPs) (-01 Series)

j. Aircraft Inspection Manuals and Associated Workcards/Worksheets/Lube Charts, etc. (-6 and 6WC/-6WS/-6LC Series)

k. Wiring/Schematic Diagram Manuals

l. Precious Metals (-113 Series)

m. Engine Work Package TMs

NOTE: Commercial Manuals shall be reviewed IAW program-specific requirements and/or best commercial practices. They will not necessarily be rejected for minor noncompliance, including RGL. Discretion rests with the acquisition team.

PART A – TM TYPE SELECTION TABLES

TABLE 1

TMSS REQUIREMENTS FOR THE (_____) Program
(System/Component)

Title or Type of Manuals	Specification	Required
1. Inspection TOs	MIL-PRF-5096	
a. Inspection and Maintenance Requirements (-6) Manual		☐
b. Acceptance and Functional Check Flight (FCF) Procedures (-6CF) Manual		☐
c. Acceptance and Functional Check Flight (-6CL) Checklist		☐
d. Workcards		☐
e. Inspection Requirements Cards		☐
f. Flow/Sequence Charts		☐
g. Checklists		
(1) Maintenance/Operations (Non-Aircrew)		☐
(2) Operations (Aircrew)		☐
2. Cargo Aircraft Loading and Offloading TOs	MIL-PRF-5288	
a. Manual		☐
b. Checklists		☐
3. Weight and Balance (Aircraft)	MIL-PRF-5920	
a. Loading Data Manual		☐
b. Sample Basic Weight Checklists		☐
4. Flight Manuals (see notes)	MIL-PRF-7700	
a. Flight Manual		☐
b. Performance Data Manual		☐
5. List of Applicable Publications	MIL-PRF-8031	☐
6. Structural Repair Manuals (for Aircraft)	MIL-PRF-9854	☐
7. Munitions/Weapons Loading Procedures, Non- nuclear and Nuclear	MIL-PRF-9977	
a. Nuclear Weapons Basic Information and Loading Procedures		☐
b. Nuclear Weapons Loading Procedures		☐
c. Non-nuclear Munitions Basic		☐
d. Non-nuclear Loading Procedures		☐
e. Integrated Combat Turnaround Procedures		☐
f. Non-nuclear Munitions Loading Standard Data Packages (SDPs)		☐
g. Loading Procedures Checklists		☐
h. Integrated Loading Procedures Checklists		☐
i. Nuclear Weapons Loading Procedure Checklists		☐
j. Integrated Combat Turnaround Procedures Checklists		☐
k. NATO Stage B Cross-Servicing Checklists		☐

TABLE 1

TMSS REQUIREMENTS FOR THE (_____) Program
(System/Component)

Title or Type of Manuals	Specification	Required
8. Mobile Training Sets (MTS) and Part Task Trainer TOs	MIL-PRF-9994	
a. Single Manual		☐
b. Single Manual w/IPB		☐
c. General/Systems Trainer Manuals		☐
d. General/Systems Trainer Manuals w/IPB		☐
e. Part Task Trainer Manuals		☐
9. Space Operations and Support Documentation TOs	ANSI/AIAA-R024-1993	
a. Operations Manual	(Replaces MIL-M-38311)	☐
b. Operations Checklists		☐
c. Technical Manuals and Related Checklists		☐
10. Nuclear and Non-nuclear Weapon Delivery and Aircrew Procedures Manua and Checklists	MIL-PRF-38384	
a. Non-nuclear Weapon Delivery Manual (Strategic Bomber & Tactica Aircraft)		☐
b. Nuclear Bomb Delivery Manual (Strategic Bomber Aircraft)		☐
c. Aircrew Nuclear Weapon Delivery Manual (Strategic Bomber Aircraft)		☐
d. Aircrew Nuclear Weapon Delivery Manual (Tactical Aircraft)		☐
e. Non-nuclear Weapon Delivery Checklist (Strategic Bomber & Tactical Aircraft)		☐
f. Nuclear Bomb Delivery Checklist (Strategic Bomber Aircraft)		☐
g. Aircrew Nuclear Weapon Delivery Checklist (Tactical Aircraft)		☐
h. Non-nuclear Weapon Delivery Source Data Packages		☐
11. Air Refueling Procedures	MIL-PRF-38413	
a. Manual		☐
b. Checklist		☐
12. Work Unit Code Manual	MIL-PRF-38769	☐
13. Calibration Procedures	MIL-PRF-38793	☐
14. Time Compliance Technical Orders (TCTOs)	MIL-PRF-38804	☐
15. Aircraft Battle Damage Assessment and Repair TOs	MIL-PRF-87158	☐
16. Illustrated Parts Breakdown	MIL-PRF-38807	☐
17. On-Equipment Organizational Maintenance Manual Set (see notes)	MIL-PRF-83495	
a. General Equipment (GE) Manual		☐
b. General System (GS) Manuals		☐
c. Combined GE & GS Manual		☐
d. Job Guide (JG) Manuals		☐

TABLE 1

TMSS REQUIREMENTS FOR THE (_____) Program
(System/Component)

Title or Type of Manuals	Specification	Required
e. Fault Reporting (FR) Manual		☐
f. Fault Isolation (FI) Manual		☐
g. Wiring Data (WD) Manual		☐
h. Schematic Diagram (SD) Manual		☐
18. Operation and Maintenance Instructions in Work Package Format	MIL-PRF-87929	
a. Maintenance Manuals		
(1) Intermediate Maintenance		☐
(2) Depot Maintenance		☐
(3) Combined (I&D) Maintenance		☐
(4) On Condition Maintenance		☐
b. Operation & Maintenance Instruction Manuals		☐
c. Special Manuals		
(1) Aircraft Engine Testing and Trending Procedures		☐
(2) Aircraft Power Package Testing Procedures		☐
(3) Static Firing of Missile Motors		☐
(4) System Peculiar Corrosion Control		☐
(5) Nondestructive Inspection (NDI)		☐
(6) Aircraft Structural Integrity Program (ASIP)		☐
(7) ATE Operator Test Procedures		☐
(8) Special Requirements for Storage and Maintenance Procedures; AUR Munitions/Launchers and Associated Support Equipment, Conventional Components and CMBR Agents		☐
(9) Parachute Packing Procedures		☐
(10) Operators Instructions (Hand-Held Flight Computers)		☐
(11) Installation-Engineering Facility (Ground C-E Equipment)		☐
d. Checklists (IAW MIL-PRF-5096)		☐
e. With Illustrated Parts Breakdown (see notes)		☐
19. Commercial Manuals (Evaluate according to MIL-HDBK-1221)		☐
20. Aircraft Cross-servicing Guide	MIL-DTL-22202	☐
21. Electronic Technical Manuals (Contact specification preparing activity for guidance.)	MIL-PRF-87268 MIL-PRF-87269	☐

TABLE 2
ADDITIONAL TM TYPE SELECTIONS

NOTES:

- Check all applicable boxes.
- For commercial manual supplemental data only, under the specification heading, enter "Same style and format," "MIL-PRF-38807" (for IPB data), or "MIL-STD-38784."
- For existing MIL-SPEC manuals not being updated to latest specification requirements, enter "Same style and format" under the specification heading.

TO Number, Title, or Type of Manual	Specification	Commercial Manual	New	Supplement	Supplemental TM	Source Data
1. 12P3-2ALR69-53		☐	☒	☐	☐	☐
2. 12P3-2ALR69-63		☐	☒	☐	☐	☐
3. 12P3-2ALR69-104		☐	☒	☐	☐	☐
4. 12P3-2ALR69-114		☐	☒	☐	☐	☐
5. TCTO		☐	☒	☐	☐	☐
6.		☐	☐	☐	☐	☐
7.		☐	☐	☐	☐	☐
8.		☐	☐	☐	☐	☐
9.		☐	☐	☐	☐	☐
10.		☐	☐	☐	☐	☐
11.		☐	☐	☐	☐	☐
12.		☐	☐	☐	☐	☐
13.		☐	☐	☐	☐	☐

NOTES

1. Basic shall be IAW MIL-STD-38784 (general style and format).
2. Necessary guidance and mutual interpretation of major individual TO projects will be provided in a **Technical Order Guidance Conference** requested by the contractor.
3. Requirements for new TOs, revisions, and non-routine update actions, shall be submitted for TOMA approval via CFAE/CFE Notices (DI-TMSS-80067).
4. Requirements of MIL-HDBK-38790 (printing) apply to all TO update actions.
5. Use the version of all listed military specifications and standards current at the time of 35% review level preparation.

PART B - TM DELIVERY REQUIREMENTS

FOR _____
(System/Item)

TM DATA TYPE DELIVERED AN/ALR-69(PLAID) .
(TMSS/Change/Supplement/etc.)
(Replicate form for each TM type required.)

Delivery Format Requirements Codes

Paper (draft or manuscript only. Cannot be used for final delivery)
Mixed paper and digital (G/I)

Digital delivery only:
G. - Standard Generalized Mark-up Language (SGML).
I. - Indexed Portable Document Format (IPDF) File.

EXAMPLE: M(G) / 2 [Paper and SGML / 2 copies]

NOTES:

- Delivery format requirements codes indicate the media/file format to be delivered for each program event.
- TCTO requirements are specified in the contract vehicle approving the TCTO.
- When on-line access (e.g., CITIS) is a contractual requirement, copy quantity will normally be Ø (zero).

DELIVERY SCHEDULE

Event ⇨ Number of days data required prior to event ⇨ Enter Office Symbol and Address ⇩ ⇩	Technical Review(s) (30 Days)	Verification (30 Days)	Prepublication Review (30 Days)	Final TO Distribution (60 Days)
	Enter delivery requirements code/copy quantities required ⇩	⇩	⇩	⇩
WR-ALC/LNCA 265 PERRY STREET ROBINS AFB GA 31098-1607	5/P	5/P	5/P	M(I)/1
WR-ALC/LNRC 265 PERRY STREET ROBINS AFB GA 31098-1607	1 / P	1 / P	1 / P	/
Total Copies Required:	6	6	6	1

1. Advance PTO copies shall be forwarded to TOMA activities shown above per Sec 1, para 12, TM-86-01/T. Sufficient PTOs also shall be provided to support In-Process Reviews, Validation, Verification and Prepublication Review as required on-site. Commercial manuals shall be submitted once for review, in duplicate, as soon as identified.

2. One **paper copy and 2 digital files** are required (Sec 2, para 3). Digital files shall be delivered via compact disc or as agreed upon; one in an editable, page layout application; either Adobe Pagemaker 6.5 or higher; or Adobe FrameMaker 5.5 or higher, with all illustrations, schematics, and wiring diagrams prepared in either AutoCad Lt 2000 or higher; Adobe Illustrator 7.0 or higher; or Canvas 5.0 or higher. The second digital file shall be a Portable Document File (PDF). TOMA letter may approve alternate common electronic delivery media.

3. One copy each shall be forwarded to using command addressees or other reviewer(s) when specified by the TOMA in minutes of Guidance Conference, IPR, or by TOMA letter.

SECTION 3. SPECIFICATION/STANDARD INTERFACE RECORDS (SIRs)

NOTES:

- Most specification "Acquisition Requirements" list the same two items for paragraphs 6.2a and 6.2b. For this contract enter:
  6.2a. The title, number and date of each specification will be listed in the heading of the applicable SIR.
  6.2b. The issue of the DODISS used in this contract is (*enter date*).
- Tailoring out digital requirements may result in parsing failure of the delivered files. All such tailoring must be coordinated with the specification Preparing Activity (PA).
- All TM specifications applicable to this contract require an appropriately tailored SIR attached to this section. MIL-STD-38784 must be included in all contracts/proposals for AF TMSS-developed TOs.
- Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from http://www.dodssp.daps.mil, or the Standardization Documents Order Desk, 700 Robbins Ave, Bldg 4D, Philadelphia, PA 19111-5094.

STANDARDIZATION INTERFACE RECORD FOR MIL-STD-1840B, 3 November 1992
Automated Interchange of Technical Information

NOTE: Program-specific tailoring of para 6.3 must be added to this SIR.
4.2 The transfer unit shall be encoded in an appropriate format for the type of transfer unit specified below.
4.2.1 Page image transfer units will only be used for raster-scanned (non-changeable) documents used to update relatively stable legacy (existing) data.
4.2.1c Special word files shall not be used; if changes to AF DTDs or FOSIs are required and authorized, the contractor shall submit a revised DTD or FOSI.
4.2.2 Page Description Language (PDL) transfer units will only be used to update volatile (changeable) legacy data using a commercial word processing format. **NOTE:** The preferred AF PDL is an Adobe™ Portable Document Format (PDF) file indexed in accordance with the AF Digital Data Strategy (*http://www.pdsm.wpafb.af.mil/datamgt/data_mgt.htm*).
4.2.3 Standard AF DTDs (appended to the prescribed TM specifications) shall be used, when possible. The PUBLIC identifier shall be identified in the SGML document transfer unit. If no DTD is appended to the relevant MILSPEC, contact MSG/ILMP, through the Procuring/Administrative Contracting Officer (PCO/ACO) and the TO Management Agency, to obtain permission to develop a program-specific DTD.
4.2.3b Document type declaration files are not required if the file is in standard AF DTD format and the document type is obvious upon file inspection.
4.2.3d SGML text entity files developed as a result of AF DTD modification shall be included. PUBLIC SGML text entity files shall NOT be used.
4.2.3e Each illustration in the file shall be delivered in one of the following formats: IGES, Raster, or CGM. All formats may be used within any one document, depending upon the various types of illustrations used. **Note:** This is not intended to prevent delivery of an "intelligent raster" illustration, i.e., one with an IGES overlay to facilitate changes to the raster image.
4.2.3f Standard AF FOSIs (available electronically as GFI from the AF TMSS OPR) shall be used, when possible, for paper output products. The PUBLIC identifier shall be identified in the SGML document transfer unit. If no FOSI is available for the relevant MILSPEC, or for digitally-displayed data, contact MSG/ILMP, through PCO/ACO and the TO Manager, to obtain permission to develop a program-specific FOSI.
4.2.3g Special word files shall not be used; if changes to AF DTDs or FOSIs are required and authorized, the contractor shall submit a revised DTD or FOSI.
4.2.3h Contract defined data files shall be included in the transfer unit if quantities and capacities deviate from MIL-PRF-28001 (see paragraph 4.4.9).
4.2.4 Product data transfer units will only be used for engineering data files.
4.2.5 Delete.

4.4.1 Page image data files shall be in accordance with MIL-PRF-28002 for raster image files (see SIR paragraph 4.2.1 and the NOTE for paragraph 4.2.3e).
4.4.2 Special word files shall not be used.
4.4.5 Replace the 1st sentence with: Text source data files shall be SGML encoded ASCII text files, tagged in accordance with the standard AF DTDs (see paragraph 4.2.3).
4.4.6 Delete.
4.4.7 When there are multiple uses for the same illustration within a single document, submit only one illustration data file.
4.4.7.1 IGES Class I, Technical Illustration Subset, will normally be used in preference to Class II or Class III (see SIR for MIL-PRF-28000).
4.4.7.2 The contractor shall obtain government approval before including raster illustration data files, except in page image transfer units provided in raster format only.
4.4.8 Change to read: "FOSI data files shall be in accordance with standard AF FOSIs and shall define the style and display format of the document according to the applicable specification (see paragraph 4.2.3f)."
4.4.9 Replace with: "Contract defined data files. This file shall be used to provide the appropriate SGML declaration [Federal Information Processing Standard (FIPS) 152]. The file shall be submitted in ASCII."
4.4.10 through 4.4.12 Delete.
4.4.13 Renumber as 4.4.7.4. Replace requirements with: "Use of half-tone or color illustrations shall be as specified in the applicable TM specification."
5.3.2g Replace with: "DTD Revisions. A DTD revision shall be included any time the standard AF DTD must be modified. Prior MSG/ILMP approval for the modification is required."
5.4.2 The type of alternative medium shall be specified by the government.
5.5.3 Packaging instructions for alternative media shall be provided by the government.
6.3 Tailoring Guidance. *The following list of paragraphs may require additional tailoring: 4.2, 4.2.4b (if used), 4.4.3 (if used), 4.4.4, 4.4.11 (if used), 5.3.2 (if types not listed are required), 5.4 (transfer package layout on medium), 5.4.2 (specify media if not 9-track tape), and 5.5.3 (if non-listed computer media are specified). The TO acquisition manager must coordinate tailoring with the sustainment TO manager and the contractor to ensure requirements are realistic and supportable. DELETE this italicized paragraph during tailoring.*

STANDARDIZATION INTERFACE RECORD FOR MIL-PRF-28000A, 10 February 1992
Digital Representation for Communication of Product Data:
IGES Application Subsets and IGES Application Protocols

NOTES:
- Program-specific tailoring of para 6.2 must be added to this SIR.
- Submit each illustration in only one of the three approved graphics formats (IGES, Raster, or CGM).

6.2c. The type of product data procured will be Class I - Technical Illustration Subset. If Class II or Class III products are being procured for other program purposes (such as engineering drawings), and these products are suitable for TO application, they shall be used instead of duplicating data merely to obtain the Class I product.

STANDARDIZATION INTERFACE RECORD FOR MIL-PRF-28001B, 26 June 1993
Markup Requirements and Generic Style Specification for
Electronic Printed Output and Exchange of Text

NOTE: Used for Air Force TOs as a reference only. Contact MSG/ILMP if new DTDs are required.

STANDARDIZATION INTERFACE RECORD FOR MIL-PRF-28002B, 14 December 1992

Raster Graphics Representation in Binary Format, Requirements for

NOTES:

- Program-specific tailoring of (para 6.2) must be added to this SIR.
- Submit each illustration in only one of the three approved graphics formats (IGES, Raster, or CGM).
- Paragraph 6.2.1b is not answered in the TMCR.

1.2 (Info only) Type II, Tiled Raster Graphics (the optional choice) are compressed and require less memory space than Type I (Untiled).

STANDARDIZATION INTERFACE RECORD FOR MIL-PRF-28003A, 15 November 1991
Amendment 1, 10 August 1992

Digital Representation for Communication of Illustration Data: CGM Application Profile

NOTES:

- Submit each illustration in only one of the three approved graphics formats (IGES, Raster, or CGM).
- Paragraph 6.2b is not answered by the TMCR.

6.2b. Unless otherwise required by the content specification, only the Type 0 (monochrome) metafile shall be used.
6.2c. *(Tailor)*

STANDARDIZATION INTERFACE RECORD FOR MIL-DTL-22202D, 31 March 1999

Manual, Technical, Aircraft Cross-Servicing Guide, Preparation of

The requirements of 6.2 are met in this SIR (see below).

1.1 In addition to paper delivery, when this specification is used to develop digital delivery files (document type definitions – DTDs) contact the PA for additional instructions.

2.3 Ensure the listing for STANAG/ASCC Air Standard Documents is current. List applicable STANAG/ASCC Air Standards below.
(List STANAG/ASCC Air Standard Documents here.)

2.2.1 (Added) "Other government documents, drawings, and publications.

DEPARTMENT OF DEFENSE

DOD 5200.1-R	DoD Information Security Program Regulation
DOD 5220.22-M	National Industrial Security Program Operating Manual

4. Replace with: **"VERIFICATION.**

"All cross-servicing guides shall meet the requirements of sections 3 and 5 of this specification, as required by the acquiring activity. The requirements set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any requirements in this specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the government for acceptance comply with all requirements of the contract. Use of sampling inspections shall be at the discretion of the contractor, and in accordance with commercially acceptable quality assurance procedures. However, use of sampling in QA procedures does not authorize submission of known defective material, either indicated or actual, nor does it commit the government to accept defective material."

5. Replace with: "**PACKAGING.**

"5.1 Packaging Requirements. For acquisition purposes, the packaging requirements shall be as specified in the contract or order. When the actual packaging of material is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to determine packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department's System Command. Packaging data retrieval is available from the Military Department's or Defense Agency's automated packaging files, CD-ROM products, or the responsible packaging activity.

"5.1.1 Encoded Computer Products. Packaging of encoded computer products for delivery shall be in accordance with the requirements of MIL-STD-1840.

"5.1.2 Classified Material. Classified material shall be packaged and identified in accordance with DOD 5200.1-R, DOD 5220.22-M, and the implementing Service regulations."

6.2a Title, number, and date of the specification are listed above.
6.2b Issue of DODISS: (*fill in issue of DODISS applicable to this contract*)
6.2c Packaging requirements (see above).
6.2d Verification requirements (see above).

STANDARDIZATION INTERFACE RECORD FOR MIL-STD-38784, 2 July 1995
Standard Practice for Manuals, Technical:
General Style and Format Requirements

4.5.1.13 Destruction Notice. Change the existing sentence to read: "...or X shall be marked with Handling and Destruction Notice "a" (below) on the cover/title..." Add a new second sentence as follows: "Unclassified TOs authorized for Public Release (Distribution Statement "A") shall be marked with disposition notice "b" (below) on the title or T-2 page."

4.5.1.13.a. Designate existing paragraph as "a. HANDLING AND DESTRUCTION NOTICE..."
Add: "See TO 00-5-2 for specific destruction procedures."

4.5.1.13.b (Added) b. DISPOSITION NOTICE - Refer to TO 00-5-2 for disposition instructions.

Time Compliance Technical Orders – Preparation

3.5.5.3a (Added) Add new subpara "a" as follows:

a. Routine Safety Inspection Organizational/Intermediate Level TCTOs. "Not later than (#) days after receipt of this TCTO. Affected system/ equipment shall be removed from service if this TCTO is not accomplished within the specified number of days." The specified number of days for accomplishment shall be controlled by the degree of safety involved rather than the designated level of maintenance. *If the compliance period cannot be met before the TCTO rescission date, the performing organization will request an extended compliance period according to TO 00-5-15.*

3.5.5.3 Renumber existing paragraphs "a" thru "d" and retitle as follows:

b. Routine Action, Organizational/Intermediate Level, Safety TCTO.
c. Routine Action, Organizational/Intermediate Level TCTO.
d. Routine Action, Organizational/Intermediate Level, Based Upon Maintenance Practice.
e. Routine Action, Depot Level.