

TECHNICAL PUBLICATIONS AND
TECHNICAL REPAIR STANDARDS (TRS)
(FOR GENERAL MATERIAL)
DDG-1000 ZUMWALT CLASS

SPECIFICATION 086-01 CHANGE PAGE
DESCRIPTION OF CHANGE

REV	DESCRIPTION OF CHANGE	DATE
-	Initial Issue	28 April 2006

PREPARATION INSTRUCTIONS

1.0 Change shown on page 2 provided under this procurement that shall be prepared and submitted in accordance with the applicable requirement(s) specified herein. The SELLER shall deliver to the BUYER the below listed technical publications/TRS deliverables as required herein.

<u>ITEM</u>	<u>REQUIRED DELIVERY DATE</u>
1. Technical Data Development Plan (TDDP)	NLT 180 days after Purchase Order (PO) Award
2. 50% In-Process Review copy (Category 1 Technical Publications, System Publications, and TRS only)	Upon completion of four Equipment Technical Publications/Technical Repair Standard (TRS) chapters, and five System Publications chapters
3. 50% IPR Notification	NLT 50 days before material is ready for review
4. Validation Notification	NLT 50 days before planned validation effort.
5. Review Draft Copy (RDC) Publications/TRS	In accordance with the approved TDDP
6. Standard (Final) Technical Publications/TRS	NLT 60 days after approval of the RDC Technical Publications/TRS
7. Standard Generic Mark-up Language/Extendible Markup Language (SGML/XML) Text and Tabular Technical Publications/TRS Source Data Files.	NLT 60 days after approval of RDC
8. Technical Publications Illustrations in MIL-R-28002A, CCITT Group 4 Raster Tiff File Format and dwg or dxf format.	NLT 60 days after approval of RDC Technical publications/TRS
9. Interactive Electronic Technical Manuals (IETMs)	In accordance with the approved TDDP

2.0 GENERAL REQUIREMENTS

Technical publications shall be supplied in accordance with this Data Item Description (DID) when the requirement for technical publications is invoked in the equipment/system purchase technical specification. DDX technical publications requirements may be fulfilled utilizing existing Government or commercial publications conforming to requirements specified herein or by developing new technical publications in accordance with this DID. If equipment to be supplied is identical, or nearly identical to equipment supplied under a previous Government contract and is supported by a previously approved Government technical publication, the SELLER shall propose the publication “AS IS” or with change pages incorporating the actual equipment configuration, as applicable. (Change pages to existing publications must be limited to 25-percent of total publications pages – excluding front matter, editorials, etc.). Additionally, commercial publications meeting the requirements of MIL-DTL-24784B(SH) may be proposed for commissary equipment, medical equipment, etc. as indicated in paragraph 10.3 (Publications Categories). If new or update revision technical publications must be developed and are proposed to support equipment being introduced into the Navy inventory for the first time by this contract and is determined to require a Class “B” overhaul in accordance with MIL-DTL-24784B(SH), then a new TRS must also be proposed, developed, and provided as specified herein.

- 2.1 It is not the intent of this Data Item Description to require equipment suppliers to develop new technical publications when a commercial publications containing adequate Installation, Operation, Maintenance, and Repair information(including parts list) meeting requirements of MIL-DTL-24784B(SH) already exists.
- 2.2 For technical publications deliverables specified in this Data Item Description, the final new technical publications, or revision (as applicable) shall be delivered as a complete Standard Generic Markup Language (SGML) or Extendible Markup Language (XML) text and tabular data source file marked in accordance with MIL-M-28001B.
- 2.3 The SGML/XML target for new publications shall conform to the MIL-M-38784, Appendix B DTD. Update revisions that conform to NAVSEAC2.DTD Document Type Declaration set defined in Appendix B, Section 30, of MIL-M-28001B are acceptable. Associated technical publications illustrations shall be provided in MIL-R-28002B CCITT Group 4 Raster tiff, and dxf or dwg file format. The SGML/XML source file and illustration files shall be delivered with the final technical publications, or revision product in accordance with MIL-STD-1840B.
- 2.4 Costs for providing final technical publications SGML/XML source file and illustration files shall be provided as a separately identified part of the SELLER’s quotation.

3.0 PUBLICATIONS CATEGORIES

DDX technical publications consist of four categories as follows:

Category 1 – System Publications, new or revised Equipment Publications ,TRSs, and General Information Publications

Category 2 – Existing Government Publications other than NAVSEA publications.

Category 3 – Commercial Publications

Category 4 – Existing NAVSEA Publications

The SELLER shall propose the use of applicable Category 1, 2, 3 or 4 technical publications in the TDDP (see Paragraph 10.4) and response to the RFQ, but the TDDP must be approved by the Navy before commencement of technical publications development. Category 1, 2, 3, and 4 technical publications are further defined as follows:

3.1 Category 1 – Category 1 technical publications are system and equipment publications developed in accordance with MIL-DTL-24784(SH). Systems and equipment publications approved by the Navy for development as Category 1 publications will be in support of the following:

- New design or modified equipment
- Equipment not supported by existing Government or commercial publications or supported by inadequate Government/commercial publications
- Equipment supported by Government publications requiring extensive revision in lieu of a change

The SELLER shall determine whether Government or commercial publications exist to support equipment being procured and shall make initial determination regarding adequacy and extent of a change or revision required. (The BUYER will provide assistance upon request.) If no publications exist to support equipment, new publications must be developed in accordance with the DDX Technical Data Style Guide, MIL-DTL-24784B(SH) and the approved TDDP. If existing publications are determined by the BUYER to be inadequate or are subsequently determined by the Navy to be inadequate, new or revised publications shall be developed in accordance with the content requirements of MIL-DTL-24784B(SH), DDX Technical Data Style Guide and the approved TDDP. If existing publications are adequate but require change pages in excess of 25% of the total publication pages, a new or revised publication shall be developed in accordance with the DDX Technical Data Style Guide, MIL-DTL-24784B(SH) and the approved TDDP. If an existing publication that requires an update rev is SGML or XML coded in accordance with NAVSEAC2.DTD, the SELLER may use a copy of the existing NAVSEAC2 DTD Source Files in preparation of the update revision.

New technical publications for power Switchboards shall be prepared in accordance with the DDX Technical Data Style Guide, MIL-DTL-24784B(SH), and the approved TDDP. The publications shall be divided into three volumes that include coverage of switchboards as follows:

- Volume 1 Switchboards, Medium Voltage
- Volume 2 Alternating Current (AC) Load Centers
- Volume 3 Direct Current (DC) Load Centers

HM&E (Hull, Mechanical and Electrical) and E&IC (Electrical & Interior Communications) Technical Repair Standard publications shall be developed for all Contractor furnished equipment (CFE) introduced into the Navy inventory for the first time under this procurement that is determined to require a Class “B” overhaul. Development shall be in accordance with the requirements herein, MIL-DTL-24784B(SH), DDX Technical Data Style Guide as applicable, and the approved TRS TDDP.

3.2 Category 2 – Category 2 publications are existing Government other than NAVSEA publications (e.g., NAVAIR publications, U.S. Army Publications, etc). SELLER’s who propose to satisfy the DDX technical publications requirements with existing Category 2 publications shall submit one copy of the publications with their TDDP for review by the BUYER and the Navy. The SELLER shall certify applicability of the publications to equipment being supplied for the DDX program in accordance with the DDX Technical Data Style Guide. If changes are necessary to reflect the configuration being procured, RDC change pages shall be developed in accordance with DDX Technical Data Style Guide, and approved TDDP and shall be submitted independent of the basic publications submitted and concurrent with the TDDP for approval. If required changes are so extensive that a revision in lieu of a change is required, the SELLER shall develop a new or revised Category 1 publications per MIL-DTL-24784B(SH), the DDX Technical Data Style Guide and the approved TDDP.

- 3.3 Category 3 – Category 3 technical publications are commercial off-the-shelf publications (COTS) proposed by the SELLER in TDDPs. Concurrently, with submittal of TDDPs proposing use of commercial publications, the Seller shall submit one copy of the commercial publications for review by the Navy, and shall certify applicability of the publications to the equipment being procured for DDX. Commercial publications meeting requirements of MIL-DTL-24784B(SH), and the DDX Technical Data Style Guide may be accepted for simple equipment easily within the repair capability of the ship's force. Other commercial publications meeting requirements of MIL-DTL-24784B(SH), the DDX Technical Data Style Guide may be acceptable for single assembly equipment covered by a single publication. For equipment consisting of more than one assembly (e.g., a diesel engine with starting motor and supercharger), a compilation of integrated manufacturer's brochures, publications, and specifications is not acceptable and a new Category 1 publications must be developed in accordance with MIL-DTL-24784B(SH), DDX Technical Data Style Guide and the approved TDDP. If changes are necessary to reflect the configuration being procured, supplements to the publications shall be developed in accordance with MIL-DTL-24784B(SH), DDX Technical Data Style Guide, and the approved TDDP and shall be submitted independent of the basic commercial publications concurrently with the TDDP for approval.
- 3.4 Category 4 – Category 4 publications are existing NAVSEA publications proposed by the SELLER in TDDPs as specified in the DDX Technical Data Style Guide and requirements of MIL-DTL-24784B(SH). Concurrently with submittal of TDDPs proposing Category 4 publications, the SELLER shall certify applicability and submit one copy of the publications. If changes are necessary to reflect the configuration being procured, permanent change pages shall also be developed by the SELLER in accordance with DDX Technical Data Style Guide, MIL-DTL-24784B(SH), and the approved TDDP.

4.0 TECHNICAL DATA DEVELOPMENT PLAN (TDDP)

The TDDP shall be submitted no later than one hundred eighty (180) days after purchase order award, equipment SELLER shall provide a TDDP for approval. Auxiliary equipment SELLERS whose equipment will utilize BUYER furnished motors and/or controllers shall include in their development plan the procedures for incorporating the motor and controller data into their technical publications. A form for preparing the TDDP is provided at the end of this DID. (Use additional sheets and reference applicable Block Numbers as required). All TDDP Blocks shall be completed by the SELLER. If a Block is not applicable to the technical publications, the words "Not Applicable" shall be specified in the affected TDDP Block. TDDPs shall include, but not be limited to the following information.

- Block 1 Title of Publications/TRS (proposed if new/actual if existing)
- Block 2 Category of Publications
- Block 3 System/Equipment noun name, type, model, part number
- Block 4 Security Classification
- Block 5 Manufacturer's name and Commercial and Government entity (CAGE)
- Block 6 Allowance Parts List (APL) number (if known)
- Block 7 Navy Technical Publications Identification Number (TMIN) if assigned
- Block 8 Applicable DDX Technical Data Style Guide
- Block 9 Name of Activity preparing publications/revision/change/supplement/TRS
- Block 10 Proposed scope and justification of publications. Examples of proposed scope and Justification include:
 - (1) SELLER proposes preparation of a new MIL-DTL-24784B(SH) Category 1 Publications and new MIL-DTL-24784B(SH) TRS (separate TDDP to be prepared and submitted for each TRS).
 - (2) SELLER proposes to furnish an existing Category 2 Government publications with no change required or with changes listed in 4.
 - (3) SELLER proposes to furnish an existing Category 3 commercial publications with no supplements required or supplemented as indicated in Block 14.
 - (4) SELLER proposes to furnish an existing NAVSEA Category 4 publications with no changes required or with changes as indicated in Block 14.
- Block 11 Proposed specifications, standards and guides to be invoked.
- Block 12 Proposed schedule and development milestones (not required for previously approved, validated publications requiring no changes). Include the following information as applicable:
 - (1) Proposed Start Date (days after approved of Technical Data Development Plan for changes and revisions and new MIL-DTL-24784B(SH) Category 1 publications).
 - (2) Narrative Outline/Book Plan Submittal.
 - (3) Validation Plan and Schedule expressed in "days after approval of Development Plan". Validation Plan requirements are provided in paragraph 10.8.1

(4) Schedule dates for in-process review at preparer's facility at approximately 50% completion. As explained in Paragraph 10.5, the buyer may request submittal of a draft of prepared material in lieu of an in-process review at the preparer's facility in some instances. In-process review schedule dates shall be expressed in "days after approval of Technical Data Development Plan".

(5) Review Draft Copy (RDC) Submittal

(6) Final submittal of Final Reproducible Copy (FRC) and SGML/XML data source files.

- Block 13 Proposed deviations from applicable DDX Technical Data Style Guide.
- Block 14 Proposed changes/revision/supplements (if any) and extent of changes/revisions/supplements including illustrations. (Indicate "Not Applicable" for Category 1 publications).
- Block 15 Rights in Data – (the SELLER shall include the statement: "The Government has the right to reproduce proposed document in full or in part". Deliverables must be modifiable, not password protected, encrypted or set as read-only..
- Block 16 SELLER provides 1 copy of existing Government technical publications.
- Block 17 Validation Plan in accordance with Paragraph of 10.8.1
- Block 18 Certification of applicability to DDX equipment. (Required for Category 2, 3, and 4 publications). SELLER shall indicate that the publications proposed in this development plan is applicable to equipment to be installed onboard DDX (with or without changes, supplements, or revisions as applicable).
- Block 19 Status of any past or present effort to produce identical or nearly identical publications, commercial publications or publications produced under another Government contract.
- Block 20 Technical publications deficiency/evaluation report (TMDER) (if known) against proposed document.
- Block 21 Advance Change Notices outstanding against proposed document (if known).
- Block 22 Technical Publications Supplemental Pricing Information shall be provided for each new/revised/changed technical publications, TRS and system publications. Detailed Pricing information shall be delineated in the technical Publications Supplemental Pricing Information form (Figure 1 of this DID), and submitted with the DDP. Block 22 of the TDDP shall state "Pricing is provided in the attached Technical Publications Supplemental pricing Information Form." The total price from the form shall also be stated in Block 22 of the TDDP.

5.0 50% IN-PROCESS REVIEWS (IPRs)

50% IPRs will be convened for Category 1 technical publications, system publications, TRSs, and General Information Publications to provide for coordinated monitoring of technical publications/TRS preparation by the SELLER and the BUYER. The Government may be present at their discretion. The SELLER will support IPRs and provide access to technical publications/TRS materials, intermediate, and final products. The IPRs will include evaluation of:

- a. Source data
- b. TP plans
- c. Presentation methods
- d. DDX Technical Data Style Guide/TDDP/SDRL compliance
- e. Mode of preparation
- f. Maintenance concepts and LSA agreement
- g. Design data
- h. Problem areas
- i. Complete documentation (text and artwork) formal and technical content

IPRs will be held at the SELLER's or the BUYER's facility per the BUYER's description. The SELLER will submit an IPR schedule to the BUYER that includes schedule dates in the TDDP for 50% IPRs. The SELLER will notify the BUYER fifty (50) days before material is available for review to confirm IPR dates. The BUYER will in turn notify SUPSHIPS forty-five (45) days before material is available for review, to allow Navy participation. The 50% IPR draft copy is defined as the completion of four chapters of the Technical Publications (TP) and/or TRS. Chapters 2,4,5, and 6 are required to be completed before the IPR is conducted. For System Publications, 50% IPR draft copy is defined as the completion of five chapters of the publication. Chapters 2,4,5,6, and 7 are required to be completed before the IPR is conducted

50% IPR draft copy text may be handwritten, typed, or a combination of both, provided the draft copy is legible. Art may be rough hand drawn or smooth provided it is legible. Two copies of this draft material are to be furnished to the BUYER for the IPR. In some instances, the BUYER may request submittal of draft copies of this prepared material in lieu of an IPR at the preparer's facility.

50% IPRs will provide SELLER and BUYER interaction during the period of early publications development and completion of the RDC technical publications/TRS. IPRs are intended to allow integration of technical publications/TRS into the LSA process to identify and correct problems while the technical publications/TRS is in work, and minimize changes to the RDC technical publications/TRS.

6.0 REVIEW DRAFT COPY (RDC) TECHNICAL PUBLICATIONS/TECHNICAL REPAIR STANDARDS

6.1 The following publications shown below are required to prepare RDC and Standard (Final) Technical Publications/TRS for DDX equipment/systems.

MIL-DTL-24784BSH (15 February 2002)	Publications, Technical: General Acquisition and Development Requirements
MIL-STD-1840B (03 November 1992)	Automated Interchange of Technical Information
MIL-M-28001B (26 June 1993)	Mark-up Requirements and Generic Style Specification for Electronic Printed Output and Exchange of Text
MIL-R-28002B (30 September 1993)	Requirements for Raster Graphics Representation in Binary Format
MIL-M-38784C	Publications, Technical; General Style and Format Requirements
MIL-HDBK-511	Interoperability of Interactive Electronic Technical Publications (IETM)

DDX Technical Data Style Guide

6.2 General Preparation of the 50% IPR and Review Draft Copy (RDC). Publications shall be prepared in accordance with the requirements of MIL-DTL-24784B(SH) and DDX Technical Data Style Guides except as authorized otherwise in approved TDDPs. TRSs shall be prepared in accordance with MIL-DTL-24784 (SH) and DDX Technical Data Style Guide except as authorized otherwise in approved TDDPs.

Publications, change pages and supplements shall be prepared in accordance with MIL-DTL-24784B(SH), and the DDX Technical Data Style Guide, with the exception/clarifications in the following paragraphs. Format of change pages and supplements shall be consistent with the existing publications format.

Standard page size shall be 8-1/2 x 11 inches. Text shall be prepared single-column, single-spaced. Illustrations, drawings and tables shall be final size, complete with titles and figure or table number.

For single volume technical publications, requirements of MIL-DTL-24784B(SH) to include subtitles are waived.

Front Matter for technical publications, system publications and TRSs shall be prepared in accordance with MIL-DTL-24784B(SH) and the DDX Technical Data Style Guide, and shall include the following in the order provided.

- a. Cover
- b. Title page
- c. Warning page (if applicable)
- d. List of Effective pages
- e. Change record
- f. A&PR page (Approval and Procurement Record Page)
- g. Validation Certification (Form NAVSEA 4160/3 [4-99])
- h. Foreword
- i. Table of Contents
- j. List of illustrations
- k. List of tables
- l. List of symbols (if applicable)
- m. Safety Summary

The front cover and title page shall include the words “REVIEW DRAFT COPY”. The front cover and title page for TRS shall be in accordance with MIL-DTL-24784B(SH) and the DDX Technical Data Style Guide.

6.2.1 The foreword shall be printed on the next right-hand page following the Validation Certificate. It shall briefly describe scope of the technical publications. It shall indicate the structure of the technical publications by containing a list of the numerical designations and titles for all chapters. The foreword shall be printed in single column format. If it requires only one page of printing, its page designation shall be “Foreword-1/(Foreword-2 blank)” to indicate back side of the sheet is blank. If more than one page is required, the successive pages shall be designated “Foreword-2”, “Foreword-3/Foreword-4 blank)”, etc., as necessary.

The foreword shall contain the following statement: “Ships, training activities, supply points, depots, naval shipyards, and Supervisors of Shipbuilding are requested to arrange for the maximum practical use and evaluation of NAVSEA technical publications. All errors, omissions, discrepancies, and suggestions for improvement to NAVSEA technical publications shall be reported to the Naval Sea Data Support Activity (NSDSA), Naval Ship Weapon Systems Engineering Station (Code 5H20), Port Hueneme, CA 93043-5007 on NAVSEA Technical Publications Deficiency/Evaluation Report, Form NAVSEA 4160/1 facilitate such reporting, three (3) copies of Form NAVSEA 4160/1 are included at the end of the of each newly published unclassified technical publications. All feedback comments shall be thoroughly investigated and originators will be advised of action resulting therefrom. Extra copies of form NAVSEA 4160/1 may be requisitioned from the Naval Publications and Forms Center (NPFC), Philadelphia, PA 19120.”

A list of non-standard symbols used in preparation of the publications shall follow directly after the list of tables And shall start on the pages containing the end of the list of tables or on the next page, whichever is appropriate.

Page designations for the table of contents, list of illustrations, list of tables, list of symbols, and safety summary shall be numbered sequentially starting with lower case Roman numeral “i”.

Unclassified publications prepared for the Government shall have on the title page and cover page the following Distribution Statement:

DISTRIBUTION STATEMENT C

DISTRIBUTION AUTHORIZED TO U.S. GOVERNMENT AGENCIES AND THEIR CONTRACTORS. THIS PUBLICATION IS REQUIRED FOR ADMINISTRATION AND OPERATIONAL PURPOSES, AS DETERMINED (DATE OF PUBLICATION). OTHER REQUESTS FOR THIS DOCUMENT WILL BE REFERRED TO: COMMANDING OFFICER, NAVAL SHIP WEAPONS SYTEMS ENGINEERING STATION, ATTN: CODE 5H20, PORT HUENEME, CA 93043.

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Published by direction of Commander, Naval Sea Systems Command

6.2.2 Narrative Text. The text shall be single-column, single spaced, with 10-point minimum type size and unjustified right-hand margin. Justified margins may be provided if there is no additional cost to the Government. Each chapter shall start on a right-hand page. Identity numbers, nomenclature, and reference designations appearing throughout the text shall be the same as those appearing on Government approved documents. Paragraph and page designations shall be dual Arabic numbers, such as 1-1, 2-4, whereby the number preceding the hyphen indicates chapter and the number following the hyphen indicates the paragraph or page within the chapter. When the back side of a page is blank, the page designation shall be doubled, such as “2-15/(2-16 blank)” to indicate the condition. Right hand pages shall have odd numbered designations. The TRS shall be prepared in accordance with MIL-DTL-24784B(SH) and DDX Technical Data Style Guide.

Unless otherwise specified herein, SELLER furnished technical publications shall meet the general style and format requirements of MIL-DTL-24784B(SH), and the DDX Technical Data Style Guide. Appendices shall not be permitted. The level of coverage and complexity of technical descriptions for newly-developed technical publications, changes, revisions, and supplements to existing publications shall be composed and edited to the level of understanding of a Third Class Petty Officer having specialized training and/or previous experience in the operation and maintenance of similar or related equipment, and an approximate ninth (9th) grade reading level.

Requirements of MIL-DTL-24784B(SH) pertaining to bracketed blanks for future microfiche reference, are waived.

6.2.3 Technical Content. Technical content of Technical publications, System publications and TRSs shall be developed in accordance with MIL-DTL-24784B(SH) and the DDX Technical Data Style Guide.

6.2.4 Planned Maintenance System (PMS) Documentation. The scheduled maintenance instructions of DDX technical publications are not intended to duplicate those furnished in the Planned Maintenance System (PMS). Reproduction of Maintenance Requirement Card (MRC) documents in accordance with MIL-DTL-24784B(SH) are not to be included for the user where PMS procedures either exist or apply. Existing publications will not be revised to include or to exclude new PMS requirements resulting from Reliability Centered Maintenance (RCM) analysis. New publications will include scheduled maintenance tasks and procedures and the following modifications of the statement required by MIL-DTL-24784B(SH). “The scheduled maintenance instructions in these publications are not intended to duplicate those furnished in the Planned Maintenance System (PMS). Maintenance procedures in this publications are intended for use where PMS procedures do not exist or do not apply. Shipboard users of this publications will disregard these procedures and perform maintenance in accordance with installed PMS.”

6.2.5 Illustrations. Each illustration shall follow as closely as possible its first reference in the narrative text. However, when an illustration is extensive and requires a foldout sheet, such as for a large schematic diagram, it shall be located at the end of a chapter. All illustrations shall have a figure designation and title. Figure designations shall be dual Arabic numbers, such as 5-12, whereby the first number indicates chapter and the number following the hyphen indicated illustrations within the chapter. Foldouts shall be located at the end of their relative chapter and paginated sequentially with the text using double numbers to account for the blank back (e.g., 1-5 (1-6 blank)). Line art, including schematic wiring diagrams and block diagrams, shall be sufficient darkness and sharpness of line to reproduce clearly as required reproduction size without additional treatment.

Identity numbers, nomenclature, and reference designations appearing on the illustrations shall be the same as those appearing on Government approved documents. Nomenclature, callouts, tabular material, and symbols on illustrations shall be final size (no larger than 10 pt. type and no smaller than 8 pt. type) and prepared as follows:

- Maximum size foldouts shall be 11 x 45 inches with 10 x 42½ inches printable area, including aprons, running heads, figure numbers, and pagination. Foldouts shall be reproduced on one side only and shall appear on right-hand pages.
- Aprons (9-inch) shall be provided on the binding edge of all foldouts.
- Fold-up sheets and fold-up/foldout sheets are not permitted.
- Halftone artwork shall not be used without prior approval.
- Figure numbers and titles for 8-1/2” x 11 art shall be placed at the bottom of the page. Figure numbers and titles shall not be placed on the page so as to be hidden in the binding edge of the technical publications.
- All fold-outs shall be prepared as follows:
 - a. The foldout shall be divided into 8-1/2 inch image area segments.
 - b. There shall be not drawing data, other than horizontal lines, placed closer than 1/8-inch from the image area limit.
 - c. Lines shall not be vertically displaced during the transition from one image area to the next.

7.0 TECHNICAL PUBLICATIONS VALIDATION

Validation of RDC Category 1 new and revised publications (including general information publications), new TRS, Category 2 and 4 change pages, and Category 3 commercial publications and supplements shall be performed in accordance with MIL-DTL-24784B(SH), DDX Technical Data Style Guide, and the approved TDDP validation plan to assure accuracy and adequacy of format and technical content. The Validation Certificate shall be prepared in accordance with NAVSEA Form 4160/3. Completion and submittal of the Validation Certificate report shall be considered an essential element of the final technical publications review.

Validation is required for all publications, changes and supplements, including commercial publications or previously approved publications not previously validated. Existing Government (Category 2 and 4) publications not bearing certificates of prior validation shall be identified in the TDDP. The BUYER shall be notified no later than 50 days prior to any scheduled validations to allow for BUYER/Navy participation, if desired.

7.1 VALIDATION PLAN

A Validation Plan shall be prepared by the SELLER, for all new, changed and revised equipment technical publications, TRSs, and system publications, and shall be submitted to the BUYER for review and approval. The validation plan shall outline the SELLER's recommended validation procedure and indicate the scope of the validation effort. The plan shall reflect the requirements of the DDX Technical Data Style Guide and the following elements:

- a. The validation method shall assure the development of complete and accurate publications. The SELLER's method of validation shall permit the performance of tasks in an environment that closely duplicates service conditions.
- b. The planned effort shall be so scheduled to comply with TDDP milestone dates, and so allow for validation completion prior to delivery of the RDC. The BUYER shall be notified no later than 50 days prior to any scheduled validations to allow for BUYER/Navy participation, if desired.
- c. Identity of the preparing organization responsible for the validation effort.
- d. Identity of the validation site location, support equipment, facilities, and other equipment required to perform the validation effort.
- e. Identify a record keeping system that will be established, and that will fully document the validation and any resultant corrective action.
- f. Procedures for updating the plan to support any revised schedules.
- g. Include recommendations for simultaneous Navy verification.

The SELLER shall submit the plan for BUYER/Government approval as part of the Technical Data Development Plan (TDDP). Block 12(3) or the TDDP identifies validation plan and schedule. TDDP Block 17 identifies the validation plan. Previous paragraph 10.4 of this DID specifies TDDP validation information requirements. The validation plan may be provided as an attachment to the SELLER's TDDP submission, and TDDP Block 17 shall state that the plan is attached. If the SELLER intends to provide a separate validation plan, TDDP Block 12 shall provide the scheduled plan submittal and validation performance dates. The plan shall then be submitted for BUYER/Government approval in accordance with the schedule date stated in the TDDP.

8.0 STANDARD (FINAL) TECHNICAL PUBLICATIONS

Final publications, change pages and supplements shall be submitted for all categories of technical publications. Final publications shall incorporate all Buyer and Navy RDC comments, all 50% IPR comments, and all validation and Navy verification comments (as applicable) and shall be prepared in accordance with MIL-DTL-24784B(SH), DDX Technical Data Style Guide, and the following paragraphs.

- General Preparation. The FRC copy shall be prepared in accordance with MIL-DTL-24784B(SH) and the DDX Technical Data Style Guide with the following exceptions/clarifications:

- Standard page size shall be 8-1/2 x 11 inches and not exceed the following dimensions:

	<u>Inches</u>	<u>Picas</u>
Width (text/art)	7	42
Depth (text/art)	9	54
Depth (including marginal copy)	10	60

- Front Matter shall be in accordance with Paragraph 10.7.2 of this Data Item Description except that the front cover and title page shall not include the words “REVIEW DRAFT COPY”.
- Narrative text shall be in accordance with Paragraph 10.7.2.2 of this Data Item Description.
- Three copies of Technical Publications Deficiency/Evaluation Report (TMDER), form 4160/1 (Rev 4-99) shall be included at the back of each publication.
- Illustrations shall be in accordance with Paragraph 10.7.2.5 of this Data Item Description.
- Auxiliary equipment Suppliers shall ensure that the entire publications, including data obtained from sub-component Vendors meets the camera-ready requirements.

9.0 STANDARD (FINAL) TECHNICAL PUBLICATIONS/TRS DELIVERY

Delivery of Standard (Final) Technical Publications/TRSs shall be within 60 days after approval of the RDC publications, including changes and supplements, and shall consist of the following:

Category 1 – New/Revised Publications/TRSs – One complete final reproducible copy including all contents specified in these Preparation Instructions and one complete text/tabular SGML or XML source data file and all illustration Group 4 tiff files in accordance with Paragraphs 10.2.2 through 10.2.4 , 10.3, and 10.13 of this DID.

Category 2 and Category 4 Publications – One complete final reproducible copy, including all contents specified in the Preparation Instructions of required permanent changes, and one complete permanent change text/tabular SGML or XML source data file and all changed illustration Group 4 tiff files in accordance with Paragraphs 10.2.2 through 10.2.4 , 10.3, and 10.13 of this DID.

Category 3 – New/Commercial Publications – For all authorized new commercial publications, one complete final reproducible copy, including all contents specified in these Preparation Instructions of required permanent changes, and one complete text/tabular SGML or XML Source data file and all Group 4 tiff files in accordance with Paragraphs 10.2.2 through 10.2.4 and 10.13 of this DID. (For existing commercial publications, provide one complete final reproducible copy including all contents specified in the Preparation Instructions).

10.0 TECHNICAL PUBLICATIONS CORRECTIONS

Unacceptable Technical Publications/TRS. The SELLER shall correct discrepancies in the technical publications/TRS found unacceptable as a result of Government or BUYER review. A technical publications is considered unacceptable if it:

- Does not reflect the configuration purchased.
- Does not adequately incorporate all Buyer RDC and Final review comments, IPR comments, Validation Comments and Verification (if applicable) comments.
- Does not meet the requirements of the appropriate military/commercial specification and other contractual requirements.
- SGML/XML Source Data Files and Group 4 Raster tiff files are incomplete or incorrect for technical Publication deliverables.

Responsibility. The SELLER’s responsibility for revisions and changes to technical publications shall be from issue of purchase order to end of the ship’s guaranty/warranty period. The SELLER has total responsibility for the technical accuracy and adequacy of the publications under contract and those under contract to the SELLER, i.e., the SELLER’s subcontractors.

11.0 APPROVAL AND PROCUREMENT RECORD (APR) PAGE

An A&PR page in accordance with MIL-DTL-24784B(SH) is required for all DDX technical publications (regardless of publications category).

12.0 FINAL DIGITAL ENCODING OF TECHNICAL PUBLICATIONS

Publications developed in general accordance with MIL-M-38784C, MIL-DTL-24784B(SH), DDX Technical Data Style Guide shall conform to a document type declaration set defined in Appendix B, Section 30, of MIL-M-28001B. The following are minimum acceptable features:

- a. Single column format.
- b. Single spacing.
- c. Justified right margins.
- d. SGML/XML format.

When corrections are made to a working, intermediate, or output file, corrections must be incorporated in the source file which is the primary final deliverable product. The Government reserves the right to perform any of the inspections set forth in MIL-M-28001B to ensure that supplies and services conform to prescribed requirements.

12.1 Source File Delivery Requirements. Textual material marked-up in accordance with MIL-M-28001B is referred to as a source file. A complete SGML or XML-tagged source file(s) is a mandatory part of each final product delivered in accordance with MIL-M-28001B. Delivery of the source file shall be in accordance with MIL-STD-1840B. (It is the source file to which all subsequent changes and updates must be made to maintain the technical publication throughout its operational life.)

12.1.1 General Requirements. Technical publication information consists of text and associated illustrations in digital form. This information shall be organized into file sets. Each requisite file of a set shall be encoded in a format specified in MIL-STD-1840B Section 5, and be accompanied by the applicable data file header records as defined in MIL-STD-1840B Section 5.

a. Declaration File Format. The declaration file shall be in a 7-bit ASCII and uniquely identify the delivered document. The declaration file shall be prepared in accordance with the requirements of Section 5 of MIL-STD-1840B and there shall be one declaration file with each document delivered in digital form. Declaration Files shall only contain the characters permitted by Section 1 of FIPS 1-2.

b. SGML/XML Conforming Text Source File Format. The file set of a technical publication containing SGML/XML conforming files shall consist of the following:

- The file set of a technical publication containing SGML/XML Conforming files shall consist of SGML/XML coded Text Source files (at least one text source file per document, mandatory). Each file shall be accompanied by identifying data file header records. The text source files shall be ASCII, SGML/XML coded text files tagged in accordance with MIL-M-28001B, as specified by the document type declaration set defined in Appendix B, Section 30, of MIL-M-28001B and the contract.
- Page integrity is the maintenance of physical or logical page boundaries at specific places in a publication. Page integrity is required to be in conformance with the final paper-based, technical publications.

c. Document Type Definition Data File Format. A document type declaration shall be used to define the organization and logical structure of elements, entities, and attributes allowed in a particular document. It shall also be used to control automated processing functions (such as parsing) that support quality assurance requirements. The document type definition data file shall be in accordance with, document type, declaration set defined in Appendix D, Section 30, of MIL-M-28001B and shall define the structure and content of the technical publications.

d. Output Specification (OS) and Formatting Output Specification Instance (FOSI). The OS provides a set of formatting characteristic values used to rigorously describe composition processing function to be performed on the elements of a text document to provide the format and style required by MIL-DTL-24784B(SH). A FOSI delivered with the document must contain certain values for characteristics for every context in which the tag has a unique formatting requirement and with its attributes if they affect the formatting. MIL-DTL-24784B(SH) conforming technical publications encoded in accordance with MIL-M-28001B and the contract to functional requirements of MIL-DTL-24784B(SH) shall be a FOSI that is compatible with the document type declaration and which incorporates the requirement for output format and style stated in MIL-DTL-24784B(SH).

e. Illustration Data File format. Each set of text source files for a technical publication shall be supported with an illustration data file for each illustration in the technical publication except where there are multiple instances of the same illustration in different locations of the technical publications. In this situation, a single illustration file may be used to satisfy all of the illustration instances. Raster Illustration Data Files shall be in accordance with the requirements of MIL-R-28002B. The applicable file encoding formats will be specified in the contract. Each illustration data file shall be accompanied by identifying header records (see Section 5 of MIL-STD-1840B).

Note: DDX Technical Data Style Guide is subject to change at Government discretion.

13.0 Interactive Electronic Technical Publications (IETMs)

IETMs shall be submitted in accordance with the TDDP schedule. Refer to MIL-M-38784, Appendix B for the DTD to be used for New/Revised IETMs. IETM shall incorporate the content of their associated hardcopy technical publications. The primary view for IETMs shall be a page image window with hot spot access (hyperlinks) to other text or graphics. IETMs shall include user selection and navigation aids such as key word search and on-line indexes. The IETMs shall be SGML or XML based for content and display (including page breaks). Text shall be ASCII. Graphics shall be Group 4 raster. The IETM browser shall have the capability to browse by scrolling on each page (if necessary) by moving from page to page, by employing hot spots, key word searches, by bookmarks and annotations. The IETM Browser shall provide the capability to print individual and multiple pages. Either distinctive text or images may indicate hot spots.

PUBLICATION NUMBER AND TITLE								
SPECIFICATION NUMBER AND/OR OTHER DESCRIPTION								
SUMMARY								
COST ELEMENTS	PAGE UNITS				MAN HOURS	RATE	TOTAL COST	REFERENCE
1. DIRECT MATERIAL								
a. PURCHASES								
b. SUBCONTRACTS (Excluding Print. & Bind.)								
c. SUBCONTRACTS (Printing & Binding)								
2. MATERIAL OVERHEAD								
3. DIRECT LABOR								
a. TEXT (Express Units in Single 8 ½ " x 11" page size)	NEW	REV.	UNC H	TOTAL				
1. Engineering, Research, Liaison								
2. Writing								
3. Editing								
4. Parts Listing								
5. Proofreading								
6. Production Coordination (Includes Quality Control, Production, etc.)								
b. ILLUSTRATIONS (Figure Rates as Per 8 ½ " x 11" page size, for foldouts single fold equals 2 units, etc.)								
1. Sectional Views								
2. Cutaway Views								
3. Exploded Views								
4. Schematic Diagrams								
5. Block Diagrams								
6. Test Set-Up Diagrams								
7. Outline Drawings								
8. Wiring Diagrams								
9. Other								
a. Line Drawings								
b. Performance Charts								
c. COPY PREPARATION								
1. Review Copy								
2. Final Copy								
d. OTHER LABOR COSTS (Identify)								
4. LABOR OVERHEAD								
5. OTHER COSTS								
6. SUBTOTALS								
7. GENERAL AND ADMINISTRATIVE EXPENSE								
8. SUBTOTALS								
9. PROFIT OR FEE								
10. TOTAL PRICE (Amount)								

Figure 1 Technical Publications Supplemental Pricing Information

**DDG 1000
TECHNICAL DATA DEVELOPMENT PLAN (TDDP)**

1. **PROPOSED TECHNICAL PUBLICATIONS TITLE**
2. **CATEGORY OF PUBLICATIONS**
3. **SYSTEM EQUIPMENT NOUN NAME, TYPE MODEL,PART NUMBER**
4. **SECURITY CLASSIFICATION**
5. **MANUFACTURER'S NAME AND COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE**
MANUFACTURER:
CAGE:
6. **ALLOWANCE PARTS LIST (APL) NUMBER**
7. **NAVY TECHNICAL PUBLICATIONS IDENTIFICATION NUMBER (TMIN)**
8. **APPLICABLE TECHNICAL PUBLICATIONS CONTRACT REQUIREMENTS (DDG 1000 Technical Data Style Guide)**
9. **NAME OF ACTIVITY PREPARING PUBLICATIONS/REVISION/CHANGE/SUPPLEMENT/TRS**
10. **PROPOSED SCOPE AND JUSTIFICATION OF PUBLICATIONS**
11. **PROPOSED SPECIFICATIONS, STANDARDS AND GUIDES TO BE INVOKED**
12. **PROPOSED SCHEDULE AND DEVELOPMENT MILESTONES**

- (1) Proposed Start Date
- (2) Narrative Outline/Book Plan Submittal
- (3) Validation Plan Submittal

Validation Performance Phase 1:

Validation Performance Phase 2:

- (4) 50% IPR
- (5) RDC Submittal
- (6) Final Submittal

13. **PROPOSED DEVIATIONS FROM APPLICABLE DDX TECHNICAL DATA STYLE GUIDE**

14. **PROPOSED CHANGES/REVISIONS/SUPPLEMENTS AND EXTENT OF EACH INCLUDING ILLUSTRATIONS**

15. **RIGHTS IN DATA**

The Government has the right to reproduce the proposed document in full or in part.

16. **COPIES OF EXISTING PUBLICATIONS**

17. **VALIDATION PLAN**

18. **CERTIFICATION OF APPLICABILITY**

19. **STATEMENT THAT CONTRACTOR IS/IS NOT PROCURING IDENTICAL PUBLICATIONS UNDER ANOTHER CONTRACT**

20. **TECHNICAL PUBLICATIONS DEFICIENCY/EVALUATION REPORT (TMDER) AGAINST PROPOSED DOCUMENT**

21. **ADVANCE CHANGE NOTICES OUTSTANDING AGAINST PROPOSED DOCUMENT**

22. **TECHNICAL PUBLICATIONS SUPPLEMENTAL PRICING INFORMATION**

TECHNICAL PUBLICATIONS VALIDATION CERTIFICATE

NAVSEA 4160/3 (4-82)

TECHNICAL PUBLICATIONS TITLE

NAVSEA TECHNICAL PUBLICATIONS NUMBER

DATE

CONTRACT/MCR NO.

I VALIDATION

Except as stated in II, the technical publication identified above has been satisfactorily validated in accordance with all requirements of the applicable DDX Technical Data Style Guide and the approved Validation Plan. The technical publication is hereby certified to be accurate and complete, and the information, instructions, text, and illustrations conform in all respects to the applicable general and detailed specifications.

II EXCEPTIONS

EXCEPTIONS
BY

AUTHORIZED

SIGNATURE OF PUBLICATIONS QUALITY ASSURANCE OFFICER

DATE

SIGNATURE OF NAVY OFFICER WITNESSING VALIDATION

DATE
