**Data Item Description**

**Technical Data Package**

**ILS-080-070**

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| **DATA ITEM DESCRIPTION** |
| 1. **TITLE**

Technical Data Package | 1. **IDENTIFICATION NUMBER**

ILS-080-070 |
| 1. **DESCRIPTION / PURPOSE**

The Technical Data Package (TDP) includes the technical data, drawings, manuals and other supporting documentation progressively developed during the design and build phases and is required to assess the design, accept and support the ship during its operational cycle. |
| 1. **REFERENCES**

Attachments: Appendix AReferences: This DID must be read in conjunction with the appropriate paragraphs of the Statement of Work, Subcontract Data Requirements List and any references cited in the DID. |
| 1. **FORMAT**

The following formatting guidelines must be considered when preparing the deliverables.* 1. Unless a specific template is provided by VSY, the deliverables may be prepared in Supplier’s format upon review and approval by VSY.
	2. The format shall not impose any restriction on searching, editing, copying, or printing.
	3. The information shall be provided in English and in French, if available.
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| 1. **CONTENT**
	1. The TDP must consist, as a minimum, of the following:
		1. Description of how the TDP is organized and laid out;
		2. Summary of the revisions to the TDP;
		3. A TDP Index (list of documents and attributes);
		4. The Baseline Technical Data;
		5. The Ship TDP; and
		6. The In-Service Technical Data.
	2. The TDP must be indexed in an electronic format. It must have search capability and it must provide electronic links to system and equipment specific data and documentation.
	3. The Baseline Technical Data must consist of documentation that is recorded and stored for reference purposes. Baseline Technical Data must be comprised, as a minimum, of the following:
		1. Description of how the TDP is organized and laid out.
		2. A summary of the revisions to the TDP.
		3. A table of contents.
		4. Index of Amendments and Modifications.
		5. Index of Configuration Items (CIs) (Asset Breakdown Structure - ABS).
		6. Index of Components or Items of the Equipment (Master Equipment List - MEL).
		7. Indentured Drawing List.
		8. Index of Configuration Documentation.
		9. Index of Technical Publications.
		10. Index of Class I (Major) Engineering Change Proposals.
		11. Index of Class II (Minor) Engineer Change Proposals.
		12. Index of Requests for Deviations.
		13. Index of Ancillary Equipment.
		14. The Baseline Technical Data:
		* Design and Engineering Calculations, Analysis, Drawings and Reports.
		* Statement of Metacentric Height.
		* Final Weight Report.
		* Construction Bill of Materials (BOM) and Build Records.
		* Engineering Changes and Deviations.
		* Engineering Change Data Packages.
		* Completed Trials Report.
		* Maintenance and Supply Analysis.
		* Superseded drawings and technical publications.
		* Photographs.
		* Objective Quality Evidence as described in the SOW.
	4. The Ship TDP must contain the technical data and documentation required by the vessels crew to operate and maintain the Ship. The TDP must be supplied in electronic format, contain an electronically linked and searchable index that follows the Equipment Family Tree Structure (EFT). The Ship TDP must contain, as a minimum, the following sections:
2. Technical Publications;
3. Ship’s Manuals;
4. Ship System Manuals;
5. As-Fitted Drawings;
6. Equipment Family Tree;
7. Maintenance Documentation ;
8. Supply Documentations; and
9. Hazardous Material Documentation.
	1. The In-Service Technical Data must consist of documentation that is controlled and managed to reflect current configuration for each Ship. In-Service Technical Data must be comprised of the following technical data and documentation in addition to the Ship TDP:
10. 3-Dimensional ship product model;
11. Software Documentation;
12. Configuration Item List;
13. Docking Plan; and
14. Trial Documentation.
	1. As a minimum, the TPD shall consist of the following:
	2. The requirements of each index are further defined in Appendix A.
	3. The TDP shall include all information required for general understanding and shall define all special terms and acronyms used.
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1. **Index of Amendments and Modifications**

The Index of Amendments and Modifications shall list all amendments and modifications introduced that affect the Equipment design.

1. **Index of Configuration Items**

The Index of CIs shall list, in hierarchical form, all the CIs constituting the Equipment. The Index of CIs shall be developed from data from the Configuration Item List. For each CI, the Index of Configuration Items shall detail the following information:

1. CI Reference Number - This field shall detail the reference number allocated to the CI by the Supplier. This number is to relate the CI to higher level assembly to which it belongs in a hierarchical manner to system level;
2. CI Nomenclature - This field shall detail the name allocated to the CI;
3. CI Type - This field shall detail whether the CI is a Hardware Configuration Item (HWCI) or a Computer Software Configuration Item (CSCI);
4. HWCI - This field is applicable to CSCIs only and shall detail the HWCI the CSCI is resident in;
5. Subsystem - This field shall detail the CI’s parent Subsystem;
6. System - This field shall detail the CI’s parent System; and
7. Design Organisation - This field shall detail the organisation responsible for design of the CI.

The Index of Configuration Items shall be sorted in Equipment and then Subsystem order. Headings shall be positioned in the Index of Configuration Items to identify where each System and Subsystem begin.

1. **Index of Components**

The Index of Components (IOC) shall detail, in hierarchal form, the physical build structure of the Equipment and shall go down to and include piece parts. The IOC shall be developed from Data contained in the Logistics Support Analysis Record (LSAR). For each Item in the IOC, the IOC shall detail the following information:

1. Indenture Level - This field shall document the indenture level of the Item. The Equipment is indenture level 1;
2. Part Number - This field shall document the Item’s Part Number;
3. Variant Number - When more than one variant of an Item has been used in the construction of the Equipment, the Part Number of each variant is to be given a variant number (e.g. 1,2,3). This field shall default to one (1) when only one variant of an Item has been used;
4. Part Number Status - This field shall contain the status of the Part Number (e.g. PROPOSED, CURRENT, OBSOLETE and HISTORICAL);
5. Quantity Fitted - This field shall document the quantity of the Item fitted to the Item’s next higher assembly;
6. Drawing Number - This field shall document the Drawing Number of the Item; and
7. Nomenclature - This field shall document the Item’s nomenclature.

The IOC shall be sorted in Equipment, then Subsystem, then CI order. Headings shall be positioned in the IOC to identify where each System, Subsystem and CI begin.

1. **Indentured Drawing List**

The Indentured Drawing List (IDL) shall list, in hierarchal form, all the drawings constituting the Equipment design, including Sub-subcontractor drawings. For each drawing, the IDL shall detail the following information:

1. Indenture Level - This field shall document the indenture level of the drawing;
2. Drawing Number - This field shall document the drawing number;
3. Revision Letter - This field shall document the latest revision letter of the drawing applicable to the Equipment;
4. Drawing Title - This field shall document the title of the drawing;
5. Drawing Type - This field shall document the drawing type which the drawing belongs to e.g. Detail Assembly Drawing, Specification Control Drawing, Wiring List, etc…;
6. Drawing Size - This field shall document the sheet size of the drawing e.g. A2, A3, etc; and
7. Number of Sheets - This field shall document the number of sheets making up the drawing.
8. **Index of Configuration Documentation**

The Index of Configuration Documentation (IOCD) shall list the Configuration Documentation describing the functional, allocated and product baselines for the Equipment (drawings are to be excluded from the IOCD as they have been listed elsewhere). For each document, the IOCD shall detail the following information:

1. CI Reference Number - This field shall detail the CI Reference Number the Document is applicable to;
2. CI Nomenclature - This field shall detail the CI's nomenclature;
3. Document Reference Number - This field shall detail the Document's Reference Number;
4. Document Revision Number - This field shall detail the Revision Number of the Document; and,
5. Document Type - This field shall detail the type of document the Document belongs to (e.g. Development Specification, Test Requirement Document, Software Requirements, etc.).

The following types of Configuration Documentation, as a minimum, shall be included in the list:

1. System Specifications;
2. Development Specifications;
3. Product Specifications;
4. Interface Control Documents;
5. Software Requirements Specifications;
6. Interface Requirements Specifications;
7. Software Product Specifications;
8. Software Version Descriptions;
9. Software Design Descriptions;
10. Interface Design Descriptions;
11. Database Design Descriptions;
12. Material Specifications; and
13. Process Specifications.

The IOCD shall be divided into two (2) sections. Section 1 shall be sorted in System then Subsystem then CI order. Section 2 shall be sorted in Document Type then Document Reference Number order. Headings shall be positioned in Section 1 to indicate where each System, Subsystem and CI begins. Headings shall be positioned in Section 2 to indicate where each Document Type begins.

1. **Index of Technical Publications**

The Index of Technical Manuals (IOTM) shall list the technical manuals developed under the Contract. For each Technical Manual, the IOTM shall detail the following information:

1. Supplier Reference Number - This field shall detail the Supplier Reference Number for the Technical Manual;
2. Title - This field shall detail the title of the Technical Manual; and
3. Related Cis - This field shall detail the Configuration Items the Technical Manual is applicable to.

The IOTM shall be divided into two (2) sections. Section 1 shall be sorted in System then Subsystem then CI order. Section 2 shall be sorted in Supplier Reference Number order. Headings shall be positioned in Section 1 to indicate where each System, Subsystem and CI begins. No headings shall be positioned in Section 2.

1. **Index of Class I (Major) Engineering Change Proposals**

The Index of Class I (Major) Engineering Change Proposals (ECPs) shall document all Class I ECPs raised against the Equipment and its constituent Items during the Subcontract, including those raised by the Sub-subcontractors. For each ECP, the Index of Class I ECPs shall detail the following information:

1. ECP Number - This field shall document the unique ECP identification number supplied by the Purchaser;
2. ECP Revision Number - This field shall document the revision level of the ECP i.e. R1 or R2;
3. ECP Justification Code - This field is as defined in MIL-HDBK-61A;
4. ECP Title - This field shall document the title of the ECP;
5. Date Raised - This field shall document the date the ECP was raised;
6. ECP Status - This field shall document the status of the ECP;
7. Status Date - This field shall document the date the status of the ECP changed;
8. CCB Decision - This field shall document the decision made by the Configuration Control Board (CCB) for approval to proceed;
9. Decision Date - This field shall document the date of the CCB decision;
10. Impacted Cis - This field shall document the CIs impacted by the ECP;
11. Affected Part Numbers - This field shall document the CI Part No variants impacted by the ECP; and,
12. New Part Numbers - This field shall document the new CI Part No variants introduced as a result of the ECP. Where the new Part No is a re-identification of an existing Part No this relationship shall be clearly shown.
13. **Index of Minor Engineering Change Proposals**

The Index of Class II (Minor) Engineering Change Proposals (ECPs) shall document all Class II ECPs raised against the System and its constituent Items during the Contract, including those raised by the Sub-subcontractors. For each ECP, the Index of Minor ECPs shall detail the following information:

1. ECP Number - This field shall document the unique ECP identification number supplied by the Purchaser;
2. ECP Revision Letter - This field shall document the revision level of the ECP i.e. R1 or R2;
3. ECP Title - This field shall document the title or a brief description of the ECP;
4. Date Raised - This field shall document the date the ECP was raised;
5. ECP Status - This field shall document the status of the ECP;
6. Approval Authority - This field shall document who approved or rejected the ECP;
7. Decision Date - This field shall document the date the approval authority approved or rejected the ECP;
8. Impacted CI - This field shall document the CI impacted by the ECP; and
9. CI Part Numbers - This field shall document the CI Part No variants impacted by the ECP.
10. **Index of Requests for Deviation**

The Index of Requests for Deviation (RFDs) shall document all RFDs raised against the Equipment and its constituent Items during the Subcontract, including those raised by the Sub-subcontractors.

For each RFD, the Index of RFDs shall detail the following information:

1. RFD Reference Number - This field shall document the unique RFD identification number;
2. RFD Title/Description - This field shall document the title or provide a brief description of the RFD;
3. RFD Class - This field shall document the class of the RFD i.e. Critical, Major or Minor;
4. Date Raised - This field shall document the date the RFD was raised;
5. RFD Status - This field shall document the status of the RFD;
6. Approval Authority - This field shall document who approved or rejected the RFD;
7. Decision Date - This field shall document the date the approval authority approved or rejected the RFD;
8. Impacted CI - This field shall document the CI impacted by the RFD;
9. CI Part Number - This field shall document the CI Part Number variant impacted by the RFD;
10. Affected Part Number - This field shall document the Part Number of the Item subject to the RFD;
11. Affected Serial Numbers - This field shall document the Serial Number(s) of the Item subject to the RFD;
12. MMI Part Number - If the affected Item is not a Maintenance Managed Item (MMI) and does not build directly to the CI then this field shall document the Part Number of the higher level MMI; and
13. MMI Serial Number(s) - This field shall document the Serial Number(s) of the MMI specified at subparagraph (l).

The Index of RFDs shall be divided into three (3) sections. Section 1 shall list RFDs classified as Critical, Section 2 shall list RFDs classified as Major and Section 3 shall list RFDs classified as Minor. Each Section shall be further subdivided into two (2) Subsections. Subsection 1 shall be sorted in RFD Reference No order. Subsection 2 shall be sorted in System then Subsystem then CI order. Headings shall be positioned in Subsection 2 to indicate where each System, Subsystem and CI begins. No headings shall be positioned in Subsection (1).

1. **Index of Ancillary Equipment**

The Index of Ancillary Equipment (IAE) shall list the support Equipment required to support the maintenance/operation of the Equipment and its constituent Items.

*NOTE: Support Equipment includes, but shall not be limited to, Automatic Test Equipment and STTE.*

For each piece of Support Equipment, the IAE shall detail the following information:

1. Support Equipment Designation - This field shall document the designation of the support Equipment;
2. Nomenclature - This field shall document the nomenclature of the support Equipment;
3. Support Equipment Type - This field shall document the support equipment type the Support Equipment belongs to (for example Ground Support Equipment, Automatic Test Equipment, Special to Type Tooling, etc.;
4. Supported CI(s) - This field shall document the CI(s) supported by the Support Equipment;
5. CI Part Number Variants - This field shall document the CI Part Number variant(s) supported by the Support Equipment; and
6. Affected Part Numbers - If the Item(s) supported by the support Equipment is (are) below the CI level then this field shall document the Part Number(s) of the Item(s) supported by the Support Equipment.

The IAE shall be divided into two (2) Sections. Section 1 shall be sorted by Support Equipment Type then by Support Equipment Designation. Section 2 shall be sorted by Supported CI then Support Equipment Type then Support Equipment Designation order. Headings shall be positioned in Section 1 to indicate where each Support Equipment Type begins. Headings shall be positioned in Section 2 to indicate where each CI begins.