

DATA ITEM DESCRIPTION		Form Approved OMB No 0704-0188	
1. TITLE Treatment Procedures to Prevent Material Deterioration		2 IDENTIFICATION NUMBER DI-ENVR-80490	
3 DESCRIPTION/PURPOSE 3.1 The Treatment Procedures to Prevent Material Deterioration identifies the item material conditions, the natural and induced environments, pre and post protection assessments, item pre-conditioning, pre-treatment, organic coatings, identification marking requirements, test results, protection level maintenance, and estimated costs. 3.2 The data is used to evaluate an item's material deterioration protection.			
4. APPROVAL DATE (YYMMDD) 871116	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR) A/AMSC-QAC	6a DTIC APPLICABLE	6b GIDEP APPLICABLE
7. APPLICATION/INTERRELATIONSHIP 7.1 This Data Item Description (DID) contains the format and content preparation instructions for the data product generated by the specific and discrete task requirement as delineated in the contract. 7.2 When the contractor is required to identify treatment procedures for prevention of material deterioration, this Data Item Description is applicable. (Continued on Page 2)			
8 APPROVAL LIMITATION	9a APPLICABLE FORMS	9b AMSC NUMBER A4270	
10 PREPARATION INSTRUCTIONS 10.1 <u>General</u> . When material (e.g., ferrous, rubber, plastic, glass), material surface requirements (e.g., cleaning, surface conditioning, pre-conditioning, pre-treatment, coating, finishing, finishes), or marking (e.g., silk screen, decals, scribing, plates) requirements are specified (e.g., applicable drawings, specifications, standards, Statement of Work) in the contract; the Treatment Procedures to Prevent Material Deterioration shall be in accordance with and include those requirements. The detailed procedural steps shall be delineated in the order of application. If multiple procedures are required, each procedure shall be delineated in the order of application. The elements of data shall be correlated to the Item Identification (reference 10.3.1). 10.2 <u>Format</u> . The Treatment Procedures to Prevent Material Deterioration shall be in a contractor selected format and shall be typewritten on 8 1/2 x 11 inch white bond paper. When necessary to provide clarification (e.g., identification of the item, parts, materials, surface areas, marking locations); detailed diagrams, drawings, sketches, photographs, etc., shall be included in conjunction with the text. When consistent with an effective presentation, the contractor selected format used in the initial submission shall be used for subsequent submissions. 10.3 <u>Content</u> . The Treatment Procedures to Prevent Material Deterioration content shall be as follows: (Continued on Page 2)			
11 DISTRIBUTION STATEMENT DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.			

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7. APPLICATION/INTERRELATIONSHIP (Continued)

7.3 When only specific items, base material(s), material surface(s), or identification markings of an item are to be addressed or certain treatment procedures including materials and coatings are not authorized for inclusion in the Treatment Procedures to Prevent Material Deterioration, the contract should identify these requirements.

7.4 The contractual Statement of Work should address those contractual tasks required to generate the resultant data. e.g. "The contractor shall determine and evaluate the natural and induced environmental conditions that result from the operational and logistic scenarios applicable to the item (e.g., Infrared Sight). The contractor shall determine and evaluate the material deterioration of the item in the natural and induced environmental conditions prior to application of the treatment procedures. The contractor shall determine those natural and induced environmental conditions which are deteriorative to the item. The contractor shall determine those treatment procedures (e.g., item preparation, pre-conditioning, pre-treatment, organic coating, post-treatments) including materials and coatings for all external and internal surfaces of the item which are necessary to provide an adequate level of protection against material deterioration under the identified deteriorative environmental conditions. The level of protection afforded shall prevent degradation of the operational and logistic characteristics of the item. The contractor shall determine and evaluate the material deterioration in the natural and induced environment conditions subsequent to application of the treatment procedures. The contractor shall perform those tests necessary to evaluate and demonstrate that the treatment procedures provide the level of protection identified. The contractor shall determine the maintenance actions and treatment procedures including materials and coatings necessary to maintain the level of protection afforded the item subsequent to application of the treatment procedures. The contractor shall ..."

7.5 This Data Item Description is related to DI-S-1804A and DI-S-3598A.

7.6 This Data Item Description supersedes DI-S-1131.

10. PREPARATION INSTRUCTIONS (Continued)

10.3.1 Item Identification. Identification of the applicable item(s) and the specific areas or parts of the item(s) including identification markings. When multiple surfaces or parts of an item are applicable, each shall be identified.

10.3.2 Existing Material and Material Surface Conditions. Identification of the base materials, material surface conditions and finishes, and identification markings existing prior to application of the treatment procedures.

10.3.3 Environmental Conditions. Identification of the natural and induced environmental conditions to which the item is subjected.

10.3.4 Pre-Protection Assessment. Identification (as a function of time and events) of the degree of protection afforded the item's base material, material surfaces and finishes, and identification markings in the identified Environmental Conditions (reference 10.3.3) prior to accomplishment of the treatment procedures. Identification of those environmental conditions considered deteriorative, the rationale for designating an environmental condition as deteriorative, and the manner in which the material deterioration occurs.

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10. PREPARATION INSTRUCTIONS (Continued)

- 10.3.5 Item Initial Preparation. Identification of the required configuration and preparation of the item prior to application of the initial procedure.
- 10.3.6 Pre-Conditioning Treatment Procedures. Identification of the pre-conditioning treatment procedures (e.g., cleaning, surface conditioning) including the materials and coatings which are required.
- 10.3.7 Pre-Treatment Procedures. Identification of the pre-treatment procedures (e.g., chemical conversion) including the materials and coatings which are required.
- 10.3.8 Organic Coating Treatment Procedures. Identification of the organic coating treatment procedures including the materials and coatings which are required.
- 10.3.9 Identification Marking Treatment Procedures. Identification of the marking treatment procedures including the materials and coatings which are required to provide marking identification (e.g., item or part, solder connection, test point, component identification).
- 10.3.10 Post-Treatment Procedures. A complete and detailed description of any post-treatment procedures including materials and coatings (e.g., drying, curing, washing, oiling).
- 10.3.11 Post-Protection Test Results. Identification of tests performed on the item(s) to evaluate or demonstrate the level of protection afforded. Test identification shall include identification of the item(s), test environments, test equipment, detailed test procedures, and test results.
- 10.3.12 Post-Protection Assessment. Identification of the degree of protection afforded the item's base material, material surfaces and finishes, and identification markings in the identified Environmental Conditions (reference 10.3.3) subsequent to accomplishment of the treatment procedures. The degree of protection shall be identified as a function of the time and events identified in the Pre-Protection Assessment (reference 10.3.4).
- 10.3.13 Protection Level Maintenance. Identification of subsequent actions and treatment procedures including materials and coatings and their associated time and event intervals required to maintain the level of protection identified in the Post-Protection Assessment (reference 10.3.12).
- 10.3.14 Test Results. For newly developed or other than generally accepted and utilized industry (standard) treatment procedures including materials and coatings, identification of test data (including detailed test procedures and test equipment) and results which demonstrate that the treatment procedures for prevention of material deterioration are effective in the identified deteriorative environment(s).
- 10.3.15 Costs. The estimated increased production (material and labor) costs per unit item associated with accomplishing the treatment procedures.
- 10.3.15 Summary Recommendations and Conclusions. Identification of additional comments, recommendations, conclusions, and data applicable to the Treatment Procedures to Prevent Material Deterioration.