

		National Defence Défense Nationale	<a href="#">Back to the DID List</a>
<b>DATA ITEM DESCRIPTION - DESCRIPTION DE DONNÉES</b>			
<b>1. TITLE – TITRE</b>		<b>2. IDENTIFICATION NUMBER - NUMÉRO D'IDENTIFICATION</b>	
Trend Analysis		DID 1.156	
<b>3. DESCRIPTION / PURPOSE – DESCRIPTION / OBJET</b>			
<p>The Contractor shall perform on-going trend analysis for the equipment and systems listed in paragraph 1.174 Trend analysis shall be based on the information gathered, analysed and consolidated as per the requirements of paragraphs 1.174 through 1.176 inclusive as well as any other information the Contractor requires to:</p> <p>Amend Identify issue of obsolescence;  Identify issues of reliability;  Highlight instances where in-service performance does not meet expectations and to establish corrective action;  Identify equipment and systems which are at or nearing the end their service life and when a service life extension is warranted or recommended;</p> <p>Additional or supplemental training requirements for personnel; and  Establish appropriate sparing levels.</p>			
<b>4. APPROVAL DATE DATE D'APPROBATION</b>	<b>5. OFFICE OF PRIMARY INTEREST (OPI) BUREAU DE PREMIERE RESPONSABILITÉ (BPR)</b>		<b>6. GIDEP APPLICABLE D'ÉCHANGE DE DONNÉES PERTINENT</b>
September 2020	NWSO Technical Authority (TA)		
<b>7. APPLICATION / INTERRELATIONSHIP – APPLICATION / INTERDÉPENDANCE</b>			
<p>CDRL 1.156 and SOW paragraph 1.156 refer.  This DID contains the format and content preparation instructions for the data generated under the work tasks described in the NWS O&amp;M SOW.</p>			
<b>8. ORIGINATOR - AUTEUR</b>		<b>9. APPLICABLE FORMS - FORMULES PERTINENTES</b>	
NWSO TA			
<b>10. PREPARATION INSTRUCTIONS – INSTRUCTIONS SUR LA PRÉSENTATION DES DONNÉES</b>			
<p>10.1 <u>Source Document</u>  NWS O&amp;M SOW Section 1, paragraph 1.156.</p> <p>10.2 <u>Content and Format</u></p> <p>10.2.1 The Contractor shall prepare comprehensive quarterly AN/FPS-124 Obsolescence Reports. The reports are to detail obsolescence issues with AN/FPS-124 components, subassemblies and/or assemblies to include, at a minimum:</p> <p>10.2.1.1 NATO Stock Number (NSN) or OEM part number;  10.2.1.2 Serial number (where applicable);  10.2.1.3 Parent (next higher) assembly;  10.2.1.4 Present status i.e. Return to service, spare, beyond economical repair (BER), under repair, awaiting parts, forwarded to an outside repair agency (ORA), etc.;</p> <p>10.2.1.5 Modification status i.e. Modifications up-to-date and modification label affixed;</p>			

- 10.2.1.6 Present location of part (i.e. Depot stock, LSS stock, on repair line, at ORA, installed at (site)); and
- 10.2.1.7 A description of the sustainment issue, specifically;
  - 10.2.1.7.1 Failure history;
  - 10.2.1.7.2 Description: common Line-Replaceable Unit (LRU)/Shop Repairable Unit (SRU) nomenclature;
  - 10.2.1.7.3 Quantity: number of units installed per Short Range Radar (SRR) site;
  - 10.2.1.7.4 Operational units: number of units installed across the NWS;
  - 10.2.1.7.5 Spares: number of spares on hand;
  - 10.2.1.7.6 Sparing level: calculation of the number of spares compared to the number of installed units;
  - 10.2.1.7.7 Percentage: percentage of fielded units that have failed;
  - 10.2.1.7.8 Annual average: the annual failure rate average;
  - 10.2.1.7.9 Mean Time Between Failure (MTBF): reported in units of 1E6, or 1,000,000 hours; and
  - 10.2.1.7.9.1 Spares/annual average: A calculation of the length of time that the NWS system can remain operational before failures would begin to cause mission capability problems assuming no repair source. This calculation shall be an attempt to profile the worst case life expectancy taking into consideration the sparing level and failure rate to determine a hypothetical time to depletion assuming that the failure rates remain constant.
- 10.2.2 The Contractor shall prepare an annual trend analysis report covering each system identified in section 1.174 and real property systems and assets covered in 1.174. The report is to document efforts taken, underway or planned to ensure that equipment and systems meet or exceed service life expectations at minimal cost. The report shall address, at a minimum:
  - 10.2.2.1 The status of training, specifically any amendments to training requirements;
  - 10.2.2.2 The status of pm routines, specifically any amendments made during the reporting period or proposed for a future PMP update. The report shall also include a summary of which pm tasks were reported as exceptions with a narrative of any trends in why these tasks were not completed;
  - 10.2.2.3 An analysis of work order and ESR data to provide the following failure statistics:
    - 10.2.2.4 Mean Time Between Failure (MTBF), reported in hours and calculated using annual required operating hours divided by number of system critical failures;
    - 10.2.2.5 Inherent Availability (IA) demonstrates the efficiency of system repairs. The inherent availability calculation uses the time required to perform the failure maintenance to the period between failures, and
    - 10.2.2.6 Mean Time To Repair (MTTR) as an indicator of technical efficiency. MTTR is calculated from the total repair work minutes logged in MAXIMO work orders divided by the number of system failures per site. The MTTR only reflects on-site work time;
  - 10.2.3 The status of sparing, specifically any changes to established sparing levels or proposed changes, concerns over availability of spares and the reliability of repair vendors;
  - 10.2.4 A on legislative compliance and any action taken in the reporting period or proposed action to maintain compliance commentary;
  - 10.2.5 A summary of any quality deficiencies identified in the reporting period; and
  - 10.2.6 Amendments to documentation or planned amendments, based on field inspections which produce red-line drawings, ECRS for new installations which required updates to site record drawings, maintenance routines or operation and maintenance manuals or service bulletins from OEMS which require updates to NWS technical documentation.
  - 10.2.7 The report is to include an executive summary, outlining any major concerns in trending, and corrective actions underway or planned to address negative trending and any relevant costing data.
  - 10.2.8 The annual trend analysis report shall be a format proposed by the Contractor and as accepted by the NWSO TA. List of the References (1.161 and/or 1.163.1) are provided for guidance. The annual report shall be submitted by 15 November each year, or the first business day thereafter. The NWSO TA reserves the right to have the Contractor amend the format and contents of the report at any time.