

NOAA NESDIS CENTER for SATELLITE APPLICATIONS and RESEARCH

DOCUMENT GUIDELINE

DG-11.9
DEVELOPMENT PROJECT REPORT
GUIDELINE
Version 3.0

DOCUMENT GUIDELINE

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Version: 3.0

Date: September 30, 2009

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DEVELOPMENT PROJECT REPORT DOCUMENT GUIDELINE VERSION HISTORY SUMMARY

Version	Description	Revised Sections	Date
1.0	New Document Guideline by Ken Jensen (Raytheon Information Solutions)	New Document	09/30/2009

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LIST OF ACRONYMS

CDR	Critical Design Review
CICS	Cooperative Institute for Climate Studies
CIMSS	Cooperative Institute for Meteorological Satellite Studies
CIOSS	Cooperative Institute for Oceanographic Satellite Studies
CIRA	Cooperative Institute for Research in the Atmosphere
CM	Configuration Management
CMMI	Capability Maturity Model Integration
CREST	Cooperative Remote Sensing and Technology Center
CTR	Code Test Review
DG	Document Guideline
DM	Data Management
DPP	Development Project Plan
DPR	Development Project Report
EPG	Enterprise Process Group
EPL	Enterprise Project Lifecycle
IMS	Integrated Master Schedule
NESDIS	National Environmental Satellite, Data, and Information Service
NOAA	National Oceanic and Atmospheric Administration
PAR	Process Asset Repository
PDR	Preliminary Design Review
PG	Process Guideline
PRR	Project Requirements Review
QA	Quality Assurance
RAD	Requirements Allocation Document
SRR	System Requirements Review
STAR	Center for Satellite Applications and Research
STP	System Test Plan
TRR	Test Readiness Review
UTP	Unit Test Plan
V&V	Verification and Validation
VVP	Verification and Validation Plan

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1. INTRODUCTION

The NOAA/NESDIS Center for Satellite Applications and Research (STAR) develops a diverse spectrum of complex, often interrelated, environmental algorithms and software systems. These systems are developed through extensive research programs, and transitioned from research to operations when a sufficient level of maturity and end-user acceptance is achieved. Progress is often iterative, with subsequent deliveries providing additional robustness and functionality. Development and deployment is distributed, involving STAR, the Cooperative Institutes (CICS, CIMSS, CIOSS, CIRA, CREST) distributed throughout the US, multiple support contractors, and NESDIS Operations.

NESDIS/STAR is implementing an increased level of process maturity to support the exchange of these software systems from one location or platform to another. The Development Project Report (DPR) is one component of this process.

1.1. Objective

The objective of this Document Guideline (DG) is to provide the STAR standard for the DPR. The intended users of this DG are the personnel assigned by the Project Lead to the task of creating a product DPR.

1.2. The Development Project Report

The purpose of the DPR is to collect information derived from planning and performing the project's defined process. This includes work products, performance metrics, and resolution of issues. Examples of useful information include the effort expended for project activities, identification and mitigation of risks and defects, and lessons learned.

A separate DPR is produced for each distinct STAR project.

The DPR, the final artifact produced by the project's Development Team, is customarily produced after the conclusion of step 11 (System Integration and Test) of the project lifecycle, known as the STAR Enterprise Product Lifecycle (EPL)_1. This is to allow for the inclusion of lessons learned as a result of working with Operations on the transition of the pre-operational system to the operations environment. Nevertheless, it is recommended that the various sections of the report be filled in during the development steps of the

¹ For a description of the STAR EPL, refer to the STAR EPL Process Guideline (PG-1 and PG-1.A).

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lifecycle when the experiences and lessons learned are fresh in the minds of the developers.

Revisions of the DPR during operations are encouraged to allow for the inclusion of lessons learned from science maintenance.

The DPR is the responsibility of the Project Lead, but each member of the Development Team should make a contribution, based on their experiences.

The DPR should be developed as a Microsoft Word document. Upon approval, the approved version of the DPR may be converted to an Adobe pdf file for storage in the project artifact repository.

1.3. Background

This DG defines guidelines for producing an DPR. This DG has been adapted from Capability Maturity Model Integration (CMMI) guidelines (CMMI-DEV-v1.2, 2006). It has been tailored to fit the STAR EPL process.

1.4. Benefits and Use

The primary user of the DPR is the STAR Enterprise Process group (EPG), which is responsible for improving and maintaining the STAR process standards. The EPG uses the DPRs as essential information to monitor how the process is implemented on the projects and to collect data for process improvement. The EPG will select DPRs for inclusion in the STAR Process Asset Repository (PAR) for the benefit of other projects. An DPR developed in accordance with the standards in this DG ensures that the STAR EPG and project developers have the information they need to improve future process and project development.

1.5. Overview

This DG contains the following sections:

Section 1.0 - Introduction

Section 2.0 - Reference Documents

Section 3.0 - Standard Table of Contents

Section 4.0 - Section Guidelines

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Appendix A - Examples
Appendix B - Templates

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2. REFERENCE DOCUMENTS

DG-0.1: STAR Document Style Guideline is a STAR EPL Document Guideline (DG) that provides STAR standards for the style and appearance of STAR documents developed as Microsoft Word files

PG-1: STAR EPL Process Guideline provides the definitive description of the standard set of processes of the STAR EPL.

PG-1.A: STAR EPL Process Guideline Appendix, an appendix to PG-1, is a Microsoft Excel file that contains the STAR EPL process matrix (Stakeholder/Process Step matrix), listings of the process assets and standard artifacts, descriptions of process gates and reviews, and descriptions of stakeholder roles and functions.

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3. STANDARD TABLE OF CONTENTS

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- 1.2 Who Should Use This Document
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- 2.1 Defined Process and Tailoring
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- 4.8 Lessons Learned Summary
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4. SECTION GUIDELINES

This section contains the STAR guidelines for each section of the DPR.

The DPR should follow the STAR standard for style and appearance, as stated in DG-0.1.

4.1. Table of Contents

The Table of Contents can be inserted by using Word's Insert → Reference → Index and Tables → Table of Contents function or by pasting the Table of Contents from this DG into your document and updating it for the section headers you make for your document. Use a page break if necessary to ensure that the Table of Contents appears at the top of a page.

4.2. List of Figures

A List of Figures should be provided after the Table of Contents. A page break should be used if necessary to ensure that the List of Figures appears at the top of a page. To create a List of Figures, use Word's Insert → Reference → Index and Tables → Table of Figures function, selecting the "Table of Figures" Style. Alternatively, the List of Figures can be created by pasting the List of Figures for this DG into your document.

Figures should be created by using Word's Insert \rightarrow Picture \rightarrow From File function or Word's Insert \rightarrow Object function. Figures should be numbered X.Y, where X is the main section number where the figure resides and Y = 1,N is the ordered number of the figure in the section. Figure captions should have Arial bold 12 point font, should be center justified, and should have a "Table of Figures" Style. A Figure Caption template is provided in Appendix B of this DG.

4.3. List of Tables

A List of Tables should be provided after the List of Figures. The List of Tables can appear on the same page as the List of Figures, with three blank lines separating them, provided both lists can fit on the same page. If both lists cannot fit on the same page, a page break should be used to ensure that the List of Tables appears at the top of a page.

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To create a List of Tables, use Word's Insert → Reference → Index and Tables → Table of Figures function, selecting the "Table - Header" Style. Alternatively, the List of Tables can be created by pasting the List of Tables for this DG into your document.

Tables should be created with the Table \rightarrow Insert \rightarrow Table function. Tables should be numbered X.Y, where X is the main section number where the table resides and Y = 1,N is the ordered number of the table in the section. Table titles should have Arial bold 12 point font, should be center justified, and should have a "Table - Header" Style. A Table Title template is provided in Appendix B of this DG. Table text should have Arial regular 10 point font.

4.4. List of Acronyms

The use of acronyms is encouraged. A two word or longer name for an item (e.g., Development Project Report) should be given an acronym (e.g., DPR) if the name is used more than once in the document. A List of Acronyms should be provided after the List of Tables. The List of Acronyms should be in alphanumeric order. Use the List of Acronyms in this DG as a template. A page break should be used if necessary to ensure that the List of Acronyms appears at the top of a page.

4.5. Section 1 – Introduction

The DPR shall include an Introduction Section. This section shall include:

- A well-defined purpose and function for the document
- Specific intended user(s)
- How the intended user(s) should use the document
- A responsible entity for generating the document
- A responsible entity for review/approval of the document
- A responsible entity for storage, accessibility, and dissemination
- A brief overview of the contents of each main section
- A revision history
- A "Purpose of This Document" subsection should explain the intended use of this document, including an identification of the retrieval or product.

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- A "Who Should Use This Document" subsection should identify the intended users
 with as much specificity as possible (e.g., "STAR Sensor Physics Branch Lead",
 STAR EPL SRR reviewers") and should explain how each of the specified users
 should use this document.
- An "Inside Each Section" subsection should describe the scope of each main section. Usually, one sentence per section will suffice.
- A "Related Documents" subsection should consist of a list of any important documents related to the DPR, and their complete citations including access information.
- A "Revision History" subsection should consist of a list of all revisions to this DPR, including author of revision, description of revision, motivation for revision, and revision number and date. This should be consistent with the Version History Summary, but should contain more detail about the reasons for the revision and what the revisions are. Start with the current revision and go backward to the original version.

4.6. Section 2 - Project Planning

Report the experience of creating, maintaining, and revising the project plan. There should be four main subsections:

- 1. A "Defined Process and Tailoring" subsection should describe how the project's defined process was determined. This is customarily done by tailoring the STAR EPL set of standard practices to fit the unique characteristics of the project. Assess the assumptions and estimates that were made in planning the work. Were the stakeholders (including suppliers and end users) adequately identified and engaged? Were the needed resources adequately identified?
- 2. A "Revision History" subsection should describe how the project plan was revised during the project lifecycle. How were desired changes identified and approved? Were correction criteria used?
- 3. A "Lessons Learned" subsection should itemize all lessons that were learned from the project planning experience. Lessons learned can be individual or group lessons. The Project Lead should encourage all members of the Development Team to contribute

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individual lessons learned and to supply available tangible examples (e.g., relevant work products, performance metrics) to illustrate what has been learned. The Project Lead may choose to insert the individual lessons learned directly into this subsection or may choose to employ group discussion to filter/synthesize the individual lessons into group lessons. Include process improvement suggestions that are inspired by this particular lesson learned. The Project Lead should encourage all members of the Development Team to make improvement suggestions associated with the lessons learned they have contributed. The Project Lead may choose to insert the individual suggestions directly into this subsection or may choose to employ group discussion to filter/synthesize the individual suggestions into group suggestions.

Highlight the lesson by using bold and/or italicized font. A recommended format for this subsection is as follows:

Lesson:

> Include all stakeholders in determining the project plan

History/Examples:

One of the two major customers was not involved in the project until the CDR. As a result, their participation in the project lifecycle was not sufficient to allow proper requirements development prior to the CDR. This resulted in requirements creep, a need for re-planning of the Design Development phase, a delta CDR, consequent schedule delays and extra cost. The project was delayed 2 months at an additional cost of \$50.3K. The CDR Report, Gate 4 Review Report, Project Status Report and version 2 of the DPP document this.

<u>Improvement Suggestions:</u>

- Add an item to the Gate 3 Review Check List that requires explicit approval of the project plan from each identified customer.
- Add an item to the PRR Check List that requires explicit approval of the project requirements from each identified customer.

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4. An "Additional Improvement Suggestions" subsection should itemize all suggestions for improving the project planning process that have not already been associated with the identified lessons learned of the previous subsection.

4.7. Section 3 - Resources and Training

Report the experience of creating, maintaining, and revising the project plan. There should be six main subsections:

- 1. An "Equipment" subsection should assess the adequacy of the equipment (hardware, software, tools, and other tangible supplied items) that was provided for the project. Was the required equipment adequately identified in the project plan? Was it supplied on schedule? Did the project plan underestimate the equipment required to perform according to the IMS? If so, assess the effect on the personnel who had to perform the project activities. The Project Lead should encourage all staff members to contribute their experiences in this regard.
- 2. A "Staffing" subsection should assess the adequacy of the project staffing. Was the required staffing schedule adequately identified in the project plan? Was the required staffing provided on schedule? Did the project plan underestimate the staffing required to perform according to the IMS? If so, assess the effect on the personnel who had to perform the project activities. The Project Lead should encourage all staff members to contribute their experiences in this regard.
- 3. A "Training" subsection should assess the adequacy of the training of project staff. Was the required training adequately identified in the project plan? Was the required training provided on schedule? Was the training sufficiently effective? If not, what was the deficiency? The Project Lead should encourage all staff members to contribute their experiences in this regard.
- 4. A "Process Assets" subsection should assess the adequacy of the process assets as training resources. Was the PAR available on a timely basis to all project stakeholders who needed them? Were the process assets contained in the PAR easy to understand and use? Were the process assets contained in the PAR sufficient to enable the stakeholders to effectively implement the project activities? If not, what were the deficiencies? The Project Lead should encourage all staff members to contribute their experiences in this regard.

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5. A "Lessons Learned" subsection should itemize all lessons that were learned regarding resources and training. Lessons learned can be individual or group lessons. The Project Lead should encourage all members of the Development Team to contribute individual lessons learned and to supply available tangible examples (e.g., relevant work products, performance metrics) to illustrate what has been learned. The Project Lead may choose to insert the individual lessons learned directly into this subsection or may choose to employ group discussion to filter/synthesize the individual lessons into group lessons. Include process improvement suggestions that are inspired by this particular lesson learned. The Project Lead should encourage all members of the Development Team to make improvement suggestions associated with the lessons learned they have contributed. The Project Lead may choose to insert the individual suggestions directly into this subsection or may choose to employ group discussion to filter/synthesize the individual suggestions into group suggestions.

Highlight the lesson by using bold and/or italicized font. A recommended format for this subsection is as follows:

Lesson:

Stakeholders need training in the use of the process assets

History/Examples:

Members of the Development Team struggled to understand how to use the process assets. This resulted in a longer learning curve than was expected, resulting in schedule delays. The PRR was delayed by 1 month, the PDR by 6 weeks, and the CDR by 2 months. These delays were documented in the Project Status Report.

Improvement Suggestions:

- STAR EPG should provide training in the use of the process assets. Three
 training sessions are recommended. One would focus on process assets useful
 for project planning. A second would focus on process assets useful for design
 development. A third would focus on process assets useful for code development
 and testing.
- Add an item to the Gate 2 Review Check List that requires stakeholder completion of the first training session.

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- Add an item to the Gate 3 Review Check List that requires stakeholder completion of the second training session.
- Add an item to the Gate 4 Review Check List that requires stakeholder completion of the third training session.

6. An "Additional Improvement Suggestions" subsection should itemize all suggestions regarding resources and training that have not already been associated with the identified lessons learned of the previous subsection.

4.8. Section 4 - Project Implementation

Report the experience of implementing the project plan throughout the development lifecycle. There should be nine main subsections:

- A "Project Support" subsection should record experiences in obtaining support from the organization.
 - a. A "Quality Assurance" subsection should describe how process and product quality assurance (QA) was performed on the project. Did STAR provide QA personnel and/or training? Were the QA stakeholders and/or training identified in the project plan? How effective was the QA of project work products? Suggest ways to improve the evaluation of the quality of work products.
 - b. A "Configuration Management" subsection should describe how configuration management (CM) was performed on the project. Did STAR provide CM personnel, tools, and/or training? Were the CM stakeholders, tools, and/or training identified in the project plan? Was the project baseline effectively maintained? Was access to the project baseline controlled in a way that preserved its integrity while also meeting stakeholder needs? Suggest ways to improve the CM process.
 - c. A "Data Management" subsection should describe how data management (DM) was performed on the project. Did STAR provide DM personnel, tools and/or training? Were the DM stakeholders, tools and/or training identified in the project plan? Was the project data adequately identified and protected? Suggest ways to improve the DM process.

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- 2. A "Project Monitoring and Control" subsection should report management and QA experiences with project monitoring and control.
 - a. A "Risk Management" subsection should record experiences in conducting risk management activities. Were project risks identified and assessed in a timely manner? Were the process assets a helpful guide to identifying, assessing, and prioritizing project risks? Were risk mitigation plans adequate? Were the process assets a helpful guide to making decisions about the prioritization and implementation of risk mitigation plans? Did risk mitigation plans generate actions that were adequately described, assigned, and monitored? Was an Excel workbook used to assign risk mitigation activities and monitor the status of project risks? If so, how effective was this workbook as a risk management tool? Suggest ways to improve the risk management process.
 - b. A "Technical Reviews" subsection should record the experiences in using the Technical Reviews for project monitoring. Was the project plan described at these reviews? Was the performance of project activities compared with the plan? Were performance shortfalls identified as risks? Were schedule delays and/or cost overruns identified as risks? Were project plan revisions recommended for risk mitigation? Were recommended revisions communicated to project management for decision making?
 - c. A "Gate Reviews" subsection should record the experiences in using the Gate Reviews for project control. Was the project plan described at these reviews? Was the performance of project activities compared with the plan? Were performance shortfalls identified as risks? Were schedule delays and/or cost overruns identified as risks? Were project plan revisions recommended for risk mitigation? Were there timely and effective decisions on project plan revisions?
- 3. A "Project Requirements" subsection should record experiences in performing project requirements activities.
 - a. A "Requirements Development" subsection should record experiences in performing requirements development activities (step 6 of the project lifecycle). Were the requirements adequately identified, analyzed, and traced to user needs? Which stakeholders were actively involved in this step? Were there stakeholders who should have been involved, but were not? If so, what negative effects were caused? Was a Requirements Allocation Document (RAD) produced? If not, how were the requirements documented for review

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- and approval by users and reviewers? Were the process assets a helpful guide to performing requirements development?
- b. A "Requirements Management" subsection should record experiences in managing requirements. How was stakeholder commitment to the requirements achieved? Was requirements creep adequately controlled? Were requirements changes adequately tracked? Did the reviews check for inconsistencies between the requirements and the project work? Were actions to correct inconsistencies initiated and tracked to closure? Were requirements activities adequately documented? Were the process assets a helpful guide for performing the requirements management process.
- c. A "Requirements Review" subsection should record experiences in preparing for, conducting, and closing the Project Requirements Review (PRR). Were the Peer Review Guideline and Review Check List easy to understand? Was there sufficient interaction between the developers and the reviewers in advance of the review? Were the review artifacts available in a timely manner? Did the review address all issues that needed to be addressed? Was there sufficient interaction between the developers and the reviewers after the review? Was the review report helpful to the developers and project managers? Suggest ways to improve the process of preparing, conducting, and closing the PRR.
- 4. A "System Design" subsection should record experiences in performing system design activities.
 - a. A "Preliminary Design" subsection should record experiences in performing preliminary design activities (step 7 of the project lifecycle). Were the requirements sufficiently developed to allow for a complete description of external interfaces? Were the requirements sufficiently developed to permit an analysis of alternative solutions? What alternative solutions were considered? How were they evaluated? Were the process assets a helpful guide to performing decision analyses of alternative solutions and/or designs?
 - b. A "Detailed Design" subsection should record experiences in performing detailed design activities (step 8 of the project lifecycle). Were the requirements and preliminary design sufficiently established to permit an effective detailed design of system components and product components? Were the process assets a helpful guide to performing detailed design?
 - c. A "Requirements Allocation" subsection should record experiences in allocating project requirements to the design components? Describe how the

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- requirements, design, and allocation were iteratively matured throughout the design phase (steps 6, 7, and 8). Were the process assets a helpful guide to iteratively maturing the requirements, design, and allocation? Suggest ways to make this process more effective.
- d. A "Design Reviews" subsection should report experiences in preparing for, conducting, and closing the Preliminary Design Review (PDR) and Critical Design Review (CDR). Were the Peer Review Guidelines and Review Check Lists easy to understand? Was there sufficient interaction between the developers and the reviewers in advance of each review? Were the review artifacts available in a timely manner? Did the reviews address all issues that needed to be addressed? Was there sufficient interaction between the developers and the reviewers after each review? Were the review reports helpful to the developers and project managers? Suggest ways to improve the process of preparing, conducting, and closing each review.
- 5. A "System Build" subsection should record experiences in performing system build activities. These include code and test data development and system integration.
 - a. A "Unit Build" subsection should record experiences in developing, debugging, and refining software units and unit test data (steps 12-13 of the project lifecycle). Was the system detailed design sufficiently established to permit an effective development of system components and product components? Were the process assets a helpful guide to performing code and test data development (step 9) and code testing and refinement (step 10)?
 - b. A "System Integration" subsection should record experiences in integration system components and product components into a complete pre-operational system (step 11 of the project lifecycle). Was the system detailed design sufficiently established to permit an effective system integration? Were the process assets a helpful guide to performing system integration?
- 6. A "Verification and Validation" subsection should record experiences in verification and validation of the pre-operational system during steps 9-11 of the project lifecycle.
 - a. A "Measurement and Analysis" subsection should record experiences in conducting data analyses and reporting analysis results. What methods were used? Were they effective? Were the process assets a helpful guide to performing measurement and analysis of project data?

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- b. A "Testing" subsection should report experiences in planning, conducting, and reporting the results from unit testing and system testing. Were the Document Guidelines helpful in preparing the Unit Test Plan (UTP) and System Test Plan (STP)? Did the Verification and Validation Plan (VVP) provide a useful bridge between the requirements and the test plans (UTP and STP)? Was it a problem to maintain consistency between the VVP and associated artifacts (DPP, RAD, UTP, and STP)? Suggest ways to improve the process of planning, conducting, and documenting V&V activities.
- c. A "Test Reviews" subsection should report experiences in preparing for, conducting, and closing the Test Readiness Review (TRR), Code Test Review (CTR), and System Readiness Review (SRR). Were the Peer Review Guidelines and Review Check Lists easy to understand? Was there sufficient interaction between the developers and the reviewers in advance of each review? Were the review artifacts available in a timely manner? Did the reviews address all issues that needed to be addressed? Was there sufficient interaction between the developers and the reviewers after each review? Were the review reports helpful to the developers and project managers? Suggest ways to improve the process of preparing, conducting, and closing each review.
- 7. A "Transition To Operations" subsection should report experiences during the transition to operations. This includes packaging the system for delivery to operations, implementing the delivery, and working with Operations on installation and acceptance testing in the Operations test Environment.
- 8. A "Lessons Learned" subsection should itemize all lessons that were learned during the implementation of the project plan. These should be related to the experiences reported in the previous subsections. Lessons learned can be individual or group lessons. The Project Lead should encourage all members of the Development Team to contribute individual lessons learned and to supply available tangible examples (e.g., relevant work products, performance metrics) to illustrate what has been learned. The Project Lead may choose to insert the individual lessons learned directly into this subsection or may choose to employ group discussion to filter/synthesize the individual lessons into group lessons. Include process improvement suggestions that are inspired by this particular lesson learned. The Project Lead should encourage all members of the Development Team to make improvement suggestions associated with the lessons learned they have contributed. The Project Lead may choose to insert the individual suggestions directly into this subsection or may choose to employ group discussion to filter/synthesize the individual suggestions into group suggestions.

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Highlight the lesson by using bold and/or italicized font. A recommended format for this subsection is as follows:
Lesson 1: <statement lesson="" of="" the=""></statement>
Lesson 2: <statement lesson="" of="" the=""></statement>
Lesson 3: <statement lesson="" of="" the=""></statement>
etc.

9. An "Additional Improvement Suggestions" subsection should itemize all suggestions regarding project implementation that have not already been associated with the identified lessons learned of the previous subsection.

4.9. Section 5 – Improvement Suggestions

Summarize all improvement suggestions that were recorded in Sections 2, 3, and 4. Present these as a numbered list. Note whether the numbering represents a prioritization. For each suggestion, refer to the preceding section/subsection where the suggestion was first recorded.

List any additional improvement suggestions that were not recorded in Sections 2, 3, and 4. For each of these, provide experiences that inspired the suggestion. The Project Lead should encourage each stakeholder to contribute additional improvement suggestions. The Project Lead may choose to insert the individual improvement suggestions directly into this subsection or may choose to employ group discussion to filter/synthesize the individual suggestions into group suggestions.

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4.10. Section 6 - List of References

Include all references cited in the DPR. References should be listed in alphabetical order. References that begin with an author list should begin with the last name of the lead author. A template is provided in Appendix B.

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APPENDIX A - EXAMPLES

DPRs that follow the STAR standards and guidelines will be placed in the STAR Process Asset Repository (PAR). The PAR will be available to approved users through the STAR web site.

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APPENDIX B - TEMPLATES

This appendix contains templates for specific pages and sections of the DPR.

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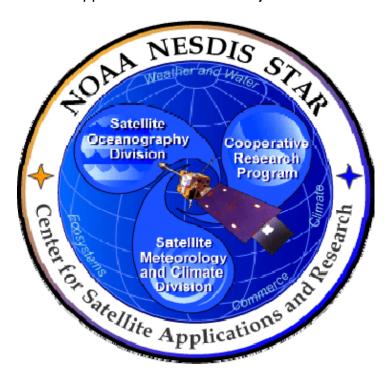
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B.1 Cover Page Template:

In this template, $\langle X \rangle = 1.0$ for v1r0, $\langle X \rangle = 1.1$ for v1r1, $\langle X \rangle = 2.0$ for v2r0 etc. $\langle Y \rangle = 1.1$ for v1r1, $\langle X \rangle = 2.0$ for v2r0 etc. $\langle Y \rangle = 1.1$ for v1r1, $\langle X \rangle = 2.0$ for v2r0 etc. $\langle Y \rangle = 1.1$ for v1r1, $\langle X \rangle = 2.0$ for v2r0 etc. $\langle Y \rangle = 1.1$ for v1r1, $\langle X \rangle = 2.0$ for v2r0 etc. $\langle Y \rangle = 1.1$ for v1r1, $\langle X \rangle = 2.0$ for v2r0 etc. $\langle Y \rangle = 1.1$ for v1r1, $\langle X \rangle = 2.0$ for v2r0 etc. $\langle Y \rangle = 1.1$ for v1r1, $\langle X \rangle = 2.0$ for v2r0 etc. $\langle Y \rangle = 1.1$ for v1r1, $\langle X \rangle = 2.0$ for v2r0 etc. $\langle Y \rangle = 1.1$ for v1r1, $\langle X \rangle = 2.0$ for v2r0 etc. $\langle Y \rangle = 1.1$ for v1r1, $\langle X \rangle = 2.0$ for v2r0 etc. $\langle Y \rangle = 1.1$ for v1r1, $\langle X \rangle = 2.0$ for v2r0 etc. $\langle Y \rangle = 1.1$ for v1r1, $\langle X \rangle = 2.0$ for v2r0 etc. $\langle Y \rangle = 1.1$ for v1r1, $\langle X \rangle = 2.0$ for v2r0 etc. $\langle Y \rangle = 1.1$ for v1r1, $\langle X \rangle = 2.0$ for v2r0 etc.



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B.2 Document Header Template:

In this template, $\langle X \rangle = 1.0$ for v1r0, $\langle X \rangle = 1.1$ for v1r1, $\langle X \rangle = 2.0$ for v2r0 etc.

In this template, <Project Name> should be the actual approved name of the Project.

In this template, $\langle Y \rangle$ = the actual page number.

In this template, $\langle Z \rangle$ = the actual total number of pages

NOAA/NESDIS/STAR

DEVELOPMENT PROJECT REPORT

Version: <X>

Date: <Date of Latest Signature Approval>

<Project Name>
Development Project Report

Page <Y> of <Z>

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B.3 Approval Page Template:

In this template, <1.X> = 1.0 for v1r0, <1.X> = 1.1 for v1r1. <Project Name> should be the actual approved name of the Project.

TITLE: <PROJECT NAME> DEVELOPMENT PROJECT REPORT VERSION <1.X>

AUTHORS:
<Lead Author>
<Co-Author 1>
<Co-Author 2>
<etc.>

APPROVAL SIGNATURES:

<a href="mailto

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B.4 Version History Page Template:

In this template, <Project Name> should be the actual approved name of the Project.

<PROJECT NAME> DEVELOPMENT PROJECT REPORT VERSION HISTORY SUMMARY

Version	Description	Revised Sections	Date
1.0	Created by <name developer(s)="" of=""> of <name agency="" company="" developers'="" of=""></name></name>	New Document	<actual date<br="">of Latest approval signature></actual>
1.1	Revised by <name developer(s)="" of=""> of <name agency="" company="" developers'="" of=""></name></name>	<section numbers for those sections that were revised></section 	<actual date<br="">of Latest approval signature></actual>
1.2	Ditto	Ditto	Ditto
etc.			

B.5 Figure Caption Template:

Figure 2.3 - <Figure caption in Arial regular 12 point font>

B.6 Table Title Template:

Table 4.5 - < Table title in Arial regular 12 point font>

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B.7 List of References Template:

- Ackerman, S. *et al.* (1997). Discriminating clear-sky from cloud with MODIS: Algorithm Theoretical Basis Document, Version 3.2.
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