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Configuration Management Plan
for the Objective Supply
Capability Adaptive
Redesign (OSCAR)
Project

K. A. Rasch
R. W. Reid

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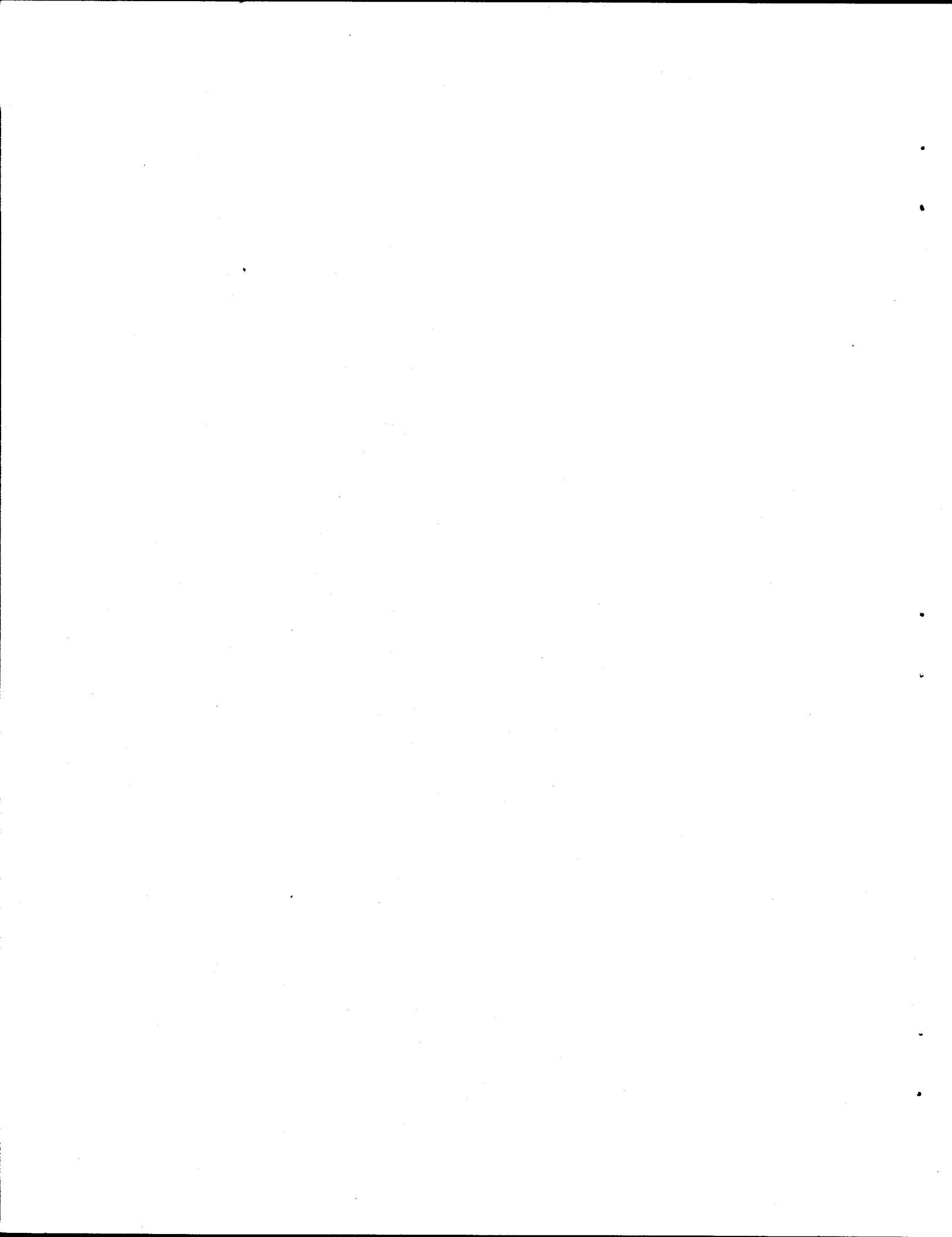
Computational Physics and Engineering Division

**CONFIGURATION MANAGEMENT PLAN
FOR THE
OBJECTIVE SUPPLY CAPABILITY ADAPTIVE
REDESIGN (OSCAR) PROJECT**

**K. A. Rasch
R. W. Reid**

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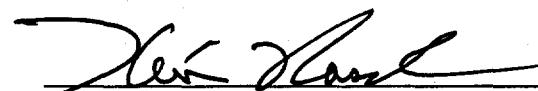
APPROVALS

The following signatures indicate acceptance, concurrence, and support of this Configuration Management Plan for the Objective Supply Capability Adaptive Redesign (OSCAR) Project.



Date: 1/24/97

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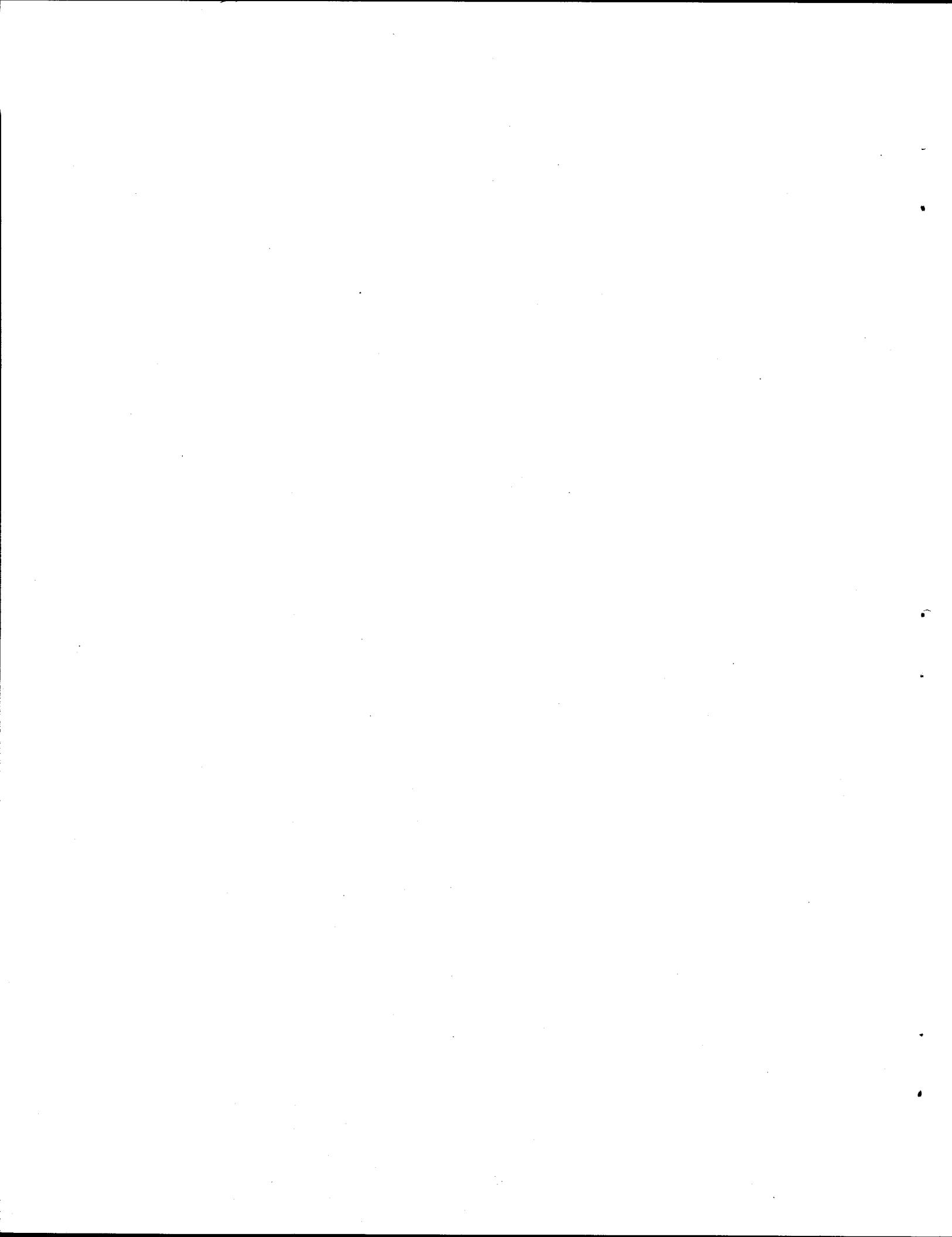
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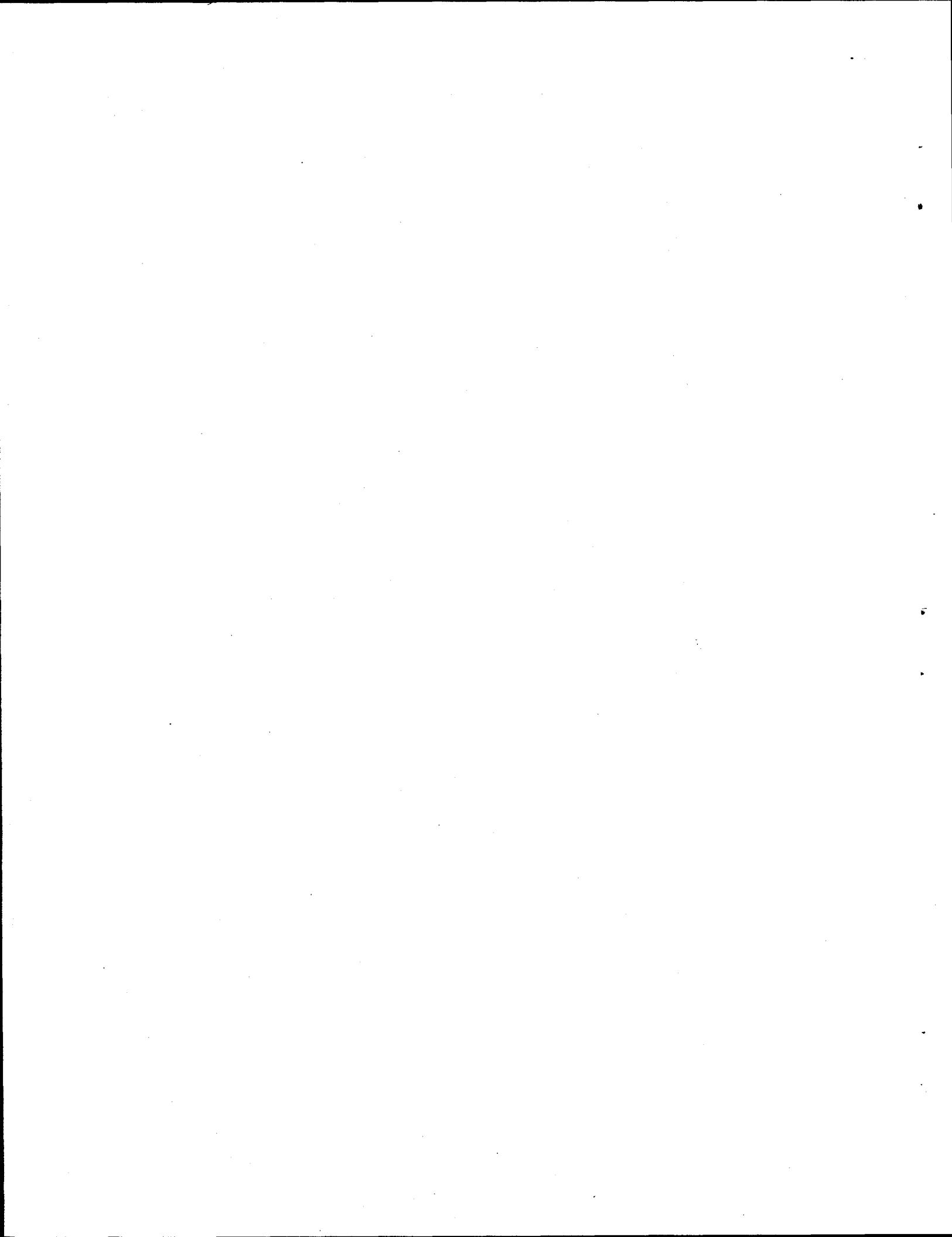
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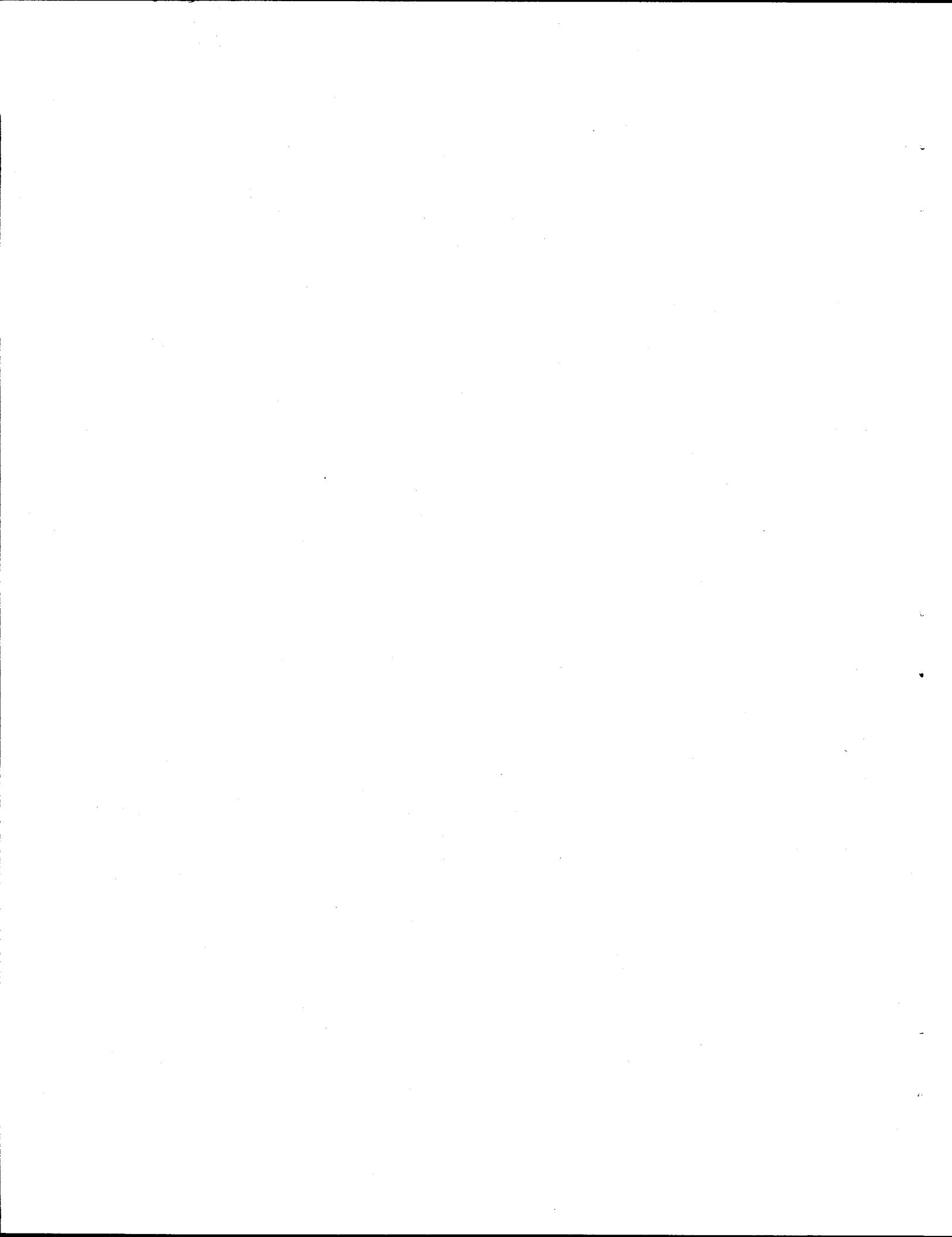
CONTENTS

ABSTRACT.....	vii
ACRONYMS.....	ix
1. BASELINES.....	1
1.1 REQUIREMENTS BASELINE.....	1
1.2 SOFTWARE BASELINE.....	1
2. CHANGE CONTROL PROCEDURES.....	3
2.1 PLATFORMS.....	3
2.2 RESPONSIBILITIES	3
2.2.1 System Administrator	3
2.2.2 Technical Contact.....	3
2.2.3 Project Manager	3
2.3 SOFTWARE CONFIGURATION CONTROL.....	4
2.4 REQUIREMENTS UPDATE PROCESS	5
2.4.1 Functional Requirements Document.....	5
2.4.2 Configuration Control Notebook	5
APPENDIX: CHANGE PROPOSAL FORM	7



ABSTRACT

The Configuration Management Plan for the Object Supply Capability Adaptive Redesign (OSCAR) documents the methods used for the OSCAR project to implement configuration management and control. Specific areas addressed include the establishment of baselines and change control procedures.



ACRONYMS

OSCAR	Objective Supply Capability Adaptive Redesign
QA	quality assurance

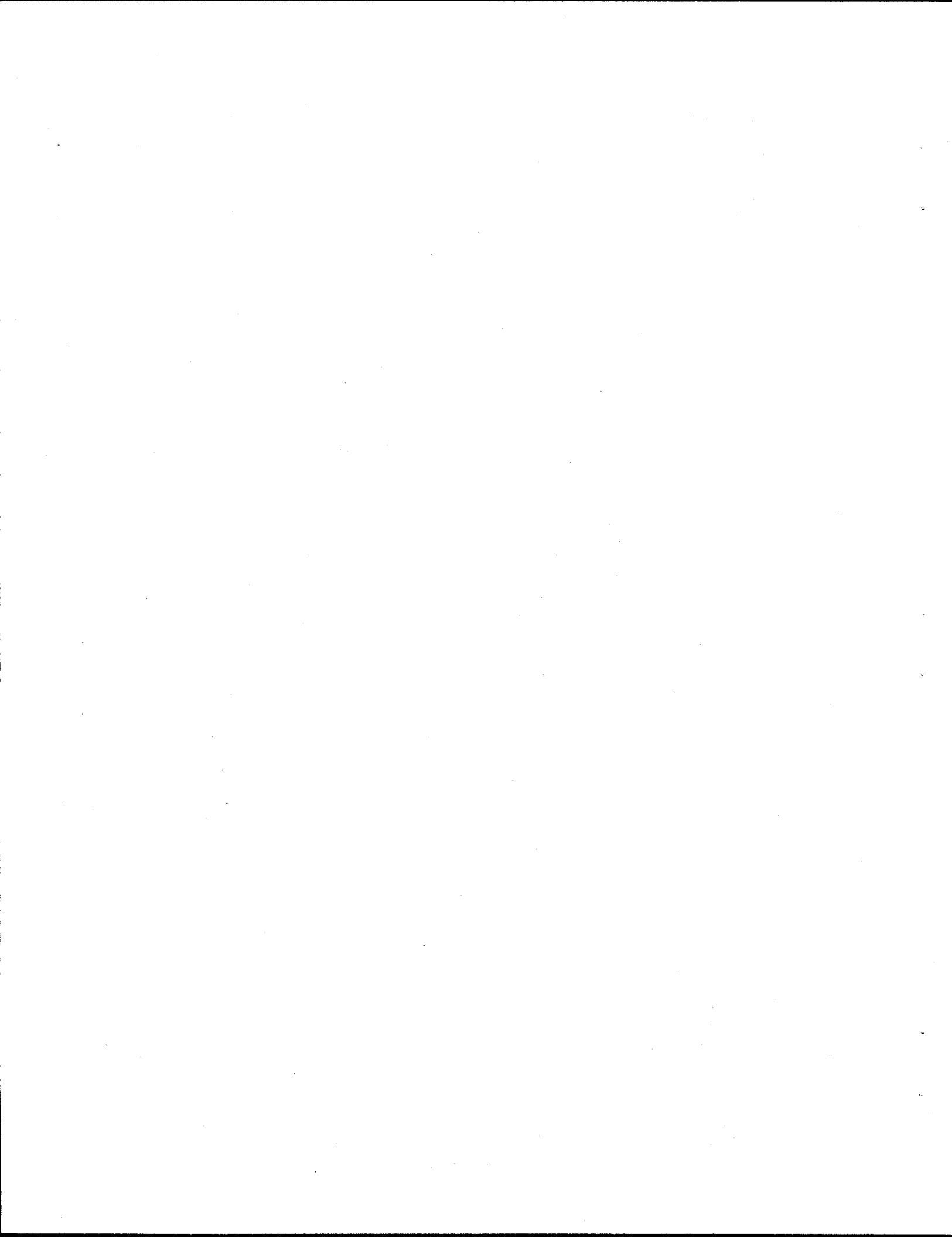
1. BASELINES

1.1 REQUIREMENTS BASELINE

The requirements baseline will be established when the requirements are completed and initially approved. The initial requirements baseline will be limited in scope to Phase 1 of the project. Subsequent requirements baselines will be established for later phases of the project.

1.2 SOFTWARE BASELINE

The software baseline is established at the time of system release. Each software baseline will be associated with a specific version number and will be the foundation for subsequent releases, repairs, and enhancements.



2. CHANGE CONTROL PROCEDURES

2.1 PLATFORMS

Two platforms will be used for the OSCAR system—the development platform and the production platform. Each platform's hardware will be identical, and the software configuration of each platform will be as nearly identical as possible.

The development platform will be located in Oak Ridge, Tennessee, and the production platform will be located in Arlington, Virginia. The system will be programmed and tested on the development platform. Then it will be deployed on the production platform. Similarly, changes to the system will be implemented and tested on the development platform before being installed on the production platform.

2.2 RESPONSIBILITIES

Responsibility for requesting, documenting, implementing, and testing changes are shared between the System Administrator, the Technical Contact, and the Project Manager. The general responsibilities of each person are listed below.

2.2.1 System Administrator

- Requests changes

2.2.2 Technical Contact

- Requests changes
- Verifies change proposal forms
- Develops a system test plan
- Verifies the system test plan on the production platform

2.2.3 Project Manager

- Completes change proposal form
- Implements changes on the development platform
- Develops a system test plan
- Verifies the system test plan on the development platform
- Updates the system version number
- Archives a baseline copy of the source code
- Installs changes on the production platform
- Maintains the project configuration control notebook

2.3 SOFTWARE CONFIGURATION CONTROL

The steps that will be taken to request, implement, test, and install changes to the system are described below.

1. The Technical Contact or System Administrator contacts the Project Manager and requests a system change via phone, e-mail, fax, etc.
2. The Project Manager estimates the number of hours needed to complete the change and a completion date. The Project Manager adds this information and a formal description of the request to the change proposal form along with any other changes to be included in the next software release.
3. The change proposal form is faxed to the Technical Contact.
4. The Technical Contact verifies the accuracy of the change proposal form through consultation with the change originator, signs and dates the form, and faxes it back to the Project Manager. If the Technical Contact disputes an item on the change proposal form, the Project Manager is informed of the problem and the process returns to step 2.
5. The Project Manager adds the change proposal form to the project configuration control notebook.
6. The Project Manager implements changes to the system on the development platform.
7. The Project Manager increases the system version number.
8. The Project Manager and/or the Technical Contact develops a system test plan to verify the accuracy of the changes.
9. The Project Manager executes the system test plan on the development platform.
10. The Project Manager verifies the results of the system test plan on the development platform. If the code passes, the Project Manager signs and dates a copy of the results and adds the results to the project configuration control notebook. If the code fails, the Project Manager corrects the problem on the development platform and the process returns to step 9.
11. The Project Manager installs the changes on the production system.
12. The Technical Contact executes the system test plan on the production platform.
13. The Technical Contact verifies the results of the system test plan on the production platform. If the code passes, the Technical Contact signs and dates a copy of the

results and faxes it to the Project Manager. If the code fails, the Technical Contact informs the Project Manager, the Project Manager rolls the production system back to the previous version, the Project Manager corrects the problem on the development platform, and the process returns to step 9.

14. The Project Manager adds the results of the system test plan on the production platform to the configuration control notebook.
15. The Project Manager archives a copy of the new baseline source code.

2.4 REQUIREMENTS UPDATE PROCESS

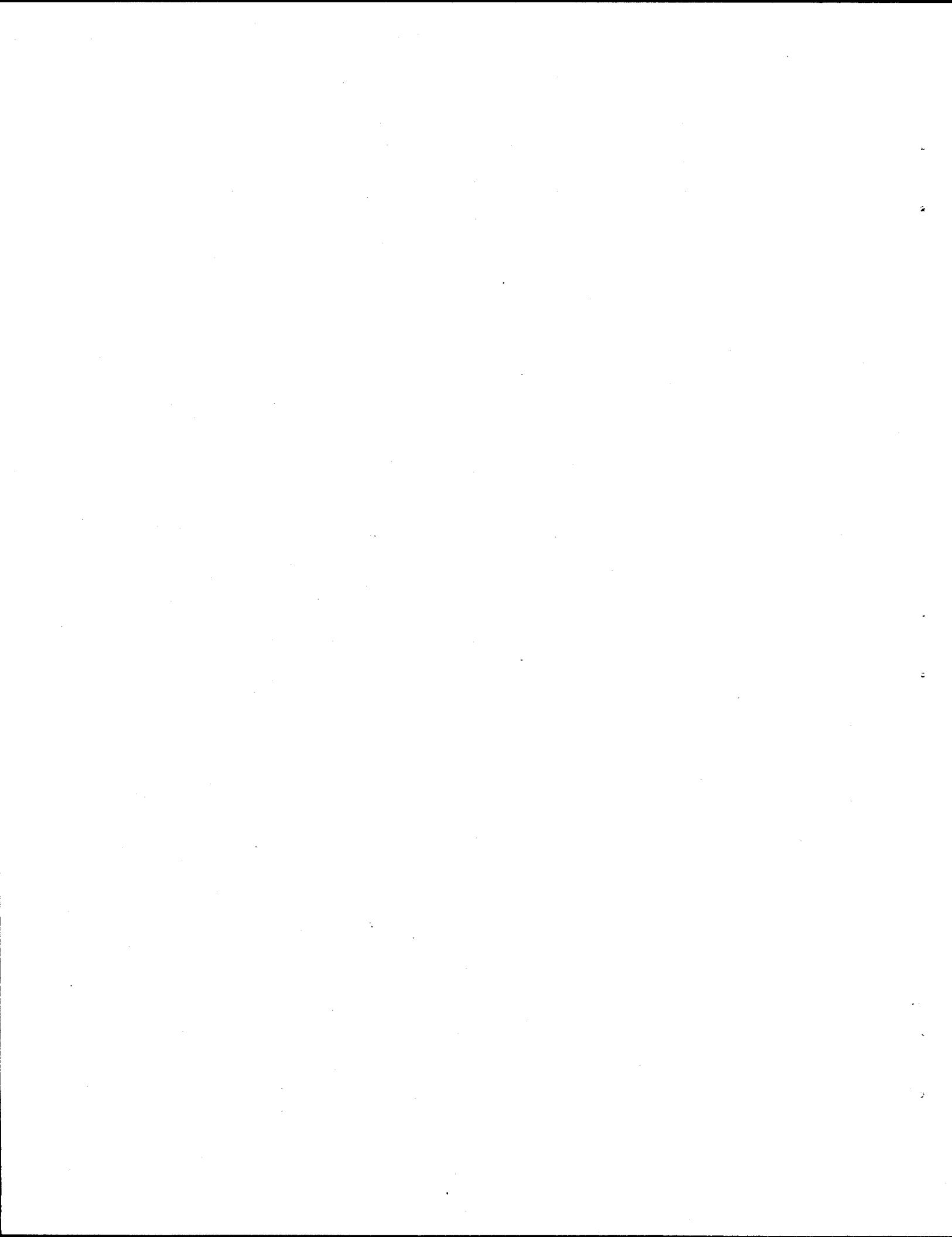
2.4.1 Functional Requirements Document

A baseline functional requirements document will be created for Phase 1 of the OSCAR project. This document will be revised to include the requirements of subsequent phases of the project so that each phase will be associated with a revision of the document. Naturally, each revision of this document will add new requirements to the revision of the preceding phase. However, each revision may also be used to change or remove requirements specified in earlier phases.

2.4.2 Configuration Control Notebook

There are two types of changes that may take place to the OSCAR system—enhancements and repairs. Enhancements are changes that affect the system requirements (e.g., the addition of a new report or a modification to the structure of a database table). Repairs correct errors but do not change the functions of the system.

Because enhancements affect the system requirements, the most recent revision of the functional requirements document may not fully describe the most current set of system requirements. In all likelihood, the configuration control notebook will contain changes to the baseline requirements. For this reason, both the most recent revision of the functional requirements document and the configuration control notebook must be consulted to determine the actual system requirements at any point during the lifetime of the project.



APPENDIX: CHANGE PROPOSAL FORM