
<APOLLO XIII>

RISK MANAGEMENT PLAN

Version *<1.0>*

<04/11/1970>

VERSION HISTORY

*[Provide information on how the development and distribution of the **Risk Management Plan** up to the final point of approval was controlled and tracked. Use the table below to provide the version number, the author implementing the version, the date of the version, the name of the person approving the version, the date that particular version was approved, and a brief description of the reason for creating the revised version.]*

Version #	Implemented By	Revision Date	Approved By	Approval Date	Reason
1.0	<Terry Mitchell, PMP, CSM>	<03/11/70>	< Gene Kranz >	<03/11/70>	Initial Risk Management Plan draft
1.1	< Terry Mitchell, PMP, CSM >	<04/03/70>	<Gene Kranz >	<04/03/70>	<Command Module Pilot change>

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1 INTRODUCTION

1.1 PURPOSE OF THE RISK MANAGEMENT PLAN

[Provide the purpose of the Risk Management Plan.]

Increase the probability of a successful voyage to the moon & increase impact of walks on the lunar surface, while decreasing the probability & impact of any event that could endanger the lives of the crew.]

A risk is an event or condition that, if it occurs, could have a positive or negative effect on a project's objectives. Risk Management is the process of identifying, assessing, responding to, monitoring, and reporting risks. This Risk Management Plan defines how risks associated with the <Apollo XIII> project will be identified, analyzed, and managed. It outlines how risk management activities will be performed, recorded, and monitored throughout the lifecycle of the project and provides templates and practices for recording and prioritizing risks.

The Risk Management Plan is created by the project manager in the Planning Phase of the Project Management Process and is monitored and updated throughout the project.

The intended audience of this document is the project team, project sponsor and management.

2 RISK MANAGEMENT PROCEDURE

2.1 PROCESS

[Summarize the steps necessary for responding to project risk.]

The project manager working with the project team and project sponsors will ensure that risks are actively identified, analyzed, and managed throughout the life of the project. Risks will be identified as early as possible in the project so as to minimize their impact. The steps for accomplishing this are outlined in the following sections. The <project manager or other designee> will serve as the Risk Manager for this project.

2.2 RISK IDENTIFICATION

Risk identification will involve the project team, appropriate stakeholders, and will include an evaluation of environmental factors, organizational culture and the project management plan including the project scope. Careful attention will be given to the project deliverables, assumptions, constraints, WBS, cost/effort estimates, resource plan, and other key project documents.

A Risk Management Log will be generated and updated as needed and will be stored electronically in the project library located at <file location>.

A few of the risks identified and listed in the Risk Register could be the following.

Mechanical failure of propulsion system

Electrical failure of the control systems

Illness or injury of crew before or during the mission

Weather at the cape at time of launch

2.3 RISK ANALYSIS

All risks identified will be assessed to identify the range of possible project outcomes. Qualification will be used to determine which risks are the top risks to pursue and respond to and which risks can be ignored.

2.3.1 Qualitative Risk Analysis

The probability and impact of occurrence for each identified risk will be assessed by the project manager, with input from the project team using the following approach:

Probability

High – Greater than <70%> probability of occurrence [Mechanical failure of propulsion system]

- Medium – Between <30%> and <70%> probability of occurrence [Electrical failure of the control systems]
- Low – Below <30%> probability of occurrence [Illness or injury of crew before or during the mission]

Impact

• High – Risk that has the potential to greatly impact project cost, project schedule or performance [Mechanical or Electrical failure]

• Medium – Risk that has the potential to slightly impact project cost, project schedule or performance [Weather at the cape at time of launch]

• Low – Risk that has relatively little impact on cost, schedule or performance

Impact	H	Yellow	Red	Red
	M	Green	Yellow	Red
	L	Green	Green	Yellow
		L	M	H
		Probability		

Risks that fall within the RED and YELLOW zones will have risk response planning which may include both a risk mitigation and a risk contingency plan.

2.3.2 Quantitative Risk Analysis

Analysis of risk events that have been prioritized using the qualitative risk analysis process and their affect on project activities will be estimated, a numerical rating applied to each risk based on this analysis, and then documented in this section of the risk management plan.

2.4 RISK RESPONSE PLANNING

Each major risk (those falling in the Red & Yellow zones) will be assigned to a project team member for monitoring purposes to ensure that the risk will not “fall through the cracks”.

For each major risk, one of the following approaches will be selected to address it:

- **Avoid** – eliminate the threat by eliminating the cause [Extensive testing prior to launch]
- **Mitigate** – Identify ways to reduce the probability or the impact of the risk [Backup systems]
- **Accept** – Nothing will be done [physical and mental stress of crew]
- **Transfer** – Make another party responsible for the risk (buy insurance, outsourcing, etc.)

For each risk that will be mitigated, the project team will identify ways to prevent the risk from occurring or reduce its impact or probability of occurring. This may include prototyping, adding tasks to the project schedule, adding resources, etc.

For each major risk that is to be mitigated or that is accepted, a course of action will be outlined for the event that the risk does materialize in order to minimize its impact.

2.5 RISK MONITORING, CONTROLLING, AND REPORTING

The level of risk on a project will be tracked, monitored and reported throughout the project lifecycle. [\[A comprehensive flight plan is followed to maintain a standard\]](#)

A “Top 10 Risk List” will be maintained by the project team and will be reported as a component of the project status reporting process for this project.

All project change requests will be analyzed for their possible impact to the project risks.

Management will be notified of important changes to risk status as a component to the Executive Project Status Report.

3 TOOLS AND PRACTICES

A Risk Log will be maintained by the project manager and will be reviewed as a standing agenda item for project team meetings. [\[Risk Register\]](#)

RISK MANAGEMENT PLAN APPROVAL

The undersigned acknowledge they have reviewed the **Risk Management Plan** for the <Apollo XIII> project. Changes to this Risk Management Plan will be coordinated with and approved by the undersigned or their designated representatives.

[List the individuals whose signatures are desired. Examples of such individuals are Business Steward, Project Manager or Project Sponsor. Add additional lines for signature as necessary. Although signatures are desired, they are not always required to move forward with the practices outlined within this document.]

Signature: _____ Date: 4/11/70
Print Name: Deke Slayton,
Title: NASA's Director of Flight Crew Operations
Role: Manager of Astronauts

Signature: _____ Date: 4/11/70
Print Name: Gene Kranz
Title: Flight Director
Role: Manage the Mission

Signature: _____ Date: _____
Print Name: _____
Title: _____
Role: _____

Signature: _____ Date: _____
Print Name: _____
Title: _____
Role: _____

APPENDIX A: REFERENCES

[Insert the name, version number, description, and physical location of any documents referenced in this document. Add rows to the table as necessary.]

The following table summarizes the documents referenced in this document.

Document Name and Version	Description	Location
<i><Apollo 13 Risk Register Version 1></i>	<i>[Risk Register]</i>	<i><URL or Network path where document is located></i>

APPENDIX B: KEY TERMS

[Insert terms and definitions used in this document. Add rows to the table as necessary.]

The following table provides definitions for terms relevant to the Risk Management Plan.

Term	Definition
<i>[Insert Term]</i>	<i>[Provide definition of the term used in this document.]</i>
<i>[Insert Term]</i>	<i>[Provide definition of the term used in this document.]</i>
<i>[Insert Term]</i>	<i>[Provide definition of the term used in this document.]</i>