

1. Record Nr.	UNINA9910778615903321
Titolo	An assessment of space shuttle flight software development processes [[electronic resource] /] / Committee for Review of Oversight Mechanisms for Space Shuttle Flight Software Processes, Aeronautics and Space Engineering Board, Commission on Engineering and Technical Systems, National Research Council
Pubbl/distr/stampa	Washington, D.C., : National Academy Press, 1993
ISBN	1-280-19651-3 9786610196517 0-309-59534-7 0-585-09840-9
Descrizione fisica	1 online resource (208 p.)
Altri autori (Persone)	LevesonNancy
Disciplina	629.44/1/028553
Soggetti	Space shuttles - Computer programs Flight engineering - Data processing Software engineering - United States
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Nancy G. Leveson--Chair.
Nota di contenuto	""An Assessment of Space Shuttle Flight Software Development Processes""; ""Copyright""; ""Foreword""; ""Contents""; ""Acronyms and Abbreviations""; ""Executive Summary""; ""INTRODUCTION""; ""THE SHUTTLE VERIFICATION AND VALIDATION PROCESS""; ""NASA Guidelines and Standards""; ""Off-Nominal Cases""; ""System-Level Software V&V""; ""The Independence of IV&V""; ""THE SILENT SAFETY PROGRAM REVISITED""; ""Software Safety Standards""; ""Software Safety Procedures""; ""Personnel""; ""System-Safety Organizational Roles and Responsibilities""; ""ORGANIZATIONAL ROLES AND RESPONSIBILITIES"" ""Documenting the Process""""The Role of Headquarters S&MQ and the Center SR&QA Offices""; ""Community Responsibility""; ""Policies, Guidelines, and Enforcement""; ""FINAL THOUGHTS AND FUTURE CONSIDERATIONS""; ""Contract Reporting Requirements""; ""Organizational Learning""; ""Part 1 Overview And Background ""; ""1 Overview Of The Study ""; ""INTRODUCTION""; ""THE COMMITTEE'S

TASK"; "CONTENTS OF THIS REPORT"; "PREVIOUS STUDIES"; "THE FLIGHT SOFTWARE CHALLENGE"; "2 Independent Verification and Validation of Critical Software "; "INTRODUCTION"; "ORIENTATION"; "SCOPE"
"INDEPENDENCE""IV&V IN THE SHUTTLE PROGRAM"; "3 The Space Shuttle Flight Software Development Process "; "INTRODUCTION"; "THE SOFTWARE"; "THE PROCESS"; "Part 2 Findings And Recommendations "; "4 The Space Shuttle Flight Software Verification And Validation Process "; "INTRODUCTION"; "NASA GUIDELINES AND STANDARDS"; "OFF-NOMINAL CASES"; "SYSTEM-LEVEL SOFTWARE V&V"; "THE INDEPENDENCE OF IV&V"; "5 The Silent Safety Program Revisited "; "INTRODUCTION"; "SOFTWARE SYSTEM-SAFETY"; "SOFTWARE SAFETY STANDARDS"; "SOFTWARE SAFETY PROCEDURES"; "PERSONNEL"
"SYSTEM-SAFETY ORGANIZATIONAL ROLES AND RESPONSIBILITIES""6 Organizational Issues "; "INTRODUCTION"; "DOCUMENTING THE PROCESS"; "ORGANIZATIONAL ROLES AND RESPONSIBILITIES"; "The Role of S&MQ"; "Community Responsibility"; "POLICIES, GUIDELINES, AND ENFORCEMENT"; "7 Final Thoughts And Future Considerations "; "INTRODUCTION"; "GATHERING THE LESSONS LEARNED"; "CONTRACT REPORTING REQUIREMENTS"; "ORGANIZATIONAL LEARNING"; "ESTABLISHING STATE-OF-THE-ART CAPABILITIES WITHIN NASA"; "Biographical Sketches Of Committee Members"; "Bibliography"; "Published Works"
"Unpublished Works, Presentations, And Informal Documentation""
Appendix A Study Participants"; "Appendix B Statement Of Task "; "COMMITTEE FOR REVIEW OF OVERSIGHT MECHANISMS FOR SPACE SHUTTLE FLIGHT SOFTWARE PROCESSES"; "Appendix C Interim Report of the Committee for Review of Oversight Mechanisms for Space Shuttle..."; "INDEPENDENT VERIFICATION AND VALIDATION FOR SPACE SHUTTLE FLIGHT SOFTWARE"; "COMMITTEE FOR REVIEW OF OVERSIGHT MECHANISMS FOR SPACE SHUTTLE FLIGHT SOFTWARE PROCESSES"; "Staff"; "AERONAUTICS AND SPACE ENGINEERING BOARD"
"Aeronautics and Space Engineering Board Staff"
