Record Nr. UNINA9910827984903321 Industrial methods for the effective development and testing of defense **Titolo** systems / / National Research Council of the National Academies Pubbl/distr/stampa Washington, D.C., : National Academies Press, c2012 **ISBN** 0-309-22273-7 1-280-12344-3 9786613527301 0-309-22271-0 Edizione [1st ed.] Descrizione fisica 1 online resource (103 p.) 620 Disciplina Industrial engineering - Statistical methods Soggetti Military research - United States Industrial engineering - Development - Testing Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "Panel on Industrial Methods for the Effective Test and Development of Note generali Defense Systems, Committee on National Statistics, Division of Behavioral and Social Sciences and Education, Board on Army Science and Technology, Division on Engineering and Physical Sciences." Nota di bibliografia Includes bibliographical references. Nota di contenuto Introduction -- Workshop Summary -- Requirements Setting --Design and Development -- Testing Methods -- Communication, Resources, and Infrastructure -- Organizational Structures and Related Issues -- References -- Appendix A: Workshop Agenda -- Appendix B: Overview of the Defense Milestone System -- Appendix C: Biographical Sketches of Panel Members and Staff -- Committee on National Statistics. Sommario/riassunto "Over the past decade and a half, the National Research Council, through its Committee on National Statistics, has carried out a number of studies on the application of statistical methods to improve the testing and development of defense systems. These studies were intended to provide advice to the Department of Defense (DOD), which sponsored these studies. The previous studies have been concerned with the role of statistical methods in testing and evaluation, reliability practices, software methods, combining information, and evolutionary

acquisition. Industrial Methods for the Effective Testing and Development of Defense Systems is the latest in a series of studies, and unlike earlier studies, this report identifies current engineering practices that have proved successful in industrial applications for system development and testing. This report explores how developmental and operational testing, modeling and simulation, and related techniques can improve the development and performance of defense systems, particularly techniques that have been shown to be effective in industrial applications and are likely to be useful in defense system development. In addition to the broad issues, the report identifies three specific topics for its focus: finding failure modes earlier, technology maturity, and use of all relevant information for operational assessments." --Publisher's description.