

1. Record Nr.	UNINA9910219984303321
Autore	Lorell Mark A. <1947->
Titolo	The cutting edge : a half century of fighter aircraft R&D // Mark A. Lorell, Hugh P. Levaux
Pubbl/distr/stampa	Santa Monica, CA, : RAND, 1998
ISBN	1-282-45103-0 9786612451034 0-8330-4860-0
Descrizione fisica	1 online resource (247 p.)
Altri autori (Persone)	LevauXHugh P
Disciplina	358.4/07/0973
Soggetti	Aeronautics, Military - Research - United States - History Fighter planes - Research - United States - History
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Prepared for the United States Air Force, Project Air Force, RAND."
Nota di bibliografia	Includes bibliographical references (p. 201-208) and index.
Nota di contenuto	COVER; PREFACE; CONTENTS; FIGURES; PHOTOGRAPHS; TABLES; SUMMARY; ACKNOWLEDGMENTS; ABBREVIATIONS; Chapter One - INTRODUCTION; BACKGROUND AND OVERVIEW; RESEARCH APPROACH AND METHODOLOGY; CONCLUSIONS; Chapter Two - THE 1920s TO THE 1950s: THE LONG ROAD TOWARD U.S. LEADERSHIP IN FIGHTER R&D; INTRODUCTION; U.S. FIGHTERS AND THEIR DEVELOPERS BEFORE THE JET AGE (1917-1945); BUILDING THE EXPERIENCE BASE: FIRST-GENERATION SUBSONIC JET FIGHTERS; Chapter Three - THE SUPERSONIC REVOLUTION; EVER FASTER AND HIGHER: JET-FIGHTER R&D TRENDS IN THE 1950s; DEVELOPMENT OF AIR FORCE SUPERSONIC FIGHTERS DEVELOPMENT OF NAVY SUPERSONIC FIGHTERS OVERALL TRENDS FOR PERIOD 1, 1945-1961; Chapter Four - THE 1960s AND 1970s: ACQUISITION REFORM, DOCTRINAL FERMENT; INTRODUCTION; MCNAMARA AND THE TFX: ONE SIZE FITS ALL; Chapter Five - REVIVAL OF THE AIR-SUPERIORITY FIGHTER; INTRODUCTION; OF EAGLES AND TOMCATS; THE F-16 AND F/A-18: LIGHTER, LOWER-COST ADDITIONS; OVERALL TRENDS IN THE 1960s AND 1970s; Chapter Six - THE 1970s TO THE 1990s: THE STEALTH REVOLUTION; NEW TECHNOLOGY, NEW INDUSTRY LEADERS; DEVELOPMENT OF THE F-117 NIGHTHAWK; EMERGENCE OF THE ADVANCED TECHNOLOGY BOMBER PROGRAM

THE F-22: DEVELOPING THE FIRST STEALTHY AIR-SUPERIORITY FIGHTER
THE ROLE OF EXPERIENCE IN THE STEALTH ERA; Chapter Seven - CONCLUDING OBSERVATIONS; THE INTERPLAY OF EXPERIENCE AND INNOVATION; THE IMPORTANCE OF SYSTEM-SPECIFIC EXPERIENCE; THE EFFECT OF NEW TECHNOLOGY PARADIGMS; THE RELATIONSHIP OF FIGHTER R&D TO OTHER TYPES OF SYSTEM DEVELOPMENT; THE IMPORTANCE OF GOVERNMENT MILITARY TECHNOLOGY RESEARCH; COMPETITION AND CAPABILITIES; Appendix A - DATABASE DESCRIPTION; Appendix B - DATABASE; BIBLIOGRAPHY; INDEX; ABOUT THE AUTHORS

Sommario/riassunto

The proposition that innovation is critical in the cost-effective design and development of successful military aircraft is still subject to some debate. RAND research indicates that innovation is promoted by intense competition among three or more industry competitors. Given the critical policy importance of this issue in the current environment of drastic consolidation of the aerospace defense industry, the authors here examine the history of the major prime contractors in developing jet fighters since World War II. They make use of an extensive RAND database that includes nearly all jet fig
