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## PREFACE

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This is one of a series of reports from the RAND Project AIR FORCE project entitled “The Cost of Future Military Aircraft: Historical Cost Estimating Relationships and Cost Reduction Initiatives.” The purpose of the project is to improve cost-estimating tools available for projecting the cost of future weapon systems. It focuses on how recent technical, management, and government policy changes affect cost. This report discusses the effects of airframe material mix and manufacturing techniques on airframe costs, emphasizing the effect of new manufacturing techniques. It also presents statistical analyses of a new airframe historical cost data set, MACDAR, which is owned by the Air Force Cost Analysis Agency (AFCAA).

This project was requested by Lieutenant General George K. Muellner, SAF/AQ, now retired. The current sponsor is Lieutenant General Stephen B. Plummer, SAF/AQ. The project technical points of contact have been John Dorsett, former Technical Director of AFCAA, and Jay Jordan, current Technical Director of AFCAA.

The information collection cutoff date was 2000.

The report should be of interest to the cost analysis community, the military aircraft acquisition community, and acquisition policy professionals generally.

### **PROJECT AIR FORCE**

Project AIR FORCE, a division of RAND, is the Air Force federally funded research and development center (FFRDC) for studies and

analysis. It provides the Air Force with independent analyses of policy alternatives affecting the development, employment, combat readiness, and support of current and future aerospace forces. Research is performed in four programs: Aerospace Force Development; Manpower, Personnel, and Training; Resource Management; and Strategy and Doctrine.