

Foreword

Over the last 50 years our military space activities have rested on an information-centric spacepower theory. The distinct advantages the medium of space provides for the collection and dissemination of information are reflected in our space policy, capabilities, and warfighting operational concepts.

The importance of space, however, is no longer limited to the military domain. Weather and imagery satellite information, satellite communications, space launch, and even turn-key space systems are all commodities available in the commercial market to those willing to pay. The Global Positioning System could be considered the first true global utility; a GPS hand-held receiver can provide free unlimited world-wide access to precision navigation and timing information.

As our national security and that of our allies becomes increasingly reliant on space systems as a means to generate wealth, power, and influence; their significance as critical capabilities continues to increase. History shows us that military operations become necessary to protect vital national interests. The global availability of space capabilities makes it incumbent upon civilian and military leaders to have a broader knowledge of the capabilities, limitations, and vulnerabilities of space systems and the medium in which they operate. The *Air University Space Primer* is intended to be a reference source to help with that task.

As with any published work, the material immediately dates itself, thus at times becoming less relevant. This primer was prepared with the intent of imparting an educational framework to build upon rather than current and specific facts that often change quickly. We hope the reader will learn principles and be stimulated in thought, rather than struggle with errata induced by rapid changes.

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August 2003