Foreword

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BY THE PRESIDENT OF THE SECURE WORLD FOUNDATION

Foreword

The Space Age began on October 4, 1957 with the launch of Sputnik, the first satellite to orbit the Earth. In the years that followed, space activities were dominated by the two Cold War rival superpowers, the United States and the former Soviet Union. Space activities were seen as the exclusive preserve of a few technologically advanced nations. However, in the decades that followed, more and more countries began to acquire space capabilities, and gradually those capabilities started to deliver tangible benefits to the citizens of those countries. These trends have continued, to the point where today more than 90 countries have launched or operated at least one satellite in space. Most of these countries have entered the space arena within the last 20 years as the financial and technological barriers to accessing space have been lowered by the advent of the commercially available off-the-shelf space technologies. This has led to an exponential growth in the number of active satellites in space in recent years. As of the start of 2023, there were more than 7,000 active satellites in orbit delivering services and benefits to citizens in every country on the globe.

Becoming a space-capable nation is a complex, multi-year endeavor that requires building coalitions across a wide spectrum of actors from government, industry, and civil society. Often a country's first steps into the space arena begin with building and launching a small satellite, and indeed a small satellite program can serve as a motor for developing a national space arena, but this must be purposefully managed from the start if the national space ecosystem is to be sustainable. If a satellite project is implemented in a policy and regulatory vacuum, and if there are no tangible societal benefits, then the space activity will not be sustained beyond the lifetime of the given mission. This is why it is so important to focus on building and sustaining a broad spectrum of national space capabilities that allow a country to access and use space-derived information and services for national development, instead of focusing narrowly on a series of satellite missions carried out in a policy and strategy vacuum, which inevitably leads to a vicious cycle of the acquisition, degradation, loss and subsequent costly rebuilding of capabilities and human capital previously acquired.

This book provides valuable guidance to those taking their first steps to develop the space arena in their countries. The book is essentially a guide on how to build a sustainable space sector through an incremental approach. It begins with a review of the societal benefits of space activities. It then defines the spectrum of space capabilities that a country may wish to develop and provides practical advice on how to develop those space capabilities. The discussion of concepts is supported with helpful illustrative use-case presentations and a guide to further reading. If you are in the position of starting to develop the space arena in your country, this book is for you!

Peter Martinez
President
Secure World Foundation