

A Message from CAST Executive Director, Maria Peterson

Our primary focus in the establishment of the *Center for Applied Space Technology (CAST)* was the innovative application, or reapplication, of aerospace resources and technologies to support a wide range of emerging needs and opportunities. In the course of the first eighteen months of its existence, **CAST** has had the opportunity and privilege to exercise that very concept of *innovative application* to its own mission, and in the process has further defined our organizational objectives moving forward.

We have had the good fortune to align ourselves with some very interesting people and organizations that have enabled us to both stay on the leading edge of some extremely capable technologies and to better understand the needs and requirements of a much wider range of agencies and activities than we originally expected. As a result, **CAST** has spent the last few months with efforts and resources equally divided between each of our three mission areas.

We continue to research, advance, test, and evaluate *new technologies* and *innovative applications* of these technologies against an expanding array of opportunities. Our efforts to support sustainable marine resource management have led to the integration of several cutting-edge technologies including satellite tracking and monitoring and virtual environments. Success in this endeavor has encouraged us to apply the same technologies and processes to other areas where success is defined by the ability to correlate several diverse data sets; the extraction of information from the resulting *data matrix*; and ultimately, the management of resources through the visual display of this derived information in a virtual environment.

CAST has been provided the opportunity to support the very dedicated agencies working hard to address the aerospace workforce issues associated with the impending transition of our national space program from the space shuttle to the *Constellation* program. The incumbent aerospace workforce is a national—and local—treasure. **CAST** is working to develop an accurate skills profile that will contribute to the *creation and growth of new industry* by supporting the transition of those individuals who will not be advancing into the *Constellation*. **CAST** is also supporting the individual worker by researching and promulgating “*Life Long Learning*”

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opportunities which will help ensure a highly skilled workforce is available as aerospace and other high tech industries become operational in the vicinity of the space center.

Finally, **CAST** continues to create, develop, pursue, or support every prospective **educational program** that seeks to develop K-12 interest and participation in the STEM (Science, Technology, Engineering, and Mathematics) disciplines. Through our professional relationships, such as with the Florida Council of the AeA, we have come to understand the size and impact of the potential disaster facing our nation's high tech industry and enterprise as the next generation of engineers and technicians reaches the work place. Quite simply, they aren't going to be there, at least not in the numbers or with the training, skills, and motivation necessary for the United States to maintain its superiority in the high tech industries, including space exploration and operations. **CAST** is determined to use its unique positioning within the space industry to promote the excitement, rewards, and opportunities that are associated with a career in a STEM-related industry. In this capacity, we have partnered, and continue to seek partners, within the industry to help motivate our nation's students, particularly from female and under-represented populations, toward such a career. Our nation's economic future as well as security rests with the decisions these students are making every day in the level and nature of their pursuit of education.

The uncertainty inherent in our contemporary world, given the daily impact of news about the economy, the environment, the election brings to mind the words of Dickens, 'these are the best of times; they are the worst of times'. As for **CAST**, we see only opportunities—and challenges—in these very uncertainties. We invite you to join us as we search for the innovative solutions and processes that might address these very issues of sustainability and advancement of the human spirit. We're always happy to make new friends!

Maria Peterson
CAST Executive Director