

STARGATE Annual Commercialization Report

Fiscal Year 2015-2016

Prepared by CARA and the CARA External Commercialization Advisory Committee

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About the Committee

The mission of the Center for Advanced Radio Astronomy (CARA) is to make South Texas a leader in Space Exploration through research, education, innovation, and technology transfer. The CARA external commercialization advisory Committee (CECAC) is a sub-group of CARA's External Advisory Board. CECAC is a group of accomplished experts that offers non-biased innovative advice and dynamic perspectives to the CARA executive team with emphasis on STARGATE, CARA's main technology development and commercialization program. The CECAB reviews plans and provides guidance and strategic direction. The committee meets in whole or in part once every month. Twice a year, the committee holds a strategic review of STARGATE activities. For FY 2016, meetings were held on June 27th, and on October 26, 2016.

Summary of the past year's activities

In preparation of the major funding from the State through the program formerly known as the Texas Emerging Technology fund, the STARGATE team has been working closely with the members of CARA's External Commercialization Advisory Committee (CECAC) to promote NewSpace technology development, entrepreneurship and commercialization in the South Texas Region. This year's activities included developing strategic alliances and key connections with the Houston Technology Center, the Silicon Valley Space Center, the Houston Spaceport, the Rice University Space Institute, Baylor University, the City of Brownsville, Greater Brownsville Incentives Corporation, and Brownsville's Chamber of Commerce. In addition, the STARGATE team also developed the STARGATE Technology Launch Pad (STLP) in strategic alliance with the Houston Technology Center (HTC), held the second STARGATE Talks, conducted a market study for phased array technologies, and developed the concepts of NewSpace City Brownsville and the Texas space corridor.

STARGATE Technology Launch Pad

STLP is an incubator/accelerator for NewSpace companies in South Texas. In an effort to promote NewSpace technology development in South Texas, CARA teamed up with the Houston Technology Center to create an innovative incubator/accelerator for NewSpace companies in South Texas known as the STARGATE Technology Launch Pad in strategic alliance with the Houston Technology Center. The HTC is one of the top incubator/accelerators in the nation as demonstrated by its \$2.4 billion dollar economic development impact in the Houston area. This new alliance will enable CARA to benefit from HTC's good practices and methodologies. CARA will bring HTC's proven model of

startup company mentorship and development to South Texas, thus fostering the community's entrepreneurial climate and bring us one step closer to realizing the vision of a Silicon Valley like entrepreneurial culture in the region.

STARGATE Talks

CARA, in collaboration with a community service group known as Project Space, created STARGATE Talks as a mechanism to educate and engage the region's youth in the opportunities that STARGATE will generate for and with the business community in South Texas. This open forum is designed to give the community an overview of the activities, including the technology development, ongoing in the STARGATE project. In addition, renowned experts in innovation and NewSpace technology development and entrepreneurship have presented their unique perspective, concepts, and strategies to community leaders and potential NewSpace stakeholders.

Phased Array Technologies Market Study

STARGATE is developing next generation radio frequency communication hardware that has the potential to be applied not only in the space/aerospace industry but also in other industries such as transportation and oil & gas. CARA CECAC has reviewed current prospects in these rapidly developing arenas for the phased array technology. Also, STARGATE, in collaboration with SVRIED is in the process of integrating a more detailed market study.

NewSpace City Brownsville

Optimizing the unique opportunity of having a partnership with the most successful private company with a vertical launch site in Boca Chica, and on the emergence of NewSpace as the newest approach to develop space exploration technologies, STARGATE created the concept of NewSpace City Brownsville as a new identity and slogan for the city. This play on words links us to the legendary success of Space City Houston and to the emerging NewSpace economic sector. Through 2016, STARGATE has been working with the city and its authorities as well as with the Brownsville Economic Development Council, the Greater Brownsville Incentives Corporation, and the Brownsville Chamber of Commerce to adopt and co-own the concept.

Texas Space Corridor

The South Texas coastal region from Brownsville up to Houston is uniquely suited for launching vertical liftoff spacecraft. In order to promote the development of NewSpace technologies along this "Space Corridor", the CARA team has been establishing strategic alliances with key players including the HTC, the Houston Spaceport, the Silicon Valley Space Center, Rice University Space Institute, Baylor University, NASA Johnson Space Center, the Global Spaceport Alliance, and SPACECOM with the purpose make Texas a leader in the NewSpace industry.