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WHY ESTABLISHING A SPACEPORT IN THE AZORES – ISLAND OF SANTA MARIA?

In several recent independent studies, all the authors concluded that the Island of Santa Maria offers a privileged geographic location in the middle of the Atlantic, permitting an unobstructed launch trajectory, over the sea, for Polar or SSO orbits, as well as a unique position between Europe, the Americas and Africa, representing a major advantage compared to other space ports in the world.

ANNEX 1 provides a short description of the launch site location and related characteristics.

The feasibility of establishing a spaceport in the Azores was first assessed in the fall of 2017 by the Center for Space Research of the University of Texas at Austin (UT-Austin) under the UT Austin-Portugal Partnership, supported by *the Portuguese Science and Technology Foundation*, FCT, and released by the end of 2017.

Since then, several key space providers have initiated studies about potential launch sites in the Azores and, in addition, ESA is currently supporting preliminary micro-launcher related studies through its FLPP - Future Launchers Preparatory Program and GSTP - General Studies and Technology Programme (additional information can be provided upon request to ESA).

These have also gained from a new national context launched in Portugal through several related but distinct initiatives, namely:

1. The installation of the Atlantic International Research Centre (AIR Centre; <http://aircentre.org>), presented and building up in the various *High Level Dialogues on "Atlantic Interactions"*, namely in Terceira, Azores (April 20-21, 2017), Florianopolis, Brazil (November 26-27, 2017) and Praia, Cape Verde (20-21 April, 2018);

2. The new Portuguese Strategy for Space - "*Portugal Space 2030*", www.fct.pt, launched for public discussion in July 2017 and approved by the Portuguese Council of Ministers in February (RCM 30/2018, *Diário da República*, March 12, 2018). It aims to make of Portugal an institutional customer of launcher services from the Azores;

3. The definition of a new legal context for the operation from Portugal, of international launch services to space and associated satellites, which included the preparation of a “Space Law” (additional information is available at www.fct.pt, and can be provided upon request to FCT);

4. The expansion of existing satellite monitoring and tracking facilities in the island of Santa Maria, including the installation of a 15-meter antenna, in parallel with the existing 5.5-meter antenna, that operates in close vicinity to related infrastructures for EUMESAT (EPS-SG) and GSA-Galileo (additional information is available at www.fct.pt, and can be provided upon request to FCT);

5. Holding the first “NewSpace Atlantic Summit 2018”, in Lisbon, on May 28th-29th, which brought together a number of European and worldwide stakeholders in space science and technology with the ultimate goal of assisting in promoting new markets and skilled employment in diverse areas of our economies, as well as to deepening the emerging debate worldwide on small, mini, micro and nano-satellites, with emphasis on Atlantic regions. The summit was organized by the Space Frontier Foundation, SFF, in collaboration with the Portuguese Science and Technology Foundation, FCT, and the Ciência Viva Agency for Scientific and Technology Culture. It was oriented towards opening new areas of intervention for launchers services, including the potential development of an “open” spaceport in Atlantic regions, and extending existing satellite-based monitoring and tracking assets, as well as expanding Earth observation activities (additional information is available at www.fct.pt, and can be provided upon request to FCT).

Additionally, a number of other related initiatives have been launched over the last year, including:

- The preparation of the 9th *European Framework program for Research and Innovation*, “Horizon Europe” (2021-2027), which considers several space-related research and innovation activities, to be considered in close interaction with the preparation of the European Space Program (2021-2027) and the *European Defence Fund* (2021-2027), for which Portugal has significantly contributed ideas including the promotion of “new space” industries and related strategies;

- The expansion of strategic partnerships between Portuguese research organizations and leading US Universities, including the *MIT-Portugal Program*, the *Carnegie Mellon-Portugal Program* and the *UT Austin-Portugal Program*, which were extended for the period 2018-2030 under the “*Go Portugal – Global Science and Technology Partnerships Portugal*” with a specific focus on space related areas and including target areas to deepen research about “Atlantic interactions”;

- The development of new space related international relationships between Portugal and major players elsewhere in the world, under the “Go Portugal – Global Science and Technology Partnerships Portugal”, including:

- o The *Indian Space Research Organization (ISRO)*, including initial discussions about potential common interests in jointly developing space related science and technology;

- o The *Brazilian Space Agency (AEB)* and the *Brazilian National Space Research Institute (INPE)*, including initial discussions about potential common interests in jointly developing small satellites with emphases on Earth observation activities oriented towards climate change, biodiversity and maritime safety in Atlantic regions;

- o The *Chinese Academy of Sciences*, including the installation and development of a “STARLab” in Portugal oriented towards mini satellite developments in close interactions with Portuguese companies and institutions.

