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COMMERCIAL SPACE LAUNCHES SAFETY: A NEW CHALLENGE IN BRAZIL

**Abstract**

The beginning of commercial space launches activities in the Brazilian Alcântara Space Center, CEA, implies new challenges to assure the safety of people, properties and the environment. The Alcântara Cyclone Space binational company, ACS, is responsible for the commercialization and operation of launch services using the Cyclone-4 launch vehicle from its launch site in CEA. ACS is a result of the international cooperation between Brazil and the Ukraine to the peaceful uses of outer space. The Brazilian Space Agency, AEB, is responsible to give the required licenses and to assure the safety of launch activities at CEA. To comply with its responsibilities, AEB developed a set of Safety Regulation applied to commercial launch activities in Brazil. The Safety Regulation set includes launcher, payloads and launch site aspects, besides ground, launch and flight operations and environment protection. The regulation defines the responsibility between the organizations involved, the license procedure, the standards and the requirements to accomplish and the safety submission procedure. AEB develops also a safety certification organization with the Department of Aerospace Science and Technology – DCTA, the National Institute for Space Research – INPE and the National Institute for Metrology, Standards and Industrial Quality – INMETRO of Brazil. This organization will work together with a similar one from Ukraine to the safety evaluation tasks. This paper describes the needs imposed by the beginning of commercial space launches in Brazil and the work developed to assure the safety of these activities.