## SPACE EXPLORATION SYMPOSIUM (A3)

Space Exploration Overview (1)

Author: Ms. Sumara Thompson-King National Aeronautics and Space Administration (NASA), United States, sumara.m.thompson-king@nasa.gov

## "INTERNATIONAL COOPERATION MECHANISMS USED BY THE UNITED STATES IN THE PEACEFUL EXPLORATION AND USE OF OUTER SPACE"

## Abstract

The paper will examine the range of cooperation mechanisms the United States utilizes with international partners in a broad and diverse portfolio of civil and commercial space activities. These activities encompass space exploration, earth and space science, in-space operations, and others. The paper will discuss the 1998 Intergovernmental Agreement on Space Station Cooperation (IGA) among the United States, Russia, Japan, Canada, and 11 participating Member States of the European Space Agency (Belgium, Denmark, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden, Switzerland, and the United Kingdom) which established the essential governmental level of commitment to the International Space Station (ISS) and created binding international obligations with respect to key government-level obligations. It will also consider the 1998 Memoranda of Understanding that NASA entered into with the European Space Agency (ESA), the Canadian Space Agency (CSA), the Russian Space Agency and the Government of Japan to establish a working basis for cooperation at the spacy agency level in designing, developing, operating and utilizing the ISS, as well as subordinate implementing arrangements.

The paper will also survey NASA's many bilateral agreements with foreign space agencies or Governments to facilitate specific cooperative endeavors. These agreements contain key legal provisions, such as a cross-waiver of liability, treatment of sensitive goods and data, and dispute resolution. It will cite NASA's agreements with foreign commercial entities. Significantly, it will also focus on bilateral framework agreements, which include legal provisions similar to those in the IGA and bilateral agreements. Specific cooperative activities are undertaken pursuant to more detailed legal arrangements under these framework agreements.

Finally, the paper will also take note of multilateral mechanisms through which space system operators and space agencies coordinate voluntarily for various purposes. Examples include the Committee on Earth Observation Satellites, the Group on Earth Observations, the Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters, and the International Space Exploration Coordination Group.