## 57th IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (E7) Up, up and away: Future legal regimes for long-term presence in space (2)

Author: Dr. Henry Hertzfeld Space Policy Institute, George Washington University, United States

## IN-SPACE MANEUVERING, SERVICING, AND RESOURCE USE: THE COMMERCIAL NEED FOR LEGAL ASSURANCES

## Abstract

This paper will address legal approaches to a number of new ventures that will be carried out in outer space in the near future and that will likely require major changes to the way nations will approach space law. Today we tend to view activities in space from an individual program or project perspective and we tend to analyze the engineering, social, and legal issues very narrowly and separately for each proposed venture. However, four current government and commercial activities: active debris removal, satellite servicing, diverting near earth objects, and resource extraction and processing all raise similar major and unresolved legal issues. These issues should be considered together in a consistent, logical, and rational way, insuring that solutions are coordinated and uniform. All of these activities involve attaching to an orbiting natural or human object and then working on or with that object. Issues raised range from definitions to property rights to weaponization. All will require new approaches to regulatory areas such as safety, the environment, transparency, liability, indemnification, and dispute resolution. Our current legal system in space is oriented toward launch and satellite operations, not towards active private sector initiatives in space and on celestial bodies such as the Moon and asteroids. It is clear that a balance between governmental objectives and commercial assurances on financing and profits will have to be made. Similarly, the dual-use nature of space will have to balance national security with business risk-taking. An ad hoc national or international legal regime will not serve any nation or company well. This paper will suggest ways to approach these required changes in international space law that will be evolutionary and consistent with the current space treaties and international law.