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19TH IAA SYMPOSIUM ON HUMAN EXPLORATION OF THE SOLAR SYSTEM (A5) Interactive Presentations (IP)

Author: Ms. Julie Patarin-Jossec France

REACHING FOR THE MOON AND BEYOND? SOCIOPOLITICAL FRONTIERS IN THE SPACE RACE TO MARS

Abstract

1. Defining the issue(s): Dealing with the historical dependence of space agencies 2. The sociological analyze and its counter-measures: defining a roadmap to extra-solar system exploration

"Why do nations undertake spaceflights, and why should they? It is a question equally important for understanding the history of spaceflights and for divining its future. And it is a question that history is in a unique position to illuminate." Indeed, one can really understand present decisions studying past one, and how repetition in history can influence plans to come in the future. Political science calls this historical relativeness the institutional "path dependence", meaning that a political decision by a government is dependent of its past orientations. The same phenomenon can be observed in space agencies' programs. Indeed, governments involved on the international space stage have different institutional, technical and scientific background concerning how to build and drive a space program. Innovation, organizations, sharing knowledge, civil society involvement. It is so a matter of transferring, translating and trading skills between space powers involved in a same program. For example, despite their technological level, the United Arabic Emirates' space agency remains less experienced than Nasa regarding the capacity of looking backward and learn from past's failures, or to deal with public institutions. Space activities are all about learning from the past. And concerning race to Mars and international collaboration, the International Space Station is an undoubtedly good example. In such a context of globalization and because of space activities' costs, international partnership is requested. Hence we should start looking at dispositive allowing to build a solid political model which could efficiently schedule long-duration manned spaceflights (even beyond our solar system in the next decades), taking into account the anthropological consequences. What we propose here is a presentation of original ways to go further, in order to send human beings on the Martian ground. The current presentation will aim to propose a sociological roadmap for an interface allowing international cooperation, being aware of this "historical dependence" causing inequalities and perturbation in the knowledge and skills transfer between governmental agencies.