



May 2012 Indo-U.S. Track 1.5 Dialogue on Space: Conference Report

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An “Indo-U.S. Track 1.5 Dialogue on Space” held in Singapore in May 2012 highlighted many of the commonalities the two countries have on space security and sustainability issues, as well as several of their differences. These discussions, held under Chatham House Rule, brought together Indian and U.S. space and security experts and government officials to discuss how the two countries might cooperate in space situational awareness (SSA) and the role space governance can play in achieving space sustainability. The dialogue was co-sponsored by the Secure World Foundation (SWF) and The Program in Arms Control, Disarmament, and International Security (ACDIS) at the University of Illinois at Urbana-Champaign, with the support of Singapore-based S. Rajaratnam School of International Studies.

Some highlights from the discussions include the suggestion to create a fact sheet on what Indian SSA capabilities are available and the extent of their technical capacity so that the U.S. side is aware of what can be offered; furthermore, it was often mentioned that each side should clarify what they hope to gain from SSA cooperation specifically and from space cooperation in general, as it was recognized that this cooperation cannot be a one-way street. As well, there is a gap in leadership when it comes to India’s security space assets and plans, as the Indian Space Research Organization (ISRO) only has a civil space mandate. Concerns about the proposed Draft International Code of Conduct leaving India and other non-Western states out were repeatedly brought up, as well as concerns about the future plans of India’s missile defense program.

BACKGROUND

U.S. President Barack Obama and Indian Prime Minister Manmohan Singh agreed on expanding space cooperation between the two countries during Obama’s visit to India in November 2010. This agreement underscored the initiative that President Bush and Prime Minister Vajpayee agreed to under the framework of the NSSP (Next Steps in Strategic Partnership) “pledging to build closer ties in space exploration, satellite navigation and launch and in the commercial space area through mechanisms such as the US-India Working Group on Civil Space Cooperation (JWG).” The National Space Policy of the United States, released on June 28, 2010, called for greater space cooperation with international partners; this was repeated with the publication in January 2011 of the National Security Space Strategy. Amidst a climate of shrinking resources, the retirement of the shuttle program, and growing dependencies on space, Washington is on the lookout for partners in space; India is a natural choice to join other traditional friends and allies. Although formal mechanisms such as the JWG exist, cooperation between both these nations has lacked the required momentum. The technical nature of cooperation, the larger political dimensions, and the functioning of respective bureaucracies have been cited as plausible factors to this “sluggishness.”

Governance in space has become a subject that cannot be ignored. Legally binding multilateral approaches such as Prevention of Arms Race in Outer Space (PAROS) and the Prevention of Placement of Weapons in Outer Space Treaty have failed to produce the desired results. In the meanwhile, the challenges of space debris to space assets are increasing constantly. The solution to addressing threats posed by space debris requires international cooperation since no country alone has neither the resources nor the technical expertise to handle this threat completely on its own. Expanding cooperation to include India as a partner serves both the United States and India on several levels, including strengthening their growing strategic partnership, and expanding economic and commercial ties. On the technical level, India possesses significant knowledge, skills and experience that can

contribute to achieving space sustainability and is keen to receive the credibility that being a partner with the United States on space issues would bring.

But there are aspects of cooperation that need to be discussed before any real progress can be made. First are the technical aspects. To enable a sustainable cooperation, it is important to understand what is possible and what is not in order to manage expectations better, as well as allow for an assessment of each country's capabilities in order to better understand how the technologies of each party could contribute to the other's. Second are the political aspects of cooperation. While cooperation amongst European countries in space is quite common, the cooperation amongst their Asian counterparts has been fraught with security concerns. Thus increased space cooperation between the United States and India has to take into account potential security concerns of others in the region and better understand the politics behind this cooperation. Third are the bureaucratic impediments. Successful cooperation between the two countries depends on how the respective bureaucracies work with each other. At this stage, they are not fully familiar with each other.

THE DISCUSSIONS

The session theme for the first day's dialogue in Singapore was SSA. The discussions began with presentations by selected Indian and U.S. representatives on their respective national SSA capabilities and interests. The Indian representative talked about India's satellite constellations and asked a few questions to set the stage for the discussion – what are technological obligations for SSA, what kinds of joint efforts are even possible, does it matter that SSA in the United States comes from a military agency, how can India strengthen its SSA data-collecting capabilities, and has there been a cost-benefit analysis to SSA cooperation between the United States and India? The U.S. representative discussed the U.S. military's Space Surveillance Network (SSN) and its strengths/weaknesses, how it sends out conjunction messages and the standards it uses to decide whether a possible conjunction is dangerous, and the latest in U.S. Strategic Command's (STRATCOM) SSA sharing agreements.

One of the issues brought up was that there is no overall collection of all of India's SSA possible capabilities in one fact sheet so that the United States (and other countries) can have a better idea about what its capabilities are. Also raised repeatedly was a concern by the Indians that the United States views SSA as a one-way street where India is a recipient of information, while the Indians wanted to be contributing as well. The fact that STRATCOM is a military agency and ISRO is a civilian agency was pointed out as a possible sticking point for SSA cooperation. The U.S. people mentioned that they send SSA data often to the Indians but never hear whether they are opening/using the information; as well, the U.S. people said that they didn't know who to properly contact. Part of the problem, the Indians admitted, is that their Ministry of External Affairs (which receives this information) is under-staffed and has a wide portfolio, thus presenting challenges in dealing effectively with space issues which have their own set of demands. The lack of leadership on this was brought up as another stumbling block –there is no Indian champion of SSA and space cooperation, and it's not clear that the Indians recognize either as a big priority for their relationship with the United States and/or the continued survivability and utility of their space assets.

Several of the U.S. participants discussed the recent "[1248 report](#)" that the U.S. Department of Defense (DoD) and U.S. State Department released in response to a Congressional request. This "Risk Assessment of United States Space Export Control Policy" examined the national security consequences of loosening up some export control rules. Specifically, it recommended moving off the U.S. Munitions List communications satellites "that do not have classified components," remote sensing satellites that have "performance parameters below certain thresholds," and related parts and components. The Indians felt that this was a positive step, and a good one that follows the removal last year of nine Indian space and defense companies (including some entities from ISRO and Defence Research and Development Organisation, DRDO) from the U.S. Department of Commerce's Entity List; however, concerns were expressed that a later U.S. administration might reverse these initial steps to loosen export controls.

It was pointed out that the Indian bureaucracy on space is missing an institution that has been officially charged with creating a plan for its strategic space assets; ISRO, which is India's official space organization, is located under its Department of Space and has a civil mandate.

There was a spirited discussion about India's anti-satellite plans for its missile defense system and what the significance truly is of Indian officials stating that their missile defense system has provided them with a nascent (but untested) anti-satellite (ASAT) capability. The Indians voiced their concerns about there being some sort of test moratorium or treaty coming to fruition and their being left out, like they feel they had been for the Nuclear Non-Proliferation Treaty (NPT).¹ The idea of looking at the international consequences – the political fall-out – of an Indian ASAT test was raised several times. V. K. Saraswat, the head of India's DRDO, has been quite vocal about India's potential for anti-satellite weapons via its missile defense program, and the Indians were asked if those statements are just his personal thoughts or if they have been run past the Indian government; according to the Indians, he would have checked these statements out with the government prior to saying them. The Indians did make clear that they had no interest in space-based missile defense.

A few concrete suggestions for possibilities for SSA cooperation between the United States and India were given, in addition to the aforementioned fact sheet describing India's potential SSA technologies and capabilities. One such suggestion was India notifying STRATCOM when it has a maneuvering plan so STRATCOM can make sure it will not maneuver into a conjunction. The second was for some section of the Indian government to begin thinking about having a strategic space document which would generally plan how they envision their assets/usage of space will grow. Another suggestion was that each side should list their space and cooperation priorities so that commonalities can be readily identified. Finally, in terms of SSA capabilities, it was suggested that India should think about what it is willing to invest in SSA and prioritize that accordingly, while the United States should study its SSA capabilities with an eye to determining what of India's assets (or perhaps a regional asset) could be used to fill in the blanks.

The session theme for the second day, May 11, was "Space Sustainability through Space Governance." It began with a brief overview of various international initiatives on space sustainability, focusing on the

¹ It is a very common perception within Indian policy circles that if India had tested a nuclear weapon prior to the signing of the NPT, it would have been grandfathered in as an official nuclear weapon state.

[United Nations' Committee on Peaceful Uses of Outer Space's \(COPUOS\) Long-Term Sustainability of Space Activities \(LTSSA\)'s Working Group](#), the [United Nations' First Committee's Group of Government Experts \(GGE\) on space transparency and confidence-building measures \(TCBMs\)](#), and of course the [draft international Code of Conduct \(CoC\) on outer space activities](#).

The planned timing of the LTSSA Working Group's four experts groups' efforts was discussed: the reports from the working groups are intended to be adopted at the COPUOS science and technical meeting in February 2014, the full COPUOS will take them up in June 2014, and then they will be sent to the United Nations General Assembly in October 2014. It was also noted that because expert group A is focusing on sustainability through space, India might be interested in co-chairing it.

In talking about the draft CoC, there still exists some discomfort amongst Indian participants about not having been included in earlier discussions by the European Union (who had put together the first draft), and they even thought that it might have been deliberate (colonial history repeating itself?). Other participants with experience with the EU pointed out the confusion in its external affairs division and that this exclusion was most likely inadvertent. Participants brought up how the CoC is an effort to figure out what the international community agrees is "responsible behavior" in space, and it was noted that the United States generally wishes to have a widely-subscribed Code in order to make sure that those best practices are followed by all space actors. There are non-governmental groups within India looking at the CoC from an academic perspective to see what they can contribute to it and to assess whether they should sign it, but it is not an official effort by the Indian government. In general, the Indians were concerned about the universality of the CoC; as well, they didn't want it to limit their freedom of action in space, and they wondered about verification. Several of the U.S. participants pointed out that if the CoC does indeed focus on actions, not capabilities, verification should not be as big of a concern.

Looking toward the future, it was noted that the commercial aspects of space cannot be ignored and thus the commercial sector has to be brought into discussions (although India's commercial space sector is limited to Antrix, a company that is a government-funded entity). The latest U.S. government-run Schriever wargames were discussed, as they included the participation of the commercial sector; furthermore, they brought in NATO for space operations (a first). Finally, it was suggested that the Indian and U.S. governments evaluate the status and the progress of the Joint Working Group on space security.