

Report
Space Programmes, Policies & Strategies of Asian Space Powers
August 03, 2021 at 1100 Hours

Amb Sujan R. Chinoy welcomed Mr. Dinesh Kumar Yadvendra and gave his opening remarks.

Amb Sujan R. Chinoy: Exploration and exploitation of space has a long history, today's space has emerged as a key instrument for achieving strategic, political, scientific and economic objectives. It is more importantly being militarized, placing the objective of ensuring peaceful uses of outer space. It remains a high cost and high-risk activity that requires a long-term planning and coordination for optimal utilization of monetary cost. Resources and technology are generally in short supply especially in developing nations where there are other priorities as well. The Asian Space Program landscape is dominated by India, China and Japan, these countries have robust space programs that straddled both military and civilian arenas. Competition is growing at the regional level as well; Japan promotes the Asia Pacific Regional Space Agency Forum of which India is a part. China on the other hand leads Asia Pacific Space cooperation organization in which countries like Turkey, Pakistan, Iran and Bangladesh are the members. India has been harnessing space-based assets for its social and economic development as well as for its defence requirements. It also regards space as a regional public good, for examples South Asia satellite launched in 2017 in South Asia minus one format after Pakistan abort at cooperation. India's Space Program is also a shining example of our indigenization efforts and achievements in this field. Mangal-yaan program has also strengthened India's credentials. He then invited the speaker Mr. Yadvendra to present on the topic 'Space Programmes, Policies & Strategies of Asian Space Powers'.

Mr. Dinesh Kumar Yadvendra: The outline of his presentation included the global context, space capability, policy and posture issues of China, Japan and India and a few strategic implications. Mr. Yadvendra expressed to understand Asian Space Powers it is important to look at the various space paths. There are six established space paths, three outside Asia - USA, Russia and France and three within Asia – China, Japan and India. Emerging Space paths are Israel, Iran and there are few aspiring space paths mainly- North Korea, Pakistan and Brazil. Therefore, majority of aspiring space powers are within Asia. Space Power is actually space capabilities of manufacturing satellites and using their indigenous satellite launch vehicle. Iran and North Korea do not have indigenous space capabilities. Space powers maybe categorized as countries which have successfully launched a lunar mission. The aspiring space powers may not be able to join the established space powers as the aspiring nations have invested billions of dollars and today there is enough capacity to launch satellites which is cheaper than to build the lunar mission capability.

There are two space paths that countries have followed for gaining space capabilities, one path is ability transformation path. This path has been adopted by the US, Russia and China. They started with the military program and then using the missile technology, they have developed the space

launch vehicles. The other three countries followed the civil transformation path – France, Japan and India.

Today Militarizing and weaponizing of space is being used interchangeably, these two terms have very different meaning and different consequences. There are three things, one is space force enhancement, space control and space force application. Space force enhancement is enhancement of terrestrial military operations, it is a force multiplier where the weapon systems are on the ground but the force multiplier is in the space, which is called militarization of space and this is an accepted practice today. Space control is to deny space accessibility to the adversary and for that counter space technologies are developed. The third aspect is when the application of force is with the weapon system in space and it has not been implemented yet and according to the Outer Space Treaty 1967- nuclear weapons should not be placed in space, Space has not been weaponized yet. The countries which took the civilian transformation path- France, Japan and India's preamble was to work for peaceful purposes but the peaceful changed into non offensive than nonmilitary, this led to increasing involvement of civilian program into security related activities that is when these three countries also reached the phase of militarization of space.

Mr. Dinesh Kumar Yadvendra: gave a comprehensive description of Space Program of China. Space capability indicators of China maybe traced to the first satellite China launched in 1970, all space programs by China except the launch vehicles was through international cooperation and collaboration. Several examples of these international collaborations were quoted by Mr. Yadvendra. China launched successful lunar mission in 2007 and also planning for manned missions. Manned mission one area where China is ahead of India and Japan. China Policy and posture can be assessed through China's white paper on space activities identifies national security as the principal element of China's space program. Mr. Yadvendra quoted PLA 'information dominance cannot be separated from space dominance. Seizing space dominance is the route for informationalized war. Their lunar and mars missions are because of techno nationalism as it is about prestige and helps them in their soft diplomacy. China's military space strategy and its gradual development of capabilities for exploitation of entire spectrum of space enhancements and integration of these into terrestrial military capabilities. Acquisition of counter space capabilities, development of space weapon capabilities, anti-satellites, auditing platforms and even in counter space, they want to make it land, sea and space based are also China's space strategies. China uses dual use technology which has an advantage of cost and it helps to camouflage covert military operations and the extent and purpose of military space activities becomes difficult to identify. These technological capabilities have strategic significance and a country needs to prepare based on technological capabilities of other countries.

The geopolitical situation in the North East Asia – the North Korean Nuclear and missile posture forced Japan to reverse their longstanding position on space activities. In 2008, Japan passed the basic space law which allows for deployment of satellites for non-aggressive purpose but does not

allow deployment offensive capabilities. This law also laid down five-year plan for development of these technologies known as basic space plan.

Mr. Yadvendra, discussed India's space program developments in detail and expressed that the geopolitical situation dictates the space programs of Asian Powers. Space assets are important as it facilitates monitoring of military activity, deployment of troops, naval fleet, air defence radars, ballistic missiles, day-night capabilities, navigation satellites give more precision to our weapon systems. In conclusion he expressed Pakistan is a proxy space power because of its access to China's capabilities.
