

**Recent Trends of U.S. Space Policy
—Achievements and the Direction of
Two Years under the Trump Administration—**

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Introduction

The purpose of this article is to examine recent space policy and endeavors in the United States, particularly dominant discussions and efforts about the space domain, and clarify their impact on and lessons for Japan.

It was in the final days of World War II when the United States became interested in the utilization, in particular the military utilization, of space. With information provided by defectors from Germany also becoming available, U.S. interest increasingly grew in the acquisition of space-related technologies, beginning with artificial satellites. After many twists and turns, each branch of the U.S. military came to have its own space-related program.¹ In part because of strong links with air operations carried out by the Air Force, space has turned into a domain primarily taken care of by the Air Force. Space development in the United States has evolved in competition with Russia (the Soviet Union). More recently, however, a broader and more complicated environment is emerging over space amid apprehensions about China's operational capability in space and the advancement of private-sector technologies that made it possible to launch space vehicles at low cost.

President Donald Trump has adopted a more ambitious and proactive space policy than his predecessors of recent years, giving rise to several changes in this

area. Japan and the United States are moving in the direction of strengthening bilateral cooperation in the space domain, as emphasized in the Guidelines for Japan-U.S. Defense Cooperation of 2015. Under these circumstances, in light of the changes taking place under the Trump administration, it would be useful for effective space-related cooperation between Japan and the United States to examine their impact on Japan and obtain lessons from the discussion in the United States.

This article first takes up the sections related to space from various strategy documents of the Trump administration and presents an overview of some approaches taken by the administration in order to shed light on how the Trump administration is positioning the space domain. Then, it sums up the recent approaches by the Department of Defense and the U.S. forces and looks into the discussions in the United States on the establishment of a new military branch that would primarily take charge of space. Through the above analysis and examination, this article attempts to clarify the present positioning, problems involved and major discussions of the space domain in the United States, and derive the potential impact on Japan and lessons Japan can obtain from them. In this article, the term “domain” is used to mean the domain where military activities and operations may be carried out. It should also be noted that types of policy papers and meetings, and the number of times such meetings were held, are all as of September 2018.

1. Positioning of the Space Domain by the Trump Administration

(1) Various Strategy Documents

As space-related strategy papers, the Trump administration released “National Security Strategy (NSS 2017)” in December 2017, “Summary of the 2018 National Defense Strategy (NDS 2018)” in January 2018, and the fact sheet of “National Space Strategy (NSpS)” in March 2018. This section looks into these

policy papers and clarifies the characteristics of the Trump administration's space policy.

In the NSS 2017, not so many pages were devoted to “space,”² in relation to “cyber,” which is often covered along with “space” as a new domain. For example, while the “National Security Strategy: NSS 2015” of 2015 touched on “cyber” and “space” in that order, this was reversed in the NSS 2017, with “space” coming before “cyber.” Thus, it can be argued that in the arrangement of items to be covered, the Trump administration places greater weight on “space.”³ There is no observable difference in the basic recognition of the space domain between these two NSS papers. It is that while such areas as military, telecommunications, navigation, weather, finance and trade, depend on the space domain, some countries are trying to impede the peaceful use of space by developing asymmetric capabilities like anti-satellite (ASAT) weapons and thus the United States must take measures to retain access to the space domain. On the other hand, the NSS 2015 and NSS 2017 differ in the approach to retain access to the space domain. While the former laid out international cooperation, including sectors, rulemaking and confidence-building, the latter did not contain such cooperative stance and instead listed three priority actions: (1) upgrading space to a priority domain; (2) promoting space-related commercial activities; and (3) retaining a leading role in space exploration. Actions that would go further are described in the NSpS to be discussed later in this article. Of the three priority actions, only “retaining a leading role in space exploration” refers to cooperation with allies or friendly countries.⁴

The NDS 2018 was released only in the form of a summary with about 11 pages, and it did not give out any clue to how the Department of Defense was going to address the space domain. But it at least follows the sequential order of space and cyber as stated in the NSS 2017, and further positions the space and cyber domains as the “warfighting domains,” making clear the stance to make investment in these domains on a priority basis. Furthermore, on the basis of the

perception of the current situation that the use of space by both the military and civilian sectors is exposed to threat, it states that investment will be made with focus on the areas of resilience and space operations.⁵ As stated in the NSS 2017 as well,⁶ the NDS 2018 clarifies the U.S. stance to ask allied nations to “fairly share responsibilities.”⁷

The NSpS is the strategy to make the United States strong, including the civilian sector, competitive and great in order to achieve in the space domain “America’s interests first” and “peace through strength” called for in the NSS 2017.⁸ The strategy refers specifically to the four approaches: (1) making space architecture more resilient; (2) strengthening of deterrence and fighting options; (3) improving basic capabilities, structure and process; and (4) creating the domestic and international environments that would be of benefit to the United States. While the four approaches are all related to military affairs and security, the strategy in (2) in particular calls for the strengthening of the capabilities of the United States and allies to deter potential adversaries from extending disputes to space and the ability to cope in the event of failure of such deterrence. In (3), it states that the United States will seek to ensure the capability of effective space operations through the improved space situational awareness capability, information capability and defense equipment acquisition processes.

(2) National Space Council

In the United States, the National Aeronautics and Space Act of 1958 requires the establishment of the Aeronautics and Space Advisory Group. But there is a difference in the level of interest in its establishment and utilization among presidents. President Dwight D. Eisenhower and President Richard M. Nixon were negative about the utilization of the advisory group right from the start. However, under the administration of President John F. Kennedy, an advisory group chaired by the Vice President was established, and among its achievements were consultations on the manned exploration of the moon. Later on, President George H.W. Bush made proactive use of the advisory group.

President Bush created the National Space Council (NSpC) to discuss all of the civilian, military and commercial sectors. The top officials of the departments involved in the process, including the Secretary of Defense, Secretary of State, Secretary of Commerce, Secretary of the Treasury and Secretary of Transportation, participated in the council to clarify responsibilities and quicken decision-making, with strong backing from Congress.⁹ But the NSpC under the Bush administration was not inherited by the subsequent U.S. administrations.

The advisory group, re-established by President Trump, is founded on the concept of the NSpC created by the administration of President George H.W. Bush. President Trump spoke about the re-establishment of the NSpC even during the presidential campaigning, and while some people voiced concern about the possibility of unnecessary friction being generated by bureaucracy,¹⁰ President Trump signed an executive order for the re-establishment of the NSpC on June 30, 2017.¹¹ The first meeting was held at Udvar-Hazy Center on October 5, 2017, and after the meeting, Vice President and NSpC Chairman Mike Pence announced a recommendation concerning its future policy, including the manned exploration of the Moon and Mars.¹² Because this meeting asked the Federal Aviation Administration (FAA) for a report on the review of regulations on commercial space flights, the FAA submitted the requested report to the NSpC in December 2017. At the second meeting held at the Kennedy Space Center on February 21, 2018, NSpC compiled a recommendation calling for the review of various regulations on commercial space flights.¹³ The recommendation called not only for the review of regulations on the launching and re-entry of space vehicles by American companies but also for consideration on the review of export controls. The meeting also discussed space activities being undertaken by Russia and China. Participants expressed concern over a great deal of support the Chinese military is providing to space activities and the space industry of China, and some referred to the possibility of the United States obtaining business benefits by

cooperating with China.¹⁴ The third NSpC meeting at the White House on June 18 adopted initiatives to deal with the debris problems.¹⁵ In June, an NSpC-related study group was established,¹⁶ which is expected to continue functioning as the primary place of discussions on the U.S. space policy by enhancing its expertise.

(3) Space Policy Directives

President Trump has so far issued the Space Policy Directive (SPD) three times, all based on the recommendation by the NSpC. The directive, SPD-1, signed by President Trump on December 11, 2017, instructed the National Aeronautics and Space Administration (NASA) to carry out the manned exploration of the Moon again in cooperation with private companies. The manned exploration of the Moon bears the exploration of the Mars in mind as well, as recommended by the NSpC, designed to establish the foundation for the exploration of outer space beyond the Mars.¹⁷

An additional directive, SPD-2, signed by President Trump on May 28, 2018, requested the Secretary of Transportation to devise a new set of regulations concerning the launching and re-entry of space vehicles, and particularly asked for the consideration of a plan to allow such activities for commercial purposes under a single license. The directive also requested the Secretary of Commerce to reassess regulations over remote sensing companies in the private sector. The requested measures are aimed at deregulation to make activities of space-related private companies in the United States smoother and help further activate them.¹⁸

Finally, SPD-3 instructed the transfer from the Department of Defense to the Department of Commerce of the responsibility for the provision of information on satellite operators concerning Space Situational Awareness (SSA). This directive was signed by President Trump on June 18, 2018. The Department of Commerce was instructed to provide disclosable information of all information pertaining to SSA held by the Department of Defense as open source

information and also prepare the criteria and best practices for assessment concerning pre-launch risks and orbital collisions. This directive also touched on efforts to deal with space debris, instructing NASA, the Department of Commerce and the Department of Transportation to consider the reduction of orbital debris and management of space traffic.¹⁹

It is obvious that through these three directives, the Trump administration is trying to provide a boost to space-related activities by private American companies and this is in line with the priority actions set forth by the NSS 2017. Nevertheless, SPD-1 is thought to be one policy which achieves the goal of maintaining the leading role of the United States in space, in addition to reviving the manned space exploration program. This contemporary, leading role of the United States, as envisioned by President Trump's slogan of "Make America Great Again!" SPD-2 made clear the administration's stance of supporting smooth and prompt activities by companies by reducing regulations and procedures for corporate activities, while SPD-3 signaled administrative efforts to alleviate risks in corporate activities in outer space. While it still remains to be seen how soon these initiatives of the Trump administration will produce intended results, deregulation and provision of information conducive to smooth space activities are expected to have benefits for American companies in the short term as well. Furthermore, the SPD has continuity with the activities of the NSpC discussed in the preceding section. It is noteworthy that the vertical and horizontal coordination of cross-organizational consensus-building and consolidation of opinions and recommendations to the President by the Vice President, is enhancing space-related initiatives in the United States.

2. Initiatives of the Department of Defense and the Military

Since the inauguration of the Trump administration, the Department of Defense and the U.S. military have implemented several initiatives concerning the operations and leadership in the space domain.

In June 2017, the Department of Defense created the Principal DoD Space Advisor (PDSA) under the DoD Directive 5100.96. It concurrently appointed the Secretary of the Air Force as the PDSA and, also, as the chairman of the simultaneously created the Defense Space Council (DSC), making it clear that the Secretary of the Air Force will be responsible for overseeing space-related policies, strategies and programs of the Department of Defense and each military branch.²⁰ However, since the PDSA and DSC were abolished by the National Defense Authorization Act (NDAA) for fiscal 2018 enacted in December 2017, the Department of Defense could not have the effects it had expected.

Regarding the leadership concerning space in Washington D.C., the Air Force planned to establish the post of Deputy Chief of Staff for Space Operations (AF/A11) responsible for managing space activities at the Chiefs of Staff of the U.S. Air Force,²¹ but the plan did not materialize in part because of opposition by the House Armed Services Subcommittee on Strategic Forces. But the Air Force pursued the idea of posting an officer who specializes in space-related organization, training and equipment at the Pentagon,²² and created the post of vice commander (lieutenant general) in the Air Force Space Command who is based at the Pentagon.

Several initiatives were taken concerning the operations as well. Regarding the aforementioned Space Command vice commander, the Air Force underscores the operational effect, saying that the Space Command commander can now concentrate on the operations with reduced burdens, such as fewer trips to Washington D.C.²³ Regarding operations-related leadership, the U.S. Strategic Command in December 2017 abolished the Joint Functional Component Command for Space and established the Joint Force Space Component Commander (JFSCC), with the Air Force Space Command commander also becoming the JFSCC. Under this structuring, the Space Command commander will be dual-hatted as the JFSCC²⁴ with the responsibility for the organization, training and equipment of the Air Force

having some 90% of all space assets of the U.S. forces²⁵ as well as for the operations of space assets of the Joint Force. This measure is expected to bring more consistency and rationality to U.S. military activities in the space domain.

Furthermore, regarding an operation center governing operations of the U.S. government in space, the Joint Interagency Combined Space Operations Center (JICSpOC) was renamed to the National Space Defense Center (NSDC) in April 2017,²⁶ and transitioned to operations of 24 hours a day, 365 days a year from January 2018.²⁷ The NSDC, located at Schriever Air Force Base, is the operations center managed by the Department of Defense and the information community, designed for interagency information sharing. Apart from the NSDC, there is the Combined Space Operations Center (CSpOC) at Vandenberg Air Force Base, operated by the U.S. Strategic Command. The CSpOC shares information between the U.S. forces and the forces of allies and friendly countries and also conducts military operations in space, including SSA.²⁸

3. Discussions about the Creation of the Space Force/Space Corps

This chapter looks into discussions about the creation of a military branch taking charge of the space domain that have become activated under the Trump administration. There are two types of discussions that arose so far under the Trump administration. One is about the idea of creating the Space Corps advanced under a House of Representatives proposal of the 2018 NDAA bill. Another is about the creation of the Space Force instructed by President Trump himself in 2018.

This chapter examines the backgrounds and purposes of the respective ideas, and looks at the “Final Report on Organizational and Management Structure for the National Security Space Components of the Department of Defense,” submitted to Congress by the Department of State in August 2018.

(1) 2018 NDAA

Under the U.S. budget system, the NDAA takes on major significance. The NDAA is enacted when the President signs a final proposal agreed upon by both the Senate and the House of Representatives after coordinating their views based on the respective Senate and House versions. The bill 2018 NDAA is one which sets an outline of the defense budget for a period from October 2017 to September 2018, enacted on December 12, 2017, with the signature of President Trump. The budget law, which calls for spending of about \$700 billion, raises the pay levels of soldiers by 2.4% and increases the Armed Forces size by 20,000 (7,500 for the Army, 4,000 for the Navy, 1,000 for the Marine Corps, 4,100 for the Air Force, and 3,400 for the Reserves).²⁹

Under the 2018 NDAA bill, the proposed creation of the Space Corps included in the House version was deleted at the stage of Senate–House coordination, and the first creation of a new military branch since the establishment of the Air Force in 1947 did not materialize.³⁰ This section examines the arguments of the U.S. House that called for the creation of the Space Corps and the arguments of the Department of Defense and the Air Force, and then looks at the background of these discussions.

a. Arguments of the House of Representatives

The House of Representatives version of the 2018 NDAA bill was prepared by the House Armed Services Committee, but the creation of the Space Corps was pushed by the Subcommittee on Strategic Forces, chaired by Rep. Mike Rogers (Alabama, Republican). In the 2018 NDAA bill, the House proposed to create a new Space Corps within the Department of the Air Force by 2019, and also create the Space Command, a quasi-joint force, within the U.S. Strategic Command. According to various documents and materials published on the website of the House Armed Services Committee, this proposal was designed to allow a military officer who will be responsible for the Space Corps to conduct training and organizational development specialized in operations in space and become responsible for the space domain.³¹

As the current problems with the space domain, Rep. Rogers pointed out that (1) it is not clear where responsibility lies and the decision-making process is not consistent, either; (2) space-related budgets cover various organizations and their priorities are not appropriate; and (3) the Air Force is not developing space-related human resources on a priority basis. He then emphasized that the House version of the 2018 NDAA bill, which called for the creation of the Space Corps along with the Air Force within the Department of the Air Force and the appointment of the Chief of Staff of the Space Corps, provides solutions to these problems. In other words, he argued for ways to make possible the following three points: (1) simplification of the organization and decision-making by concentrating spaced-related equipment acquisitions on the Space Corps; (2) prevention of the prioritization and offsetting of the Air Force budget and space-related budget within the same organization (at present, mainly within the Air Force); and (3) prioritized implementation of space-related education and training.³² There were counterarguments that the Space Corps has too small a size to become an independent military branch and that the timing of the creation of the Space Corps is not appropriate. On the timing issue in particular, however, Rep. Rogers said the establishment of the independent military branch was what was called for in a report prepared in 2001 under the leadership of former Secretary of Defense Donald Rumsfeld.³³ He also said that the creation of the Space Corps just happened to be this timing as Congress tackled with the issue of acquisitions on a priority basis in the past few years, adding that he simply resented a report by the Government Accountability Office (GAO).

The GAO report of May 2017 pointed out that (1) the Department of Defense's major space system acquisitions face critical cost increases and delays of delivery; (2) in particular, the acquisition of the Global Positioning System Next Generation Operational Control System (GPS OCX) is exposed to high risk; and (3) these problems with acquisitions stems from fragmented leadership and responsibilities. The GAO report, on the basis of comparison between the

plans and the current status of 12 of the Department of Defense's space-related acquisitions programs, said the budgets increased over the plans, the acquisitions were delayed further than the plans stated, and the number of acquisitions increased over the plans in nine programs.³⁴ While the GAO report addressed individual programs, it found as problematic that the budgets of the Department of Defense's space-related acquisitions programs in general tended to cost more than their plans, and delays in development periods have become an ordinary state of things, tracing the underlying root cause to the ambiguity of where responsibility lies.

It appears that Rep. Rogers resented not the May 2017 GAO report but the GAO reports of 2016 and before. Since the early 2000s, the GAO almost each year released its report on the Department of Defense's space-related acquisitions and frequently pointed to the problems involved with the Pentagon's acquisitions programs. More specifically, the problems found with the Department of Defense's space-related acquisitions are nothing new but, in other words, the problems can be described as very difficult to redress. Rep. Rogers was aware that these problems were left uncorrected for an extended period of time, indicating the deep-rooted nature of the problems.

b. Arguments of the Air Force

The Department of Defense and the military stood against moves toward the creation of the Space Corps in the U.S. House, led by Rep. Rogers. Secretary of Defense James N. Mattis said that he shares concerns with Congress over the Department of Defense's organization and management of space, but argued that the creation of the Space Corps is the premature idea for his own efforts to reduce the nodes and is the narrowly-focused approach to space operations. Mattis also said the Department of Defense could not dispel the concerns of Congress partly because it was unable to obtain sufficient budgets from Congress for more than a decade.³⁵

Secretary of the Air Force Heather Wilson agreed to the congressional concern over the challenges to the U.S. superiority in space, but said that she does not think the creation of the Space Corps is a right solution. Wilson criticized the idea, arguing that the creation of the Space Corps would generate a new vertical structure among the military branches, would destroy the Department of Defense's current efforts to establish a strategy culture and new capabilities related to space, and would require extra costs for human resources and other areas. Regarding the idea of the creation of the Space Corps modeled on the Marine Corps, she argued that the proposed Space Corps, even counting all sorts of support units, has the size of less than 10% of the Marine Corps, and has only some 2,500 soldiers when narrowed down to the units purely specialized in space operations. With only about 40 Air Force soldiers involved in the GPS operation, the size of the proposed Space Corps is too small to add the staff office and the command function as seen in the Marine Corps, she said.³⁶

According to the arguments of Secretary of Defense Mattis and Secretary of the Air Force Wilson, the biggest reason for the opposition or negative stance to the creation of the Space Corps of the Department of Defense and the Air Force is the concern that it would run counter to moves toward the integration of military operations. In other words, they are concerned about the nodes that could be generated by the addition of the staff office function and the command center function in association with the creation of a military branch chiefly responsible for space. These concerns of the Department of Defense and the Air Force stem from what operations should be carried out in the space domain. Thus, it can be said that they have the problem setting and the approach to solutions that are different from the creation of the Space Corps proposed by Congress as a solution to the problems primarily involved in the space-related acquisitions.

(2) Instructions by President Trump

Even into 2018, Rep. Rogers and others referred to a reattempt at the creation of the Space Corps in the 2019 NDAA proposal.³⁷ However, what made a greater impact than this on the issue of the creation of a new military branch were the statements and instructions made by President Trump himself.

President Trump, who visited Marine Corps Air Station Miramar in March 2018, said in his speech, “My new national strategy for space recognizes that space is a war-fighting domain, just like the land, air, and sea. We may even have a Space Force – develop another one.” Furthermore, before the U.S. Military Academy Football Team that visited the White House, President Trump said that “we’re actually thinking of a sixth [of the military branches], and that would be the Space Force,” referring once again to the idea of creating the Space Force. While there were some ambiguities or opaqueness in the Miramar speech, Trump indicated in the White House speech that he is seriously considering the creation of the Space Force.

In June 2018, President Trump instructed the Department of Defense to immediately begin the process necessary to establish the Space Force. He gave the verbal instruction to Chairman of the Joint Chiefs of Staff Joseph F. Dunford to consider the creation of the “separate but equal” sixth military branch.³⁸ By the way, there is a misunderstanding that SPD-3 included the idea of the creation of the Space Force. As stated earlier, SPD-3 only covered SSA and space traffic, and the creation of the Space Force was referred to only in the verbal instruction. Since the instruction by President Trump came not in the specific form like an executive order, details such as the timing of the creation of the force or its size remained totally unknown. They are partially supplemented in a proposal contained in the Department of Defense report to be mentioned below.

Three points can be pointed out about this presidential instruction. First, while the instruction by the President, regardless of whether it came in a document or verbally, carries the weight in itself, it has no legal binding force concerning the creation of the new military branch and new legislation by

Congress would be required for the creation of the Space Force.³⁹ Second, even though the instruction by President Trump concerning the creation of the “Space Force” has no legal binding force, there is an argument that it is possible to provisionally create an organization along with the Air Force under the Department of the Air Force.⁴⁰ Third, following the instruction by President Trump, the pros and cons were expressed by Congress immediately afterward.⁴¹ This indicates that even if a bill on the creation of the “Space Force” was submitted to Congress in accordance with the intention of President Trump, it would be difficult to enact it easily.

Furthermore, while the Air Force said that it will go ahead with the consideration and coordination in accordance with the instruction of President Trump, such efforts would require some time and suggested they would not lead to any dramatic change,⁴² implicitly indicating its opposition. In other words, while the Air Force complies with the instruction by the President concerning the creation of the Space Force, it basically would not like to see any major change and rather hoped for the status quo. However, Secretary of the Air Force Wilson subsequently stated clearly that she would support the idea of President Trump and unveiled the view that the United States should establish the Space Force in an appropriate manner.⁴³

(3) Report of the Department of Defense and the Speech by Vice President Pence

On August 9, 2018, the Department of Defense submitted to Congress the “Final Report on Organizational and Management Structure for the National Security Space Components of the Department of Defense,” required by the 2018 NDAA bill, while Vice President Pence made a related speech at the Department of Defense.

The Final Report cited “space capabilities and intentions” of China and Russia as “rapidly growing threats to our space capabilities,” and set forth the focus of improving space-related capabilities of the U.S. Armed Forces going

forward and a roadmap leading to the creation of the Space Force. Saying, “Establishing the Space Force will be multi-dimensional and phased, the Final Report said: “In this first phase, using existing authorities, the Department of Defense will establish several of the component parts of the Space Force. The second phase requires Congress to combine these components into the sixth branch of the Armed Forces.” Regarding the development of necessary components by the Department of Defense, the report cited the four initiatives: (1) the establishment of the Space Development Agency; (2) the development of the Space Operations Force to support combatant commanders; (3) the establishment of an organization for services and support related to the Space Force; and (4) the creation of the U.S. Space Command.⁴⁴

The timing of the establishment of the Space Development Agency in (1) has yet to be decided. It primarily takes over the function of the Space and Missile Systems Center (SMC) of the Air Force and is expected to integrate the similar functions across all the military branches in the future. The MSC is an assigned unit of the Air Force Space Command for the development, procurement and operations support of space-related equipment, including satellites.⁴⁵ The Space Development Agency is expected to take over the functions of the MSC and reform of space-related acquisitions is likely to be undertaken.

The Space Operations Force in (2) focuses on the enhancement of space-related expertise within the Armed Forces through the management of space personnel from all military services. At the same time, the report said the Department of Defense will provide senior offices with knowledge about space by integrating space capabilities and requirements into all required senior military leadership courses. In other words, this is deemed to be aimed at creating a clear career track for the “space community” and enhancing that recognition. Furthermore, the report expressly stated that the Space Operations Force will deploy teams of space experts to the U.S. European Command and the U.S. Indo-Pacific Command no later than the summer of 2019.

The organization for services and support related to the Space Force in (3) is the organization primarily for military administration, including recruiting, legal, financial management and logistics, and the appointment of an accountable civilian leadership is described as one of the priorities. While this organization for services and support is to turn the “Space Force” into the sixth branch of the U.S. Armed Forces, the report said the Department of Defense will submit a legislative proposal for necessary legal amendments in early 2019.

The U.S. Space Command in (4) is to be established as a unified combatant command led by a four-star general or flag officer. It is one of the functional unified commands like the U.S. Special Operations Command (USSOCOM) and the U.S. Cyber Command (USCYBERCOM), and is expected to take charge of integrating space planning and operations. The report said that the Department of Defense will recommend that the President revise the Unified Command Plan to create the new U.S. Space Command by the end of 2018.

The Final Report said that after taking the above-described initiatives, the Department of Defense will submit legislative proposal for the establishment of the sixth branch of the Armed Forces together with the President’s budget message for fiscal 2020. But as the report also said, “Transition and timing to a sixth branch is paced by scaling and effectiveness of the Space Defense Agency and Space Operations Forces,”⁴⁶ there are many uncertain factors in discussions about the NDAA proposal for fiscal 2020.

The speech by Vice President Pence revolved primarily around the content of the Final Report of the Department of Defense, emphasizing again that the ultimate objective of the Trump administration is to “create a new branch of our military that is separate from, and equal to, five other branches.”⁴⁷ There are two important points in the Pence speech that were not included in the Final Report. The first point is that the Trump administration is thinking of establishing a new Department of the Space Force. While the Final Report mentioned the establishment of the Space Force as a sixth branch of the U.S. Armed Forces, it

was not clear about whether the Space Force would be placed under the Department of the Air Force, as considered in the House of Representatives version of the 2018 NDAA bill or an entirely different department would be created. But Vice President Pence explicitly referred to the establishment of the Department of the Space Force. As for the second important point, while the Final Report said the governance committee led by the Deputy Secretary of Defense will oversee the set of processes, centering on the four initiatives set forth in the report, Vice President Pence said the Trump administration will create a new position of Assistant Secretary of Defense for Space as an overseer responsible for the process, progress and outcome of the creation of the Space Force.

As seen above, Vice President Pence unveiled the additional points not stated in the Final Report of the Department of Defense. Nevertheless, the process related to the creation of the Space Force will proceed along the line of the four initiatives shown in the Final Report. The Final Report did indicate the definite timing of commencement or the definite timing of accomplishment for some of the initiatives. But it is deemed as a whole that the respective initiatives will go ahead concurrently in parallel while mutually intertwined.

4. Attention Points Concerning the Space Domain

As discussed above, since the inauguration of the Trump administration in January 2017, active discussions about space have taken place and various measures were undertaken. By examining these discussions and policy measures in the United States, the following three matters can be cited as the attention points.

Firstly, the Trump administration has the strong interest in space and the space domain as a warfighting domain is likely to continue attracting the interest and attention going forward. The Trump administration developed the NSpS to clarify its policy to firmly maintain the leading role of the United States in space.

It has adopted a different approach to space policy from the preceding administrations by re-establishing the NSpC and issuing SPDs, with these policies being materialized with the necessary measures for them undertaken. The discussions at the NSpC and the three SPDs issued so far focused on space activities by the civilian sector and commercial activities in space, but the NSpS clearly stated the U.S. military advantages in space that support them. Furthermore, regarding the establishment of the Space Force directed by President Trump, efforts have been under way toward its realization through the phased approaches from the development of the necessary components by the Department of Defense and the Armed Forces to legislative development. As legislative actions by Congress would ultimately be necessary for the creation of the Space Force, and this process involves uncertainties, including few supporters of the idea, particularly in the Senate.⁴⁸ In any event, the Trump administration has the strong interest in the space domain, and the Department of Defense and the Armed Forces, it appears, find the environment as quite favorable for developing their preparedness, including space-related equipment acquisitions.

Secondly, there are differences between the political circles (Congress, particularly the House of Representatives) and the military (the Department of Defense and the Armed Forces) in the problem setting and approaches over the space domain. The idea of creating the “Space Corps” proposed by the House in the course of debate on the 2018 NDAA bill pointed to the frequent delays in space-related acquisitions programs and their budget overrun as serious problems, and the idea was based on the thinking that the appropriate acquisitions would require an organization (military administration organization) and leadership specialized in the space domain. On the other hand, the military, while implicitly blaming the acquisitions problems partly on Congress that failed to provide it with sufficient budgets, argued that the establishment of a new organization would only create extra nodes and result in a new bureaucracy and

runs counter to moves toward the integration of military operations. The counterarguments from the military side were primarily based on the operations aspect, while Congress saw the equipment acquisitions as a large problem. However, the military on its part made certain efforts to improve the matters seen as problematic by Congress, adopting some solutions to the acquisitions problems under which the Secretary of the Air Force, as the PDSA, the position that had to be eliminated, would responsibly oversee the space-related acquisitions by the Department of Defense as a whole and advise the Secretary of Defense and other senior Pentagon officials. Ultimately, the Department of Defense and the Armed Forces, under the verbal instruction by President Trump, inevitably began making efforts toward the creation of the Space Force, and the Final Report of the Department of Defense released in August 2018 presented specific initiatives not only for the acquisitions and personnel problems criticized by politicians, or the House of Representatives, but also for the integration of operations being pushed by the military. If things go as envisioned by the Final Report, an outcome satisfactory to both the political circles and the military may be obtained.

Thirdly, while the Department of Defense and the Armed Forces are promoting the integration of operations in the space domain, the Air Force is always at the core of the process. Under the Trump administration, the Department of Defense and the military reorganized JFCC for Space of the U.S. Strategic Command into the JFSCC, but, as discussed earlier, the Air Force Space Command commander is dual-hatted as the JFSCC, and the NSDC, which was renamed and transitioned to 24-hour, 365-day operations, is located at Schriever Air Force Base, thus inseparable from the Air Force. Given the historical background that the Air Force, newly created after the end of World War II, took charge of the space domain, it is assumed that the organizational culture of the Air Force heavily affects not only the operations in the space domain but also the space-related acquisitions. Even if the Space Force or the

Space Corps was established as an organization separate from the Air Force, personnel with high expertise hailing from the Air Force would likely dominate the new military branch and the operational knowledge and experiences cultivated by the Air Force would continue to be adopted for some time to come. It is deemed that without them, the U.S. Armed Forces could not achieve the operations in the space domain.

Conclusion

The space policy of the Trump administration, which remains in the driver's seat at least for another two years, is more ambitious and proactive in comparison with the other administrations in the recent past. For the Department of Defense and the Armed Forces, such policy sometimes serves as tail wind but at other times proves to be head wind which forces problems that they have come to the fore.

What impact such policy of the Trump administration will have on Japan and the Air Self-Defense Force (ASDF) cannot be prejudged easily. In the short run, however, the space domain will likely come under the spotlight in the context of the Japan-U.S. alliance and it is quite possible that the United States will further require the allied countries to "fairly share responsibilities" in the space domain, as clearly stated in the NSS 2017 and the NDS 2018. Furthermore, regarding the establishment of a new U.S. military branch that would be chiefly responsible for the space domain, it may bring some confusion or stagnation in the existing cooperative framework between Japan and the United States. But such problem should be eliminated by, for example, sorting out counterparts and other factors.

One of the lessons Japan can draw from the recent discussions about space in the United States is the relationship between Congress and the Department of Defense and the Armed Forces particularly over the space-related acquisitions. The discussions and output at the U.S. House Armed Services Subcommittee on Strategic Forces point to the tough congressional attitude toward the Armed

Forces, in particular the Air Force, against the backdrop of a sense of distrust in the Air Force's space-related operations (the organization and acquisitions). In the background of the problems and the sense of distrust pertaining to the space-related acquisitions may be the nature of space-related equipment that its experimentation and verification in practice is difficult, or the condition unique to space power that the actual operation of space-related equipment cannot be observed firsthand. In other words, it seems that one lesson that can be learned from the U.S. case is that the armed forces should set the ideas and characteristics of "space power" in order and share the general understanding of "space power" with the political circles, and also the public, through careful and in-depth explanations on the part of the armed forces.

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