

Evaluation of Operating Results for
Japan Aerospace Exploration Agency
in the 3rd Mid to Long-Term Objective Period

August 2018

Prime Minister,
Minister for Internal Affairs and Communications,
Minister of Education, Culture, Sports, Science and Technology
Minister of Economy, Trade and Industry

1. Items related to the evaluation			
Agency	Japan Aerospace Exploration Agency		
FY for evaluation	Period evaluation	3 rd mid to long-term objective period	
	Mid to long-term objective period	FY 2013-FY2017	

2. Items related to the assessor				
The Competent Minister		Prime Minister		
	Incorporated jurisdiction dept.	National Space Policy Secretariat, Cabinet Office	Dept. and person in charge	National Space Policy Secretariat, Cabinet Office, Counselor, Hidekazu Takakura
	Evaluation and inspection dept.	Policy Evaluation and Public Relations Division, Minister's Secretariat	Dept. and person in charge	Policy Evaluation and Public Relations Division, Director, Hiroki Kawata
The Competent Minister		Minister of Internal Affairs and Communications		
	Incorporated jurisdiction dept.	Global ICT Strategy Bureau	Dept. and person in charge	Space Communications Policy Division, Director, Satoshi Murakami
	Evaluation and inspection dept.	Policy Evaluation and Public Relations Division, Minister's Secretariat	Dept. and person in charge	Policy Evaluation and Public Relations Division, Director, Nozomu Sugawara
The Competent Minister		Minister of Education, Culture, Sports, Science and Technology		
	Incorporated jurisdiction dept.	Research and Development Bureau	Dept. and person in charge	Space Development and Utilization Division, Director, Naoyuki Fujiyoshi
	Evaluation and inspection dept.	Science and Technology Policy Bureau	Dept. and person in charge	Planning and Evaluation Division, Director, Keiji Inoue
The Competent Minister		Minister of Economy, Trade and Industry		
	Incorporated jurisdiction dept.	Manufacturing Industries Bureau	Dept. and person in charge	Space Industry Office, Office Director, Yosuke Asai
	Evaluation and inspection dept.	Policy Evaluation and Public Relations Division, Minister's Secretariat	Dept. and person in charge	Policy Evaluation and Public Relations Division, Director, Satoshi Miura

3. Items regarding implementation of the evaluation	
June 29, 2018	Field visit by members of the Sub-Committees for Japan Aerospace Exploration Agency (JAXA) under MEXT, METI and Cabinet Office (JAXA Sagami-hara Campus)
July 5, 2018	Hearing about business performance of JAXA by Cabinet Office
July 9, 2018	Hearing about business performance of JAXA by MEXT
July 13, 2018	Hearing about business performance of JAXA by MIC
July 17, 2018	Hearing about business performance of JAXA by MIC
July 18, 2018	Hearing about business performance of JAXA by MEXT
July 20, 2018	Hearing about business performance of JAXA by METI
August 1, 2018	Hearing in the Sub-Committee for JAXA under the Cabinet Office
August 1, 2018	Hearing in the Sub-Committee for JAXA under METI.
August 1, 2018	Hearing in the Sub-Committee for JAXA under MEXT
August 3, 2018	Hearing in the Sub-Committee for JAXA under MIC
August 10, 2018	Hearing in the National Research and Development Council under MIC
August 22, 2018	Hearing in the National Research and Development Agency Council under MEXT
[Members of Sub-Committee for JAXA, Space Policy Committee under Cabinet Office: Setsuko Aoki, Member (Professor, Keio University Law School), Kuniaki Tanabe, Ad hoc member (Professor, Graduate School for Law and Politics/ Graduate School of Public Policy, University of Tokyo), Noriko Endo, Member (Project Professor, Graduate School of Media and Governance, Keio University), Haruhiko Kataoka, Ad hoc member (ex-Chief of Staff, Air Self Defense Force), Seiko Shirasaka, Ad hoc member (Professor, Graduate School of System Design and Management, Keio University), Toshiko Seki, Ad hoc member (Representative, Value-added Technology Research Institute), Noriyuki Namiki, Ad hoc member (Professor, National Astronomical Observatory of Japan)]	
[Members of Sub-Committee for JAXA, the National Research and Development Agency Council under the Ministry of Internal Affairs and Communications: Masahiro Umehiko, Member (Professor, Department of Media and	

Telecommunications Engineering, Ibaraki University), Keiko Chino, Member (Senior Staff Writer, Yomiuri Newspaper Tokyo Head Office), Hideki Mizuno, Member (Professor, School of Engineering, Tokai University), Yuta Irisawa, Expert advisor (Partner, Avantia GP), Yumi Ogose, Expert advisor (Professor, Professional Graduate School, Tokyo University of Science), Souichirou Kozuka, Expert advisor (Professor, Department of Law, Faculty of Law, Gakushuin University), Noriharu Suematsu, Expert advisor (Professor, Research Institute of Electrical Communication, Tohoku University), Shinichi Nakasuka, Expert advisor (Professor, School of Engineering, University of Tokyo), Yoshiyuki Fujino, Expert advisor (Professor, Department of Electrical and Electronic Engineering, Toyo University), Masayo Fujimoto, Expert advisor (Affiliate Professor, Institute of Information Security), Ikuko Yairi, Expert advisor (Associate Professor, Faculty of Science and Technology, Sophia University)]

[Members of Sub-Committee for JAXA, the National Research and Development Agency Council under the Ministry of Education, Culture, Sports, Science and Technology : Tokuyuki Takahashi, Member (President, Toyofuji Shipping Co., Ltd.), Yoshiko Kojo, Member (Professor, Graduate School of Arts and Sciences, College of Arts and Sciences, University of Tokyo), Seiko Shirasaka, Ad hoc member (Professor, Graduate School of System Design and Management, Keio University), Steve Squyres, Ad hoc member (Professor, Cornell University), Arisa Kuroda, Ad hoc member (CEO, Antares Corporation Co., Ltd.), Yuko Nagahara, Ad hoc member (Deputy Director, Research Center for Science Systems, Japan Society for the Promotion of Science), Masao Hirano, Ad hoc member (Professor, Faculty of Commerce, Waseda University)]

[Members of Sub-Committee for JAXA, the National Research and Development Agency Council under the Ministry of Economy, Trade and Industry: Hiroshi Ashibe, Ad hoc member (Advisor, GCA Corporation) Misuzu Onuki, Ad hoc member (Space Business Consultant, Space Frontier Foundation), Takashi Goto, Ad hoc member (President and CEO, Seibu Holdings, Inc.), Tetsuya Sakashita, Ad hoc member (Director, Utilization of Digital Information Research Department, JIPDEC), Yoshiko Taya, Ad hoc member (Professor, Japan Woman's University), Takashi Yoshimura, Ad hoc member (Director, Industrial Technology Bureau, Japan Business Federation)]

4. Important items and others relating to the evaluation

- Reorganized items in the mid to long-term objectives and mid to long-term plan in line with three policy goals set forth in the Basic Plan on Space Policy (determined by the Strategic Headquarters for National Space Policy on January 9, 2015)
- On December 13, 2016, JAXA approved the revision of the mid to long-term plan, specifying the use of supplementary budget for FY2016
- On March 27, 2018, JAXA approved the revision of the mid to long-term plan, specifying the use of supplementary budget for FY2017

1. Overall evaluation		
Rating* (S, A, B, C, D)	A	(Reference) Estimated evaluation
		A
Reasons for rating	As shown in the overall evaluation of the agency as a whole, the creation of considerable achievements and anticipated creation of achievements in the future and so on are recognized as a result of comprehensive consideration based on some circumstances regarding the agency's business achievements, efforts and so on through its activities and with the National Research and Development Agency's mid to long-term objectives taken into account.	

2. Evaluation of the whole agency	
<p>The role of space exploration has largely changed in the 3rd mid to long-term objective period, and now directly connects to national growth and development, national security, and disaster management and mitigation. The mission of JAXA also becomes very important. Amid such a change in situation, the entire business performance has been steadily improved in itemized ratings, with <u>three items rated S and 14 items rated A</u>, and considerable achievement were obtained in all items of all categories including “Maximization of R&D achievements and quality improvement” and so on. Accordingly, it is concluded that <u>progress of performance beyond the one stipulated in the mid- to long term objectives is recognized as a whole.</u></p> <p>Especially, while <u>JAXA accumulated world top class operating results including the launch success rate</u>, the creation of considerable achievements was recognized in <u>the space transport system that ensures the independence of Japan in small satellite demand with the successful development of Epsilon Launch Vehicle</u>, satellite remote sensing <u>developed and disseminated in society as the social infrastructure essential for disaster prevention/response, environmental conservation and economic activities</u> and having played a certain part in Japan's international contributions, and aeronautical science and technology <u>that have created a number of world's first and highest level research achievements and contributed to improving aircraft safety and strengthening international competitiveness of aeronautical industry in Japan.</u></p> <p>The creation of considerable achievements was recognized in efforts regarding space security which was reinforced by the formulation of a new Basic Plan for Space Policy in FY2015 and in <u>closer collaboration</u> with the Ministry of Defense and <u>other security related agencies.</u></p> <p>In addition, the creation of considerable achievement was recognized in large contribution to enhancing the international presence of Japan in manned space activity through operational results of H-2 Transfer Vehicle (HTV) and Japanese Experiment Module (JEM), and a <u>large progress in experiments of drug discovery in JEM.</u> Also recognized was the creation of considerable achievements in large contribution to publishing “joint statement” and “Tokyo Principles” agreed by participating countries in “International Space Exploration Forum Part 2” (ISEF2) as the host country in collaboration with the government to confirm the purpose of space exploration, regardless of manned or unmanned, and the importance of international cooperation.</p> <p>Home grown element technologies and technical sophistication are essential to ensure the independence of Japan in space development and promote domestic space industries. In this respect, the creation of considerable achievements was recognized in <u>the development of home grown technologies and world top class parts and machines including important basic parts and systems.</u> In addition, the efforts for increasing collaboration with private business operators and space utilization resulted in <u>the successful experiment of the smallest rocket in the world (SS-520) using commercial technologies and massive investment to the venture for lunar resources exploration by Development Bank of Japan (DBJ), etc.</u> are recognized as achievements largely contributing to promoting space industries and reinforcing their international competitiveness.</p> <p>In FY2015, X-ray Astronomy Satellite ASTRO-H was lost, but later, JAXA began <u>project management reforms</u> and deployed its management measures to other projects, thereby preventing the recurrence of such an accident.</p> <p>In terms of the entire corporate management, JAXA, when it shifted to a national research and development agency in FY2015, restructured itself from the head office-based organization to a departmental system <u>in an effort to promote projects throughout the agency</u>, thereby establishing an organization intended for maximizing the research achievements. It also implemented flexible organizational management to adjust to changes in the government's security policy and foreign policy according to the formulation of a new Basic Plan on Space Policy. JAXA thus played the newly allocated role with the limited amount of resources.</p> <p>Although legal judgment is awaited on a bribery charge of a former executive director, if true, it is a criminal conduct which may jeopardize the credibility of the agency. Thorough review of shortfall in the system of internal control, and prevention of recurrence is required.</p>	

3. Issues to be solved and /or improved for each subject

- With regard to satellite remote sensing, it is desired for JAXA to tackle R&D only JAXA is able to carry out and proactively transfer technologies when their practical use has progressed to some extent.
- With regard to manned space activity, internal evaluation by JAXA and evaluation at Sub-Committee are often disaccord. It is desired to clarify the reason(s).
- With regard to measures for strengthening industrial base and science/technology base that support individual projects, it is considered necessary to clarify technological development to be principally promoted and address it in cooperation with the industry to further advance the fundamental challenges of promoting space industries and strengthening international competitiveness.
- With regard to aeronautical science and technology, meticulous approach is desired for protecting intellectual property and preventing technology outflow.
- With regard to comprehensive efforts to expand use, effective use of JAXA's various achievements and assets is expected to contribute to expanding the industrial base for space businesses by creating and supporting new services and businesses, including environment improvement for promoting the use of satellite data. As the dependency on private operation increases, the role JAXA needs to play will change. Mid to long-term strategies must also be discussed with the future in mind.
- With regard to comprehensive enhancement of domestic human resource base, (and) promotion of public understanding, research results of the innovation hub are important, but given that it may also be regarded as “human resource development activities utilizing the structure of innovation hub,” it is considered necessary to promote activities recognized as human resource development by providing practical training for private companies at JAXA’s advanced R&D sites.
- With regard to enhancement of internal controls and governance, continuous inspection, evaluation and improvement using PDCA are required to find out whether the new project management is effective and reliable. Continuous review is also expected for the procurement procedures and contractual coverage in accordance with the revised project management to make them in accord with procurement and contract standards in countries with advanced space activities.
- With regard to flexible and efficient organization management, it is difficult to see the outcome on the basis of each fiscal year, but it is highly appreciated that structural reform has been made under the strong leadership of the president over the mid to long-term objective period in response to environmental changes, such as amendment of the Law concerning JAXA and the enactment of the Basic Plan on Space Policy.
- With regard to facilities and equipment related issues, continuous efforts are required for taking appropriate and rational measures to mitigate aging and deterioration of facilities and equipment and implementing preventive maintenance according to the results of status and priority analysis. Aggressive promotion is also desired for the update and development of facilities with multifaceted benefits such as soundproofing of wind tunnel at the Chofu Aerospace Center.
- With regard to safety and reliability related issues, JAXA undertook project management reform to work on four management measures against the loss of X-ray Astronomy Satellite ASTRO-H “Hitomi” (ASTRO-H). It is important to continue to ensure reliability in the future in light of the results of investigating into the cause of failure in experiment of SS-520-4.

4. Other items

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| Main opinions of the council on research and development | <ul style="list-style-type: none">○ To maximize R&D achievements, it is most important to maximize the performance of both individuals and teams. Efforts for maximizing the performance are expected through various reforms including improvement of worker’s treatment, workplace environment and personnel-related systems.○ It can be appreciated that the management and workforce tackle the work efficiency together and achieved many results from a wide range of aerospace-related projects under the constraints of budget and human resources. Concerning the projects for which a large amount of money is allocated, it is strongly required to present clear benefits (outcome) to the public. Also, it is important to accelerate efforts for utilizing external forces which have just begun, such as business transfer to the private sector and open innovation.○ As strategies based on collection and analysis of international information and information from private sectors are expected to be increasingly needed in the future, strengthening of research analysis and strategic planning functions is important for the agency as a whole.○ It can be evaluated that many outcomes to response to environmental changes were achieved during the 3rd mid to long-term objective period, which was the turning point for space policy, such as amendment of the Law concerning JAXA and formulation of the Basic Plan on Space Policy, and required extensive business diversification (to respond not only to scientific and technological development but also diplomatic and security requirements).○ Regarding the organization, major policy changes took place on the way through the mid to long-term objective period, such as the formulation of a new Basic Plan on Space Policy and shift of JAXA to a national research and development agency. It can be evaluated that taking this opportunity, JAXA undertook drastic organizational reform under the direction of the president and promoted appropriate management of the entire organization toward the realization of space policy.○ JAXA undertook project management reform after the loss of mission or X-ray Astronomy Satellite ASTRO-H “Hitomi” (ASTR-H) two months after the launch, and the failure of SS520-4 in January 2017 due to design mistakes, and strived to prevent recurrence. Continuous efforts must be taken in the acknowledgment that reliability is in the process of being established.○ It is desired that JAXA will continuously tackle infrastructure development and R&D, and cooperate with the industry to link the results with industrial promotion. These efforts and results are expected to be sufficiently taken into account in setting targets and evaluation indexes. |
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	<ul style="list-style-type: none"> ○ Expansion of space utilization is an important issue, and the effective way of using JAXA’s various research outcomes and properties is also important. JAXA should develop an environment for use and dissemination of satellite data, and through the expansion of networks, reinforce efforts to create or support new services and businesses for contributing to expanding the industrial base for space industries. ○ Ten years have passed since on-orbit operation of engineering test satellite 8 (ETS) launched in FY2006 was started. Technical demonstration in the 2nd mid-term object period produced commercial services later, and successful long-term on-orbit operation strode into the 3rd mid-term objective period. High reliability and marked operating results of these large geostationary satellite bus technologies can be evaluated. ○ It is difficult to prevent failures completely. Use of new technologies may cause failures, but JAXA needs to promote improvement to prevent failures caused by organizational problems (e.g., walls of former three organizations). ○ Although JAXA started new challenges such as research into security issues and support for developing new industries including ventures in accordance with national policies such as the Basic Plan for Space Policy, there are concerns likely to affect the future of JAXA as a space agency such as the reduction of national budgets for space science and exploration. Organizational policies for the allocation of human resources, time, and budget to new challenges such as security and support for new industry development must be clarified before commencing efforts. ○ Implementation of preventive measures against natural disasters (landslides), acquisition of the Registered Information Security Specialist, and handling of falsified material test data, etc. may also be good examples for other agencies. ○ With increase in collaboration with the government and Ministry of Defense mainly for security issues, expectations to and burdens on the management of JAXA, such as further contribution to the development of aerospace industry, are on the rise. Under these circumstances, steady promotion of business operation and part of considerable R&D achievements can be evaluated. ○ Some items were rated A for the whole mid-term period irrespective of rating B for three years in the mid-term plan period but rating A in FY2017, or rating B in every year. A more comprehensible explanation is required for the reasons of rating of these items. ○ “Assure Independency” and “Establish International Competitiveness” are keys to achieve space policy objectives. It is desired for JAXA to set a thorough benchmarking and world top class objectives toward the 4th term by adhering to “Home Grown” technologies to “Assure Independency” and “Establish International Competitiveness.” ○ In the materials for FY2017 self-evaluation, the columns for entry of the issues identified in FY2016 evaluation and improvement/requirement and countermeasures chosen in FY2017 self-evaluation were formatted and description was organized by item. This is a very importance processes to make use of PDCA cycle, and recommended to be continued. ○ While budget and personnel are not likely to be increased, a host of requests were made to JAXA from various sectors (security related requests increased along the way of this term), and evaluation was made from various points of view. Because resources such as budget and personnel are limited, sufficient consideration may be required for adequate resource allocation in the future. ○ JAXA is deemed to ensure R&D focusing on technologies as a research and development agency, with cost reduction in mind. In doing so, it is expected for JAXA to establish an ecosystem early, in which technologies developed by JAXA are made compact and low-cost, and after their application is demonstrated through actual utilization, transferred promptly to private sectors (especially to venture businesses), which in turn use them to deploy businesses. ○ In the 4th mid-term period, JAXA needs to prevent “actual work” from being turned to “purpose” with “outcome,” “output” and “specific efforts” always in mind. There is concern, however, that operational burden increases with increase in the number of roles, causing workplaces to be worn out. Top management is desired to take prompt and adequate actions with “bad news first” for keeping workplaces lively. ○ Management can be evaluated in that activities, which were initially not included in the plan, were proactively conducted in accordance with national policies. Management of JAXA as a whole is expected in the future, for example, to establish an ecosystem throughout space utilization ranging from R&D of technologies, transfer of developed technologies to private sectors, and expansion of space utilization through expansion of space related businesses. ○ MIC, MEXT, Cabinet Office and METI are required to facilitate interactions to allow JAXA functioning more efficiently through inter-ministerial collaboration.
Auditor’s special comments	No special matters to note

* S: Based on the National Research and Development Agency’s aims, businesses, mid to long-term objectives and so on, as a result of comprehensive consideration based on some circumstances regarding the agency’s business achievements, efforts and so on through its activities, especially the creation of considerable achievements, anticipated creation of special achievements in the future and so on toward “maximization of R&D achievements” under the conditions of appropriate, effective and efficient operations are recognized.

A: Based on the National Research and Development Agency’s aims, businesses, mid to long-term objectives and so on, as a result of comprehensive consideration based on some circumstances regarding the agency’s business achievements, efforts and so on through its activities, the creation of considerable achievements, anticipated creation of achievements in the future and so on toward “maximization of R&D achievements” under the conditions of appropriate, effective and efficient operations are recognized.

- B: Based on the National Research and Development Agency's aims, business, mid to long-term objectives and so on, as a result of comprehensive consideration based on some circumstances regarding the agency's business achievement, efforts and others, a certain degree of expectation for the creation of achievement and creation of achievement in the future toward "maximization of R&D achievements" were recognized, and steady business operations have been also recognized.
- C: Based on the National Research and Development Agency's aims, businesses, mid to long-term objectives and so on, as a result of comprehensive consideration based on some circumstances regarding the agency's business achievements, efforts and so on through its activities, the creation of achievements, further drastic efforts and improvements toward "maximization of R&D achievements" or "the appropriate, effective and efficient operations" are anticipated.
- D: Based on the National Research and Development Agency's aims, businesses, mid to long-term objectives and so on, as a result of comprehensive consideration based on some circumstances regarding the agency's business achievements, efforts and so on through its activities, special efforts and improvements including a fundamental drastic review, toward "maximization of R&D achievements" or "the appropriate, effective and efficient operations" are required.

Mid to long-term objectives (Mid to long-term plan)	FY Rating					Mid to long-term objective period evaluation		Itemized evaluation document No	Remarks
	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Estimated evaluation	Period evaluation		
I. Maximization of R&D achievements and quality improvement of the other operations									
1. Securing space safety and security	/	/	/	/	/	/	/	/	/
(1) Positioning satellites	A	B	B	B	B	B	B	I-1-1	-
(2) Satellite remote sensing	S	S	B	B	A	B	A	I-1-2	-
(3) Satellite communication/satellite broadcasting	A	B	B	B	B	B	B	I-1-3	-
(4) Space transportation systems	S	A	S	S	S	S	S	I-1-4	-
(5) Other efforts	-	-	B	B	A	B	A	I-1-5	-
2. Promoting space utilization in the private sector	/	/	/	/	/	/	/	/	/
(1) Positioning satellites	A	B	B	A	B	A	A	I-2-1	-
(2) Satellite remote sensing	S	S	A	A	A	S	S	I-2-2	-
(3) Satellite communication/satellite broadcasting	A	B	B	B	B	B	B	I-2-3	-
(4) Other efforts	-	-	B	B	B	B	B	I-2-4	-
3. Maintaining and enhancing the foundations of the space industry and scientific technology	/	/	/	/	/	/	/	/	/
(1) Space transportation systems	S	A	S	S	S	S	S	I-3-1	-
II. Items concerning the efficiency of the administration of the operations									
1. Enhancement of internal controls and governance	/	/							
(1) Security of information	A	B							
(2) Project management	A	B							
(3) Appropriateness of contract	A	B							
2. Flexible and efficient organization management	A	B							
3. Streamlining and efficiency of operations	/	/							
(1) Streamlining and efficiency of operational expenses	A	B							
(2) Streamlining and efficiency of personnel expenses	A	B							
4. Application of information technology	S	B							
III. Items regarding improvements in financial related matters									
III. Budget (Including personnel expenses)/ income and expenditure plan, and funding plan	A	-							
IV. Limit amount of short-term borrowing	-	-							
V. If the agency has any unnecessary property or any property that is expected to be	-	-							
Evaluation is made in III. Items regarding improvements in financial related matters.									

										unnecessary property, a plan for disposal of such property									
(2) Space science/exploration	A	A	C	A	B	B	B	I-3-2	-	VI. If the agency intends to transfer or provide as collateral any important property other than the property provided for in the preceding item, a plan therefor	-	-							
(3) Manned space	S	B	A	A	A	A	A	I-3-3	-	VII. Purpose of using accumulated profit	-	-							
(4) Space solar power	A	B	B	B	B	B	B	I-3-4	-	VIII. Important items related to business management and others									
(5) Measures for strengthening industrial base and science/technology base that support individual projects	-	-	B	A	A	A	A	I-3-5	-	1. Facilities and equipment related issues	A	B	B	B	A	B	B	VIII-1	-
4. Aeronautical science and technology	/	/								2. Plans for personnel	A	B	A	B	A	A	A	VIII-2	-
(1) R&D focusing on environment and safety	B	A								3. Safety and reliability related issues	A	B	C	B	B	B	B	VIII-3	-
(2) Promotion of usage of aviation aeronautical science and technology	A	B	S	S	S	S	S	I-4	-	4. More debt burden than in mid to long-term objective period	-	-	-	-	-	B	B	VIII-4	-
(3) Contribution to strengthening technology base and industrial competitiveness	-	-								5. Use of reserve	-	-	-	-	-	-	-	VIII-5	-
5. Cross-cutting issues	/	/	/	/	/	/	/	/	/										
(1) Comprehensive efforts to expand use	A	B	B	B	A	A	A	I-5-1	-										
(2) Strengthening of research analysis and strategic planning functions	A	B	B	B	B	B	B	I-5-2	-										
(3) Development of fundamental facilities/equipment	A	B	B	B	B	A	A	I-5-3	-										
(4) Comprehensive enhancement of domestic human resource base, promotion of public understanding	A	A	A	B	A	A	A	I-5-4	-										
(5) Realization/enhancement of rule of law in outer space	A	A	A	A	A	A	A	I-5-5	-										

(6) Strengthening of international space cooperation	A	A	A	A	A	A	A	I-5-6	-
(7) Promotional activities to meet country infrastructure needs overseas	A	B	A	A	B	A	A	I-5-7	-
(8) Information disclosure and public relations	A	A	A	A	A	A	A	I-5-8	-
(9) Business assessment	A	B	B	B	B	B	B	I-5-9	-

* For items that are set to “high” level of importance, a “circle” shall be marked next to each comment.
For items that are set to “high” level of difficulty, each comment shall be underlined.

* Ratings up to FY2013 were made based on the “Basic Guidelines for Evaluation of Operational Results for Incorporated Administrative Agencies under the Jurisdiction of the Ministry of Education, Culture, Sports, Science and Technology” (decided by the Evaluation Committee for Incorporated Administrative Agencies, Minister of MEXT on March 22, 2002).
Ratings after FY2014 are made based on the “Standards for Evaluation of Incorporated Administrative Agencies under the Jurisdiction of the Ministry of Education, Culture, Sports, Science and Technology” (decided by the Minister of MEXT on June 30, 2015). The details are as follows:

Ratings up to FY2013	Ratings after FY2014
<p>S: Outstanding achievements are fulfilled (Without providing a cross-cutting objective standard for the agency in advance, S is rated according to the characteristics of the agency’s business operations.).</p> <p>A: Achievements are in line with the plan for medium-term, or beyond, or are steadily being implemented toward a medium-term objective, or beyond (achievement rate for the medium-term objective should be over 100% in a given FY.).</p> <p>B: In some ways the plan is not being implemented in line with medium-term objectives, however, the plan may be achieved by means of ideas and efforts (achievement rate for the medium-term objective should be 70% to 100%).</p> <p>C: The implementation of the plan is behind the medium-term objective, therefore, improvement of business is necessary in order to realize the achievement of the medium-term objective (achievement rate for the medium-term objective in a given FY is less than 70%).</p> <p>F: The Evaluation Committee needs to warn the agency concerning the improvement of its business management and others (Without providing an objective standard in advance, F is rated as a result of judgement that a warning concerning business improvement is necessary.).</p>	<p>【Administrative and projects related to research and development (I)】</p> <p>S: Based on the National Research and Development Agency’s aims, businesses, mid to long-term objectives and so on, and as a result of comprehensive consideration based on some circumstances regarding the agency’s business achievements, efforts and so on through its activities, especially the creation of considerable achievements, anticipated creation of special achievements in the future and so on toward “maximization of R&D achievements” under the conditions of appropriate, effective, and efficient operations are recognized.</p> <p>A: Based on the National Research and Development Agency’s aims, businesses, mid to long-term objectives and so on, and as a result of comprehensive consideration based on some circumstances regarding the agency’s business achievements, efforts and so on through its activities, the creation of considerable achievements, anticipated creation of achievements in the future and so on toward “maximization of R&D achievements” under the conditions of appropriate, effective, and efficient operations are recognized.</p> <p>B: Based on the National Research and Development Agency’s aims, businesses, mid to long-term objectives and so on, and as a result of comprehensive consideration based on some circumstances regarding the agency’s business achievement, efforts and so on through its activities, a certain degree of expectation for the creation of achievement and creation of achievement in the future toward “maximization of R&D achievements” were recognized, and steady business operations have been also recognized.</p> <p>C: Based on the National Research and Development Agency’s aims, businesses, mid to long-term objectives and so on, and as a result of comprehensive consideration based on some circumstances regarding the agency’s business achievements, efforts and so on through its activities, the creation of achievements, further drastic efforts and improvements toward “maximization of R&D achievements” or the “appropriate, effective, and efficient operations” are anticipated.</p> <p>D: Based on the National Research and Development Agency’s aims, businesses, mid to long-term objectives and so on, and as a result of comprehensive consideration based on some circumstances regarding the agency’s business achievements, efforts through its activities, special efforts and improvements including a fundamental drastic review, toward “maximization of R&D achievements” or the “appropriate, effective, and efficient operations” are required.</p> <p>【Other than administrative work and projects regarding research and development (After II)】</p> <p>S: Based on the activities of a corporation, remarkable performance exceeding the intended objectives is recognized quantitatively and qualitatively in the mid to long-term plan (in terms of quantitative indicators, 120% or more vis-à-vis planned mid to long-term values (or planned FY value), and remarkable performance is also recognized qualitatively.</p> <p>A: Based on the activities of a corporation, remarkable performance exceeding the intended objectives is recognized in the mid to long-term plan (in terms of quantitative indicators, 120% or more vis-à-vis planned mid to long-term</p>

	<p>values (or planned FY value).</p> <p>B: Performance exceeding the intended objectives is recognized in the mid to long-term plan (in terms of quantitative indicators, 100% or more but less than 120% vis-à-vis planned mid to long-term values (or planned FY value).</p> <p>C: Performance falls below the intended objectives in the mid to long-term plan, requiring improved performance (in terms of quantitative indicators, 80% or more but less than 100% vis-à-vis planned mid to long-term values (or planned FY value).</p> <p>D: Performance falls below the intended objectives in the mid to long-term plan, requiring drastic improvement of business including its abolishment (in terms of quantitative indicators, less than 80% vis-à-vis planned mid to long-term values (or planned FY value), or it is recognized that the competent Minister is required to make an order for improving business operation or taking other necessary measures).</p>
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