

Evaluation of FY2018 Operating Results for Japan Aerospace Exploration Agency

August 2019

Prime Minister

Minister for Internal Affairs and Communications

Minister of Education, Culture, Sports, Science and Technology

Minister of Economy, Trade and Industry

Form 2-1-1 National Research and Development Agency/FY Evaluation/ Overview of the Evaluation

1. Items related to the evaluation		
Agency	Japan Aerospace Exploration Agency	
FY for evaluation	FY evaluation	FY2018 (4th term)
	Mid to long-term objective period	FY2018-FY2024

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, Kenichiro Yoshida
	Evaluation and Inspection dept.	Policy Evaluation Public Relations Division, Minister's Secretariat	Dept. and person in charge	Policy Evaluation and Public Relations Division, Director, Takashi Sasagawa
The Competent Minister		Minister for Internal Affairs and Communications		
	Incorporated jurisdiction dept.	Global Strategy Bureau	Dept. and person in charge	Space Communications Policy Division, Director, Shin Morishita
	Evaluation and Inspection dept.	Policy Evaluation Public Relations Division, Minister's Secretariat	Dept. and person in charge	Policy Evaluation and Public Relations Division, Sho Akedo
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	Policy Evaluation and Public Relations Division, Director, Masao Yokoi
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, Yousuke Asai
	Evaluation and Inspection dept.	Policy Evaluation Public Relations Division, Minister's Secretariat	Dept. and person in charge	Policy Evaluation and Public Relations Division, Director, Naohiko Yokoshima

3. Items regarding implementation of evaluation	
June 25, 2019	Field visit by Ministry of Internal Affairs and Communication Japan Aerospace Exploration Agency (JAXA) Sub-Committee member, Ministry of Economy, Trade and Industry JAXA Sub-Committee member, and Ministry of Education, Culture, Sports, Science and Technology JAXA Sub-Committee member (JAXA Tsukuba Space Center)
July 28, 2019	Ministry of Education, Culture, Sports, Science and Technology JAXA Sub-Committee member (JAXA Chofu Aerospace Center)
July 3, 2019	Held (first) joint interview by Cabinet Office, Ministry of Internal Affairs and Communication, Ministry of Education, Culture, Sports, Science and Technology, and Ministry of Economy, Trade and Industry on fiscal 2018 JAXA business performance
July 5, 2019	Held (second) joint interview by Cabinet Office, Ministry of Internal Affairs and Communication, Ministry of Education, Culture, Sports, Science and Technology, and Ministry of Economy, Trade and Industry on fiscal 2018 JAXA business performance
July 18, 2019	Field visit by Ministry of Internal Affairs and Communication JAXA Sub-Committee member and Ministry of Education, Culture, Sports, Science and Technology JAXA Sub-Committee member (JAXA Sagami Campus)
July 24, 2019	Hearing in the Sub-Committee on JAXA under the Ministry of Internal Affairs and Communications
July 26, 2019	Hearing in the Sub-Committee on JAXA under the Ministry of Economy, Trade and Industry.
July 29, 2019	Hearing in the Sub-Committee on JAXA under the Cabinet Office
August 1, 2019	Hearing in the Sub-Committee on JAXA under the Ministry of Education, Culture, Sports, Science and Technology
August 5, 2019	Hearing in the National Research and Development Agency Council under the Ministry of Internal Affairs and Communications
August 6, 2019	Hearing in the National Research and Development Agency Council under the Ministry of Education, Culture, Sports, Science and Technology
[Members of Sub-Committee on JAXA, Space Policy Committee under the 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, Ad hoc 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), Kazuko Ohya, Ad hoc member (Secretary, Japan Aerospace Exploration Agency), Noriyuki Namiki, Ad hoc member (Professor, National Astronomical Observatory of Japan)]

[Members of Sub-Committee on JAXA, National Research and Development Agency Council under the Ministry of Internal Affairs and Communications: Masahiro Umehira, Member (Professor, Graduate School of Science and Engineering, Ibaraki University), Keiko Chino, Member (Planning Committee, Editorial Board, Yomiuri Newspaper Tokyo Head Office), Hideki Mizuno, Member (Affiliate 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, Faculty of Law, Gakushuin University), Kimiya Komurasaki, Expert advisor (Professor, Tokyo University, School of Engineering), Noriharu Suematsu, Expert advisor (Professor, Research Institute of Electrical Communication, Tohoku University), Yoshiyuki Fujino, Expert advisor (Professor, Department of Electrical and Electronic Engineering, Toyo University), Masayo Fujimoto, Expert advisor (Professor, Institute of Information Security), Ikuko Yairi, Expert advisor (Associate Professor, Faculty of Science and Technology, Sophia University)]

[Members of Sub-Committee on JAXA, 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), Yukio Akamatsu, Ad Hoc Member (Board Member, Kokusai Kogyo Co, Ltd), Arisa Kuroda, Ad hoc member (CEO, Antares Corporation Co., Ltd.), Seiko Shirasaka, Ad hoc member (Professor, Graduate School of System Design and Management, Keio University), Akiko Nakamura, Ad Hoc Member (Associate Professor, Kobe University, Graduate School of Science, Faculty of Science), Masao Hirano, Ad hoc member (Professor, Graduate School of Business and Finance (Waseda Business School) Waseda University)]

[Members of Sub-Committee on JAXA, 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, Member (President and CEO, Seibu Holdings, Inc.), Manami Sasaoka, Ad Hoc Member (Associate Professor, Graduate School of International Social Sciences, Yokohama National University), 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

- As of March 1, 2018, (mid to long-term) objectives on business management which are to be attained by Japan Aerospace Exploration Agency (a national research and development agency) were established.
- As of March 31, 2018, (mid to long-term) plan to achieve the mid to long-term objectives of Japan Aerospace Exploration Agency (a national research and development agency) was approved.
- As of February 1, 2019, revisions to the fiscal plan in order to change the plan on synergy-adaptable development with the H3 rocket of the Epsilon rocket was approved.
- On March 26, 2019, JAXA approved the revision of the mid to long-term plan to specify the use of the supplementary budget for FY2018.

Form 2-1-2National Research and Development Agency /FY Evaluation/ Overall Rating

1. Overall rating								
Rating (S, A, B, C, D)	A	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
				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 were recognized as a result of comprehensive consideration based on circumstances surrounding 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>Recently, at the Cabinet Office's "National Research and Development Agency: Japan Aerospace Exploration Agency Subcommittee Meeting" and at the Ministry of Internal Affairs and Communication's, Ministry of Education, Culture, Sports, Science and Technology's, and Ministry of Economy, Trade and Industry's "National Research and Development Agency Council Meeting", deliberations were made in line with, among others, the views of society, the scientific knowledge, and the international standards, based on a business performance report that was submitted by JAXA and advice was received, with regard to the business results for fiscal 2018, which is the first fiscal year for Term 4 Mid to Long-Term Objectives Period of National Research and Development Agency: Japan Aerospace Exploration Agency (JAXA).</p> <p>In fiscal 2018, overall we saw a progress that is on schedule with regard to the items that were evaluated, and among them we saw significant achievements in many more fields. Therefore, we conclude overall that there is progress in the businesses, surpassing what were set forth in the mid to long-term objectives and elsewhere.</p> <p>As for the evaluation of the corporation as a whole, we can give high marks to the continuous creation of significant achievements after this corporation moved from Term 3 Mid to Long-Term Objectives Period to Term 4 Mid to Long-Term Objectives Period and as we began to see a demand for contributions to new fields such as security, disaster prevention, and industrial development. We expect that creation of significant research and development achievements will continue, and we ask for reinforcements in corporate governance given the diversification in our business fields and the move to opened competition.</p> <p>What is of particular note is the recognition of the following as significant achievement in particular: <u>In satellite remote sensing, the usage of satellite data in society in the security field and for disaster response; in space sciences and exploration, the creation of many world class academic achievements and world's first records from scientific satellites and probe vehicles including asteroid probe vehicle's (Hayabusa 2) touch-down; and in aeronautical technology, the creation of research achievements with the world's best performance including best performance in fuselage noise reduction.</u> Furthermore, the following is a sample of what were also recognized as significant achievements: <u>With regard to transport systems and manned space activities, the success of several Epsilon rocket launches; the creation of scientific achievements; the world class efficient operations; and the work to commercialize the usage of Japan Experiment Module (KIBO).</u></p> <p>With regard to lateral fields and work to support the achievement of objectives, in particular we recognize as significant achievements <u>the creation of outstanding achievements in research and development at the world's highest level in several fields,</u> including revolutionary satellite technology validation aircraft no 1 and element technology for small-scale collection capsules, in terms of maintenance and reinforcement of our space industry platform and scientific technology platform. Furthermore, as our work to make contributions to industrial development and expand on the utilization of space, "Space Innovation Partnership (J-SPARC)" program was started, which is a program from which we expect a lot of creations to come forth as achievements; and with regard to fields that contribute to education and training of human resource for the next generation and to the betterment of understanding by our general public, we recognize the creation of significant achievements including the maximized contributions to achievements in research and development and the performance of projects on a schedule including space projects, in regards to our work to support the achievement of other objectives, which include contribution to the betterment of understanding by the general public on usage for space development, through vigorous activities to promote the scientific achievements.</p>	

3. Issues to be solved and /or improved for each subject	
<ul style="list-style-type: none"> ○ In businesses where achievements are demanded in the area of industrial development, evaluation is needed that focuses more on the outcome KPI for costs, such as business scale and cost facets. ○ With regard to businesses in which achievements such as creation of scientific technology are demanded, what is needed is an evaluation of the KPI from the standpoint of a tax payer with regard to what kinds of outcome are being created for our society and our people, and an evaluation of the progress based on this and a more clear mid to long-term roadmap including a funding plan, with regard to areas even outside of dissemination and awareness-raising of our scientific achievements. 	

- It is unclear whether the range that is indicated by said item is referring to “field”, ie, “space science and exploration”, or to “location”, ie, “space science research center”. If we are to think of this from a viewpoint of agency overall, we are not to make these items to be items by each group with jurisdiction; we should instead be able to cooperate and coordinate laterally between groups. Space science research center plays diverse roles and plays outside of the “space science and exploration” field; with regard to the governance and evaluation of said group, what is desired is a clear distribution and evaluation of roles in regard to other related areas, including satellite remote sensing and space transport systems and not only space science and exploration.
- With regard to laterally evaluated items, our research achievements are tied also to contributions to other projects, and given that is the case, we see that some achievements appear to be evaluated twice. To avoid a double count, we ask that entries are made carefully, and we ask that there is more clarity added to the items that will be evaluated across other items.
- With regard to research and development, we ask that achievements are shown in a comparison with what is happening at the international level.
- With regard to research and development, as we will evaluate items that are producing achievements across multiple items, it will appear as if achievements are being made under all items. Items that are not moving to schedule and items that are not producing particular achievements (however they may be on schedule) should also be provided as information, after reconciling them with the mid to long-term plan so that we can perform a proper evaluation.
- With regard to items that set forth a target on quantity such as low cost, short period, and miniaturization, when the mid to long-term period plan and fiscal year plan are devised, we need to indicate the benchmark values alongside the target value and actual value when this plan was devised, and then we should indicate how the actual value from evaluation fared at the time of evaluation when this value was compared.
- With regard to the items on management under items IV ~ VI, we expect that the corporation’s situation is presented honestly, including whether these items were successful, and we then can tie this to proposal and evaluation from the members. We desire a stronger leadership as a corporation and that work will be performed that take the corporation in a better direction.
- We recognize also efforts in line with national policy and with the awareness of issues in society, leading to progress in the activities of women and to a reform in how staffs work, including the establishment of a childcare facility and the employment of women, and there is work being performed on schedule in these areas of management.

4. Other items

Major opinions of National Research and Development Agency Committee

- Given that contributions to new fields including security and industrial development are sought today, the fact that significant achievements are being made with limited resources is an achievement of stable and flexible corporation management; and we can give high marks to this as this is evidence of each group’s capacity for organization management and onsite capacity, which come from years of experience that we accumulated in our business fields. We continue to expect the world’s highest level of creation of outstanding research and development achievements through thorough benchmarking as a research and development organization. On the other hand, with regard to the space development field which is becoming more complex, advanced, and diversified, given the progress in more diversification and more open innovation in the corporation’s business areas, we expect continuous reinforcement in corporate governance, because we anticipate selection and focus such as appropriate project selection and resource allocation, and furthermore we anticipate management to become more complex and difficult, including deepened cooperation with outside agencies.
- In fiscal 2018, which was the first year of 4thMid to Long-Term Objectives Period, with regard to research and development of space science and exploration, avionics technology, industrial infrastructure for space and for scientific technology, the significant achievements we made can be given high marks as this indicates that the core mission was achieved as a national research and development agency.
- With regard to industrial development, it is very important for us as a research and development agency to provide technology support to the private sector; however, with regard to how to choose which outcomes as achievements and how to set evaluation axes and indices for measuring this as a business of a national research and development agency, we need to think this through carefully. While it is difficult for a national research and development agency to be responsible for everything including profit creation for corporations in the private sector as a national research and development agency’s achievement, with regard to the point of how a technology that the agency supported

contributed to the outcome of a corporation, we need to follow up on this appropriately as an agency, as both proactive and primary involvement is sought from the standpoints of business creation and implementation in our society. We expect that all projects, notwithstanding whether they will succeed, will be moved forward with consideration to not only the viewpoint of an agency but to the viewpoint of users and of businesses entering the space, to develop the space industry overall, which is the government's goal, and to make contributions consequently to the SDGs.

○ Given the rapid migration of the world's space development and utilization to a system that is led by the private sector and is used primarily for commerce, we can give high marks to the launch of J-SPARC and to the development of a framework to promote collaborations with businesses in the private sector. Going forward, to make "collaborations" truly meaningful, we need to determine better how to distribute the roles of JAXA and businesses in the private sector.

○ Moving businesses forward strategically is needed in all business areas, and we need to perform activities based on a strategy in each of the periods, which are short-term, mid-term, and long-term, and conduct benchmarking. Also important is that we continuously and flexibly update the strategies and benchmarks in response to the conditions of our society which can fluctuate dramatically.

○ Self-evaluation method for corporations and how to indicate their information need more creativity. Specifically, attention shall be paid to notations entered on a self-evaluation and on a business performance report, mindful of the space axis such as reconciliation with international standards and comparison with the private sector and other corporations, and mindful of the time axis with regard to projects and such; and viewpoints that contribute to evaluation such as clarification on KPI and clarification on categorization of process evaluation and outcome evaluation, need to be made clear. Furthermore, with regard to the scientific technology field including space in particular where changes are dramatic, to check the indices that serve as benchmarks in a short period of time, for the evaluation of each fiscal year, we need to provide a clear explanation, disclosing all information including preconditions and indices that are used for the basis.

○ With regard to explanations in the business performance report, we ask that each item is also analyzed from a viewpoint of what we could have done to have received a higher self-evaluation, and provide appropriate explanations on them.

○ Improved understanding of the evaluated items through site visits (office inspection and discussion on viewpoints) is effective. Relatedly, it is not desirable that the actual results are quite difficult to understand by only a business performance report, unless it is a member who performed the site visit. We desire how explanations are provided at interviews and such to be done more creatively, as it is important to us as to how we describe our outcomes and this shall be done with economic indices and other quantitative indices.

○ There is a need to re-define the role of JAXA with regard to each activity area in order not to dampen the potential of businesses in the private sector.

○ Securing human resource has become an important topic in terms of both quality and quantity. If there is an explanation on this point, perhaps we can have discussions that will lead to reviewing human resource education and training.

○ With regard to the advancement of collaborations with businesses in the private sector, as it appears that the works including management reform and reform of the mindset of the parties concerned are tied to achievements, we believe that if an explanation can be further provided on, for example, the creativity of the work performed then it may serve as reference for other corporations.

○ With regard to all technologies that were researched and developed, by following up on their utilization since, it becomes possible to capture properly how the research and development are utilized. There is no need to commercialize this in always a short period; however, we desire that efforts are made to reduce results that completely vary from the ideal expectations that are made at the outset of this research and development.

	<ul style="list-style-type: none"> ○ We would like the work in open innovation to be continued. The rate of success in the research and development leading to innovation may be low but different types of challenge are what makes innovation. We would like them not to fear failure, and continue to create new ways to work with technology. We gave high marks to the works in fiscal 2018, and what is important is a cycle of trial and error. ○ In addition to our space technology development and JAXA's business strategy, there is a need to reinforce the strategy drafting function so that we can expand our space business by bringing in companies from the private sector, and as such we expect more expansion in the work of the likes of J-SPARC. ○ With regard to the activities of JAXA in fiscal 2018, it became a fiscal year of significant activities, which made the people of Japan's interest in space science and their pride in Japan's technologies. ○ We would like our research and development to be upgraded by continuously doing activities with Hayabusa 2 and by achieving our targets. We would like more communication to help the people of Japan to understand and feel comfortable about the scientific technologies so that the people of Japan can understand space development technologies at an improved level, and we would like to get the younger generations interested in the technologies, and thereby contribute to the education and training of human resource in Japanese technology.
Auditor's special comments	No special matters to note.

* Evaluation categories are as follows:

- S: Based on the National Research and Development Agency's aims, businesses with mid to long-term objectives due to comprehensive consideration based on some circumstances regarding the agency's business achievements, and efforts 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 with mid to long-term objectives due to comprehensive consideration based on some circumstances regarding the agency's business achievements, and efforts 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.
- B: Based on the National Research and Development Agency's aims, business with mid to long-term objectives due to comprehensive consideration based on some circumstances regarding the agency's business achievement, and efforts 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.
- C: Based on the National Research and Development Agency's aims, businesses with mid to long-term objectives due to comprehensive consideration based on some circumstances regarding the agency's business achievements, and efforts through its activities, the creation of achievements, further drastic efforts and improvements toward "maximization of R&D achievements" or "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 evaluation							Itemized evaluation document No.	Remarks
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024		
□. Specific work towards achieving objectives in the aerospace policy									
3. Performance of space projects to achieve objectives in our space policy	A							III.3	
3. 1. Positioning satellites	B							III.3.1	
3. 2. Satellite remote sensing	S							III.3.2	
3. 3. Satellite communication	B							III.3.3	
3. 4. Space transportation systems	A							III.3.4	
3. 5. Grasping the situation in space	B							III.3.5	
3. 6. Grasping the situation at sea and early warning function, etc.	A							III.3.6	
3. 7. Guaranty of the functions of the entire space system	B							III.3.7	
3. 8. Space science/exploration	S							III.3.8	
3. 9. International Space Station	A							III.3.9	
3. 10. International manned space exploration	A							III.3.10	
3. 11. Platform technology to support the development and operation of satellites and so on (eg tracking and	A							III.3.11	

Mid to long-term objectives (Mid to long-term plan)	FY evaluation							Itemized evaluation document No.	Remarks
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024		
□. Specific work towards achieving objectives in the aerospace policy									
5. Aeronautical science and technology	S							III.5	
6. Work to support the achievement of objectives in the aerospace policy	A							III.6	
6. 1. Promoting international cooperation and work overseas, and analysis of surveys	A							III.6.1	
6. 2. Contributions to education and training of human resource for the next generation and improving the understanding by the general public	A							III.6.2	
6. 3. Project management and securing safety and reliability	A							III.6.3	
6. 4. Utilization of information security and guaranteeing information security	B							III.6.4	
6. 5. Items concerning facilities and equipment	A							III.6.5	
7. Entering government contracts concerning information gathering satellites	A							III.7	
□. Items concerning further improvements and efficiency in business management									
	B							IV	
V. Items regarding improvements in financial related matters B									

operation technology, environmental testing technology)									
4 . Work including cross-disciplinary research and development towards the achievement of objectives in the space policy	S							III.4	
4 . 1 . Work towards industrial development and expansion in space usage through, eg, collaboration with businesses in the private sector	A							III.4.1	
4 . 2 . Maintenance and reinforcement of a space industry platform and scientific technology platform that create new value (including space and debris countermeasures and solar power generation in space)	S							III.4.2	

	B							V	
VI. Important items related to business management and others									
1 . Internal controls	B							VI.1	
2 . Items concerning human resource	B							VI.2	

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

*2 For items that are set to “high” level of difficulty, each comment shall be underlined.

*3 For items that were selected for reinforcement shall be marked with “Target” next to each criterion.

*4 In the “Itemized Evaluation Document No” column, the itemized document no in the itemized evaluation document for fiscal 2018 shall be entered.

*5 Evaluation categories are as follows:

[Administrative and projects related to research and development (II)]

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.

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.

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 “maximizing the achievements 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, 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.

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.

[Other than administrative work and projects regarding research and development (After □)]

S: Based on the activities of a corporation, remarkable performance exceeding the intended objectives is recognized quantitatively and qualitatively in the mid- to long- objective plan (in terms of quantitative indicators, 120% or more vis-à-vis planned mid to long-term objective value (or planned FY value), and remarkable performance is also recognized qualitatively)

A: Based on the activities of a corporation, remarkable performance exceeding the intended objectives is recognized in the mid to long- term objective plan (in terms of quantitative indicators, 120% or more vis-à-vis planned mid to long-term objective value (or planned FY value).

B: Performance exceeding the intended objectives is recognized in the mid to long- term objective plan (in terms of quantitative indicators, 100% or more but less than 120% vis-à-vis planned mid to long- term objective value (or planned FY value).

C: Performance falls below the intended objectives in the mid to long- term objective plan, requiring improved performance (in terms of quantitative indicators, 80% or more but less than 100% vis-à-vis planned mid to long- term objective value (or planned FY value).

D: Performance falls below the intended objectives in the mid to long-term objectives, requiring drastic improvement of business including its abolishment (in terms of quantitative indicators, less than 80% vis-à-vis the planned mid to long-term values (or values on prior fiscal year), or it is recognized that the competent Minister is required to make an order for improving business operation or taking other necessary measures).

The following grades are to be assigned when one is forced to raise an evaluation based on qualitative indicators such as evaluation of internal controls, and when operations performance is difficult to measure such as when meeting certain conditions is set as the target.

S:—

A: The agency reached the target level, for targets whose difficulty grade were set high.

B: The agency reached the target level(This excludes items that correspond to "A").

C: The agency couldn't reach the target level(This excludes items that corresponding to "D").

D: A fundamental review of operations is needed because the agency couldn't reach the target level , and this includes when the Minister in charge finds that the Minister needs to order improvements in operations management and order other necessary actions.