



Office of Inspector General
United States Department of State

ISP-I-21-30

Office of Inspections

August 2021

Inspection of the Office of the Science and Technology Adviser to the Secretary

DOMESTIC OPERATIONS



HIGHLIGHTS

Office of Inspector General
United States Department of State

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What OIG Inspected

OIG inspected the executive direction, policy implementation, operational effectiveness, and resource management of the Office of the Science and Technology Adviser to the Secretary.

What OIG Recommends

OIG made 5 recommendations to the Office of the Science and Technology Adviser to the Secretary.

In its comments on the draft report, the Office of the Science and Technology Adviser to the Secretary concurred with all 5 recommendations. OIG considers all 5 recommendations resolved. The Office of the Science and Technology Adviser to the Secretary's response to each recommendation, and OIG's reply, can be found in the Recommendations section of this report. The office's formal written response is reprinted in its entirety in Appendix B.

August 2021

OFFICE OF INSPECTIONS

DOMESTIC OPERATIONS

Inspection of the Office of the Science and Technology Adviser to the Secretary

What OIG Found

- Frequent turnover in the Office of the Science and Technology Adviser to the Secretary (STAS) leadership positions created challenges for the office.
- STAS advanced U.S. foreign policy in a number of science and technology areas but did not always coordinate or clear its activity within the Department of State and through the interagency policy process.
- The office did not use its Functional Bureau Strategy to facilitate, coordinate, and improve office performance.
- STAS had not coordinated its new Regional Technology Officer program with the existing Regional Environmental Officer program, which also has regional technology policy responsibilities.
- Lack of a clearly defined and Department-approved mandate impeded STAS's ability to advance science and technology policy in the Department and abroad.
- The office provided the Department with widely valued science and technology expertise through its science fellowship programs but did not have a Contracting Officer's Representative to properly manage the contracts associated with two fellowship programs.
- Spotlight on Success: STAS successfully worked with other U.S. Government agencies, non-governmental institutions, academia, and other bureaus and offices within the Department to advance the candidacy of the United States as the new host of the World Data System's International Program Office.

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CONTEXT

The Office of the Science and Technology Adviser (STAS), led by the Science and Technology Adviser to the Secretary (S&T Adviser), advises the Secretary on foreign policy implications of science, technology, and research and development issues. The office was created in 2000 after Congress directed the Department of State (Department) to establish the position of S&T Adviser.¹ This Congressional mandate followed a 1999 report from the National Research Council² that recommended the establishment of an S&T Adviser and a comprehensive approach within the Department to integrate science, technology, and health competence into policy and program development.

The March 2021 *Interim National Security Strategic Guidance*³ stated that emerging technologies will shape the economic and military balance between nations and are not yet governed by laws or international standards to foster cooperation and protect against misuse or malign actions. STAS has two goals to advance emerging technology policy according to its 2018 Functional Bureau Strategy (FBS):

- Advance foreign policy objectives through increased use of science, technology, and innovation tools.
- Increase scientific and technological capacity at the State Department by leveraging the scientific community and through internal capacity-building.

STAS advises Department leadership on emerging technology issues such as fifth generation wireless technology (5G), artificial intelligence (AI), quantum computing, and blockchain technology. The office also engages externally with academia, industry, and non-governmental organizations and represents the United States at the United Nations Commission on Science and Technology for Development, the global Foreign Ministers Science and Technology Advisers Network, and the Multistakeholder Forum on Science, Technology, and Innovation for the Sustainable Development Goals.

STAS also administers the Department's primary science fellowship programs⁴ and manages contracts for the American Association for the Advancement of Sciences (AAAS) Science and

¹ Appendix E Senate Act 886: Foreign Relations Authorization Act, Fiscal Years 2000 and 2001, Section 303, "Science and Technology Adviser to the Secretary of State."

² National Research Council, Committee on Science, Technology and Health Aspects of the Foreign Policy Agenda of the United States, Office of International Affairs, *The Pervasive Role of Science, Technology, and Health in Foreign Policy: Imperatives for the Department of State* (1999). Published by National Academy Press, Washington, D.C.

³ White House, *Interim National Security Strategic Guidance* (March 2021).

⁴ Department of State science fellowship programs allow experienced professionals and scholars to serve in the Department and work on global issues of vital importance to the United States, such as counterterrorism, human rights, international development assistance, nonproliferation, or the environment.

Technology Policy Fellowships⁵ and the National Academy of Sciences for the Jefferson Science Fellowships.⁶ These programs are an important source of expertise for several Department bureaus that have science and technology responsibilities, such as the Bureau of Oceans and International Environmental and Scientific Affairs (OES), the Bureau of Economic and Business Affairs, and the Bureau of International Security and Nonproliferation. In 2020, the Department's Enterprise Governance Board⁷ approved a joint STAS and Bureau of Economic and Business Affairs proposal to place Foreign Service Regional Technology Officers (RTOs) at up to 12 embassies and consulates to strengthen the Department's capacity to develop and advocate for U.S. technology policy with foreign audiences.

Although an adviser to the Secretary, the S&T Adviser does not report directly to the Secretary. Rather, the Adviser reports to the Under Secretary for Economic Growth, Energy, and the Environment.⁸ In addition, STAS receives support for budget, human resources, and procurement through the joint Bureau of Oceans and International Environmental and Scientific Affairs and Bureau of Democracy, Human Rights, and Labor Executive Office (OES-DRL/EX). As of January 19, 2021, STAS had nine employees—three Civil Service employees, two Foreign Service officers on Y tours,⁹ one Schedule B employee,¹⁰ one science fellow on an Intergovernmental Personnel Act detail,¹¹ and two science fellows on Schedule A appointments.¹² At the time of the inspection, only two STAS employees had been in STAS longer than 18 months, and three of STAS's nine staff members left the office in February 2021.

⁵ The AAAS Science & Technology Policy Fellowship Program requires a PhD or an equivalent doctoral-level degree at the time of application—or a master's degree in engineering and at least three years of post-degree professional experience.

⁶ The Jefferson Science Fellowship Program is open to scientists and engineers who are tenured faculty from U.S. institutions of higher learning.

⁷ The Department's Enterprise Governance Board is a forum for senior leaders to discuss strategic issues and provide input into enterprise-level decisions on a regular basis. Its purpose is to enhance transparency, agility, and alignment of resources with priorities, and to increase the speed of enterprise-level decision-making. See 2 Foreign Affairs Manual (FAM) 041.1a.

⁸ The Under Secretary for Economic Growth, Energy, and the Environment has responsibility for the Bureau of Economic and Business Affairs, the Bureau of Energy Resources, the Bureau of Oceans and International Environmental and Scientific Affairs, the Office of Global Partnerships, the Office of the Chief Economist, and the Office of the Science and Technology Adviser.

⁹ Y tours are short tours within the Department that generally last from 6 to 12 months and are used to address high-priority needs or to cover an unusual surge in an office's workload.

¹⁰ Schedule B is a special Excepted Service appointing authority approved by the Office of Personnel Management which allows the Department to recruit persons having specialized foreign affairs knowledge and experience in scientific, professional, or technical fields.

¹¹ The Intergovernmental Personnel Act Mobility Program provides for the temporary assignment of personnel between the Federal Government and state and local governments, colleges and universities, Indian tribal governments, federally funded research and development centers, and other eligible organizations.

¹² Schedule A is a category of excepted service appointment that is applicable to positions that are not of a confidential or policy-determining character, and that are not in the Senior Executive Service, but for which it is impracticable to apply competitive examining requirements (e.g., qualification standards).

OIG evaluated the bureau's executive direction, policy implementation, operational effectiveness, and resource management consistent with Section 209 of the Foreign Service Act.¹³

EXECUTIVE DIRECTION

OIG assessed STAS leadership¹⁴ based on interviews with office staff, questionnaires completed by STAS personnel, a review of pertinent documents, and observations of STAS activities during the inspection. However, OIG's assessment was limited because the office's leadership positions were either not filled or were in the process of turning over during the inspection. For example, the former S&T Adviser, who was appointed to the position in December 2019 through an Intergovernmental Personnel Act detail from Purdue University, where he served as Dean of the College of Engineering, departed STAS in December 2020. At the start of the inspection in January 2021, the Deputy S&T Adviser was serving as the acting S&T Adviser.¹⁵ However, he departed the office in February 2021, at which point the new Deputy S&T Adviser (who started in that role in January 2021) became the acting S&T Adviser.

OIG found that this type of leadership turnover was not unusual for STAS—the office had been led by four S&T Advisers or acting S&T Advisers in the past 4 years—and it created leadership challenges. As described below, these challenges included unclear supervisory roles within STAS and the lack of a fully implemented Equal Employment Opportunity (EEO) program for the office.

Unclear Supervisory Roles Created Conflict and Reduced STAS Effectiveness

OIG found through interviews and responses to questionnaires that the acting S&T Adviser did not designate rating and reviewing officials or develop performance plans for some STAS staff at the start of the 2020 rating cycle as required by 3 Foreign Affairs Manual (FAM) 2822.2 and 3 FAM 2821.3-6. The acting S&T Adviser did not clarify supervisory responsibilities for three STAS employees or ensure work commitments were finalized within the required 45 days of the start of the rating period. This problem developed because the former S&T Adviser could not officially supervise Department career staff because he was on an Intergovernmental Personnel Act detail and did not clarify or endorse the supervisory structure to staff for the 2020 rating cycle. As a result, some staff who reported to the acting S&T Adviser did not initially take direction from him. Prior to and during the inspection, the acting S&T Adviser and Deputy S&T Adviser clarified supervisory responsibilities and finalized work commitments for these staff.

¹³ See Appendix A.

¹⁴ The term "STAS leadership" refers to the former S&T Adviser (December 2019 to December 2020), acting S&T Adviser (December 2020 to February 2021), and the Deputy S&T Adviser, who assumed the role in January 2021.

¹⁵ The acting S&T Adviser was a career Foreign Service officer who joined the office in 2017. He previously served as a Science and Technology Policy Fellow at the George Washington University, where he worked on AI, computational propaganda, and emerging technology policy.

Equal Employment Opportunity Program Not Fully Implemented

OIG found that STAS leadership had not fully implemented an EEO program for the office. For example, six of nine employees did not know who to approach with EEO concerns. Furthermore, none of the office's nine employees had completed mandatory Notification and Federal Employee Antidiscrimination and Retaliation training required by 13 FAM 301.2-1. During the inspection, the acting S&T Adviser and Deputy S&T Adviser held a meeting with staff to discuss the EEO program, disseminated information about opportunities for staff to participate in the OES bureau's Diversity and Inclusion Council and other EEO-related activities, and began to ensure staff complied with mandatory training requirements.

POLICY IMPLEMENTATION

OIG reviewed STAS's policy implementation and coordination based on interviews with office staff, questionnaires completed by STAS personnel, and a review of documents, as well as observations of STAS activities during the inspection. As discussed below, OIG found STAS played an important role in advancing the U.S. Government's science and technology agenda through its diplomatic engagement on a wide range of complex, rapidly changing issues, including AI, next generation telecommunications, biotechnology, and international data standards. In particular, Department officials praised the acting S&T Adviser's work to improve coordination on AI policy, including hosting a weekly AI small group meeting and delineating responsibilities between different action offices. However, as also discussed below, OIG found limited use of its FBS, lack of a performance management plan, and inconsistent coordination within the Department, particularly in the establishment of the RTO program, limited the effectiveness of STAS's policy engagement on the Department's science and technology priorities.

STAS Raised Visibility of Science and Technology Issues and Advanced STAS Goals

OIG determined that STAS raised the visibility of science and technology issues with Department leaders and advanced STAS goals. For example, officials in Department bureaus told OIG that the former S&T Adviser advocated within the Department and with other Federal agencies to advance a science and technology agreement with Taiwan that led to the conclusion of the agreement in months, rather than the years normally required to conclude such agreements. Similarly, STAS advocated with several foreign governments to encourage semiconductor manufacturing investments in the United States, resulting in an announced \$12 billion investment by a Taiwanese company. STAS also hosted five virtual Global Chief Technology Officer Roundtables in 2020. The roundtables were attended by Department principals and senior officials in industry to discuss how to sustain U.S. leadership and innovation and desired government support for the private sector in emerging technology areas such as 5G, smart cities, and component electronics.¹⁶

¹⁶ The roundtables addressed strengthening U.S. foreign policy initiatives in advanced manufacturing and increasing resilience in supply chains for critical and emerging technologies. Topics discussed included 5G

STAS Made Limited Use of its Functional Bureau Strategy and Lacked a Performance Management Plan

OIG found that STAS did not use its FBS strategically and continuously to identify specific and measurable objectives for its work. According to 18 FAM 301.2-4(D)b and c, a bureau or office must develop an implementation plan for its FBS to communicate office priorities, coordinate with relevant stakeholders, and develop a process for regularly reviewing the strategy. The Department requires annual strategy reviews and further recommends at least quarterly reviews that include discussions about office objectives, progress, and challenges to be incorporated into regular work routines. In addition, 3 FAM 1214b(2) emphasizes the development of short-term and long-term goals by leadership to establish expectations, provide direction, and promote a unified effort.

STAS's current FBS, completed in 2018, predated the tenure of most STAS staff. Although STAS held a full review of its FBS in early 2019, it did not do so in 2020. Several employees told OIG that a full FBS review planned for early 2020 was cut short and instead turned into a briefing of STAS employees' portfolios for the former S&T Adviser following his December 2019 arrival. STAS staff informed OIG that the priorities of the former S&T Adviser did not align with the FBS, such as his interest in semiconductor supply chains and his focus on research integrity at U.S. academic institutions. Additionally, Department officials in other bureaus and offices expressed concerns to OIG that STAS's work reflected the interests of individual staff, not necessarily the interests and priorities of the Department. STAS employees told OIG they made limited use of the FBS to monitor progress, to align their work with stated priorities, or to identify risks to objectives.

OIG also found that STAS had not developed a performance management plan for its programs and projects, nor had it conducted evaluations of its key processes. The acting S&T Adviser told OIG he was unaware of the requirements of 18 FAM 301.4-1 and 18 FAM 301.4-4b to assess whether key office programs worked as intended. Guidance in 18 FAM 301.1 also requires offices to design performance management plans that support meaningful evaluations and internal decision-making by collecting performance data. Without internal evaluations or performance management plans, STAS leadership was unable to gauge the effectiveness of its internal processes and make the data-informed decisions needed to properly manage the office. The absence of a structure for performance assessment and analysis, coupled with STAS staff's infrequent use of its FBS, decreased STAS's ability to monitor and adjust its major projects to advance the Department's science and technology mission.¹⁷

operators, vendors and edge technologies; 6G development; the appropriate role of AI in security in smart cities; and ensuring the manufacturing supply chain for component electronics, including semiconductors.

¹⁷ 18 FAM 301.4-1(C) requires Department bureaus and independent offices to identify the major programs and/or projects they undertake to achieve the broader outcomes specified in the objectives of their strategic plan.

Recommendation 1: The Office of the Science and Technology Adviser to the Secretary should develop and communicate to staff a plan to implement its Functional Bureau Strategy in accordance with Department standards. (Action: STAS)

STAS Did Not Consistently Coordinate and Clear Policy Activities With Other Department Bureaus

OIG found that neither the former S&T Adviser nor other STAS staff consistently coordinated or cleared STAS's policy activities within the Department and with interagency partners. Department guidelines in 2 FAM 1211a require that an action office ensure that the information and opinions of other offices are brought to bear on the proposed action. Furthermore, as stated in 2 FAM 1214.1, an action office also must give the right of clearance to offices with a substantial interest in the action. Employees from other bureaus and offices said that STAS did not consistently seek information or clearance from them on significant issues. For example, although Department officials praised the acting S&T Adviser's efforts to coordinate AI policy, a STAS employee's draft of a Department strategy on AI did not reflect that another bureau was working to develop a national AI strategy. On another occasion, a STAS employee discussed AI regulation with officials of the European Union without first seeking a coordinated interagency position, including with the office in OES that was already coordinating work in this area.¹⁸

STAS employees said that new employees were often unfamiliar with the clearance process because many were short-term science fellows without previous Government experience. OIG concluded that a lack of a standard operating procedures and orientation and training on the clearance process also contributed to this problem. Because of the lack of effective coordination and clearance procedures, STAS's diplomatic engagement in some cases conflicted with the work of other bureaus and offices, undermining its ability to advance science and technology issues.

Recommendation 2: The Office of the Science and Technology Adviser to the Secretary should develop, implement, and train staff on coordination and clearance procedures in accordance with Department guidelines. (Action: STAS)

STAS Did Not Coordinate Development of Its Regional Technology Officer Program With OES's Regional Environmental, Scientific, Technology, and Health Officer Program

OIG found that STAS did not coordinate adequately with OES in developing the RTO program to reduce the risk of program duplication and overlap. As described earlier, RTOs are intended to strengthen the Department's outreach on U.S. technology policy, a role that is also currently part of the responsibility of existing Regional Environmental, Scientific, Technology and Health Officers (REOs), who are managed by OES. Despite OES's important role in advancing technology diplomacy through its REO program, STAS did not coordinate with OES's Office of

¹⁸ According to 1 FAM 545, the Office of Science and Technology Cooperation in OES (OES/STC) formulates, develops, and implements U.S. science and technology cooperation and international science policy, including artificial intelligence.

Policy and Public Outreach in advance of the implementation of the RTO program to identify areas of overlap, clarify the respective areas of policy responsibility for each program, and prioritize resources to advance diplomatic engagement in a coordinated manner that made the best use of staff at the lowest cost. REOs are currently deployed in 12 locations,¹⁹ and the RTO program is intended to grow to 12 positions worldwide as well.²⁰ In addition, in 2019, the Department also created a cadre of Regional China Officers, who may also work on technology issues, which creates another area of potential overlap of responsibilities with both RTOs and REOs that will require coordination.

Department guidelines in 2 FAM 1211a and 2 FAM 1214.1 require clearance on actions in which other Department offices have a substantial interest. Furthermore, 3 FAM 2613c requires that staffing levels be carefully planned to make the most effective use of human resources at the lowest practical expenditure to accomplish assigned missions. Based on OIG interviews, this lack of coordination was due, in part, to some STAS staff's unfamiliarity with the Department's clearance process. Without delineation and deconfliction of roles and responsibilities for the RTO program, STAS risks wasting resources, duplicating the work performed by OES, and not advancing technology policy goals effectively.

Recommendation 3: The Office of the Science and Technology Adviser to the Secretary, in coordination with the Bureau of Oceans and International Environmental and Scientific Affairs, should develop procedures that delineate and deconflict the roles and responsibilities of both Regional Technology Officers and Regional Environmental, Science, Technology, and Health Officers in accordance with Department guidelines. (Action: STAS, in coordination with OES)

Spotlight on Success: STAS Linked Academia and Government to Advance U.S. Data Integrity Goals

STAS successfully worked with other Department bureaus and offices, other U.S. Government agencies, non-governmental institutions, and academia to advance the candidacy of the United States as the new host of the World Data System's International Program Office. The World Data System, part of the International Science Council,²¹ promotes quality-assured scientific data and data services, products, and information across all scientific disciplines. STAS worked within the Federal government and with academia to identify both a U.S. Government funding source and a U.S. academic institution to act as host. STAS proposed, and the Secretary agreed, to write a letter in support of the bid by the Oak Ridge Institute at the University of Tennessee and its partner, the U.S. Department of Energy's Oak Ridge National Laboratory. This letter, along with STAS's advocacy efforts, advanced the Oak Ridge Institute's successful bid to host the World Data System's International Program Office. The

¹⁹ REOs are posted in San Jose, Lima, Gaborone, Addis Ababa, Accra, Amman, Bangkok, Suva, Kathmandu, Astana, Copenhagen, and Budapest.

²⁰ The initial three RTOs will be deployed in 2021 to Tokyo, São Paulo, and Sydney. At the time of the inspection, the Department had not decided where the remaining RTOs would be located.

²¹ The International Science Council is an international non-governmental organization that convenes and mobilizes science bodies on issues of major scientific and public importance.

program office will promote U.S. leadership in values-based international norms and standards for data and scientific research for the next 5 years. Such standards ensure data can be trusted and are the foundation for the protection of data privacy, intellectual property, security, and human rights.

OPERATIONAL EFFECTIVENESS

As outlined above, the S&T Adviser is an adviser to the Secretary but reports directly to the Under Secretary for Economic Growth, Energy, and the Environment and receives administrative support through OES-DRL/EX, which also supports OES, another bureau with responsibility for science and technology issues. In this context, OIG reviewed STAS's operational effectiveness and found, as described below, that a lack of clarity about STAS's mandate and its policy responsibilities relative to other Department bureaus and offices, and its position within the Department as an office under the supervision of the Under Secretary for Economic Growth, Energy, and the Environment, constrained its ability to coordinate science and technology policy across the Department.

Lack of a Clearly Defined Mandate Impeded STAS's Effectiveness

OIG found that STAS lacked a clearly defined policy mandate, which impeded its ability to advance science and technology policy in the Department and abroad. Specifically, OIG found that STAS had not drafted a statement of its policy areas of responsibilities, as required by 1 FAM 014.8a and c,²² to define and distinguish its activities from those of other Department offices. The absence of clearly defined policy areas of responsibility for STAS led to duplication or lack of coordination with other bureaus and offices in the Department that had overlapping responsibilities. For example, when the former S&T Adviser arrived in December 2019, he began to promote bilateral partnership agreements on quantum information science research. He engaged with foreign officials to sign these bilateral partnership agreements but did not coordinate these discussions with OES, which played a lead role in this policy area within the Department, or the White House's Office of Science and Technology Policy, which had the lead U.S. Government responsibility for this work. According to interviews and documents OIG reviewed, the former S&T Adviser's activities complicated U.S. efforts to advance implementation of quantum information science policy objectives. In a second example, the former S&T Adviser became involved in U.S. interagency discussions on China-related 5G issues that were also the responsibility of the Bureaus of Economic and Business Affairs and East Asia and Pacific Affairs. This led to miscommunication that inhibited efforts to advance China-related economic policy objectives and required the bureaus to devote resources to clarify the Department's policy positions. Had there been clarity about STAS's mandate and the extent of its policy responsibilities, these missteps by the former S&T Adviser might have been avoided.

²² 1 FAM 014.8c requires bureaus and offices to submit statements of policy areas of responsibility to the Bureau of Administration and assigns the Bureau of Administration responsibility to ensure that 1 FAM, "Organization and Functions," is current at all times.

STAS's failure to establish the required statement of its policy areas of responsibility was caused, in part, by high staff turnover in the office and the predominance of staff on short-term assignments, including the former S&T Adviser. Frequent turnover and fluctuations in the number of staff from 2019 to 2021 also made it difficult for STAS leadership to align tasks with the office's staff, leading to ad hoc engagements and lack of continuity. In addition, OIG found that the number of bureaus and offices within the Department with science and technology responsibilities made establishing clear lines of authority challenging. For example, bureaus and offices with science and technology responsibilities include OES, the Bureau of Economic and Business Affairs, the Bureau of Arms Control and Verification, and the Office of the Coordinator for Cyber. During the inspection, the acting S&T Adviser and Deputy S&T Adviser told OIG they were aware of the problems caused by the lack of a clear mandate and began to adjust the office's priorities based on existing staff. For example, STAS planned to decrease its role in AI coordination and cede its work on 5G back to the Bureau of Economic and Business Affairs. Additionally, the office planned to realign its remaining resources to manage its new responsibilities for the RTO program and for the Technology Diplomacy Working Group.²³ Department officials told OIG that the Offices of the Deputy Secretary of State, the Deputy Secretary of State for Management and Resources, and the acting Under Secretary for Economic Growth, Energy, and the Environment were also considering the most effective way to advance science and technology objectives Department-wide. Nonetheless, without a clear mandate and statement of its policy areas of responsibilities, STAS was at risk of continuing to work at cross-purposes with other Department bureaus and offices, thus limiting its ability to advance science and technology policy across the Department.

Recommendation 4: The Office of the Science and Technology Adviser to the Secretary, in coordination with the Offices of the Under Secretary for Economic Growth, Energy, and the Environment, the Deputy Secretary of State, and the Deputy Secretary of State for Management and Resources, should submit a statement of its policy areas of responsibilities in accordance with Department standards. (Action: STAS, in coordination with E, D, and D-MR)

STAS's Placement Within the Department Constrained Its Ability to Advance All Aspects of Science and Technology Policy

STAS's placement within the Department hampered the office's ability to advance all aspects of science and technology policy in the Department. Department staff said that STAS, as an office reporting to the Under Secretary for Economic Growth, Energy, and the Environment, had limited authority to speak for non-economic aspects of the Department's science and technology policy, particularly security aspects of technology policy. Recognizing the need for greater clarity about the respective roles and responsibilities of STAS and other bureaus and offices with science and technology policy responsibilities, the Department's Enterprise

²³ In December 2020, the Department's Enterprise Governance Board convened a Technology Diplomacy Working Group to make recommendations on improving strategic coordination on emerging technology issues among bureaus with science and technology responsibilities. The Board assigned STAS to co-chair the group together with a representative from the Under Secretary for Arms Control and International Security.

Governance Board decided in December 2020 to create a multi-bureau Technology Diplomacy Working Group to review strategic coordination of foreign policy concerning emerging technologies, and the organizational structure, resources, and workforce development across these bureaus and offices. The Enterprise Governance Board also tasked the Technology Diplomacy Working Group to make recommendations to the board on these topics, which would include the location and responsibilities of the STAS office. During the inspection, the working group started the review process.

RESOURCE MANAGEMENT

OIG reviewed the five fellowship programs STAS manages that place science fellows in offices throughout the Department. These fellowship programs included AAAS Fellowships, Jefferson Science Fellowships, Institute of Electrical and Electronics Engineers Fellowships, Georgetown University's School of Foreign Service's Center for Security and Emerging Technology Fellowships, and the American Institute of Physics Fellowships. STAS supported the AAAS and Jefferson Science Fellowship programs through two contracts with a total combined award value exceeding \$7 million. The other programs were based on memoranda of understanding that did not require funding. Department staff told OIG that they valued the science and technology expertise provided by more than 50 science fellows assigned to Department offices. OIG found STAS managed these programs effectively with the exception noted below.

STAS Lacked a Qualified Contracting Officer's Representative

OIG found that STAS did not have a qualified employee to serve as the Contracting Officer's Representative (COR) for the AAAS and Jefferson Science Fellowship program contracts. In the absence of a qualified STAS COR, two employees in OES-DRL/EX had performed COR duties for these contracts for more than a year. However, 14 Foreign Affairs Handbook (FAH)-2 H-143a requires CORs to have sufficient technical expertise on the subject matter of the contract to perform effective oversight. Department employees with contracting expertise told OIG that OES-DRL/EX employees did not have the subject matter expertise to manage the programs effectively. For example, during the inspection, because OES-DRL/EX did not have the subject matter expertise to do so, STAS staff drafted the Statement of Work for a new Jefferson Science Fellowship program contract, outlining the technical requirements for the program. STAS also worked with the contractors to place science fellows in the Department and reviewed invoices for accuracy before the CORs in OES-DRL/EX certified them. STAS was unable to fulfill the full range of COR duties, in part, because STAS did not assign and train dedicated staff to manage its fellowship programs. Instead, the programs were managed by a series of employees with other responsibilities, which made it difficult for them to acquire the specialized experience and training required to obtain COR certification at the level appropriate for the contract.²⁴ Without assignment of a COR with sufficient technical expertise and required COR certification, STAS

²⁴ As described in 14 FAH-2 Exhibit H-143b, the Department designates the level of training and experience necessary for CORs based on the complexity of the contract. Due to the size of the science fellowship contracts, a COR Level II certification is necessary, which requires at least 12 months experience as a COR Level I. At the time of the inspection, the STAS COR had a Level I certification.

could not perform the full range of oversight duties for these contracts. For example, neither contract had a Quality Assurance Surveillance Plan, a tool recommended in 14 FAH-2 H-523b to assess contractor performance. During the inspection, the Deputy S&T Adviser began to address this deficiency by initiating the reclassification of a permanent position in the office to include COR duties, and she also took training to serve as an alternate COR.

Recommendation 5: The Office of the Science and Technology Adviser to the Secretary should nominate a qualified Contracting Officer's Representative for the American Association for the Advancement of Science and Jefferson Science Fellowship contracts. (Action: STAS)

RECOMMENDATIONS

OIG provided a draft of this report to Department stakeholders for their review and comment on the findings and recommendations. OIG issued the following recommendations to the Office of the Science and Technology Adviser to the Secretary. The office's complete response can be found in Appendix B.¹ The office also provided technical comments that were incorporated into the report, as appropriate.

Recommendation 1: The Office of the Science and Technology Adviser to the Secretary should develop and communicate to staff a plan to implement its Functional Bureau Strategy in accordance with Department standards. (Action: STAS)

Management Response: In its August 3, 2021, response, the Office of the Science and Technology Adviser to the Secretary concurred with this recommendation. The office noted an estimated completion date of October 2021.

OIG Reply: OIG considers the recommendation resolved. The recommendation can be closed when OIG receives and accepts documentation that the Office of the Science and Technology Adviser to the Secretary developed and communicated to staff a plan to implement its Functional Bureau Strategy in accordance with Department standards.

Recommendation 2: The Office of the Science and Technology Adviser to the Secretary should develop, implement, and train staff on coordination and clearance procedures in accordance with Department guidelines. (Action: STAS)

Management Response: In its August 3, 2021, response, the Office of the Science and Technology Adviser to the Secretary concurred with this recommendation. The office noted an estimated completion date of September 2021.

OIG Reply: OIG considers the recommendation resolved. The recommendation can be closed when OIG receives and accepts documentation that the Office of the Science and Technology Adviser to the Secretary developed, implemented, and trained staff on coordination and clearance procedures in accordance with Department guidelines.

Recommendation 3: The Office of the Science and Technology Adviser to the Secretary, in coordination with the Bureau of Oceans and International Environmental and Scientific Affairs, should develop procedures that delineate and deconflict the roles and responsibilities of both Regional Technology Officers and Regional Environmental, Science, Technology, and Health Officers in accordance with Department guidelines. (Action: STAS, in coordination with OES)

¹ OIG faced delays in completing this work because of the COVID-19 pandemic and resulting operational challenges. These challenges included the inability to conduct most in-person meetings, limitations on our presence at the workplace, difficulty accessing certain information, prohibitions on travel, and related difficulties within the agencies we oversee, which also affected their ability to respond to our requests.

Management Response: In its August 3, 2021, response, the Office of the Science and Technology Adviser to the Secretary concurred with this recommendation. The office noted an estimated completion date of October 2021.

OIG Reply: OIG considers the recommendation resolved. The recommendation can be closed when OIG receives and accepts documentation that the Office of the Science and Technology Adviser to the Secretary developed procedures that delineate and deconflict the roles and responsibilities of both Regional Technology Officers and Regional Environmental, Science, Technology, and Health Officers in accordance with Department guidelines.

Recommendation 4: The Office of the Science and Technology Adviser to the Secretary, in coordination with the Offices of the Under Secretary for Economic Growth, Energy, and the Environment, the Deputy Secretary of State, and the Deputy Secretary of State for Management and Resources, should submit a statement of its policy areas of responsibilities in accordance with Department standards. (Action: STAS, in coordination with E, D, and D-MR)

Management Response: In its August 3, 2021, response, the Office of the Science and Technology Adviser to the Secretary concurred with this recommendation. The office noted an estimated completion date of December 2021.

OIG Reply: OIG considers the recommendation resolved. The recommendation can be closed when OIG receives and accepts documentation that the Office of the Science and Technology Adviser to the Secretary submitted a statement of its policy areas of responsibilities in accordance with Department standards.

Recommendation 5: The Office of the Science and Technology Adviser to the Secretary should nominate a qualified Contracting Officer's Representative for the American Association for the Advancement of Science and Jefferson Science Fellowship contracts. (Action: STAS)

Management Response: In its August 3, 2021, response, the Office of the Science and Technology Adviser to the Secretary concurred with this recommendation.

OIG Reply: OIG considers the recommendation resolved. The recommendation can be closed when OIG receives and accepts documentation that the Office of the Science and Technology Adviser to the Secretary nominated a qualified Contracting Officer's Representative for the American Association for the Advancement of Science and Jefferson Science Fellowship contracts.

PRINCIPAL OFFICIALS

Title	Name	Arrival Date
Science and Technology Adviser to the Secretary	Vacant	
Deputy Science and Technology Adviser to the Secretary	Matt Chessen ^a	8/2018
Deputy Science and Technology Adviser to the Secretary	Allison Schwier	1/2021

^a At the time of the inspection, Matt Chessen was serving as the acting Science and Technology Adviser to the Secretary. He assumed this role on the departure of the Science and Technology Adviser to the Secretary on December 15, 2020. He left the office in February 2021, at which point Allison Schwier assumed the role of acting Science and Technology Adviser to the Secretary.

Source: Generated by OIG from data provided by the Office of the Science and Technology Adviser to the Secretary.

APPENDIX A: OBJECTIVES, SCOPE, AND METHODOLOGY

This inspection was conducted from January 4 to April 28, 2021, in accordance with the Quality Standards for Inspection and Evaluation, as issued in 2012 by the Council of the Inspectors General on Integrity and Efficiency, and the Inspections Handbook, as issued by the Office of Inspector General (OIG) for the Department and the U.S. Agency for Global Media (USAGM).

Objectives and Scope

The Office of Inspections provides the Secretary of State, the Chief Executive Officer of USAGM, and Congress with systematic and independent evaluations of the operations of the Department and USAGM. Inspections cover three broad areas, consistent with Section 209 of the Foreign Service Act of 1980:

- **Policy Implementation:** whether policy goals and objectives are being effectively achieved and U.S. interests are accurately and effectively represented; and whether all elements of an office or mission are being adequately coordinated.
- **Resource Management:** whether resources are being used and managed with maximum efficiency, effectiveness, and economy; and whether financial transactions and accounts are properly conducted, maintained, and reported.
- **Management Controls:** whether the administration of activities and operations meets the requirements of applicable laws and regulations; whether internal management controls have been instituted to ensure quality of performance and reduce the likelihood of mismanagement; and whether instances of fraud, waste, or abuse exist and whether adequate steps for detection, correction, and prevention have been taken.

OIG's specific objectives for this inspection were to determine whether:

Executive Direction

- The Office of the Science and Technology Adviser to the Secretary (STAS) leadership practiced the Department leadership and management principles.
- STAS leadership upheld Equal Employment Opportunity principles.

Policy Implementation

- STAS had established effective internal processes to link Functional Bureau Strategy goals with those reflecting Department priorities and to measure results.
- STAS had complied with applicable requirements regarding program and project planning, design, and evaluation.
- STAS coordinated its activities with relevant bureaus and offices effectively.
- STAS had effective clearance processes, including resolution of differences.
- STAS will be able to provide appropriate and coordinated policy direction for the new Regional Technology Officer program.

Operational Effectiveness

- STAS had an organizational structure that balanced mission needs, efficiency of operations, and effective use of employees.
- Positions were structured and staffed in a manner consistent with effective mission accomplishment and staff duties aligned with position descriptions.

Resource Management

- STAS managed science fellowship programs consistent with Department principles.
- The STAS Contracting Officer's Representative met all responsibilities for evaluating contractor performance, monitored the contractor's technical progress, and tracked expenditures of resources relating to the contract.

The scope of the inspection did not include a review of the performance of the joint Bureau of Oceans and International Environmental and Scientific Affairs and Bureau of Democracy, Human Rights, and Labor Executive Office's (OES-DRL/EX) support role for STAS because OES-DRL/EX was inspected as part of OIG's recent inspection of OES.¹

Methodology

OIG used a risk-based approach to prepare for this inspection. Due to the COVID-19 pandemic and taking into consideration relevant guidance, OIG conducted this inspection remotely and relied on audio- and video-conferencing tools in lieu of in-person interviews with Department and other appropriate personnel. OIG also reviewed pertinent records; circulated surveys and compiled the results, as appropriate; and reviewed the substance of the report and its findings and recommendations with offices, individuals, and organizations affected by the review. OIG used professional judgment, along with physical, documentary, testimonial, and analytical evidence collected or generated, to develop the findings, conclusions, and actionable recommendations included in this report.

¹ OIG, *Inspection of the Bureau of Oceans and International Environmental and Scientific Affairs* (ISP-I-21-23, August 2021).

APPENDIX B: MANAGEMENT RESPONSE



United States Department of State

Washington, D.C. 20520

August 3, 2021

UNCLASSIFIED

TO: OIG – Sandra Lewis, Assistant Inspector General for Inspections

FROM: The Office of the Science and Technology Adviser to the Secretary – Allison Schwier,
Acting Adviser

SUBJECT: Response to Draft OIG Report – Inspection of the Office of the Science and
Technology Adviser to the Secretary

The Office of the Science and Technology Adviser to the Secretary has reviewed the draft OIG inspection report. We provide the following comments in response to the recommendations provided by OIG:

OIG Recommendation 1: The Office of the Science and Technology Adviser to the Secretary should develop and communicate to staff a plan to implement its Functional Bureau Strategy in accordance with Department standards. (Action: STAS)

Management Response: The Office of the Science and Technology Adviser to the Secretary concurs with this recommendation. STAS is developing a plan to implement its existing 2018-2022 Function Bureau Strategy. The expected completion date is October 2021.

OIG Recommendation 2: The Office of the Science and Technology Adviser to the Secretary should develop, implement, and train staff on coordination and clearance procedures in accordance with Department guidelines. (Action: STAS)

Management Response: The Office of the Science and Technology Adviser to the Secretary concurs with this recommendation. STAS is currently developing procedures and training for coordination and clearance procedures. The expected completion date, including training of all staff, is September 2021.

OIG Recommendation 3: The Office of the Science and Technology Adviser to the Secretary, in coordination with the Bureau of Oceans and International Environmental and Scientific Affairs, should develop procedures that delineate and deconflict the roles and responsibilities of both Regional Technology Officers and Regional Environmental, Science, Technology, and Health Officers in accordance with Department guidelines. (Action: STAS, in coordination with OES)

Management Response: The Office of the Science and Technology Adviser to the Secretary concurs with this recommendation. STAS is coordinating with OES to delineate and deconflict the roles and responsibilities of RTOs and REOs. The expected completion date is October 2021.

OIG Recommendation 4: The Office of the Science and Technology Adviser to the Secretary, in coordination with the Offices of the Under Secretary for Economic Growth, Energy, and the Environment, the Deputy Secretary of State, and the Deputy Secretary of State for Management and Resources, should submit a statement of its policy areas of responsibilities in accordance with Department standards. (Action: STAS, in coordination with E, D, and D-MR)

Management Response: The Office of the Science and Technology Adviser to the Secretary concurs with this recommendation. STAS is currently discussing the organizational structure, resources, and workforce development for technology diplomacy within the Department of State, as well as the formal role and responsibilities of the STAS Office, with the Offices of the Under Secretary for Economic Growth, Energy, and the Environment, the Deputy Secretary of State, and the Deputy Secretary of State for Management and Resources, and additional Department stakeholders. The expected completion date, and final determination of a STAS 1 FAM entry, is December 2021.

OIG Recommendation 5: The Office of the Science and Technology Adviser to the Secretary should nominate a qualified Contracting Officer's Representative for the American Association for the Advancement of Science and Jefferson Science Fellowship contracts. (Action: STAS)

Management Response: The Office of the Science and Technology Adviser to the Secretary concurs with this recommendation. STAS has implemented the recommendation by hiring a qualified program analyst who will be responsible for oversight and management of fellowship programs, including handling COR responsibilities.

The point of contact for this memorandum is Allison Schwier.

ABBREVIATIONS

5G	Fifth Generation Wireless Technology
AAAS	American Association for the Advancement of Sciences
AI	Artificial Intelligence
COR	Contracting Officer's Representative
EEO	Equal Employment Opportunity
FAH	Foreign Affairs Handbook
FAM	Foreign Affairs Manual
FBS	Functional Bureau Strategy
OES	Bureau of Oceans and International Environmental and Scientific Affairs
OES-DRL/EX	Joint Bureau of Oceans and International Environmental and Scientific Affairs and Bureau of Democracy, Human Rights, and Labor Executive Office
REOs	Regional Environmental, Scientific, Technology and Health Officers
RTOs	Regional Technology Officers
S&T Adviser	Science and Technology Adviser to the Secretary
STAS	The Office of Science and Technology Adviser

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