June 15, 2020

MEMORANDUM FOR: The Record

FROM: Stephen M. Volz, Ph.D.
Assistant Administrator for Satellite and Information Services
Scientific Integrity Determining Official (Delegated)

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SUBJECT: Final Decision on Allegations of Scientific Misconduct Nos. 2019-007, 2019-008, 2019-009, 2019-010

REFERENCE: *An Independent Assessment of Allegations of Scientific Misconduct*, National Academy of Public Administration, March 2020

**Allegations of Scientific Integrity Misconduct**

In August 2019 Hurricane Dorian was moving west across the Atlantic Ocean in the direction of the southeastern United States. Throughout the lifecycle of the hurricane, the National Weather Service (NWS) of the National Oceanic and Atmospheric Administration (NOAA) was continuously monitoring the storm and providing updates and projections of the storm's expected progress, to senior leadership inside the U.S. government, to emergency managers at the federal, regional, state, and local levels, and to the general public through regular forecasts, warnings, and alerts.

During the progress of the storm, in addition to the normal communications provided by the NWS forecasters, there were additional, independent public announcements made by the Executive Office of the President about the storm which, in at least one instance, was inconsistent with the NWS forecaster announcements. Responding to calls from the local community, on September 1, 2019 the NWS Birmingham, Alabama Weather Forecast Office (WFO) sent a tweet reinforcing their previously communicated forecast for Dorian's expected affected areas (the September 1 Birmingham Tweet). NOAA released a statement on September 6 (September 6 Statement) in an attempt to reconcile the inconsistences between the NWS and the Executive Office of the President. Rather than clarifying those inconsistencies, the September 6 Statement engendered strongly negative reactions from multiple stakeholders, including the NWS forecaster community, the broader community of commercial and private weather forecasters, the regional and state emergency managers, and the public; all at a time when the region was responding to a major hurricane event.

On September 9, 10, and 11, 2019, NOAA's Scientific Integrity Officer (SIO) received four separate complaints of alleged violations of scientific integrity filed under the NOAA Scientific Integrity Policy (NOAA Administrative Order 202-735D: Scientific

Integrity)[1]. The allegations relate to various communications surrounding Hurricane Dorian, including the September 6 Statement.[2]

NOAA's SIO assessed the allegations, and determined they warranted inquiry in accordance with the Scientific Integrity Policy.[3] In consultation with others, she then determined it was in the best interest of NOAA that an independent, external organization be chartered to conduct an inquiry and investigation of the allegations. The SIO engaged the National Academy of Public Administration (NAPA or the Academy) to carry out this work. The goal of the investigation was to determine by a preponderance of evidence if the NOAA personnel involved with the development and issuance of the September 6 Statement violated NOAA's Scientific Integrity Policy and engaged in the misconduct intentionally, knowingly, or in reckless disregard of the Scientific Integrity Policy. Pursuant to the Scope of Work, NAPA was tasked to:

- Determine if scientific misconduct or loss of scientific integrity has not occurred and the allegations be dismissed; or
- Determine if scientific misconduct or loss of scientific integrity has occurred and recommend any specific actions by NOAA to restore scientific integrity.

**Summary of the Findings and Recommendations**

Included as Attachment 1 to this Decision memorandum is the Report from the Academy. Upon consideration of the allegations, and evaluation of the evidence gathered during the investigation, a panel of experts established by NAPA (Panel) examined three specific allegations, and issued findings on each. The full details of how the Academy framed the events into these three allegations are in the Report; I list the allegations and findings here in their totality. I will refer to the recommendations later in this memorandum.

**Allegation One:** Media guidance issued by NOAA leadership between September 1 and 6, 2019, limited the ability of scientists to communicate with the media and the public about their research findings. Policies allegedly violated include Section 4.05; Section 4.06; and Section 5.02 (a), (d), and (k) of NOAA's Scientific Integrity Policy.

**Finding One:** The Panel determined by a preponderance of the evidence on the record that the allegation that the media guidance issued by NOAA leadership between September 1 and 6, 2019, did not constitute scientific misconduct or a loss of scientific integrity.

**Allegation Two:** The Birmingham WFO forecasters were not provided the opportunity to review and opine on the September 6 Statement that referenced the September 1 Birmingham Tweet and underlying scientific activity. Policies allegedly violated include Section 7.01 of NOAA's Scientific Integrity Policy.

[1] The four complaints are documented in Appendix E of the NAPA Report: *An Independent Assessment of Allegations of Scientific Misconduct*, March 2020, hereinafter referred to as the Report.
[2] Report, Appendix F.
[3] The SIO consolidated the four separate complaints for the purposes of the Academy's investigation.

**Finding Two:** The Panel determined by a preponderance of the evidence on the record that Dr. Neil Jacobs (Acting Administrator of NOAA) and Julie Roberts (Deputy Chief of Staff and Director of Communications for NOAA)[4] violated the Code of Ethics for Science Supervision and Management set forth in Section 7.01 of NOAA's Scientific Integrity Policy when they failed to engage the Birmingham WFO in the development of the September 6 Statement. Further, the Panel finds that they engaged in the misconduct intentionally, knowingly, or in reckless disregard of the Code of Scientific Conduct or Code of Ethics for Science Supervision and Management in NOAA's Scientific Integrity Policy.

**Allegation Three:** The drafting of the September 6 Statement was driven by external political pressure from Department of Commerce (Commerce) senior leaders and inappropriately criticized the September 1 Birmingham Tweet and underlying scientific activity. Further, the September 6 Statement compromised NOAA's integrity and reputation as an independent scientific agency and violated Section 7.02 of NOAA's Scientific Integrity Policy.

**Finding Three:** The Panel determined by a preponderance of the evidence on the record that the actions of Dr. Neil Jacobs and Julie Roberts involving the development and issuance of the September 6 Statement violated the Code of Ethics for Science Supervision and Management set forth in Section 7 of NOAA's Scientific Integrity Policy. Further, the Panel determined that they engaged in the misconduct intentionally, knowingly, or in reckless disregard of the Code of Scientific Conduct or Code of Ethics for Science Supervision and Management in NOAA's Scientific Integrity Policy.

As part of the scientific integrity investigation process, both complainants and respondents were provided the opportunity to review the Report and submit written exceptions to its contents. The submitted exceptions are included as Attachment 2 to this memorandum. I have carefully reviewed these exceptions, and considered the information and perspectives they contain. In addition to Report itself, these submitted exceptions have helped to inform my present decision.

## Additional Observations and Considerations

*Does the Scientific Integrity Policy cover all manner of communications?*

NOAA's mission of Science, Service, and Stewardship has been well established since its founding in 1972. As described on our website, our charter is:

1. To understand and predict changes in climate, weather, oceans, and coasts;
2. To share that knowledge and information with others; and
3. To conserve and manage coastal and marine ecosystems and resources.

[4] Julie Roberts left NOAA in December 2019 to join the Economic Development Administration, which is in the Department of Commerce.

To achieve these objectives the communities we serve must be confident that the information NOAA provides is based on the best observations available, backed by the best scientific understanding and analysis, and presents NOAA's best understanding of the facts using solely our observations and scientific analyses. Every communication from NOAA in the service of our operational mission is founded in science, and is supported by our established reputation of scientific integrity.

All communications from NOAA, if issued by NOAA personnel in the performance of their mission responsibilities, are subject to the scientific integrity policy. The policy applies equally to science publications in refereed journals, to presentations at conferences and workshops, to weather alerts or warnings, website posting, press releases and other statements, and tweets from WFOs or other NOAA facilities. Further, the NOAA Scientific Integrity Policy explicitly covers media communications, including press releases, that reference scientific products, and is consistent with the scope of the Departmental Administrative Order (DAO 219-1) covering public communications. Our voice is our primary tool for achieving our mission of Service and Stewardship, and we must maintain our reputation for accuracy and integrity to be effective.

*Does the scope of the Report cover all relevant participants to the events?*

The scope of this investigation is necessarily limited to personnel and activities within NOAA. In her charge to the Academy, the SIO made clear that the Scientific Integrity Policy applies to all NOAA personnel, but is also limited to NOAA personnel, and the jurisdiction of NOAA to investigate scientific and research misconduct is accordingly limited to the agency itself.[5] When there is a claim of political interference, such potential interference may (as it did in this case) arise from a point outside the agency. For the interference to impact NOAA's scientific integrity, it must penetrate into the agency at some point. Considering the limits of NOAA's jurisdiction under its policy, it is this point of penetration, and the impacts that flow within the agency after that penetration, which are the focus of the investigation.

The Academy and the SIO were aware that other investigations were underway into these events, and that it was likely that there will be parallel reports and findings which may be complementary to the Report.

Finally, while the allegations of misconduct were considered only as they applied to NOAA personnel, the scope for consideration of corrective action was not constrained, and recommendations for corrective action could apply to offices or organizations outside of NOAA as appropriate.

[5] From the NOAA Administrative Order 202-735D, the Scientific Integrity Policy applies to "All NOAA employees, political and career, who are engaged in, supervise, or manage scientific activities, analyze and/or publicly communicate information resulting from scientific activities, or use scientific information or analyses in making bureau or office policy, management, or regulatory decisions and all contractors who engage in or assist with activities identified above."

*Was the participation in the investigation full and open?*

All participants engaged fully and freely with the Panel in their investigation. I want to thank the respondents and all of the many witnesses for being open and available, and for supporting lengthy interviews by the Academy, sometimes for many hours and for follow-up interviews. The openness of the interviewees was noted by the Panel, and allowed for a thorough and complete communication of their actions.

As noted above, due to the necessary jurisdictional limits of this investigation under the Scientific Integrity Policy, the Panel did not interview and did not have access to a number of individuals who were heavily involved in some of the matters of critical importance to these events. As a result, the Report summarizes the Panel's understanding of the events through the recollections of the NOAA personnel who were engaged. The Panel believes, nonetheless, that an accurate assessment can be made with this information. I agree the factual record that the Panel has developed is thorough and complete, and that all of the information that I have been provided, in the Panel's report, in the exceptions, and in the underlying record, is sufficient for me to render a final decision in this matter.

## Decision and Mitigation Activities

Based on the Academy's thorough review of this matter, and the reasoning outlined in the Report, I concur with the Academy's findings related to each of the three allegations.

**Finding One:** The Panel determined that the media guidance issued by NOAA leadership between September 1 and 6, 2019, did not constitute scientific misconduct or a loss of scientific integrity.

I concur with the Panel's finding and with the recommendations provided by the Panel. Their finding was based on the common understanding and past practice that during significant weather events the NOAA Communications office routinely directed forecasters and WFOs to channel all media inquiries through their office. However, this approach should be modified per the Academy recommendations. Specifically, I disagree with the observation by the NOAA Communications office that their intention was to "shield NOAA forecast offices and forecasters from aggressive media reporters."[6] Instead NOAA subject matter experts should be supported to continue communicating details and updates to weather and environmental events that are within their area of expertise throughout the event.

**Recommendations:**

1. Develop formal policy guidelines for the issuance of media guidance to NOAA operations staff. The guidelines should codify the lead role NOAA scientific and operational staff have for direct communications of scientific information to the public, particularly during critical weather events. Specifically, these guidelines

[6] Report, page 44.

should clarify roles and responsibilities, institutionalize the process, and identify the circumstances under which the agency should issue media guidance.
- Recommend assignment to the NOAA Communications Office, the NWS, and the SIO.

2. Develop an interagency framework (that includes other federal agencies and the Executive Office of the President) for the sharing of scientific data and materials concerning severe weather-related events. The framework would include protocols for the timely update of information to reflect changing weather conditions and the release of the information to the general public through all relevant media.
- Recommend assignment to the Deputy Undersecretary for Operations.

**Finding Two:** The Panel determined that Dr. Neil Jacobs (Acting Administrator of NOAA) and Julie Roberts (Deputy Chief of Staff and Director of Communications for NOAA) violated the Code of Ethics for Science Supervision and Management set forth in Section 7.01 of NOAA's Scientific Integrity Policy when they failed to engage the Birmingham WFO in the development of the September 6 Statement.

I concur with the Panel's finding. The Scientific Integrity Policy is intended to ensure the subject matter experts who generate the scientific content and issue the public communications are engaged in any revision of or evaluation of the same.

**Recommendation**s:

3. Review and revise the Scientific Integrity Policy's written policy statement on the right of NOAA scientists to review, comment, and amend any official communication that relies on their scientific analysis. Develop an implementation plan that provides guidance for how the policy should be applied, specifically related to severe weather events. The policy statement and plan should clarify the definition of an "operating unit," with the intention that coordination should be at the level of the office or individual responsible for issuing the scientific product. This policy statement will complement NOAA's Scientific Integrity Policy.
- Recommend assignment to the SIO and to the NOAA Communications Office.

4. Review and revise the Scientific Integrity Policy's accompanying Procedural Handbook and associated training materials to include criteria and supporting examples to assist with the determination of scientific misconduct and a loss of scientific integrity. For example, NOAA could cite this case as an example of a violation of NOAA's Scientific Integrity Policy with regard to several criteria.
- Recommend assignment to the SIO.

**Finding Three:** The Panel determined that the actions of Dr. Neil Jacobs and Julie Roberts involving the development and issuance of the September 6 Statement violated the Code of Ethics for Science Supervision and Management set forth in Section 7 of NOAA's Scientific Integrity Policy.

I concur with the Panel's finding. I recognize, however, that the drafting and issuance of the September 6 Statement involved many active participants other than Dr. Jacobs and Julie Roberts, participants who are not subject to NOAA's Scientific Integrity Policy. By issuing the September 6 Statement as a NOAA release, the NOAA participants violated the Scientific Integrity Policy. Dr. Jacobs and Julie Roberts did not believe it was a good idea to release a statement, but felt significant external pressure to do so. They recommended, at two different points, that the reference to the Birmingham WFO be removed – an edit that, if accepted, may have avoided the policy violation. However, when the edit was not incorporated, they chose to release the statement as a NOAA document.

**Recommendations:**

5. Establish a formal intra-departmental agreement to guide the interactions between Commerce and NOAA officials in the drafting of NOAA severe weather communications, acknowledging the responsibility for NOAA to own the scientific content and allowing for Commerce to weigh in on policy content.
   - Recommend assignment to the Deputy Undersecretary for Operations and the SIO.
6. Incorporate key principles of scientific integrity, including NOAA's Codes of Ethics for Science Supervision and Management, into NOAA's annual ethics training.
   - Recommend assignment to the SIO, the Office of Human Capital Services (OHCS), and the General Counsel.
7. Require NOAA senior leadership and staff and NOAA political officials to take scientific integrity training that includes the Code of Ethics for Science Supervision and Management. Define the appropriate level of management that needs to receive the training. Once a staff member has completed the training, he/she will sign a statement confirming they will abide by these principles.
   - Recommend assignment to the SIO and the OHCS.
8. Establish protocols with the Commerce Office of Inspector General (OIG) and/or other agencies to investigate alleged violations of scientific integrity involving senior NOAA and Commerce political leadership. The protocols should maintain the primacy of NOAA's Scientific Integrity Policy for addressing allegations against NOAA practices or personnel. Record these protocols in an updated Policy.
   - Recommend assignment to SIO.

**Overall Observations and Additional Recommendations**

The NOAA National Weather Service's effectiveness as an organization is, in large part, determined by how the communities NOAA serves respond to the information we provide. For individuals and localities to take appropriate action in the face of a significant or catastrophic severe weather event such as a hurricane, they must act quickly and decisively, and they must trust the information they receive. NOAA's Scientific Integrity Policy guides the actions of everyone in the NOAA organization, and our adherence to it helps to ensure that our communications, analyses, and publications are trusted by the public.

For the Policy to be effective, it must be understood and followed by all involved in our mission. There appeared to be, at best, inconsistent awareness amongst the many participants at the NOAA and Commerce level about where and how NOAA's Scientific Integrity Policy applied to the communications during this event. The recommendations above will address that lack for NOAA, but greater training and discipline is needed at the Commerce level. In addition, NOAA and Commerce should review and revise companion policies for the two organizations, to ensure future participants in critical events understand how they will work together.

**Recommendations:**

9. The Department of Commerce should establish a scientific integrity policy, covering the career and political leadership at Commerce. Commerce's policy should be complementary to the NOAA Scientific Integrity Policy. The NOAA policy has been successfully implemented and applied to NOAA issues and should be validated. Commerce should consider an umbrella directive that documents how Commerce works in coordination with the policies of the individual bureaus and agencies, and as a default allows the bureau or agency policies to be applied first to investigations.
   - Recommend assignment to the Department of Commerce and the NOAA SIO
10. Scientific integrity policy training should be mandated for all management and leadership positions at Commerce, including both career and political staff. Training should be whenever a new employee comes on board, and should be refreshed annually after that.
   - Recommend assignment to the Department of Commerce

I want to acknowledge that following the incidents described in the Report, and the public and Agency reaction to them, Commerce leadership did reach out to NOAA seeking to understand how Commerce and NOAA could work together more effectively in the future. The recommendations in this section are consistent with ideas considered in those initial discussions between NOAA and Commerce.

## Actions to Restore NOAA's Scientific Integrity

Soon after Hurricane Dorian had passed, NOAA leadership, including Dr. Neil Jacobs, Dr. Louis Uccellini, and others, travelled to the National Weather Service offices in Alabama and the surrounding regions, reaffirming their confidence and faith in the forecasters and their mission. These steps were necessary and appropriate, and well received by the communities NOAA serves. The public communications were an important public statement at the time of NOAA leadership's support for science-based, trustworthy services to the community.

With the release of this Decision, NOAA should commit to reaffirming their support for and commitment to the scientific integrity of their services. I recommend that NOAA as an organization, and NOAA's leadership commit to taking the following actions.

I. NOAA should commit to address all of the recommendations in this Decision.

II. NOAA should commit to providing an open and transparent approach to implementation, including regular release of progress updates on the individual recommendations in this Decision. The updates should be to NOAA's sponsors in the Administration, in the Congress, and in the public.

III. NOAA leadership, including the Undersecretary for Oceans and Atmosphere, should affirm the importance of the NOAA Scientific Integrity Policy to the entire NOAA organization, through NOAA townhalls or similar internal communication events.

## Closing Comments

I extend my appreciation to all involved in this process. I believe that the complainants, respondents and others who participated did so with a common intent to improve our systems and to ensure NOAA continues to provide critical information to the public without compromise and with the trust of the public. The investigation performed an essential service by examining the events and actions around Hurricane Dorian, and by providing NOAA with clear and actionable recommendations for correction and recovery.

I am confident that the investigation's results are accurate and relevant, and the recommendations for action identified in this Decision memorandum, when implemented, will help strengthen the processes that ensure the integrity of the scientific activities that NOAA conducts.

Attachments

1. *An Independent Assessment of Allegations of Scientific Misconduct*, National Academy of Public Administration, March 2020
2. Written Exceptions