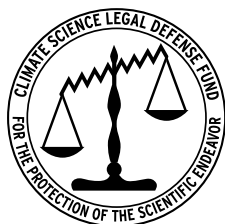


A QUICK GUIDE TO THE SCIENTIFIC INTEGRITY POLICY AT THE

National Oceanic and Atmospheric Administration (NOAA)



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the Climate Science
Legal Defense Fund

Table of Contents

1	INTRODUCTION	1
2	SUMMARY	2
3	WHAT DOES THE POLICY GOVERN?	2
4	WHO DOES THE POLICY GOVERN?	6
5	WHAT IS THE PROCESS FOR FILING A COMPLAINT?	6
6	WHAT HAPPENS AFTER A COMPLAINT IS FILED?	7
7	WHAT HAPPENS AFTER THE INVESTIGATION ENDS?	9
8	ADDITIONAL RELEVANT POLICIES AND RESOURCES	10
9	REPRESENTATIVE CASES AND OUTCOMES	10

A Quick Guide to the NOAA Scientific Integrity Policy

Scientific integrity principles are indispensable to the missions and the functions of scientific federal agencies in the United States. Conducting sound and unbiased scientific research is essential to maintaining public trust in these agencies. For scientists employed at these agencies, understanding these principles—both how to abide by them, and what to do if they are violated—is a core job function.

Many scientific agencies adopted scientific integrity policies following a 2009 memorandum issued by President Obama, and a subsequent memorandum issued in 2010 by the White House Office of Science and Technology Policy. These policies clarify how individual agencies interpret scientific integrity. In many cases, a policy also describes how a scientist should report a loss of scientific integrity, how the agency will investigate such claims, and the rights of both a complainant and a person alleged to have committed a violation.

This guide examines the National Oceanic and Atmospheric Administration (“NOAA”) scientific integrity policy. The guide is designed to help NOAA scientists understand how the policy applies to them, what rights they have under the policy, and how they can avail themselves of these.

The NOAA policy could be significantly strengthened to provide clearer enforcement mechanisms, penalties, and rights of appeal. But it is still crucial for agency scientists to know their rights and responsibilities in respect to scientific integrity, as well as the strengths and weaknesses of the policy.

While this guide helps NOAA scientists understand the agency’s scientific integrity policy, it is not a substitute for legal advice regarding a particular situation. The Climate Science Legal Defense Fund offers **free, confidential consultations to scientists** with questions about scientific integrity.

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2

SUMMARY

The NOAA scientific integrity policy, [NOAA Administrative Order 202-735D](#) (referred to as the policy and SIP in this guide), promises to ensure the free flow of scientific information and “preserve the integrity of the scientific activities it conducts, and activities that are conducted on its behalf” (SIP § 5.02).

The policy’s definition of scientific integrity extends beyond research misconduct and includes the right to communicate scientific findings without interference or censorship. It addresses key areas of scientific integrity and provides clear procedural guidance for scientific integrity complaints while clearly explaining its scope, principles of scientific integrity, and NOAA policies. It also includes a code of scientific conduct and a code of ethics for scientific supervision and management, which provide valuable context for the principles the policy contains. NOAA also stands out from other agencies in that it actively maintains a scientific integrity website “NOAA Scientific Integrity Commons” which includes an FAQ page that helps to clarify many of the issues raised in the SIP.

The Department of Commerce is the parent agency of NOAA, so NOAA employees are also subject to Department of Commerce policies. This can lead to confusion about whether the Commerce policies supersede NOAA policies; for example, in the case of communicating with the press, the Department of Commerce policy is more restrictive than the NOAA policy.

The NOAA procedures for investigating claims of a violation of scientific integrity have strengths and weaknesses. The policy contains a detailed, multi-stage process. However, it doesn’t afford as many rights as it should to the parties involved; it also fails to address the consequences of what happens when scientific integrity is compromised.

3

WHAT DOES THE POLICY GOVERN?

The NOAA policy is strong primarily because it defines scientific integrity as follows: “The condition resulting from adherence to professional values and practices when conducting and applying the results of science that ensures objectivity, clarity and reproducibility, and that provides insulation from bias, fabrication, falsification, plagiarism, interference, censorship, and inadequate procedural and information security” (SIP § 3).

This definition covers more than traditional research misconduct. NOAA has developed a [procedural handbook](#) addressing scientific integrity (Procedural Handbook for NAO 202-735D: Scientific Integrity, referred to as the Handbook in this guide) describes the procedures for handling a scientific integrity complaint and states “coercive manipulation, intimidation, misrepresentation, censorship, or other misconduct that affects the quality or reliability of scientific information may involve the loss of scientific integrity” (Handbook at 3).

Research Misconduct

Scientific and research misconduct are defined in section 8 of the policy as “fabrication, falsification, or plagiarism in proposing, performing, or reviewing scientific and research activities, or in the products or reporting of these activities” (SIP § 8). It also states that violations of the NOAA Code of Scientific Conduct (SIP § 6) and the NOAA Code of Ethics for Science Supervision and Management (SIP § 7) constitute scientific and research misconduct, which explicitly exclude honest errors or differences of opinion.

Conflicts of Interest

According to the NOAA policy, a conflict of interest is any financial or non-financial interest which conflicts with the actions or judgments of an individual when conducting scientific research because it could impair the individual's objectivity, could create a competitive advantage for any person or organization, or could create the appearance of either of these items (SIP § 3).

Political Interference

Under no circumstance may a NOAA official ask or direct scientists or other NOAA employees to suppress or alter scientific findings (SIP 5.02(d)). In addition, NOAA will “[c]ommunicate scientific and technological findings by including a clear explication of underlying assumptions; accurate context of uncertainties; and a description of the probabilities associated with both optimistic and pessimistic projections, including best-case and worst-case scenarios except in extraordinary or emergency situations” (SIP § 5.02(g)).

Threats and Intimidation

NOAA science managers and supervisors must not suppress, alter, or otherwise impede the timely release of scientific or technological findings or conclusions unless expressly required by law. No NOAA employee may intimidate or coerce employees into altering or censoring scientific findings, and NOAA may not establish any institutional barriers to cooperation or the timely communication of scientific findings or technology (SIP § 7.02).

Use of Science in Agency Decision-Making

The policy recognizes that using scientific advice for decision-making is fundamental to NOAA (SIP § 4.01). The policy requires that when scientific or technological information is considered in policy decisions, it be subject to well-established scientific processes such as peer-review, and further requires that policy decisions reflect the best available science (SIP § 7.01. See also § 5.02(e)). Scientific findings and supporting data used in decision-making must be made available to the public where possible (SIP § 5.02(b)).

Science Communication

NOAA's policy distinguishes Fundamental Research Communications from other communications that are discussed in this guide. Fundamental Research Communications (FRCs) are public communications prepared as part of the employees official work regarding the products of basic or applied research in science or engineering,

the results of which are typically published and shared with the scientific community. A separate policy “[NOAA Framework for Internal Review and Approval of Fundamental Research Communications](#)” addresses these communications. The SIP highlights that the decision to approve FRCs must be based only on scientific merit and the approval/non-approval cannot be based on the policy, budget or management implications of the research (SIP §7.04).

Timeliness: NOAA will ensure that the scientific and technological findings, conclusions, and methodologies considered or relied on in policy decisions are made available to the public in a timely manner (SIP § 7.01).

Press: NOAA will provide knowledgeable spokespersons who can discuss the scientific and technological dimensions of their work in response to media requests for interviews (SIP § 4.04). NOAA scientists may speak freely to the media and the public about scientific and technical matters based on their official work. Email and other electronic communications sent in response to media inquiries and based on official work are considered the same as oral communications (SIP § 4.05).

NOAA’s parent agency, the Department of Commerce, has [more stringent guidelines](#) than NOAA does for scientists’ communications with the press. For example, the Department of Commerce guidelines give the head of the operating unit final approval of written or audiovisual materials for certain communications, something NOAA’s policy does not do.

The inconsistencies between the two policies applicable to NOAA scientists creates room for significant confusion. This is particularly true since the NOAA scientific integrity policy states that it “is in addition to” and does not alter the requirements of the Department of Commerce policy. This lack of clarity could potentially be an issue for a scientist speaking to the press who believes they are complying with the NOAA policy but who may be in violation of the Department of Commerce policy.

Social media: The use of social media by NOAA employees is described in the [Department of Commerce Social Media and Web 2.0 policy](#). It is not clear whether a violation of this policy also constitutes a violation of the NOAA scientific integrity policy; the NOAA policy states that NOAA’s social media communications are “governed by” this policy.

Testifying before Congress: While the policy does not expressly state that agency scientists have a right to testify before Congress, it does reference that testimony before Congress is addressed by other NOAA policies and federal guidelines (SIP § 2.04(c)).

Right of scientists to review and/or correct agency communications: The press section of the NOAA policy does not mention scientists’ right to review or correct agency communications discussing their work or attributing them as authors. However, there is a sentence in the section of the NOAA policy dealing with the ethics of supervising science that states managers should provide the right to review or correct official documents that cite their work (such as a press release or report) to ensure accuracy has been maintained after editing (SIP § 7.01).

Publishing and lecturing: NOAA scientists are encouraged to publish data and findings, including online in open formats and through peer-reviewed, professional or scholarly journals (SIP § 4.03). NOAA encourages its researchers to present their work at scientific meetings, publish in appropriate journals and media outlets, and serve on editorial boards and scientific or technological expert review panels (SIP § 4.07).

Scientific societies: NOAA encourages its researchers to become scientific leaders by “actively participating in professional societies and national/international scientific advisory and science assessment bodies” (SIP §4.07). NOAA also supports the election or appointment of its scientists to fellowships or positions in professional organizations. However, these activities may be subject to restrictions under ethics rules; employees should consult an ethics official before accepting such an appointment (SIP § 4.08).

Opinion statements: NOAA scientists are free to present views that extend beyond their scientific findings and that incorporate their expert or personal opinions, but they must make it clear that they are presenting their personal opinion and not the views of NOAA or the Department of Commerce. Personnel may note their NOAA affiliation as part of their biographical information as long as it is one of several biographical details. If the information will be published in a scientific or technical journal, one’s NOAA affiliation may be listed with an appropriate disclaimer. According to NOAA, it will make examples of disclaimers available on its scientific integrity commons website but none are currently listed on the site (SIP § 4.06).

Hiring Practices

NOAA must ensure that the selection of employees in scientific positions or positions that rely on the results of scientific activities are based on the candidate’s integrity, knowledge, credentials, and experience relevant to the position (SIP § 5.02(c)). Similar requirements are found in the section on the ethics of science supervision and management (SIP § 7.01).

Federal Advisory Committees

Unlike some other scientific agencies, NOAA’s policy explicitly addresses scientific federal advisory committees (SIP § 7.01). The policy requires that the recruitment process for new committee members, as well as the biographical information of current members and any conflict of interest waivers they receive, be transparent and publicly available. It also requires that committee member selection be based on expertise, knowledge, and contributions to the relevant subject area.

Whistleblower Protections

The policy acknowledges the Whistleblower Protection Act and states that it does not conflict with it (SIP § 2.05). The policy says it will provide information to employees on, and abide by, existing whistleblower protections, but it does not provide further details (SIP § 5.02(f)).

4 WHO DOES THE POLICY GOVERN?

The policy applies to “[a]ll 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.” It also applies to contractors who engage in these activities (SIP § 2.02).

5 WHAT IS THE PROCESS FOR FILING A COMPLAINT?

This guide is not a substitute for legal advice about any specific situation. If you are considering filing a scientific integrity complaint, or are the subject of a complaint, please contact the Climate Science Legal Defense Fund or another attorney for advice about your particular circumstances. Nonetheless, we will provide below general information about what the process may entail.

NOAA’s definition of what constitutes a loss of scientific integrity—and what the standard is for finding that such a loss has occurred—are clearer than those of some other scientific agencies. At NOAA, a finding of scientific misconduct resulting in the loss of scientific integrity requires a determination by a preponderance of the evidence that a person or entity has significantly departed from accepted practices of the relevant research community. In doing so, the person or entity violated the Code of Scientific Conduct/Code of Ethics for Scientific Supervision and Management found in the policy and engaged in the misconduct intentionally, knowingly, or in intentional disregard of the Code of Scientific Conduct/Code of Ethics for Scientific Supervision and Management (Handbook § 2.01).

Who can make a claim under policy?

An allegation can be submitted by both internal and external NOAA individuals or entities (Handbook §3.03).

Where and how can a scientist make a complaint?

Complaints should be submitted in writing to the NOAA Scientific Integrity Officer (SIO) via email or the mail to the Office of the NOAA Deputy Under Secretary for Operations (DUS/O) (Handbook § 3.02).

What should a complaint contain?

The following should be included in the complaint (Handbook § 3.04):

- Name of the person or organization alleged to have committed the misconduct
- A statement of facts including how the complainant learned the facts

- A list of documents supporting the allegation
- A list of witnesses who may corroborate the allegation
- An explanation of how the criteria for a loss of scientific integrity are met
- An explanation of any conflict of interest
- A statement indicating whether the allegation has been submitted elsewhere (i.e., NOAA Employee and Labor Relations Division)

Is there a deadline for filing a complaint?

Complaints must be filed within 90 calendar days of the discovery of the misconduct (Handbook § 3.02). Prior to filing a complaint, interested persons are advised to contact members of the NOAA Scientific Integrity Committee and the SIO to discuss the situation; the Handbook states this pre-allegation consultation is optional but recommended (Handbook § 4.02).

6

WHAT HAPPENS AFTER A COMPLAINT IS FILED?

Who investigates?

The SIO investigates scientific integrity complaints. The handling of each complaint proceeds in three distinct phases: assessment, inquiry, and investigation.

Assessment

Once it receives a complaint, the SIO has 30 days to assess the allegation (Handbook § 4.03). The SIO must determine two things. First, whether the misconduct alleged meets the definition that would bring it under the SIO's jurisdiction; specifically, whether the complainant has alleged fabrication, falsification, or plagiarism in scientific activities, or other actions that violate NOAA's Code of Ethics for Science Supervision and Management or its Code of Scientific Conduct (SIP § 8.01). Second, the SIO must determine whether the allegation is sufficiently credible and specific.

Once the SIO has made the initial assessment of the allegation, his or her finding must be communicated to the DUS/O and the complainant. The SIO decides whether to notify the person who is the subject of the allegation, known as the respondent, at this stage.

Inquiry

If the assessment shows that the allegation falls within the scope of the SIO's jurisdiction and is sufficiently credible and specific that further action is needed, the SIO will conduct an inquiry (Handbook § 4.04).

The SIO has 30 days to appoint an inquiry team from the time he or she determines that further evaluation of an allegation is required. The inquiry team is chaired by the SIO and includes the relevant Line Office Scientific Integrity Officer and an unrelated Line Office Scientific Integrity Officer, as well as other Scientific Integrity Points of Contact and NOAA employees in the chain of command of the respondent. Members of the inquiry team are required to disclose any actual and potential conflicts of interest to the SIO prior to their appointment.

The SIO must notify the respondent at this stage. Both the respondent and the person filing the complaint, known as the complainant, must be given an opportunity to provide written testimony, including third-party witness statements, or documentary evidence to the inquiry team.

The inquiry team has 90 days to collect information, assess the merits of the investigation and develop an inquiry report. This report must be provided to both the complainant and the respondent, who have five calendar days after receiving it to provide written objections to the findings. The final report, along with any objections from the parties, must be provided to the DUS/O and the appropriate Line Office Assistant Administrator.

The inquiry report must contain, among other things, a recommendation that the DUS/O or Line Office Assistant Administrator either: 1) dismiss the allegation, 2) take a specific action to restore scientific integrity, or 3) open an investigation. Note that in certain cases a different action may be required. For example, findings of fraud will be referred to the Department of Commerce Inspector General and findings of criminal activity may be referred to the Department of Justice.

Investigation

If the inquiry report recommends an investigation and the DUS/O concurs, an investigation will be opened in the case (Handbook § 4.05). The purpose of the investigation is to determine whether scientific misconduct or loss of scientific integrity has occurred, and to recommend corrective action.

The DUS/O has 30 days from the time he or she determines that an investigation is required to appoint a determining officer (DO) and an integrity review panel chair (IRPC). The DO is the NOAA official who makes the final determination on an allegation of scientific misconduct and proposes administrative action. The DO must be at the level of Deputy Assistant Administrator or above, have no prior involvement with the agency's inquiry, and not be in the chain of command for either the complainant or the respondent.

The IRPC is the agency official responsible for chairing the investigation and is a subject matter expert designated for a special investigation. The DUS/O, SIO, and IRPC propose members for an integrity review panel. Members must disclose any conflict of interest that could disqualify them from serving on the panel.

The integrity review panel may collect any additional information it deems necessary; it may also broaden the scope of its inquiry beyond the initial allegation (although it must notify the respondent and allow him or her to respond if it does so). Both the complainant and the respondent must be given an opportunity to provide written testimony to the panel. The panel may request oral testimony from either or both parties. The panel's investigation must conclude within 120 days from the date it began, unless the SIO grants more time.

Once the panel has completed its investigation, it must develop an investigation report. As with the inquiry report, the investigation report must be provided to both the complainant and the respondent, who have 10 calendar days from receiving the report to provide written objections. The investigation report, along with any objections from the parties, is then given to the DO.

Among other things, the report must contain a recommendation for the DO to either 1) dismiss the allegation, or 2) determine that scientific misconduct or loss of scientific integrity has occurred, and recommend specific actions by NOAA to restore scientific integrity.

Is the confidentiality of the parties protected?

NOAA's policy protects those who uncover and report allegations of scientific research and misconduct from prohibited personnel practices and offers the same protections to those accused of scientific misconduct (SIP § 5.04).

Complainants may remain anonymous. All NOAA officials involved in the proceedings will guard the confidentiality of the proceedings, and the disclosure of the identity of complainant and respondent is limited to those who need to know (Handbook § 8). The complainant is also required to maintain confidentiality at the risk of losing the right to be informed of the status of the allegation (Handbook § 6.01).

Do the parties have a right to a hearing?

As described above, the policy does not provide any explicit right to a hearing.

Do the parties have a right to respond to the findings of the investigation?

As described above, following a final decision, the parties have five calendar days to submit written objections to the findings of the investigation.

7

WHAT HAPPENS AFTER THE INVESTIGATION ENDS?

Once the DO receives the final investigation report, he or she has 30 days to determine whether to accept the report and its recommendations, modify them, or decline them entirely. The DO also has the option to return the report to the panel for further fact-finding or analysis. If the DO accepts findings of scientific misconduct or loss of scientific integrity, he or she must specify appropriate agency actions, if any, in response. Once the DO makes a final decision, the panel must provide the findings, report, and any recommended action to the SIO and D/USO within 10 days. The parties must also be notified in writing at this stage.

If a loss of scientific integrity is found, who decides what the resolution/remedy should be?

If the DO finds that scientific misconduct has occurred, the DUS/O will refer the matter to the appropriate manager within the respondents reporting structure for action (Handbook § 4.06).

Do the parties have a right to appeal if initial decision is not in their favor?

As noted above, the parties can submit written objections. However, the policy lacks a formal appeal process.

What are the penalties for misconduct?

The policy does not specify any specific penalties, but it describes factors that should be considered (Handbook § 4.06). These include:

- The nature of the misconduct
- The nature and degree of the damage to the scientific record caused by the actions
- The nature and degree of real or potential damage to the public caused by the actions
- The degree of damage to NOAA's reputation for quality science
- The respondent's cooperation with the inquiry or investigation
- Whether the respondent engaged in retaliation or intimidation of the complainant
- The professional experience of the respondent
- Whether the respondent destroyed or altered evidence

8

ADDITIONAL RELEVANT POLICIES AND RESOURCES

- Department of Commerce [Administrative Order \(DAO\) 219-1 on Public Communications](#)
- Department of Commerce [Policy on the Approval and Use of Social Media and Web 2.0](#)
- NOAA [Framework for Internal Review and Approval of Fundamental Research Communications](#)

9

REPRESENTATIVE CASES AND OUTCOMES

NOAA publishes Scientific and Research Misconduct Annual Reports, which summarize cases and their outcomes. Two of these publications can be found [here](#) and [here](#). A few examples demonstrate how scientific integrity complaints may typically be handled at NOAA.

Complaints Dismissed After Initial Assessment: A NOAA employee alleged routine scientific studies conducted by the National Marine Fisheries Service constituted research misconduct. The DUS/O delegated the action to the SIO; after assessment the SIO found it was a policy and management issue—not an issue of scientific integrity—and dismissed the allegation.

A NOAA employee alleged that the agency and a number of employees across the agency were not complying with federal statutes and regulations with regard to research. The DUS/O delegated the allegations to the SIO who, after consultation with the Office of General Counsel, found the allegations to be unsubstantiated and dismissed them.

Complaint Referred Elsewhere After Initial Assessment: A NOAA employee alleged scientific misconduct by supervisors with regard to participation in external scientific organizations. The DUS/O delegated the allegation to the SIO and after an initial assessment the SIO found it was a personnel issue and not a question of scientific integrity. The allegation was dismissed and referred to the NOAA Workforce Management Office.

Complaint Referred Elsewhere After Inquiry Phase: A NOAA employee alleged scientific misconduct against supervisors and leadership with regard to internal review of fundamental research communications at the National Marine Fisheries Service. The DUS/O opened an inquiry and, based on the inquiry report from the inquiry review panel, the DO dismissed the allegation of scientific misconduct and referred the claims to the NOAA Workforce Management Office for the appropriate action.

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NOTES

The Climate Science Legal Defense Fund produced this guide to help scientists understand their rights under federal agency scientific integrity policies. This guide concerns only U.S. laws, and nothing in it should be construed as legal advice for your individual situation.

CSLDF provides free counsel to scientists with legal questions pertaining to their work. Contact us at **(646) 801-0853** or email **lawyer@csldf.org** to arrange a free and confidential consultation with an attorney.



The Climate Science Legal Defense Fund (CSLDF) works to protect the scientific endeavor by helping defend climate scientists against politically and ideologically motivated attacks. CSLDF is a non-profit organization under section 501(c)(3) of the Internal Revenue Code.

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Mailing Address

475 Riverside Drive
Suite 244
New York, NY 10115

Website

csldf.org

Twitter

 [@ClimSciDefense](https://twitter.com/ClimSciDefense)

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