

## **NOAA Administrative Order 202-735D**

### **NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION**

#### **SCIENTIFIC INTEGRITY POLICY**

Issued 11/26/90; Effective 11/07/90; Revised xx/xx/2011

#### **SECTION 1. PURPOSE.**

.01 To promote a continuing culture of scientific excellence and integrity, establish and provide guidance for ethical standards and a scientific code of conduct for NOAA employees who conduct and/or supervise scientific activities for NOAA, and/or who gather, assess, and interpret scientific information for the use of NOAA, Department of Commerce, and the Nation.

.02 The Procedural Handbook to this Order establishes processes for implementing NOAA's Scientific Integrity Policy, including a policy for responding to allegations of misconduct. The handbook has the full force, effect, and authority of this NAO. (The handbook is currently under development.)

#### **SECTION 2. SCOPE**

.01 This policy applies to:

- a. 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.
- b. All contractors who engage in or assist with activities identified in Section 2.01a.

.02 This Order does not alter the requirements applicable to the following specific activities, topics, and persons, which are explicitly covered by other NOAA or Departmental Orders:

- a. Department's policy for engaging in public communications, as specified in Departmental Administrative Order (DAO) 219-1.
- b. The Information Quality Act that may be applicable to any communication by the Department.
- c. Testimony before Congress or information or written materials provided to Congress, which are addressed by DAOs 218-1, "Legislative Activities," 218-2, "Congressional Correspondence and Inquiries," and 218-3, "Reports to Congress Required by Law," and NOAA Administrative Order 218-1 "The Preparation and Clearance of Congressional Testimony."

- d. Rulemakings, adjudications, or publication in the Federal Register.
- e. Requirements for authorizing the production, printing, and distribution of publications and audiovisuals, which are addressed by DAO 219-4.

.03 This Order shall not be interpreted to conflict with the rights of an employee under the law, including an employee under the Whistleblower Protection Act or a union representative under the Federal Service Labor-Management Relations Act when communicating as a union representative.

### **SECTION 3. NOAA PRINCIPLES OF SCIENTIFIC INTEGRITY**

.01 NOAA is an organization based upon science, scientific research, and providing scientific advice for decision-making. NOAA's ability to achieve its strategic vision of "healthy ecosystems, communities, and economies that are resilient in the face of change" relies on transparency, traceability, and scientific integrity at all levels. Transparency, traceability, and integrity are, therefore, core values of our organization and the reason for issuing this Order and guidance.

.02 NOAA scientists are encouraged to publish data and findings in ways that contribute to the most effective dissemination of NOAA science and that best enhance NOAA's reputation for reliable science, including online in open formats and through peer-reviewed, professional, or scholarly journals. Development and dissemination of scientific and technical products must be consistent with NOAA policies and procedures related to peer review, the Open Government Directive (OMB, 2009b), the Information Quality Act, and other legislative and policy mandates.

.03 Scientific leadership is a key component of advancing the mission of government agencies. NOAA scientists are, therefore, encouraged to engage with their peers in academia, industry and non-governmental organizations through presenting their work at scientific meetings, serving on editorial boards, and actively participating in professional societies and national/international scientific advisory and science assessment bodies.

.04 NOAA supports the election or appointment of its scientists and engineers to fellowships or positions in professional organizations, including as officers and on governing boards, subject to applicable ethics requirements and certain other limitations. Subject to these conditions, NOAA employees may generally serve in their personal capacity as officers and on governing boards of outside organizations. In consultation with the Department of Commerce Office of General Counsel, NOAA is currently examining under what conditions employees may serve as officers and on governing boards of outside organizations in their official capacity. Likewise, NOAA supports the recognition of the outstanding science conducted by its employees. NOAA scientists should, therefore, be able to accrue the professional benefits of any honors and awards for their research and discoveries, subject to applicable law.

.05 NOAA will make every effort to establish a culture of transparency, integrity, and ethical behavior among its employees through a combination of policy, opportunities for training, and open communications, both internally and with the public. NOAA, therefore, commits to providing regular training and to post information to ensure that its employees and contractors and grantees are fully aware of their rights regarding publication of their

research, communication with the media and the public, participation in professional scientific societies, and their responsibility to report waste, fraud, and abuse.

#### **SECTION 4. NOAA POLICY ON INTEGRITY OF SCIENTIFIC ACTIVITIES**

.01 NOAA scientists, science managers, and supervisors, shall uphold the fundamental Principles of Scientific Integrity, the Code of Scientific Conduct, and the Code of Ethics for Science Supervision and Management outlined in the following sections of this Order.

.02 NOAA recognizes that any violation of scientific integrity or instance of research misconduct is unacceptable and threatens public confidence in NOAA programs and products, and possibly public well-being.

.03 In cases where there is an allegation of scientific or research misconduct, the Procedural Handbook for this Order (under development) provides detailed guidance for the inquiry, investigation, and adjudication of the allegation, as well as for protecting the confidentiality and the reputation of individuals involved.

.04 With respect to extramural science activities, NOAA endorses the prevailing view expressed by the National Science Foundation (NSF 02-151, Chapter IX, Section 930: Research Misconduct - <http://www.nsf.gov/pubs/2002/nsf02151/gpm9.jsp>) and the Department of Health and Human Services (DHHS) (Public Health Service Policies on Research Misconduct, Final Rule - [http://ori.hhs.gov/documents/FR\\_Doc\\_05-9643.shtml](http://ori.hhs.gov/documents/FR_Doc_05-9643.shtml)), that grantee institutions should "have the primary responsibility for preventing, detecting, investigating, reporting, and resolving allegations of scientific misconduct" (54 Fed. Reg. 32446). Additionally, as provided in Section M.10 of the Department of Commerce Financial Assistance Standard Terms and Conditions (March 2008) (<http://oam.eas.commerce.gov/docs/GRANTS/DOC%20STCsMAR08Rev.pdf>) grantee organizations have the primary responsibility for investigating allegations of scientific or research misconduct under a NOAA award and for reporting the results of its investigation to the NOAA Grants Officer for appropriate disposition. NOAA grantees are also required to follow all Codes of Conduct as stated in Section J of the Department of Commerce Financial Assistance Standard Terms and Conditions. NOAA Cooperative and Joint Institutes are further subject to the rules and guidelines stated in the NOAA Cooperative Institute Handbook (<http://www.nrc.noaa.gov/ci/policy/docs/handbook.pdf>).

.05 NOAA supports and follows the provisions for whistleblower protections outlined in Public Law 107-174 of 2002 (No Fear Act). Federal employees making allegations of violations of scientific integrity or research misconduct will be protected from retaliation under this Act.

#### **SECTION 5. CODE OF SCIENTIFIC CONDUCT**

.01 All staff indicated in Section 2.01, to the best of their ability, will exhibit:

- a. **Honesty** in all aspects of scientific effort through:

- Support of scientific excellence that contributes to the advancement of science by providing unbiased scientific information of the highest quality for NOAA and the Department of Commerce.
  - Preserving the integrity of the data record through adherence to NOAA data management standards and not fabricating or deleting raw data.
  - Objectivity in all scientific activities, and the accurate and timely reporting of results without allegiance to individuals, organizations, or ideology.
  - Disclosure of any apparent, potential, or actual personal or organizational conflicts of interest as outlined in the handbook for this Order.
- b. **Accountability** in the conduct of research and interpretation of research results through:
- Responsible use of the resources entrusted them, including equipment, funds, and employees' time.
  - Disclosure of all research methods used, available data, and final reports and publications consistent with applicable scientific standards, laws, and policy.
  - Providing scientific advice to NOAA as requested to inform management and other decision-making.
- c. **Professional courtesy and fairness** in working with others and respect for ideas of others:
- Neither unfairly hinder the scientific activities of others nor engage in dishonesty, fraud, deceit, misrepresentation, coercive manipulation, or other scientific or research misconduct.
  - Provide constructive, objective, and frank criticism to others on their scientific activities as appropriate for standards of respectful peer review, and accept constructive criticism from others.
  - Contribute to open and respectful scientific discourse that adheres to scientific standards for reporting results and conclusions and respects the intellectual property rights of others, including acknowledging and crediting prior work.
  - Differentiate among facts, opinions, hypotheses, and professional judgment in the reporting of scientific activities and scientific uncertainty to others, including scientists, decision makers, and the public.
- d. **Good stewardship** of research on behalf of others through:
- Diligent creation, use, preservation, documentation, and maintenance of collections and data.

- Adherence to established quality assurance and quality control programs; following the Department's records retention policies, and complying with Federal law and agreements related to use, security, and release of confidential and proprietary data.
- Respect to the fullest extent permitted by law, for confidential and proprietary information provided by communities, Indian Tribes, and individuals whose interests and resources are studied or affected by scientific activities or the resulting information.
- Immediately reporting any observed, suspected, or apparent scientific or research misconduct through means established in the handbook for this Order.

.02 Employees are free to present viewpoints within their area of professional expertise that extend beyond science to incorporate personal opinion but must make clear they are presenting their individual opinions – not the views of the department or agency – and clearly state their opinions be referenced as such.

## **SECTION 6: CODE OF ETHICS FOR SCIENCE SUPERVISION AND MANAGEMENT**

.01 NOAA science managers and supervisors will adhere to the guidelines for Scientific Integrity established in the March 9, 2009, *Presidential Memo to Heads of the Executive Departments and Agencies*. Specifically, science managers and supervisors will ensure:

- a. The selection, promotion, and retention of candidates for science and technology positions in NOAA are based on the candidate's knowledge, credentials, experience, and integrity;
- b. Appropriate rules and procedures are in place to preserve the integrity of the scientific process and the dissemination of its scientific products and information; the establishment and use of Federal Advisory Committees will follow procedures established by the Federal Advisory Committee Act and in accordance with the guidelines enunciated in the Office of Science and Technology Policy memorandum on Scientific Integrity of Dec. 17, 2010.
- c. When scientific or technological information is considered in policy decisions, the information will be subject to well-established scientific processes, including peer review where appropriate, and policy decisions shall appropriately and accurately reflect that information in compliance with relevant statutory standards;
- d. Except for information that is properly restricted from disclosure under procedures established in accordance with statute, regulation, patent/trademark, Executive Order, or Presidential Memorandum, the scientific or technological findings or conclusions considered or relied on in policy decisions shall be made available to the public in a timely fashion;
- e. Procedures are in place to identify and address instances in which the scientific process or the integrity of scientific and technological information may be compromised; and

- f. Additional procedures are adopted, including any appropriate whistleblower protections, as are necessary to ensure the integrity of scientific and technological information and processes on which the agency relies in its decision making or otherwise uses or prepares.

.02 NOAA science managers and supervisors, political and career, must never suppress, alter, or otherwise impede the timely release of scientific or technological findings or conclusions. Further, science managers and supervisors will not intimidate or coerce employees, contractors, grantees or others to alter or censor scientific findings. Nor shall they implement institutional barriers to cooperation and the timely communication of scientific findings or technology unless explicitly required by regulation, law, or Executive Order.

.03. Decisions by NOAA science managers and supervisors to approve or not approve a Fundamental Research Communication must be based only on whether the work is scientifically meritorious, the methods used are clear and appropriate, the presentation of results and conclusions is impartial, and there are no apparent, actual or potential personal or organizational conflicts of interest.

## **SECTION 7. ALLEGATIONS OF MISCONDUCT**

.01 A finding of scientific misconduct requires that:

- a. There is a notable departure from code of scientific conduct and/or code of ethics set forth in this Order;
- b. The misconduct is committed intentionally, knowingly, or in reckless disregard of the code of scientific conduct and/or code of ethics in this Order; and
- c. The allegation is established by a preponderance of evidence.

.02 The point of contact for all allegations of scientific integrity, scientific misconduct, or science supervision and management misconduct is the Deputy Under Secretary for Operations. Procedures for responding to allegation of misconduct are provided in the Procedural Handbook to this Order. (The handbook is currently under development.)

.03 In the event of a confirmed case of misconduct, NOAA will take action to protect the public from the effects of the misconduct in accordance with the Procedural Handbook for this Order.

.04 Employees uncovering and reporting scientific misconduct will be protected from retribution per Section 4.05.

## **SECTION 8. AUTHORITIES**

.01 Statutes, Regulations, and Policies

- a. 5 U.S.C. § 301 allows the head of an executive department to prescribe regulations for the conduct of its employees.
- b. Standards of Ethical Conduct for Employees of the Executive Branch, 5 C.F.R. § 2635
- c. Federal Policy on Research Misconduct (Dec. 6, 2000), available at [http://www.ostp.gov/cs/federal\\_policy\\_on\\_research\\_misconduct](http://www.ostp.gov/cs/federal_policy_on_research_misconduct).
- d. Office of Science and Technology Policy Memorandum on Scientific Integrity (Dec., 17, 2010), available at <http://www.whitehouse.gov/sites/default/files/microsites/ostp/scientific-integrity-memo-12172010.pdf>.

## **SECTION 9: COMMUNICATION OF POLICY**

.01 As part of the responsibility to prevent and detect misconduct, NOAA must communicate its scientific integrity policies and procedures both internally to NOAA employees and to NOAA partners, grantees, and others involved in external research. A general statement of the integrity policy will be posted on the NOAA Research Council website, and will also be referenced in financial assistance award solicitations and in requests for proposals. Certification of an institutional integrity policy and notification will be required for all grants and contracts. A specific effort will be made to communicate the NOAA Scientific Integrity Policy to the individuals involved in peer review panels evaluating proposals to NOAA grants programs or evaluating internal NOAA scientific programs and activities.

## **SECTION 10. DEFINITIONS**

### **Allegation**

Any written or oral statement or other indication of possible scientific misconduct made to a NOAA employee, contractor, or to an employee of a NOAA research partner.

### **Conflict of Interest**

Any financial or non-financial interest which conflicts with the actions or judgments of an individual when conducting scientific activities because it:

- Could impair or create the appearance of impairing the employee's objectivity; or
- Could create an unfair competitive advantage or the appearance of an unfair competitive advantage for any person or organization;

### **Employees Who Engage in Scientific Activities**

- a. Individuals who conduct or directly supervise scientific activities, including but not limited to proposing, performing, or reviewing research, or in reporting research results; and

- b. Individuals who directly supervise or personally perform work involving the compilation and application of scientific information into formats used for policy, regulation, management, or personnel decisions.

### **Fabrication**

Making up data or scientific results and recording or reporting them for the purposes of deception.

### **Falsification**

Manipulating research materials, equipment, or processes; or changing or omitting data or results such that the research is not accurately represented in the research record.

### **Financial Interest**

Any matter affecting a personal financial interest or a financial interest imputed to the individual. See 18 U.S.C. § 208.

### **Fundamental Research Communication**

The complete definition of "Fundamental Research Communication" is found in DAO 219-1 [http://www.osec.doc.gov/omo/dmp/daos/dao219\\_1.html](http://www.osec.doc.gov/omo/dmp/daos/dao219_1.html)

### **Non-Financial Conflict of Interest**

Individual participation in a matter where one of the parties is or is represented by someone with whom the individual has a covered relationship. See 5 C.F.R. § 2635.502(b).

### **Plagiarism**

The appropriation of another person's ideas, processes, results, or words without giving appropriate credit.

### **Research**

Investigation or experimentation aimed at the discovery and interpretation of facts, revision of accepted theories or laws in light of new facts, or practical application of new or revised theories or laws. Includes all basic and applied research in all fields of science, engineering, and mathematics, including social sciences and economics.

### **Research Misconduct**

Fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results. Research misconduct does not include honest error or differences of opinion.

### **Science**



Knowledge obtained and tested through use of the scientific method. Science may also include the observation and classification of facts with the goal of establishing verifiable knowledge derived through induction and hypothesis.

### **Scientific Activities**

Activities involving inventorying, monitoring, experimentation, study, research, modeling, and scientific assessment.

Scientific activities are conducted in a manner specified by standard protocols and procedures and include any of the physical, biological, or social sciences as well as engineering and mathematics that employ the scientific method. Inspections for regulatory compliance and resulting records are not included because they are covered by separate requirements.

### **Scientific Assessment**

Evaluation of a body of scientific or technical knowledge which typically synthesizes multiple factual inputs, data, models, assumptions, and/or implies best professional judgment to bridge uncertainties in the available information.

### **Scientific Misconduct**

Fabrication, falsification, or plagiarism in proposing, presenting, performing, reviewing or editing scientific activities and their products.

### **Scientific Product**

Presentation of the results of scientific activities including the synthesis, compilation, or translation of scientific information into formats used in the Department's decision-making process.

## **SECTION 11. EFFECT ON OTHER ISSUANCES.**

This document supersedes NAO 202-735D Scientific Misconduct, effective November 7, 1990.

**SIGNED,**  
***Director, Office of Administration***

Offices of Primary Interest:  
Office of the Assistant Secretary  
Office of General Counsel (GC)