	National Oceanic and Atmospheric Administration	NOAA Administrative Order 202-735D	
	NOAA ADMINISTRATIVE ORDER SERIES	DATE OF ISSUANCE December 7, 2011	EFFECTIVE DATE December 7, 2011
	SUBJECT: SCIENTIFIC INTEGRITY		

SECTION 1. PURPOSES.

.01 To promote a continuing culture of scientific excellence and integrity, and to establish a policy on the integrity of scientific activities that the agency conducts and uses to inform management and policy decisions. In addition, the intent of the policy is to strengthen widespread confidence – from scientists, to decision-makers, to the general public – in the quality, validity, and reliability of NOAA science and to denote the agency's commitment to a culture of support for excellence of NOAA's principal science asset, its employees.

Achieving these purposes requires commitment from scientists, their managers, and those who use scientific results to set policy. Therefore, this Order also establishes reciprocal responsibilities among all three groups through a Code of Scientific Conduct and Code of Ethics for Science Supervision and Management for NOAA employees and contractors who conduct, supervise, assess, or interpret scientific information for the use of NOAA, the Department of Commerce, and the Nation.

.02 The Procedural Handbook to this Order establishes processes for responding to allegations of misconduct. The Procedural Handbook has the full force and authority of this NOAA Administrative Order (NAO).

.03 Future guidance and resources related to scientific integrity and the implementation of this NAO will be made available to staff and the public on the Scientific Integrity Commons website at http://nrc.noaa.gov/scientificintegrity.html.

SECTION 2. SCOPE.

.01 To achieve its purposes, this Order will:

- Establish NOAA's Principles of Scientific Integrity and the general NOAA Policy on Integrity of Scientific Activities.
- Define the reciprocal responsibilities among scientists, their managers and supervisors, and policy makers by establishing a Code of Scientific Conduct and a Code of Ethics for Science Supervision and Management.
- Provide for compliance training and maintenance of a NOAA Scientific Integrity Commons website for its employees.
- Set procedures for resolving allegations of misconduct and consequences for misfeasance by adopting an associated Procedural Handbook.

.02 This Order 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; and

b. All contractors who engage in or assist with activities identified above.

.03 Recipients of NOAA financial assistance awards, including NOAA Cooperative Institutes, as well as other NOAA research partners and collaborators are responsible for abiding by the principles contained in this Order regarding NOAA's commitment to Scientific Integrity, as specified in award agreements or in other written agreements with NOAA.

.04 This Order is in addition to and does not alter the requirements applicable to the specific activities, topics, and persons that are explicitly covered by other applicable federal statutes, regulations, or policy directives, or by other NOAA or Department of Commerce administrative orders, such as but not limited to:

a. Department policy for engaging in public communications, as specified in Departmental Administrative Order (DAO) 219-1, "Public Communications," as clarified on June 15, 2011 by the General Counsel of the United States Department of Commerce's *Memorandum for all Bureau Chief Counsels and General Counsels*.[1]

b. The Information Quality Act (Section 515 of Public Law 106-554), which may be applicable to certain information disseminated by NOAA.

c. Testimony or information provided to Congress that is addressed by DAOs 218-1, "Legislative Activities"; 218-2, "Legislative and Intergovernmental Affairs"; and 218-3, "Reports to Congress Required by Law"; NOAA Administrative Order 218-1, "The Preparation and Clearance of Congressional Testimony"; and any other requirement that information presented to Congress must be scientifically accurate.[2]

d. Rulemakings, adjudications, or publications in the Federal Register.

e. Requirements for authorizing the production, printing, and distribution of publications and audiovisuals that are addressed by DAO 219-4.

f. Department regulations and policies pertaining to financial assistance awards, as specified in 15 C.F.R. Parts 14 and 24 (as applicable); the Department of Commerce Financial Assistance Standard Terms and Conditions (March 2008); and DAO 203-26, "Department of Commerce Grants Administration," as

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[1] The Departmental Administrative Order (DAO) 219-1, "Public Communications," does not apply to employees in bargaining units represented by the National Weather Service Employees Organization.

[2] Dr. John P. Holdren's *Memorandum for the Heads of Executive Departments and Agencies on Scientific Integrity*, issued on December 17, 2010, states: "In addition, the Director of the Office of Management and Budget (OMB) will be issuing guidance to OMB staff concerning the review of draft executive branch testimony on scientific issues prepared for presentation to the Congress. That guidance will provide standards that are to be applied during the review of scientific testimony."

supplemented by the Department's Grants Manual, any or all of which may be periodically updated.

.05 This Order shall not be interpreted to conflict with the rights of an employee under the law, including:

- The Federal Service Labor-Management Relations Statute (5 U.S.C. §§ 7101-7135);
- Department Administrative Order (DAO) 202-711, "Labor-Management Relations";
- Various collective bargaining agreements;
- Those provisions of Chapter 75 of Title 5 of United States Code relating to disciplinary action of employees; and
- The Whistleblower Protection Act of 1989 (5 U.S.C. § 1213).

Additionally, this Order shall not be interpreted to conflict with any rights accorded a union representative under the Federal Service Labor-Management Relations Act when communicating as a union representative.

SECTION 3. DEFINITIONS.

Allegation

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

Bias (Research Bias)

Research bias, also called experimenter bias, is a process where the scientist(s) performing the research influence the results in order to produce a certain outcome.[3]

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:

1. Could impair the individual's objectivity;
2. Could create an unfair competitive advantage for any person or organization; or
3. Could create the appearance of either item listed above.

Decision-Makers

Employees who may:

- Develop policies or make determinations about policy or management;
- Make determinations about expenditures of Department of Commerce or NOAA funds;
- Implement or manage activities that involve, or rely on, scientific activities; or
- Supervise employees who engage in scientific activities.

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[3] *See* Martyn Shuttleworth, *Research Bias*, EXPERIMENT RESOURCES (2009), http://www.experiment-resources.com/research-bias.html.

Fabrication

Making up data or scientific results and recording or reporting them for the purposes of deception.[4]

Falsification

Manipulating research materials, equipment, processes, or changing or omitting data or results such that the research is not accurately represented in the research record.[5]

Financial Interest

Any matter affecting a personal financial interest or a financial interest imputed to the individual (including, but not limited to, the individual's spouse and any entity for which the individual serves in a personal capacity as an officer or board member, such as due to fiduciary duties to the organization under state law).[6]

Fundamental Research Communication

The complete definition of "Fundamental Research Communication" is found in DAO 219-1, available at http://www.osec.doc.gov/omo/dmp/daos/dao219_1.html.

A brief definition is: Public communication prepared as part of the employee's official work regarding the products of basic or applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community. Matters of policy, budget, or management are not considered Fundamental Research Communications.

Non-Financial Conflict of Interest

Individual participation in a matter where one of the parties has, or is represented by someone with whom the individual has, a covered relationship (including, but not limited to, a spouse's employer and any entity for which the individual is actively involved in a personal capacity).[7]

Plagiarism

The appropriation of another person's ideas, processes, results, or words without giving appropriate credit.[8]

Research

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[4] *See* Federal Policy on Research Misconduct, 65 Fed. Reg. 76,260, 76,262 (Dec. 6, 2000).

[5] *See* Federal Policy on Research Misconduct, 65 Fed. Reg. 76,260, 76,262 (Dec. 6, 2000).

[6] *See* 18 U.S.C. § 208. This definition will be applied consistent with any rule issued by U.S. Office of Government Ethics permitting the appointment of Federal employees to serve in their official capacities on the boards of directors and as officers of nonprofit organizations, including scientific organizations, professional societies, and similar bodies that are actively involved in matters under the jurisdiction of the Department. *See* 76 Fed. Reg. 24816 (May 3, 2011).

[7] *See* 5 C.F.R. § 2635.502(b).

[8] *See* Federal Policy on Research Misconduct, 65 Fed. Reg. 76,260, 76,262 (Dec. 6, 2000).

Research is systematic study directed toward fuller scientific knowledge or understanding of the subject studied.[9]

- Basic research is defined as systematic study directed toward fuller knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards processes or products in mind.
- Applied research is defined as systematic study to gain knowledge or understanding necessary to determine the means by which a recognized and specific need may be met.

Science

Science at NOAA is the systematic study of the structure and behavior of the ocean, coasts, Great Lakes, atmosphere, and their related ecosystems, including people; and the integration of research, analysis, observations, monitoring, and environmental modeling, or subsets of those and related fields of study. NOAA science includes discoveries and ever new understanding of the oceans and atmosphere and their intimate relationship to humans and the application of this understanding to such issues as the causes and consequences of climate change, the physical dynamics of high-impact weather events, the dynamics of complex ecosystems and biodiversity, and the ability to model and forecast the future states of natural and human systems.

Science provides the fundamental basis of the service and stewardship elements of NOAA's mission.[10]

Scientific Activities

Activities that involve inventorying, monitoring, observations, experimentation, study, research, integration, 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, or any combination of these.

Scientific Assessment

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

Scientific Integrity

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.

Scientific Product

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[9] *See* National Science Foundation Survey of Federal Funds for Research and Development, http://www.nsf.gov/statistics/randdef/fedgov.cfm#gs.

[10] Adapted from *NOAA's Next Generation Strategic Plan*, p. 3 (Dec. 2010), http://www.ppi.noaa.gov/wp-content/uploads/NOAA_NGSP.pdf

Presentation of the results of scientific activities including the analysis, synthesis, compilation, or translation of scientific information and data into formats for the use of NOAA, the Department of Commerce, or the Nation.

Traceability

The ability to discover by going backward over the evidence step by step.

Transparent (Transparency)

Characterized by visibility or accessibility of information (the quality or state of being transparent).

SECTION 4. NOAA PRINCIPLES OF SCIENTIFIC INTEGRITY.

.01 NOAA is an organization based upon science, scientific research, and providing and using scientific advice for decision-making. NOAA recognizes a clear distinction between the scientific process and the policy decisions made based on the results of science. 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. The principles described in the paragraphs below constitute NOAA policy.

.02 NOAA scientists are expected to be cognizant of and understand the statutes and any other mandates that guide their work.

.03 NOAA scientists are encouraged to publish data and findings in ways that contribute to the effective transparency and dissemination of NOAA science and that 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 (Office of Management and Budget, 2009b), NOAA's information quality guidelines,[11] and other legislative and policy mandates.

.04 In response to media interview requests to the Agency about the scientific and technological dimensions of NOAA's work, NOAA will offer knowledgeable spokespersons who can, in an objective, nonpartisan and articulate fashion, describe and explain these dimensions to the media and the American people.

.05 To be open and transparent about their work, and consistent with DAO 219-1 on (Public Communications) and their official duties, NOAA scientists may freely speak to the media and the public about scientific and technical matters based on their official work, including scientific and technical ideas, approaches, findings, and conclusions based on their official work. Additional guidance for employees is available in DAO 219-1.[12] Communication by email or other electronic means in response to inquiries from the media, and concerning scientific or

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[11] NOAA Information Quality and Peer Review Guidelines are available on the NOAA website at http://www.cio.noaa.gov/Policy_Programs/info_quality.html. Additional peer review guidance will be made available to employees through the NOAA Scientific Integrity Commons website.

[12] DAO 219-1, "Public Communications" (April 30, 2008), http://www.osec.doc.gov/omo/dmp/daos/dao219_1.html.

technical matters based on an employee's official work, are considered to be the same as oral communication and not subject to approval, but are still subject to the restrictions on protected non-public information set forth in DAO 219-1. Social media communications are governed by the Department of Commerce Policy on the Approval and Use of Social Media and Web 2.0,[13] as well as DAO 219-1.[14]

.06 NOAA scientists are free to present viewpoints, for example about policy or management matters, that extend beyond their scientific findings to incorporate their expert or personal opinions, but in doing so they must make clear that they are presenting their individual opinions – not the views of the Department of Commerce or NOAA. In such cases, NOAA personnel may also note their NOAA affiliation as part of their biographical information, provided that their NOAA affiliation is noted as one of several biographical details, or, if the information is being published in a scientific or technical journal, their NOAA affiliation may be listed with an appropriate disclaimer. Appropriate disclaimers for use by NOAA scientists when expressing such opinions will be posted to the Scientific Integrity Commons website.

.07 NOAA recognizes that scientific leadership is critical to advance its mission and the professional development and stature of its scientists and engineers and therefore encourages and supports its researchers to become scientific leaders. NOAA also encourages its scientists, consistent with Federal ethics laws and regulations, to engage with their peers in academic, industry, governmental, and non-governmental organizations by:

- presenting their work at scientific meetings,
- publishing their work in appropriate outlets,
- serving on editorial boards and on scientific and technological expert review panels, and
- actively participating in professional societies and national/international scientific advisory and science assessment bodies.

.08 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 Department of Commerce policy. According to Department of Commerce policy, NOAA employees may generally serve in their personal capacity as officers and on governing boards of outside organizations or in their official capacity as a government liaison. Service in an official capacity on a governing board or as an officer of an outside organization is subject to restrictions under ethics laws;[15] employees should consult an ethics official before accepting an appointment on behalf of NOAA to such a position.

.09 NOAA supports recognizing the outstanding science conducted by its employees and authorizes its scientists to accrue the professional benefits of any honors and awards for their research and discoveries, subject to applicable law, with the goal of minimizing, to the extent

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[13] Department of Commerce Policy on the Approval and Use of Social Media and Web 2.0 (Oct. 21, 2010), http://www.osec.doc.gov/webresources/socialmedia.

[14] The Departmental Administrative Order (DAO) 219-1, "Public Communications," and Department of Commerce Policy on the Approval and Use of Social Media and Web 2.0 do not apply to employees in bargaining units represented by the National Weather Service Employees Organization.

[15] The U.S. Office of Government Ethics has published a proposed rule that would create a government-wide exemption to 18 U.S.C. § 208. *See* 76 Fed. Reg. 24816 (May 3, 2011). The exemption would permit the appointment of Federal employees to serve on the boards of directors and as officers of nonprofit organizations, including scientific organizations, professional societies, and similar bodies that are actively involved in matters under the jurisdiction of the Department. DOC and NOAA support this proposed rule.

practicable, disparities in the potential for private-sector and public-sector scientists and engineers to accrue the professional benefits of such honors or awards.

.10 To establish a culture of transparency, integrity, and ethical behavior among its employees NOAA will use a combination of policy, opportunities for training, and open communications, both internally and with the public. NOAA commits to:

- provide regular integrity and ethics training to its employees and contractors,
- provide new covered employees with training within one year of beginning employment, and
- provide information to ensure that employees and contractors 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 5. NOAA POLICY ON INTEGRITY OF SCIENTIFIC ACTIVITIES.

.01 All staff identified in Section 2.02 must uphold the fundamental Principles of Scientific Integrity, the Code of Scientific Conduct, and the Code of Ethics for Science Supervision and Management outlined in this Order.

.02 NOAA recognizes the importance of scientific activity and the information it produces to maintain and enhance its effectiveness and to establish credibility and value with the public, both nationally and internationally. NOAA will preserve the integrity of the scientific activities it conducts, and activities that are conducted on its behalf. It will not tolerate loss of integrity in the performance of scientific activities or in the application of science in decision-making. To that end, NOAA will:

a. Ensure the free flow of scientific information online and in other formats, consistent with privacy and classification standards, and in keeping with the Department of Commerce and NOAA data sharing and management policies. Where appropriate, this information will include data and models underlying regulatory proposals and other policy decisions.

b. Document the scientific findings considered in decision-making and ensure public access to that information and supporting data through established Department of Commerce and NOAA procedures—except for information and data that are restricted from disclosure under procedures established in accordance with statutes, regulations, Executive Orders, Presidential Memorandums, or other legal authorities.

c. Ensure that the selection and retention of employees in scientific positions or in positions that rely on the results of scientific activities are based on the candidate's integrity, knowledge, credentials, and experience relevant to the responsibility of the position.

d. Ensure that NOAA and Department of Commerce public communications guidances provide procedures by which scientists may speak to the media and the public about scientific and technical matters based on their official work and areas of expertise. In no circumstance may any NOAA official ask or direct Federal scientists or other NOAA employees to suppress or alter scientific findings.

e. Ensure that data and research used to support policy decisions undergo independent peer review by qualified experts, where feasible, appropriate, and consistent with the law and NOAA's Information Quality and Peer Review Guidelines. In cases where a full external peer review is appropriate but not possible (e.g., emergencies where lives and property are at risk), NOAA staff may use modified peer review processes as necessary for timely decision-making and release of data and information. In these cases, NOAA will explicitly state that the information has not been peer reviewed.

f. Provide information to employees on, and abide by existing, whistleblower protections.

g. Communicate 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.

h. Communicate policies for ensuring scientific integrity and responsibilities to employees, contractors and recipients of NOAA financial assistance awards who assist with developing or applying the results of scientific activities, as appropriate.

i. Enhance scientific integrity through appropriate cooperative engagement with the communities represented by professional societies and organizations.

j. Examine, track, resolve, and report all reasonable allegations of misconduct while seeking to ensure the rights and privacy of those covered by this policy and ensuring that unwarranted allegations do not result in slander, libel, or other damage to them.

k. Ensure the sharing of best administrative and management practices that promote the integrity of NOAA's scientific activities.

.03 Recipients of NOAA financial assistance awards: As provided in Section M.10 of the Department of Commerce Financial Assistance Standard Terms and Conditions[16] and supplemental award terms, as applicable, recipient organizations have the primary responsibility for:

- Promptly investigating allegations of scientific or research misconduct under a NOAA award;
- Promptly notifying the NOAA Grants Officer of allegations of scientific or research misconduct; and
- Reporting the results of its investigation for appropriate disposition.

NOAA recipients 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

[16] Department of Commerce Financial Assistance Standard Terms and Conditions (March 2008), http://oam.eas.commerce.gov/ docs/GRANTS/DOC%20STCsMAR08Rev.pdf.

NOAA Cooperative Institute Handbook.[17] In cases of joint or collaborative Federal funding, NOAA and the other Federal agencies funding the award(s) may, as agreed upon, jointly investigate any allegations of scientific or research misconduct.

.04 NOAA protects those who uncover and report allegations of scientific and research misconduct, as well as those accused of scientific and research misconduct in the absence of a finding of misconduct, from prohibited personnel practices (as defined in 5 U.S.C. § 2302(b)).

SECTION 6. CODE OF SCIENTIFIC CONDUCT.[18]

.01 All NOAA employees and contractors identified in Section 2.02 and all NOAA financial assistance award recipients and other NOAA research partners and collaborators identified in Section 2.03 will, to the best of their ability, be:

a. **Honest** in all aspects of scientific effort and:

- Clearly differentiate between facts, personal opinions, assumptions, hypotheses, and professional judgment in reporting the results of scientific activities and characterizing associated uncertainties in using those results for decision-making, and in representing those results to other scientists, decision-makers, and the public.
- Preserve the integrity of the data record through adherence to NOAA data management standards and not fabricating or deleting raw data.
- Approach all scientific activities objectively and completely, and accurately report results in a timely manner without allegiance to individuals, organizations, or ideology.
- Disclose any apparent, potential, or actual financial conflicts of interest or non-financial conflicts of interest of their own and others.
- Objectively consider conflicting data and/or studies.
- Acknowledge in publications the names and roles of those who made significant contributions to the research, including writers, funders, sponsors, and others who do not meet authorship criteria.

b. **Accountable** in the conduct of research and interpretation of research results and:

- Use resources entrusted to them responsibly, including equipment, funds, and employees' time.
- Disclose all research methods used, available data, and final reports and publications consistent with applicable scientific standards, laws, and policy.

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[17] NOAA Cooperative Institute Handbook (Dec. 2005), http://www.nrc.noaa.gov/ci/policy/docs/handbook.pdf.

[18] NOAA supports the Principles of Integrity set forth in the Singapore Statement developed in September 2010. We have directly adopted the Singapore Statement Principles as the categories for our Code of Scientific Conduct. Similarly, the responsibilities outlined in the Singapore Statement have also greatly helped inform our work on this document. For more information on the Singapore Statement and the World Conference on Research Integrity, please see http://www.singaporestatement.org.

- Provide scientific advice to NOAA as requested to inform management and other decision-making.

c. **Professional, courteous, and fair** in working with others and respectful of the ideas of others and:

- 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 evaluation to others on their scientific activities as appropriate for standards of respectful peer review, and accept constructive critique 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.

d. **Good stewards** of research on behalf of others and:

- Diligently create, use, preserve, document, and maintain collections and data.

- Adhere to established quality assurance and quality control programs, follow Department of Commerce records retention policies, and comply with Federal law and agreements related to use, security, and release of confidential and proprietary data.

- Adhere to the laws and policies related to protection of human research subjects, natural and cultural resources, and research animals while conducting scientific activities.

- Respect, to the fullest extent permitted by law, confidential and proprietary information provided by communities, such as Native American tribes or tribal organizations, and individuals whose interests are studied or affected by scientific activities or the resulting information.

- Immediately report any observed, suspected, or apparent Scientific and Research Misconduct through means established in Section 8 and the Procedural Handbook for this Order.

SECTION 7. CODE OF ETHICS FOR SCIENCE SUPERVISION AND MANAGEMENT.

.01 NOAA science managers and supervisors identified in Section 2.02 will adhere to the guidelines for Scientific Integrity established in the March 9, 2009, *Presidential Memo to Heads of the Executive Departments and Agencies* and this Order. Specifically, science managers and supervisors will ensure:

- The selection, promotion, and retention of candidates for science and technology positions in NOAA are based on the candidate's integrity, knowledge, credentials, accomplishments, and experience relevant to the responsibility of the position.

- Appropriate rules and procedures are in place and implemented to preserve the integrity of the scientific process and the dissemination of its scientific products and information, including providing scientists the right to review and correct any official document (such as a press release or report) that cites or references their scientific work, to ensure that accuracy has been maintained after the clearance and editing process.

- The establishment and use of Federal Advisory Committees (FACs) will follow procedures established by the Federal Advisory Committee Act and be in accordance with the guidelines established in the Office of Science and Technology Policy memorandum on Scientific Integrity of December 17, 2010. As specified in the memorandum, NOAA will:

    - Ensure that the recruitment process for new FAC members is transparent by announcing FAC member vacancies widely with an invitation for the public to recommend individuals for consideration;
    - Make widely available to the public the professional biographical information (including current and past professional affiliations and a clear illustration of their qualifications for serving on the committee) for appointed committee members, subject to legal considerations;
    - Ensure that the selection of members to serve on a scientific or technical FAC is based on expertise, knowledge, and contribution to the relevant subject area, as well as the availability and ability to serve, and obtains a representative diversity of viewpoints among the committee members;
    - Make all conflict-of-interest waivers granted to committee members publicly available, except where prohibited by law; and
    - Except where explicitly stated in a prior agreement, all reports, recommendations, and products produced by the FAC will be treated as solely the findings of such committees rather than of the U.S. Government, and thus are not subject to intra- or inter-agency revision.

- 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 will appropriately and accurately reflect the best available science in compliance with relevant statutory standards.

- Except for information that is properly restricted from disclosure under procedures established in accordance with a statute, regulation, patent, trademark, Executive Order, Presidential Memorandum, or other legal authority, the scientific or technological findings, conclusions, and methodologies considered or relied on in policy decisions will be made available to the public in a timely manner.

- 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.

- Additional procedures are adopted 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.

- The intellectual property rights of others are respected.

.02 All individuals identified in Section 2.02 of this Order must not:

- Suppress, alter, or otherwise impede the timely release of scientific or technological findings or conclusions, unless explicitly required by a Department or government-wide statute, regulation, Executive Order, Presidential Memorandum, or other legal authority.
- Intimidate or coerce employees, contractors, recipients of financial assistance awards, or others to alter or censor scientific findings.
- Implement institutional barriers to cooperation and the timely communication of scientific findings or technology.

Any such interference will be considered a violation of this section: NOAA's Code of Ethics for Science Supervision and Management.

.03 Decisions to approve or not approve a Fundamental Research Communication must be based only on whether the work is scientifically meritorious: specifically, whether the methods used are clear and appropriate; the presentation of results and conclusions is impartial; and there are no apparent, actual, or potential conflicts of interest. Consistent with DAO 219-1, the approval or non-approval of a Fundamental Research Communication cannot be based on the policy, budget, or management implications of the research. Differences of opinion will be resolved by through the NOAA-wide framework for review and approval of Fundamental Research Communications consistent with DAO 219-1.

.04 The NOAA Research Council will develop a NOAA-wide framework for peer review and approval of Fundamental Research Communications consistent with the criteria in 7.03. Each Line Office will develop and document procedures for review and approval consistent with the Research Council's framework. The procedures must include time limits for review and approval, and procedures for redress if the time limits are not met. The framework and procedures will be posted on the Scientific Integrity Commons website.

.05 NOAA science managers and supervisors will immediately report suspected cases of scientific or research misconduct through means established under Section 8 and the Procedural Handbook for this Order.

SECTION 8. SCIENTIFIC AND RESEARCH MISCONDUCT AND RESPONDING TO ALLEGATIONS.

.01 Scientific and Research Misconduct is defined as fabrication, falsification, or plagiarism in proposing, performing, or reviewing scientific and research activities, or in the products or reporting of these activities. Scientific and Research Misconduct specifically includes:

- intentional circumvention of the integrity of the science and research process by violation of NOAA's Code of Ethics for Science Supervision and Management; and
- actions that compromise the scientific process by violating NOAA's Code of Scientific Conduct.
- Scientific and Research Misconduct does not include honest error or differences of opinion.

.02 Procedures for lodging and responding to allegations of misconduct are provided in the Procedural Handbook to this Order.

SECTION 9. AUTHORITIES.

.01 Statutes, Regulations, and Policies

a. Authority to issue Departmental Regulations, 5 U.S.C. § 301, which 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, and Conflict of Interest, 18 U.S.C. § 208, and related rulings by the U.S. Office of Government Ethics.

c. Federal Policy on Research Misconduct, 65 Fed. Reg. 76,260 (Dec. 6, 2000), available at http://nrc.noaa.gov/plans_docs/fed_research_misconduct_dec_2000.pdf.

d. Presidential Memo to Heads of the Executive Departments and Agencies (March 9, 2009), available at http://www.whitehouse.gov/the_press_office/Memorandum-for-the-Heads-of-Executive-Departments-and-Agencies-3-9-09.

e. 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 10. COMMUNICATION, OVERSIGHT, REVIEW, AND REPORTING.

.01 The NOAA Research Council, or its designee, will be responsible for the communication and oversight of this policy, as well as for periodic review and revisions of the policy.

.02 The NOAA Research Council will communicate these policies and procedures both internally to NOAA employees and contractors, and to NOAA partners, recipients of financial assistance awards, and others involved in external research.

.03 The NOAA Research Council will maintain the Scientific Integrity Commons website at http://nrc.noaa.gov/scientificintegrity.html, where it will post a general statement of the NOAA Scientific Integrity Policy. The Council will also ensure that the policy is referenced, as appropriate, in financial assistance award solicitations, requests for proposals and in the terms and conditions of resulting financial assistance awards and contracts, and communicated to individuals either involved in peer review panels evaluating proposals to NOAA grants programs and cooperative agreements or evaluating internal NOAA scientific programs and activities.

.04 NOAA's Chief Scientist, in consultation with the Deputy Under Secretary for Operations (DUS/O), will provide annual public reporting, through a NOAA website, of the aggregate number of misconduct cases, the areas of concern (e.g., climate science, fisheries management, financial, contracting, etc.), the affiliation of the individuals involved (i.e., federal employees, contractors, partners, and recipients of financial assistance awards), how many accusations were investigated, and the number of findings of misconduct. If the position of Chief Scientist is vacant, the Under Secretary will assign this responsibility to another high-level official with scientific expertise within NOAA.

.05 The NOAA Research Council will review the policy at least every two years to ensure that it is current and effective in relation to its purpose as stated in Section 1.

SECTION 11. EFFECT ON OTHER ISSUANCES.

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

An electronic copy of this Order will be posted in place of the superseded Order on the NOAA Office of the Chief Administrative Officer website under the NOAA Administrative Issuances Section at http://www.corporateservices.noaa.gov/~ocao/index.html.

Under Secretary of Commerce
for Oceans and Atmosphere

Offices of Primary Interest:
Office of the Under Secretary
NOAA Office of General Counsel (GC)
U.S. Department of Commerce Office of General Counsel