DIRECTOR OF NATIONAL INTELLIGENCE
WASHINGTON, DC 20511

E/S 01011

MEMORANDUM FOR: Director of the Office of Science and Technology Policy

SUBJECT: Scientific Integrity

REFERENCES: A. President's Memo, Subject: Scientific Integrity, 9 Mar 09
B. D/OSTP Memo, Subject: Scientific Integrity, 17 Dec 10

In keeping with the principles central to the preservation and promotion of scientific integrity outlined in the President's memorandum (Reference A) and in accordance with the guidance provided in your memo (Reference B), the National Intelligence Science and Technology Committee has established a set of principles of scientific integrity for the Intelligence Community.

The National Intelligence Science and Technology Committee established by the Intelligence Reform and Terrorism Prevention Act of 2004 advises the Director of Science and Technology within my office and is composed of the principal science officers of the National Intelligence Program. Their *Scientific Integrity Principles for the Intelligence Community* is the product of a collaborative, coordinated process and reflects their own best practices. I am pleased to provide it as my report to you on how the members of the Intelligence Community are implementing their policies in the areas covered by your guidance.

You may direct any inqueries regarding this document to Dr. Steven Burmeister, the Deputy Director of Science and Technology and Vice Chairman of the National Intelligence Science and Technolgy Committee, at [redacted]

b2, b6

James R. Clapper

13 MAY 2011
Date

Attachment:
1. National Intelligence Science and Technology Committee, *Scientific Integrity Principles for the Intelligence Community*, 28 April 11

SUBJECT: Scientific Integrity

Distribution:

Director of the Office of Science and Technology Policy

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Scientific Integrity Principles for the Intelligence Community

The National Intelligence Science and Technology Committee established by the Intelligence Reform and Terrorism Prevention Act of 2004 advises the Director of Science and Technology within the Office of the Director of National Intelligence and is composed of the principal science officers of the National Intelligence Program. In keeping with the principles central to the preservation and promotion of scientific integrity outlined in the President's Memorandum dated March 9, 2009 and in accordance with the Director of the Office of Science and Technology Policy Memorandum dated December 17, 2010, the National Intelligence Science and Technology Committee has established a set of principles of scientific integrity for the Intelligence Community (IC).

The President stated in his memorandum that:

> Science and the scientific process must inform and guide decisions of my Administration on a wide range of issues, including improvement of public health, protection of the environment, increased efficiency in the use of energy and other resources, mitigation of the threat of climate change, and protection of national security.
>
> The public must be able to trust the science and scientific process informing public policy decisions. Political officials should not suppress or alter scientific or technological findings and conclusions. If scientific and technological information is developed and used by the Federal Government, it should ordinarily be made available to the pnblic. To the extent permitted by law, there should be transparency in the preparation, identification, and use of scientific and technological information in policymaking. The selection of scientists and technology professionals for positions in the executive branch should be based on their scientific and technological knowledge, credentials, experience, and integrity.

The IC depends heavily upon, and contributes to, scientific progress across a broad range of disciplines. To best foster scientific progress in domains of interest in the IC, the principles of scientific discovery and integrity rely on a healthy exchange and cross pollination of ideas both within and across IC organizations as well as with national and international researchers. The demands of national security can make this interaction challenging, requiring necessary trade-offs of security versus full openness, but there are ways to preserve scientific integrity within this environment. It is important to maintain a culture of scientific professionalism, openness, and accountability at various classification levels. The following guidiug principles will enable this culture within the IC.

I. Foundations of Scientific Integrity in Government

- **Hire the best and brightest scientists and technology professionals based on their scientific and technological knowledge, credentials, experience, and integrity.** IC

elements should engage in targeted outreach to educational institutions specializing in areas of scientific, mathematical, and technology inquiry of interest to the IC; support educational programs for scientists, mathematicians, and technology professionals pursuing education and research in such areas; and use appropriate recruitment measures and programs to recruit successful scientists, mathematicians, and technology professionals into the IC. The IC will share and capitalize on best practices that enable the recruitment and retention of successful S&T professionals, and that result in close ties with academic institutions.

- **Enable fundamental scientific and technological information to be separable from national intelligence capabilities and/or operational concerns.** It is important to facilitate a free flow of information at multiple levels of classification. When appropriate, there should be clear separation between scientific methods and developments and how they might be applied in classified applications. This separation will ensure the IC maintains necessary security on vital national techniques and capabilities while facilitating a free flow of information to accelerate scientific and technology advancement.

- **Encourage all to seek out broad scientific and technical peer review.** Within the constraints imposed by classification, research programs should seek peer review from as broad a group of qualified technical experts as possible from both within and outside the IC. Peer review experts should be independent and able to evaluate all programmatic stages, from program inception, source selection, and execution, through validation of the scientific results.

- **Encourage employees to seek out opportunities to publish in peer reviewed literature.** Dissemination of scientific and technical results is important to foster cross-pollination of ideas. Publication of results in unclassified journals should be encouraged when the work is fundamental in nature and can be clearly separated from classified applications. Where appropriate classified results should be published or presented in classified forums for peer review with appropriately cleared individuals. Documenting and archiving program reports, records, and results sustain the value of the research investment and is particularly important for classified activities that are unable to be published openly.

- **Encourage the scientific and technical community employees to probe continually the value of their work to ensure that it is relevant and cost effective.** Employees conducting research should determine clear goals and objectives with articulated limitations. The work should demonstrate the accomplishment of a new approach with measurable impacts to the mission.

- **Hold researchers to high standards of accountability with clear, concise, and well-articulated mission outcomes.** Scientific research should be undertaken with clear goals, articulated outcomes and measurable results. Researchers should seek input from other IC partners as well as from outside technical experts and should be honest and forthright about the likelihoods of success. They should hold themselves to high

standards for technical validity and scientific returns relative to program metrics. Organizations should foster a climate where employees can disclose concerns about scientific rigor without the fear of retribution.

II. Public Communication

- **Convey scientific and technological information to the U.S. public to the maximum extent practicable, while ensuring full compliance with limits on disclosure of classified information.** Encourage transparency of scientific processes and availability of scientific and technological information where appropriate within the limits of classification. This is particularly important for scientific studies and science-based opinions that influence policy decisions. IC Science and Technology offices should establish fluid relationships with Public Affairs and Information Management Offices to ensure spokespersons can comprehensibly discuss scientific information and so that Intelligence Community scientists can operate within appropriate classification guidelines when speaking to the general public.

- **Encourage collaborative environment and cross-agency mobility of information to foster inter-agency interaction at the researcher level.** Foster programs that enable scientists, technologists, engineers, and mathematicians to share results, build upon results contributed by the broader scientific community, both within and outside of the IC, and be recognized by peers. One method to encourage inter-agency cross-pollination is through a program of short-term details where professionals can collaborate with peers in other agencies, increase critical mass in a research area that a single organization might not be able to maintain internally, and prevent a closed cloistered view of technology development. Joint Duty programs have demonstrated a positive step in this direction, and serve as a positive growth opportunity for individuals and organizations.

- **Exploit the best national and global researchers using open competition from as broad a set of performers as possible.** Encourage the IC to effectively leverage external academic and industrial performers on relevant programs through the competitive process. This will maximize openness as well as the rate of technical advancement in key IC areas.

III. Use of Federal Advisory Committees

- **Appropriately use Federal Advisory Committees.** Although certain IC organizations are exempt from the provisions of the Federal Advisory Committee Act (FACA) (5 *V.S.C.* App.), all IC organizations should comply with the FACA to the extent practicable within the confines of national security policy. The selection of members to serve on a scientific or technical advisory body should be based on expertise, knowledge, and contribution to the relevant subject area. Membership should reflect a balanced perspective encompassing multiple points of view. Information developed by such advisory bodies should be made available to the public to the extent possible within the limits on disclosure of classified information.

IV. Professional Development of Government Scientists and Engineers

- **Encourage professional development of scientists and technology professionals to keep them current and integrated in their scientific communities.** Intellectually curious *researcher*s with a strong scientific and technical background have an innate desire to communicate with colleagues and stay current on technical progress. Regardless of an individual's rank or position, the prevailing environment in the IC should foster professional development and support continued technical education among its cadre. They should be encouraged to reach out and interact with their peers and to take active leadership roles in their technical communities within the IC as well as externally. S&T leaders should encourage and support continuing education for employees that ensures currency in technical disciplines, supports maintenance and advancement of S&T capabilities of interest to the IC, and ensures strong scientific and technical practices and credibility.

- **Recognize the value of scientific, technological, engineering and mathematical discoveries resulting from S&T.** Promote awareness of the value of investments in potentially game changing S&T programs, including the history of the S&T investment and timeframes that made them possible, most particularly when the value of the resulting accomplishment becomes evident in operational settings. Recognize individuals and teams whose work advances the IC's capabilities with unquestionable scientific rigor and integrity.

These basic principles are critical to maintaining the long-standing principles of scientific openness and integrity within the IC in spite of classification restrictions.

Dawn C. Meyerriecks
Chair, National Intelligence Science and Technology Committee

28 April 2011
Date