

Dear Colleague:

As a nation, we rely upon the integrity and honesty of a core set of institutions and professions. There are fewer than there used to be.

In a recent editorial, the New York Times (May 9, 2005, p. A22) discussed publicly, for the first time, concerns about the National Academy of Sciences. The editorial (enclosed) may be of interest to you.

It makes little sense to have a National Academy of Sciences/National Research Council system if, as the Times indicates, nobody knows how to interpret its reports and recommendations.

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An Assertive Scientific Advisory Group Challenges

Federal Policies

The National Academy of Sciences, once thought of as a timid, somnolent adviser on national affairs, has shown an unusually tough and independent streak in recent weeks. In rapid succession the academy's operating arm, the National Research Council, has criticized some pet projects and policies of powerful federal agencies and even the White House. That is a welcome onslaught of truth-telling at a time when rabid partisans routinely shade the facts for political gain.

The academy, which is based in Washington, operates a vast array of advisory committees that provide advice to the federal government and other sponsors who contract for its services. Typically, Congress or a federal agency might ask the academy to review the evidence and render a verdict on some important technical issue — everything from improving the census to protecting the environment from genetically en-

gineered animals. The academy will then round up experts to produce a report that is supposed to be the definitive word on the subject.

In years past the academy was routinely denounced for being too cozy with its federal patrons — for pulling its punches and muting any criticism in hopes of gaining future contracts for advisory work. But recently, some committees at least have shown a feisty independence.

Take a committee that examined whether the spent fuel pools at domestic nuclear power plants might be vulnerable to terrorist attacks. The Nuclear Regulatory Commission had issued bland reassurances that the pools were well protected, but Congress wasn't sure, so it ordered the regulatory agency to have a study done by the academy. The agency undermined the effort by denying the academy information and slowing release of an unclassified version of the report, but the acad-

The Academy of Sciences is finding its voice.

emy ultimately made its voice heard. It found that credible terrorist attacks might release large quantities of radioactive material, and it called for steps to mitigate the risk.

A similar fate befell the Bush administration's plan to develop a nuclear weapon that could penetrate the earth and destroy enemy bunkers buried deep underground. Caught in a swirl of conflicting claims as to how well the weapons would work and how much collateral damage they might cause, Congress called for an academy study. A panel found that while such a warhead would indeed destroy a buried bunker effi-

ciently, it could not go deep enough to avoid huge numbers of casualties at ground level. Suddenly a weapon that had been touted as relatively small and clean looked a lot less appealing.

The space agency has come under similar fire from academy experts. One academy panel has just warned that the nation's Earth-monitoring program from space is "at risk of collapse," mostly because the president's long-range program to explore the Moon and Mars has been forcing NASA to siphon off funds needed for earth sciences. An even sharper jab came last December when an academy panel concluded that a robotic mission to rescue the Hubble Space Telescope would have little chance of success and recommended an astronaut mission instead — precisely the opposite of what the NASA administrator wanted to do. The academy may be winning that fight. The new administrator of NASA has ruled out robotics

and said he will reconsider a possible astronaut mission.

The reason for the surge of critical reports from the academy is uncertain. One theory is that it is an accident of timing, that various contingencies have conspired to yield a spate of tough reports in close succession. Spread out over many months, they might be less noticeable, especially when mixed among reports that the administration has welcomed, such as an assessment of perchlorate in drinking water last January. An earlier report on fuel economy standards was cited favorably by the White House chief of staff a week ago.

Another theory is that scientists feel beleaguered at a time when the religious right is attacking everything from evolution to embryonic stem cell research and are thus more inclined to flex their muscles. That may explain the academy's eagerness to promote stem cell re-

search despite the president's ethical qualms about the field, but it seems remote from nuclear warheads and space missions.

Yet another theory is that Congress and the White House budgeteers and science advisers, besieged with conflicting assessments from special pleaders, actually want the academy to "tell it like it is." The prototype for this approach may have been a 2001 request from the White House for a quick assessment of global warming to inform the president before he headed off to international conferences.

That assessment was led by Ralph Cicerone, an atmospheric chemist who has just been elected to a six-year term as academy president. Let's hope he can continue the upsurge in forceful, independent reports. With Washington so polarized and distrustful of late, politicians and the public need technical advice they can trust.