NASA’s Technical Reports Server Shuts Down

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For most of its existence, the U. S. National Aeronautics and Space Administration (NASA) could be termed the fishbowl agency. Unlike the Department of Defense or nuclear-related branches of the Department of Energy, virtually everything NASA did, built, or planned has been publicly available to anybody who asked. One reason you see so many NASA-created photos of space and the Earth is that the agency lets anyone use its photos for free as long as credit is given, and they have put their huge photo library online. Less well known, but perhaps more important, is the vast accumulation of technical information—papers, reports, and scientific data—that NASA has also given the public free access to. Until, that is, last week.

In a move that annoyed the research community, NASA director Major General Charles Bolden took down the entire NASA Technical Reports Server (NTRS), citing concerns that some material subject to U. S. export control laws may be on it. This occurred a few days after a Chinese national named Bo Jiang was arrested by the FBI after lying about the fact that he had a laptop, hard drive, and SIM card on his person before trying to board a one-way trip to China. Mr. Bo had been a contractor working at the NASA Langley Research Center in Virginia. The FBI learned that he might be taking sensitive NASA information out of the country through some whistleblowers at the agency who got in touch with the office of Virginia’s Rep. Frank R. Wolf, who notified the FBI.

Now there may not have been anything illegal on Bo Jiang’s laptop, but we will have to wait to find out. We will also have to wait to be able to use the NTRS service until such time as Director Bolden thinks it is safe. If he is taking the U. S. export laws seriously, that may be a while.

Based on my own limited experience, my impression of the U. S. export laws is similar to my impression of the Transportation Security Administration, the folks

who make you take off your shoes before you board an aircraft. Both cause varying degrees of inconvenience to large numbers of people, while having an uncertain effect on the actual security of the country.

For example, did you know that Geiger counters, the little tubes that have been around since the 1920s, which detect atomic particles and gamma rays, are subject to U. S. export control laws? If you go online and try to buy one from a U. S. hobby shop, you are notified that they’re subject to export control laws and you better not try to buy one if you’re not from here. I suppose one would need a few Geiger counters to build a nuclear weapon in one’s basement, but the list doesn’t stop there — a little thing like some plutonium would be necessary too, and you can’t buy that online (not that I’ve looked—I don’t want the FBI showing up on my doorstep). These kinds of restrictions make it harder for U. S. companies to profit from export business, and by the same token, they give an advantage to foreign manufacturers who rush in to fill the vacuum left by our export restrictions. This is perverse, to say the least.

Perhaps Director Bolden is taking a more entrepreneurial view of NASA’s intellectual property than the attitude that prevailed in the past, which was basically one of wanting private entities to use NASA’s smarts, because NASA could use such good news at its next appropriation hearing before Congress as yet another reason to keep funding the agency. There was a time when everything from jet engines to Tang (the now-forgotten orange-flavored breakfast drink) was claimed by NASA as at least partly due to their innovative thinking.

But now that the center of gravity of space travel is moving in a private direction, it may be time for NASA to act more like a private organization. The intellectual property that private firms develop is closely guarded, and rightly so, because the competitive advantage it can bring can make the difference between success and failure. China is clearly one of our international competitors, at least in fields that we haven’t nearly abandoned (such as consumer-product manufacturing). So it probably makes sense to be aware of what is going on with regard to sensitive information at NASA going to foreign nationals, both through legitimate channels like the NTRS and illegitimate ones like laptops with possibly stolen data on them.

This change of attitude will be a strain, however. I’m sure that parts of NASA have always had security restrictions, and those parts won’t have a problem with maintaining them. But other large portions of the agency—those devoted to scientific rather than engineering research, for example—have always shared information as a fundamental part of their mission. The problem is that it’s not always easy to tell the two types of research apart, even for historians of science who take months or years to think about the question. A discovery in fundamental science today may turn into the hot product of tomorrow, but the only way to find out which is which is to wait and see.

In the meantime, it would be nice if whoever is in charge of deciding what goes on the U. S. export control list would be a little more restrained in their anonymous diktats. One discouraging trend that is evident in many areas of life is the encrusting creep of regulations issued by faceless bureaucrats, regulations that

cause people who are just trying to live their lives and get some work done to drop what they're doing and perform a dance to satisfy a government bureaucracy. Unfortunately, it is in the nature of bureaucracies to enlarge their turf in this way, so I am not optimistic that the situation will improve any time soon.

Let's also hope that whatever offending material is found on NASA's technical database can be purged so they can turn the service back on, and let the taxpayers have access once again to the information they have paid for. The attitude that NASA really belongs to the people is reinforced by their historic freedom with which they have shared information, and it is becoming rarer among government agencies. But it is a good quality that I hope will continue into the future, whatever that brings for NASA and the world.

Sources: The article "Database is shut down by NASA for a review" by Mark Mazzetti appeared in the online edition of the New York Times on Mar. 22, 2013 at http://www.nytimes.com/2013/03/23/us/nasa-shuts-down-database-during-sec... [1] I also referred to the Wikipedia article "Charles Bolden." Whenever it comes back online, you can find the NASA Technical Report Server at ntrs.nasa.gov [2]. I thank Jon Alan Schmidt for pointing out an erroneous reference to the Transportation Security Administration in an earlier version of this blog.

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