

Welcoming comments for Stewardship Science Graduate Fellows (SSGF)

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Good morning. I'm Don Cook and it is my pleasure to welcome you, on behalf of NNSA, to the 2010 DOE NNSA Stewardship Science Graduate Fellows Conference. In the brief time that I have, I will not tell you much about NNSA – you'll pick that up fairly quickly and many of you know a lot already -- but I would like to provide some of the national and international context of the program – and for your careers, this will likely be important, whether you presently think it will be or not.

Why would I say that? Well, 40 years ago, when I finished up my own undergraduate degree at the University of Michigan, I could not afford to go to graduate school, but I got accepted at MIT and then I got some help through a program called a National Defense Education Act (NDEA) Traineeship. Now, I never intended to work in National Defense, but what the heck? If the government was willing to pay the first few years of my graduate program, who was I to disagree?

But as I got closer to finishing up, I began to apply for positions at NASA's Jet Propulsion Lab, Purdue University, a big US Defense contractor, and several US Labs. I was lucky and got offers from most of them, but was most attracted to the work in high energy density science going on at Sandia, so that's where I chose to go. I stayed there for 28 years, doing various things in several areas, but then went over to the UK in early 2006 to head up the Atomic Weapons Establishment. Now, I'm back in America and learning to be a Fed if the Senate will let me. So the lesson from this bit of the monologue is that I never intended to work in national defense, but that's where I've spent my entire career since getting out of graduate school.

Now let me give you the bottom line, before I mention the next bits. I want you to come to work for us when you finish. You could work in one of the national labs, at one of the production plants, or in the Federal government. Even if you to work at one of the US universities, we will probably still want to work with you.

You have already passed some major hurdles – getting into the SSGF program was a big one.

Now – some more context for your graduate work, and I hope for your careers. Last year, on April 5, the new US President, Barack Obama, gave a speech in Prague in which he highlighted his nuclear agenda. I was the head of AWE at the time, and I noticed. Typically, the news (BBC) in the UK covers as much international stuff as British stuff. And I noticed, because it dominated the news. Most of my colleagues at AWE and in the Ministry of Defence also noticed and it caused quite a stir. I thought “wow!” A new US President, just three months into the job, put nuclear items near the top of his agenda in a very articulate way.

Well, now it's a year later. What has happened? First, in April, the Nuclear Posture Review was issued. My interpretation of the NPR is that it says the following things: We live in a duality of arms control and deterrent modernization. Not only will the US shrink its stockpile, but it will maintain a healthy deterrent as long as one is needed and it will appropriately modernize the weapons that remain in the stockpile, especially as regards safety and security improvements. Second, also in April, the New Start Treaty was signed. This treaty replaced the 1991 Start Treaty that expired in December last year. It commits the US and Russia to reduce, within 7 years, the number of warheads on operational alert (loaded on launchers) to 1550, and to fewer launchers (700 active, and 800 active and inactive). Third, and also in April, the President convened a meeting in Washington, DC, of leaders from 47 nations to reach an agreement on getting all nuclear materials that could be used in manufacturing nuclear weapons under “lock and key” within four years. Fourth, the 5-year review of the Nuclear Non Proliferation Treaty (NPT) was conducted during the full month of May, and an agreement was reached on May 28. Fifth, the President announced that he would ask the US Senate to provide its advice and consent to ratification of the Comprehensive Test Ban Treaty (CTBT). That is the President's nuclear agenda, and it is on this last point that I might anticipate that your graduate work and your careers might have great pertinence. A comprehensive stockpile stewardship program – one rich in the requisite stewardship science – is essential, both now

under the underground nuclear explosive test moratorium – in place since 1992 – and in the future under a CTBT if the Senate ratifies the treaty.

These times are like none I have seen in the history of my own career up to now. What an amazing time! Your graduate education is underway, and your careers will soon begin. I hope you will consider dedicating yourselves to national security in the future and that you will come to work for us.

I thank you for your time and your attention, and I sincerely wish you the best with your graduate studies and your careers.