John Ainslie

From: [redacted]
Sent: 15 March 2006 01:17
To: John Ainslie
Subject: Re: W76-2 and subcritical tests

Dear John --

Thank you for your patience with my slow reply. I have been mostly campaigning, as you say there, and secondarily fundraising, and only tertiarily doing and research, and of that only an extremely little on Trident. This is about to change somewhat, but I am starting from a stand.

What you have found is very interesting. I am very impressed with your work and your fine paper, which I will pouring over this week again as part of work I am about to do for [redacted]

The U.S. Freedom of Information Act has almost ceased to function. As things get tight, the cost of research gets ever higher and journalists, our primary outlet, lose interest because they cannot get a live comment.

I have been doing some noodling with numbers here and I would like to say this:

- The Trident platform is the subject of a great deal of work, obviously and a great many options have been developed for it to greater or lesser completion -- nuclear explosive packages, AFF systems, and soon if not already, guidance systems and the "enhanced effectiveness" ("E2") maneuvering RV tail kit that is to give "GPS-like" accuracy when it is deployed (2007 or 2008? Unclear but maybe. Maybe now for all I know!). Yes, I think there will be at least two versions of the W76 upgrade, or "stockpile life extension program" SLEP as it is euphemistically known. As you know the W76 SLEP is to be organized into "blocks" and I don't know exactly what this means in detail but there is no requirement for them to be the same. In addition, there could be "small builds" which don't appear anywhere in unclassified print. "Small builds" is an enduring concept and it appears in the NNSA budget request in various places, if not in this year's then in the last one.
  <>The near-term "conventional" Trident recently in the news is to my mind perfectly certain to carry a nuclear warhead capable of (a) small yield(s) and possibly large yields too. The throw weight is too small and the CEP too large for a conventional warhead to make any sense. "Conventional" is a public relations lie -- or it may be that a small number will be deployed as technology test beds; the real interest right now must be low-yield nuclear because a 363 lb RV will not carry enough HE or, which is worse from the energetic point of view, IHE. The 10-fold accuracy improvement planned for E2 will allow a huge decrease in yield for a given probability of destruction, other factors being equal.
- <>I believe the RRW will provide just this low-yield warhead, among its other advantages, and that it will provide a *near-term* very low-yield nuclear option for Trident. I have no proof for this, only a lot of circumstantial evidence. Production is to begin soon after 2010 -- 2012 is mentioned in other places -- and one or two years of LANL pit production will be enough to provide all the Trident mininukes one could hope for. Thus I think the RRW is a very near-term and large problem.
- No one will be able to distinguish production of RRWs from W88s from the outside.
- I think the difference in language from "W88 certification" to "pit certification" is significant, because if you search you will see a similar loosening of language regarding pits in a lot of places in the NNSA budget. The RRW is mentioned 60 times and has a piece of many budget lines.
- The subcritical "readiness" issue might be legally significant in the U.K. I am going to

mention it to [redacted] in this regard.

OK, I guess that's it. Not very helpful. Your outstanding work makes me feel like a piker but also inspires me to see what more can be turned up here.

Very best, and let's keep in touch,

[redacted]

John Ainslie wrote:

[redacted]

I was thinking recently that if a new version of W76 is designed under RRW it will probably be called W76-2. When I did a search on Google for ""W76-2" warhead " I found a reference in a recent contract for Nuclear Reentry Body Engineering Studies, Training, Warhead Refurbishment. It includes the following line:

"Future life extension, refurbishment, or modifications may be required for MK5A, W76-2, SSGN, as well as other systems. The Contractor shall support the programmatic and technical activities for these efforts".

http://www.anteon.com/seaport/rfp_detail.asp?mode=active&rfpID=398&year=&sort=fldRFPNumber (Amendment 3 page 9)

Would you be able to make any enquiries about W76-2 ?

Mk5A is also new to me. I don't know if this is meant for W88 or a bigger W76.

I am also doing some research into the recent US/UK Krakatau sub-critical test. I am trying to establish the purposes of these tests. The UK government tries to make out that this test was only for ageing. The funding for Krakatau in the NNSA budget comes under "pit certification". This heading in earlier years was "W88 pit certification". Both US and UK reports indicate that the main purpose is to develop computer models. The test data is likely to be crucial for RRW.

I also saw a reference to the earlier US/UK subcritical test "Vito" in an LANL paper. It said of Vito "It also allowed us to exercise our readiness capabilities". (www.fas.org/sgp/othergov/doe/lanl/pubs/las28/papazian.pdf page 72) I assume this refers to the ability to reintroduce full scale testing. The US may not have ratified the CTB, but Britain has. Any more information on links between the subcritical tests and readiness would be very useful. This could be a breach by Britain of the CTB. The next US test, Unicorn, is linked to readiness and to Krakatau. But so far I haven't seen direct mention of readiness with regard to Krakatau.

John Ainslie
Coordinator
Scottish Campaign for Nuclear Disarmament
15 Barrland St, Glasgow, G41 1QH. 0141 423 1222
john.ainslie@banthebomb.org

--