## John Ainslie

From:

Sent:

13 August 2010 11:41

To:

10.

Cc: Subject: John Ainslie;

Re: spec for submarine research - for comment

Hi Louise,

Some comments and observations on the submarine research project.

- 1. I seriously doubt whether the US will abandon Trident D5. Cost is the main (only?) driver for looking at a smaller and presumably (but not necessarily) cheaper SSBN(X), but this would involve designing and building a new missile at the same time as designing and building new subs = more cost, more uncertainty and severe political resistance from Republicans who will not want to see the US' most sophisticated and reliable missile retired prematurely.
- 2. A key issue is the methodology of cost estimates for submarine building programmes both here and in the US. This will require conservations with people in MoD, BAE, Electric Boat and the Congressional Budget Office to get a clear understanding of the process and how the costs of current generation SSNs (Astute and Virginia Block III) have been factored into Successor and SSBN(X) estimates. Someone with defence economic expertise may be necessary if this is the prime focus.
- 3. It would be well worth conducting interviews in the US with those in Congress, DoD and Navy that are concerned about the projected cost of the SSBN(X) building programme and the impact on the wider ship-building programme and views on options: delay, force reduction, alternative sea-based platform(s), cost reduction measures and so on. Perhaps someone in the US could be commissioned to do this?
- 4. A key issue is politically-induced delay in Congress to either force USN to come up with cheaper alternatives or to delay expenditure until the ship-building programme can absorb the cost with less friction than currently envisaged many examples of this for US warhead & weapons complex projects, e.g. Modern Pit Facility, Robust Nuclear Earth Penetrator. What then would be the implications for the Common Missile Compartment project and the UK Successor programme? As detailed an understanding of the CMC project as possible will be needed. This, too, is where a further Ohio-class life extension comes in, although how much confidence USN has in operating the Ohio's for 40-45 years is unclear, let alone another extension although don't rule it out. Questions to right people about this possibility would be useful.
- 5. Understanding naval nuclear reactor safety regulatory frameworks in the UK and US is almost a separate issue, but an equally important one in terms of assessing the validity of HMG claims regarding Vanguard life extension limits. This will require some real digging and persistence and that may be constitute a discrete research project.

Best,





wrote:

- > Hello there I've chatted to you all about commissioning some
- > research into potential problems caused for vanguard replacement by
- > developments in the US.
- > I'm looking to commission someone to do research into these questions
- > pretty soon and have put together the attached brief, taking in