

New nuclear missiles may not fit British submarines

Designers at Barrow are preparing to develop a new nuclear-armed submarine. In their first years these vessels would carry Trident but then they would be adapted so they can be armed with a new US missile. But this new missile might be bigger than Trident. This will create a major problem for the submarine designers.

The US Navy are carrying out concept studies into a new Underwater Launched Missile System (ULMS).¹ The new missile would enter service in 2029, at the same time as a new submarine, SSBN-X.²

On 7 December 2006 there was an exchange of letters between Tony Blair and George Bush on the replacement of Trident.

Mr Blair wrote – “the United Kingdom wishes to ensure that any successor to the D5 system is compatible with, or is capable of being made compatible with, the launch system for the D5 missile, which we will in the meantime be installing into our new submarines”.³

Mr Bush replied – “I would invite the United Kingdom to participate, at an early stage, in any program to replace the D5 missiles or to discuss a further life extension – for your purposes – of the D5 missile to match the potential out-of-service date of your new submarines. In this respect, any successor to the D5 system should be compatible with, or be capable of being made compatible with, the launch system for the D5 missile ..”

Britain is interested in the new ULMS missile. On 3 December Des Browne admitted, in response to a question from Nick Harvey, that the Joint Steering Task Group, which oversees the Polaris Sales Agreement, had met three times since March and that “concept studies for the development of a new underwater launched missile system have been discussed by officials at these meetings”⁴

However contract documents suggest that George Bush is not sticking to his promise that ULMS must fit into a D5 launch tube. On 7 November 2007 the US Navy issued a notice asking industry to submit proposals for a new test bed for “development testing of underwater launched missile systems”.⁵ The test bed should be able to support missiles up to 120 inches in diameter and 200,000 lbs in weight, whereas Trident missile tubes have a diameter of 87 inches and the missiles weigh 130,000 lbs. This is because “concepts for future submarines may have missile tubes larger than 87 inches in diameter”.

The Strategic Advisory Group is at the heart of the US nuclear establishment. On 13 November this Group was briefed by their “Next SSBN Task Force” on the

¹ <http://www.spa-inc.net/CareerOppDetail.asp?req=2007-078&type=JOBTYPE&item=SRAN>

² <http://www.globalsecurity.org/wmd/systems/ssbn-x.htm> and Congressional Budget Office reports

³ <http://www.publications.parliament.uk/pa/cm200607/cmselect/cmdfence/225/22514.htm>

⁴ <http://www.publications.parliament.uk/pa/cm200708/cmhansrd/cm071203/text/71203w0025.htm#0712033000095>

⁵ <http://www2.fbo.gov/spg/DON/SSP/SSP/N00030%2D08%2DI%2D0201/SynopsisP.html>

capabilities required from the system that would replace Trident.⁶ A report on this briefing suggests that they did not specify clear capabilities but did recommend that further research and development work should be carried out.⁷

The US military haven't yet decided what ULMS will look like. Despite the assurance made to Tony Blair, they haven't ruled out a missile larger and heavier than Trident. This poses a major headache for the designers of the new British submarine. The British programme is running 5 years ahead of the US one. The in-service date of the British submarine is 2024, whereas the first new US submarine would not be operational until 2029. The British designers are having to guess what ULMS might be like, when Strategic Command have not even determined the basic capabilities that they would like from the new missile, let alone its size or weight.

The exchange of letters between Bush and Blair suggests that the new British submarines could be armed with Trident throughout their life. But this is not a very credible option. The submarines would be designed to remain operational until at least 2055. But the US Navy's plans are to withdraw Trident completely by 2042. No maintenance work on the missiles can be carried out in the UK, it is all done in the US, and the facilities will be scheduled to close in 2042.

In 1980 Britain purchased the Trident I (C4) system. Two years later Mrs Thatcher opted for the newer Trident II (D5) missile instead. This was because C4 would be retired far sooner than the new British submarines. This argument will be well understood today by the Royal Navy. They will be keen to purchase ULMS. But designing a submarine for an unknown missile will be a nightmare.

Note

The US Navy has used the terms ULMS and SSBN-X before. They were the names of studies in the 1960s and 70s which led to the Trident system.

⁶ http://204.71.60.36/d_newswire/issues/2007/9/14/1be3d315-c96c-42c5-9fdc-3fadab305809.html

⁷ http://www.nti.org/d_newswire/issues/2007_11_29.html#05F6F768