

SDA and ADI: The Strategic Defense Architecture 2000 and the Air Defence Initiative

Any doubts about the future interdependence of air and space defence are removed by consideration of the research and development objectives of the Air Defence Initiative (ADI), which itself appears to have emerged from the efforts to design a complete strategic defence system in SDA 2000.

It will be recalled that the North American Air Defence Master Plan, submitted to Congress in March 1982 and the basis of continental air defence policy since, proposed, *inter alia*, East and West coast Over-the-Horizon Backscatter (OTHB) radars, and the modernization of the DEW line. At the time, the US Air Force explicitly rejected both space-based radars and airborne surveillance systems on the grounds of cost, and also because the development period was considered too long to meet the immediate need for improved surveillance.²⁰

In December 1982 — sometime, it should be noted, before President Reagan's SDI speech and without any indication that it was an intentional precursor of this — Phase I of SDA 2000 was initiated. It was designed to project the air-breathing threat to the year 2000, and to suggest an air defence design to counter it. SDA 2000 Phase II commenced in 1984 — given President Reagan's speech, it was now clearly linked to the SDI programme — and was intended to integrate air and space defence concepts, including an assessment of the multi-mission applications of what might otherwise be thought of as SDI projects. Phase II is directed towards future air defence technologies, the application of which would, presumably, be largely or even entirely dependent on decisions concerning SDI.²¹

The ADI is a Research, Development, Testing and Evaluation Programme (RDT&E) addressing some of the issues emerging from Phase I of SDA 2000. Announced by the USAF in April 1986, the purpose of ADI is to develop technologies appropriate to surveillance, interception and battle management in regard to hostile bombers and cruise missiles. Funding for all three research programmes is now in the 1987 US defence budget, and requests for proposals have been issued by USAF research centres.²²

In the surveillance programme, major emphasis will be placed on the survivability of surveillance systems through all phases of a nuclear attack.

²⁰ For comments on the NWS as an interim measure, see the testimony of General Kautnya to the House Armed Services Committee, H.A.S.C. 99-2 (1985), part. 2 p. 980; see also the discussion below of space-based radars, pp. 38-41.

²¹ For an overview of SDA 2000 in relation to SDI, see US Senate Committee on Armed Services, Hearing 99-58, pt. 7, pp. 4266-4267.

²² US Department of Defense FY 1987 RDT&E Descriptive Summaries, Programme Elements numbers 63368 F, 63369 F and 63716F.