b) the relative merits of abandonment, amendment, or continued maintenance of the Treaty in its present form, and

c) the linkage between the prospective deployment of ABM defences and reductions in strategic offensive

forces.

## The Limits of Permissible Research

In the ABM Treaty itself, 'research' is not mentioned and 'development' is not explicitly defined. Prior to the SDI, there was a commonly accepted understanding which by implication defined development in relation to research and deployment. In the United States, this view was based on the 1972 Senate testimony of US negotiators, who, during the ratification hearings, suggested that development involves the field-testing of some part of an ABM system. In contrast, research involves the pursuit of theoretical knowledge. conceptual design and laboratory (as opposed to field) testing. This distinction roughly corresponds to the distinctions made by the Pentagon for budgetary purposes, and is compatible with the negotiations on the ABM Treaty, since testimony here indicated that laboratory research was considered acceptable if for no other reason than that it could not be verified by national technical means.

More recently, statements by Secretary Weinberger and other US officials indicate that field tests are contemplated under the SDI programme which are construed to be compatible with the ABM Treaty. Since Article IV of the Treaty permits development and testing of ABM systems at specified test sites (by implication to allow each side to deploy and maintain the limited ABM capabilities permitted by the Treaty), ground-based, single-shot ABM interceptors with associated radars may be tested within the terms of the Treaty. The SDI places considerable importance on these systems, primarily as a last-ditch defence of specific assets such as missile silos or command sites. but such programmes are only one element of the SDI, which, if successful, would rely heavily on air-based and space-based systems currently prohibited by the Treaty. In Congressional testimony, for example, General Abrahamson, the head of the SDI Organization, has acknowledged that certain developments, such as the airborne optical adjunct, cannot proceed far without testing, which would appear to involve a departure from the terms of the Treaty.

More generally, relying on a technical and controversial interpretation of the Treaty, members of the Reagan Administration have argued that the research and development of 'exotic' technologies (such as space-based lasers and particle-beam weapons) are excluded entirely from the Treaty. In an early authoritative public statement on this matter, Ambassador Nitze asserted that although this 'broad'

interpretation of the Treaty is correct according to the negotiating record, the Administration will abide by the 'strict' interpretation (which would construe such exotic technologies as a breakout from the Treaty) until further notice. However, more recent statements by Secretary of Defense Weinberger and others indicate that the Administration now regards the broad interpretation as the official US position, describing it as the 'legally correct interpretation' of the Treaty.

After the initiation of the SDI programme, the Soviets appeared to be suggesting a ban on all SDI research. However, subsequent statements, including some made since Reykjavik, indicate that the Soviets accept research on condition that it is not 'goaloriented'. Although there were no public explanations of the operational meaning of this statement, it is clearly reminiscent of the distinction between laboratory research and field testing discussed above. However, it must be added that, in the aftermath of the ABM Treaty negotiations, there appears to be no official Soviet statement confirming this distinction as it was explained to the Senate in 1972 by US negotiators. More recently, however, the Soviets have appeared willing to negotiate an operational definition of research. This would include permissible activities in laboratories, factories and test ranges, and possibly involve certain sub-component tests outside those designated areas. Similar proposals have been made by specialists in the United States but not, to date, by spokesmen for the Administration.

## The Maintenance of the ABM Treaty

Most Soviet statements have implied that their preference is to continue the ABM Treaty without amendment, which is to say that it is of unlimited duration, but subject to review every five years, and with six months' notice of withdrawal should "extraordinary events" so dictate. However, in June 1986 Secretary Gorbachev suggested in a letter to President Reagan that the Treaty be affirmed for a

## Proposals to Guarantee the **ABM Treaty** Gorbachev suggests 15-20 year **June 1986** guarantee with linkage to deep reductions in nuclear forces Reagan proposes 5-year gua-**July 1986** rantee plus 2 1/2 years of no deployment Both sides support 10-year guaran-Revkjavik tee, but dispute continues about permissible research and linkage during same period to elimination of ICBMs