

J119(A84)

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Proposal Abstract J119(A84)

1. Arms Control Problem:

Nuclear weapons - mobile ballistic missiles

2. Verification Type:

Remote sensors

3. Source:

Sauerwein, Harry. "Mobile ICBM and Arms Control". In Nuclear Weapons Proliferation and Nuclear Risk, pp. 169-176. Edited by James Schear. London: Gower Publishing, 1984.

4. Summary:

This article considers the countability of mobile ICBMs as a method of verification of limits established by an arms control agreement. Various possible mobile systems considered by the US Air Force are examined. These include: a multiple protective structure (MPS) system; an air-mobile system; a truck-mobile system and an off-shore submersible system. Possible Soviet mobile ICBM systems are also considered.

Concealment of the production process obviously works against the use of national technical means for verification, but the design of the American mobile ICBM production process could aid verification. An open production and assembly process, such that launchers are countable as they are produced and assembled, would facilitate verification. A controlled rate of entry of launchers into the deployment area is also important so that they can be counted as they enter and exit the deployment area. Back-up sampling of deployed launchers in such a way that location uncertainty is not compromised could serve as an additional measure, but the Soviet Union would not likely agree to this cooperative verification method.

The Soviet Union might not use the same mobile system selected by the United States, but this will not pose problems for verification. The Soviets might attempt to minimize the openness of the production process, but if they adhere to SALT II prohibitions on deliberate concealment measures in designing, developing, producing, deploying and operating a mobile ICBM system, then "the US should be satisfied" (p.175). Verification of a Soviet liquid propellant missile would be more difficult than for a solid propellant missile because the reduction in weight would permit covert transfer into MPS areas by helicopter at night or under the cover of weather. It might therefore be desirable to ban liquid propellant missiles from an MPS basing system.

The risk of a "break-out" with quickly deployed excess mobile ICBM systems should be guarded against by research and development "hedge" programs which would allow a quick reaction by the United States.