

J103(A83)

J103(A83)

Proposal Abstract J103(A83)

1. **Arms Control Problem:**
  - (a) Nuclear weapons - cruise missiles
  - (b) Regional arms control - outer space - ASATs
2. **Verification Type:**

Remote sensors - satellites  
- radar
3. **Source:**

Einhorn, Martin B., Gordon L. Kane and Miroslav Nincic. "Strategic Arms Control Through Test Restraints". International Security 8, no.3 (Winter 1983/84): 108-151.
4. **Summary:**

This article considers in detail the prospects for partial or total test bans as a means of checking technological developments in strategic weaponry. Some important issues in verification arise, both in terms of the verifiability of test bans in general, and in relation to monitoring prospects for elusive weapons such as the cruise missile.

It is acknowledged that verification has been a major obstacle in the past and has been further hindered by the closed nature of Soviet society. While verification is a necessary component of any arms control agreement, some chance of violation will always remain, so that a less than perfect or adequate level of verification must be found. Some criteria are suggested: the likelihood of successful cheating, the military and political costs of evasion and the cost of rejecting a given agreement. Finally, the means of verification should be specifically tailored to the agreement that is to be enforced. It is concluded that the outlook for verification is promising in view of the Soviet Union's increasing openness, but this optimism is tempered by the new challenges presented by the latest weapons developments.

One such weapon which is difficult to verify or monitor at the testing stage is the cruise missile. This missile has a low altitude flight which allows it to evade radar detection; it also has a small radar cross-section. The cruise missile may thus be tested on a more limited and discreet level, outside the range of over-the-horizon radars and at undesignated testing sites. This will pose a significant problem for the verification of a test ban on cruise missiles. The authors suggest, however, that one might distinguish between subsonic and supersonic cruise missiles, and it is only the former which presents insuperable difficulties for verification. "There would seem to be technical factors militating somewhat against supersonic long-range CMs, inasmuch as the radar cross-section and detectability by Doppler radar increases with increasing speed, and a faster missile (which experiences much greater drag) presumably must