Proposal Abstract J94(A84)

1. **Arms Control Problem:**
   Nuclear weapons - ballistic missiles
   - cruise missiles
   - manned aircraft
   - fissionable material "cut-off"
   - comprehensive test ban
   - research and development
   - proliferation

2. **Verification Type:**
   (a) Remote sensors
   (b) On-site inspection - selective
   - challenge
   - IAEA safeguards
   (c) Seismic sensors - intra-border stations
   (d) International exchange of information - declarations

3. **Source:**
   Stoertz, Howard Jr. "Monitoring a Nuclear Freeze". International Security 8, no. 4 (Spring 1984): 91-110.

4. **Summary:**

The author discusses the problems associated with verifying the nuclear freeze resolution passed by the US House of Representatives on May 4, 1983 (For the text of the resolution, see Congressional Record. Washington, D.C.: US Government Printing Office, May 19 1983, pp. E2389-90). He concludes that such a freeze would constrain US flexibility and that a pure, comprehensive freeze of this type is not feasible for large, existing forces. If it should ever be negotiated, however, then verification provisions should minimize areas of monitoring weakness.

American intelligence can monitor Soviet military activities well enough to satisfy national security needs and would therefore presumably be able to adequately monitor an arms agreement. The primary means of verification, national technical means (NTMs), however, cannot observe all activities. NTMs can monitor weapons systems which, because of their complexity, take a long time to build, are built in the open or are deployed at specialized facilities. Such systems include ICBM silos, submarines, bombers and anti-ballistic missile systems. NTMs are not as effective in verifying systems which are more rapidly built or are easily concealed. NTMs cannot observe activities inside buildings and covered facilities so that production is more difficult to monitor than deployment. Qualitative aspects of weapons systems are also difficult to verify. Range and payload capabilities can be altered without detection and this problem is particularly significant in the case of shorter-range systems which lend themselves to multiple uses.