Proposal Abstract J135(A77)

1. **Arms Control Problem:**
   Chemical weapons - production
                    - stockpiling
                    - destruction of stocks

2. **Verification Type:**
   (a) Remote sensors
   (b) On-site inspection - selective
   (c) International exchange of information

3. **Source:**
   Mikulak, Robert. "Preventing Chemical Warfare". In <u>Chemical Weapons</u>
   <u>and Chemical Arms Control</u>, pp. 65-80. Papers from a conference at the
   American Academy of Arts and Sciences, Boston from 21-22 January
   1977. New York: Carnegie Endowment for International Peace, 1978.

4. **Summary:**
   The author considers the effectiveness of chemical weapons and
   the defenses against them. He looks at possible methods for
   preventing chemical attack and concludes that maintaining a marginal
   offensive chemical warfare capability as a deterrent and producing
   incapacitants as a deterrent or retaliatory measure have little
   value. The best solution is to improve defenses against chemical
   attack and combine that with arms control.
   Verification of an arms control agreement which prohibits the
   development, production, stockpiling or transfer of chemical weapons
   and requires the destruction of existing stocks would be difficult.
   Remote sensing is not useful because there are no observable features
   of chemical weapons agent production and storage. On-site inspection
   would not necessarily provide a high level of assurance of compliance,
   but could be effective in the particular task of verifying the
   destruction of declared stocks. A verification regime could utilize
   the following techniques: (1) exchange of data on chemical
   production, existing stockpiles and facilities; (2) on-site inspection
   of destruction of stocks and shut-down facilities; (3) inspection of
   facilities where prohibited activities are suspected; and (4) national
   technical means of verification.
   In order to overcome the problem of verifying complete
   destruction of stocks, it would be possible to use a phased approach
   in which the prohibition might apply to all chemical weapons-related
   activities, but only for specified agents.