

Early warning satellites with infra-red sensors and 'ferret' satellites such as the Rhyolite series which can monitor flight test telemetry could monitor a prohibition on the flight testing of new or modified ballistic missiles. Sea- and land-based radio monitoring posts and observation radars located around the Soviet Union can provide coverage of Soviet missile ranges. It is not clear whether cruise missile tests can be monitored from outside the Soviet Union. A nuclear test freeze could be monitored by seismometers located around the Soviet Union assisted by early warning and reconnaissance satellites. In order to create confidence, mutually approved inspection teams could be permitted to investigate ambiguous activities.

Verification of a ban on the production of nuclear delivery systems, warheads and weapons grade nuclear material would be difficult. National technical means could probably not provide adequate verification and on-site inspection might also not be able to remove doubts. Tamper proof 'black boxes' with monitoring devices and IAEA safeguards for nuclear material production could increase the general level of confidence.

With regard to evaluating the level of confidence in verification, Stares relies on Defense Secretary Harold Brown's testimony during the SALT II Senate Foreign Relations Committee Hearings. Brown stated that the US Administration had "high confidence" in its ability to monitor the number of fixed ICBM launchers, SLBM launchers and heavy bombers. It is unclear whether this applied also to Soviet short-range nuclear missiles. Confidence would also be high for monitoring Soviet delivery vehicle testing, but, because of the difficulties associated with monitoring a freeze on production, confidence in that area would not be very high.

Provisions for national technical means of verification with associated cooperative measures could probably be negotiated without much difficulty. On-site inspection, however, would pose a significant obstacle to negotiations. Problems would be exacerbated if the freeze allowed production and deployment to replace systems and maintain forces at current levels. On the whole, an "adequately verifiable" freeze would create enough benefits to outweigh the margin of probability that militarily significant violations would go undetected.