

Through Canada's extensive work in verification, we have become recognized at the United Nations as a world leader in this subject, which is now seen to be of critical importance in the negotiation and implementation of arms limitation and disarmament agreements. In 1983, Canada launched a verification research program, with a \$1 million annual budget, which concentrates on verification techniques for seismic monitoring, chemical weapons use, and the feasibility of space-based satellite sensing. This latter is an exciting, far-seeing program.

Recently, we have begun consultations with our Allies on the possible application of research we have contracted with SPAR Aerospace of Montreal into the technical feasibility of a satellite based system of monitoring potential arms control agreements in and from outer space. This research has produced two studies. The first, PAXSAT "A," has sought to determine whether a space-based observation system could help verify an arms control agreement covering outer space. The second study, PAXSAT "B," has looked at the application of remote sensing systems, based in space, for verifying arms control agreements covering conventional weapons in a regional context. The conclusion of the PAXSAT "A" study was that space observation of an object in space could determine the role or function of the object, particularly regarding a weapons system, and that this technology was available to Canada. The conclusion of the PAXSAT "B" study was that space-based verification would fulfill some of the requirements of the verification measures expected to be in an arms control agreement governing conventional forces in Europe; that Canada's proposed RADARSAT system has the potential to provide useful information in such an arms control application; and that, again, the technology base exists in non-superpower nations such as Canada, from which the full PAXSAT "B" system could be developed later in the 1990's.

Thus, not only have we been active past and present, but the Government is already looking to the future to determine where Canada can make its input into the arms control scene.