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## SCIENCE AND TECHNOLOGY PROGRAM - USA

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licensing and control of technology exports. These revisions dramatically narrowed the longstanding "Canadian Exemption" to most US export licensing requirements. The US and Canada are working to try to restore the bulk of the exemption Canada once enjoyed. Radarsat II is one example of a prospective collaborative effort where, despite the best efforts on both sides, it has proved impossible to reconcile US export licensing and other requirements with Canadian program scheduling and financing demands.

The bilateral relationship is significantly affected by the enormous volume of two-way trade since NAFTA. Recent arrests of terrorist suspects in the United States with ties in Canada have exacerbated concerns in some quarters in the US about the vulnerability of their northern border. Security, customs/immigration and law enforcement officials on both sides of the border collaborate ever more closely and there is increasing discussion of developing a "Common North American Security Perimeter". Trade and security are inextricably connected with S&T.

### 5. Opportunities for Canada

S&T opportunities abound for Canada in the USA, but we miss 90% of them. The best effort is by individual Canadian researchers' applications for funding to the NIH. Currently, NIH funds \$48 million a year of Canadian research projects, the largest area of NIH funding outside of the USA. Britain follows with \$24 million.

NSF has a collaborative program with Mexico, for instance, where US and Mexican researchers can work in joint projects. Much collaboration is taking place between researchers in an area named the Maquila (Texas border) and researchers in the southern US states (Arizona, Texas, Georgia Tech). This has been a catalyst in driving the Mexican economy, and \$2B in R&D has been spent by plants in the Maquila area in 1998 alone. Further, the development of technically advanced industries in Maquila has created a shortage of skilled Mexican workers in this area. Mexico currently has eight colleges that are preparing to upgrade technology training for students that will be involved in technology development. Mexico also has strong collaborative links with Japan, some EU countries particularly Holland, and Puerto Rico. Mexico is encouraging the NAFTA countries to develop a tripartite collaborative arrangement for research, particularly in the area of manufacturing technology.

The Embassy in Washington continues to play a key role in encouraging Canadian S&T agencies to work more closely with US organizations that fund S&T programs. In the near future, the Embassy is arranging a meeting between NRC, NSERC and NSF, to discuss the potential for jointly funded programs starting with the manufacturing and design engineering area.

The funding situation is also a problem where Canada shares memberships in international scientific programs with the USA and other countries. An example is the ocean drilling program. Canada has historically received three times the value of contracts that we have contributed in membership fees. However, Canada has gradually reduced its funding levels and is in imminent danger of losing its membership despite efforts at cost reduction through joint membership arrangements with Australia and others countries.