

- assembling and integrating systems on particular domestic mega-projects (ADATS for Oerlikon and CPF for PARAMAX);
- supplying subsystems and components and manufacturing on a subcontracting basis for U.S. prime contractors and to a lesser extent to the U.S. Department of Defense (through the access provided by the Defence Development and Defence Sharing Arrangements [DD/DPSA]);
- providing repair, overhaul and life cycle support of defence equipment and systems for the Canadian Department of National Defence; and
- manufacturing systems and subsystems for which Canadian companies enjoy a worldwide reputation -- in other words, in technological niches where world-class capabilities are recognized (flight simulators, avionics, gas turbine engines, naval helicopter handling systems and military vehicles).³⁸

Canadian defence industry production occurs in a number of different industries, of which the main ones are aerospace, electronics, marine, vehicles and munitions. The industry's main exports fall into the categories of aerospace and electronics. Between 1983 and 1987, Canadian defence industry exports to European countries (mostly European NATO countries) totalled approximately \$1.2 billion. In comparison, U.S. industry exported US\$26.7 billion worth of goods to European NATO countries. Canadian imports totalled \$0.5 billion (compared with US\$7.8 billion for its American counterpart).³⁹ For the same period, Canadian defence industry exports to the U.S. represented about US\$5 billion and its imports were about US\$6.2 billion. This reflects the importance of the U.S. to Canadian industry.

The Canadian defence production is highly integrated with that of the U.S. defence industry. This degree of integration is explained by the Canada-U.S. DD/DPSA agreements.⁴⁰ Since the implementation of these agreements, efforts to increase this integration have been reinforced, especially since 1987. Canadian policy, in fact, is

quite clear about promoting stronger continental co-operation.

The Canadian defence industry's trade with individual European countries is handled under research, development and production agreements, and sales are usually limited to filling specific niches where the Canadian industry has a unique capability. The leading EC markets for the Canadian defence equipment industry are the Federal Republic of Germany, the United Kingdom and the Netherlands. It is with these countries that the majority of Canadian-European corporate links, in the form of ownership of subsidiaries, partnership consortia or joint ventures, are found.

For the Canadian defence industry, specialization has also been the key factor of success. Indal Technologies is the world's leading supplier of helicopter recovery systems; Oerlikon Aerospace provides overall international project management of the Canadian Low Level Air Defence (LLAD) contract; Litton Systems Canada is the world's largest manufacturer of inertial navigation systems and a leader in flat panel cockpit displays; and Canadair is a leader in the manufacture of remotely piloted vehicles. Supersonic combat aircraft design and manufacture have not existed in Canada since the cancellation of the Arrow.

Canadian Defence Electronics

The subject of the Canadian military aerospace industry having been addressed in section 1.1 a), this section discusses the other Canadian defence sub-industry that has a strong export component: electronics.

In Canada, the defence electronics industry specializes in the design, manufacture and maintenance of radio and communication material, radars for surveillance and navigation, air traffic control systems, acoustic and infrared sensors, computers for navigation and tactical fire control, electronic warfare and military communications systems, signal processors and display units, hybrid microcircuit and various electronic components, as well as auxiliary software.⁴¹

The industry sells to the military, government agencies or commercial airlines and to prime contractors for inclusion in larger defence systems.