

Colt builds the C-7 weapon used by  
Canadian soldiers in Afghanistan

# ONTARIO'S AEROSPACE & DEFENCE INDUSTRY

From military vehicles to fighter jets, Ontario companies supply key technologies not only for the Canadian Forces but for militaries around the world

BY PETER DIEKMAYER

**W**hile there is no shortage of opinions about how the defence industry is doing in the country's main regions, ask spokespeople for comments about Ontario, and you often get a puzzled look. Despite the fact that defence installations and production facilities are well distributed throughout the land, this central Canadian province is so dominant, that many just assume that Ontario is Canada.

This shouldn't come as a big surprise. Ontario hosts a third of Canada's population, generates 40 percent of the country's GDP, boasts a large number of military bases, the nation's capital, its largest city AND... a huge defence sector presence.

It should thus not be surprising that many of the key developments, challenges and opportunities that face Canada's defence sector, ranging from equipment modernization, in an era of tighter budgets, at a time of increasing calls for government to streamline procurement policies, also affect Ontario.

In fact, it is in Ontario where many of those key issues will be dealt with. A number of the country's largest defence contractors have operations in Ontario, including: **Lockheed Martin, L-3 Communications, General Dynamics Land Systems, General Dynamics Canada** and **Raytheon**.

## CADSI'S PAGE SAYS DEFENCE AND ECONOMY LINKED



Ask **Tim Page**, president of **CADSI** (The Canadian Association of Defence and Security Industries) about initiatives that would advance Ontario's industry, and he immediately begins talking in national terms. "Defence and the economy are inextricably linked," explains Page. "CADSI's recent



DEW supplies armouring kit for the GD Land Systems-built Stryker for the US Army

proposals to align defence procurement and related industrial policy, to combine responsibilities in one cabinet post and to reduce procurement process frustrations, would go a long way towards supporting the sector both in Ontario and Canada as a whole."

**Jeff MacLeod**, general manager, of **Colt Defense Canada** also thinks in national terms. "Asking anyone to comment on Ontario's defence industry's future alone is tough," admits MacLeod. "There are such vast land, sea and air, research, development and production capabilities here, that it is hard to generalize about all of the province's prospects."

For its part Colt, which manufactures rifles and machine guns for the Canadian Forces, has been doing just fine. While the recent federal budget did tighten defence spending somewhat, existing programs were kept in place. As a result, Colt's ongoing C7A1 to C7A2 modernization campaign, through which Canada's mainstay rifles, the M-16 twins, get complete inspections, overhauls and upgrades, is well underway. "Soldiers will get practically new weapons," says MacLeod with a smile. "The work is good for our near term outlook too. We are also supplying components to the Dutch Army for its rifle modernization campaign and are in the process of closing a major deal with the Danes."

## LAV III A WORKHORSE FOR CANADA'S ARMY

The major area in which Ontario and Canada's defence sector profiles overlap, is in the province's overwhelming presence in vehicle manufacturing. The good news is that that presence will likely continue during coming years says **Ken Yamashita**, manager (corporate affairs) at **General Dynamics Land Systems - Canada**. Last year the company's 2,100 employees shipped a record 1,190 of its venerable LAV II, LAV III, Stryker and other armed combat vehicles.

As if that weren't enough, new contracts continue to flow in. General Dynamics Land Systems was also named the sole source contractor on the LAV III upgrade program. The company is currently awaiting the definition contract to begin work on the program's design phase (at press date the notice had still not arrived).

Among the upgrade features that may be included in the eventual upgrade program, which could be worth as much as \$1 billion, are enhanced armor protection, enhanced firepower, new turrets, increased situational awareness and an enhanced engine and drive train to accommodate the higher payload. Two other major initiatives currently on the table, the Tactical Armored Patrol Vehicle (TAPV) and the Close Combat Vehicle (CCV) initiatives, both of which General Dynamics Land Systems wants to play a role in, could



L-3 WESCAM of Burlington, Ontario supplies surveillance gear for the Griffon operating in Afghanistan

further maintain and even increase Ontario's presence in the military vehicle sector.

Of course Ontario being Canada, defence and economics are so closely interrelated that one of GDLS's major value adds to the country is its strong export prowess. According to Yamashita, last year more than 90% of its business was in export markets, where GDLS recently got quite a boost. Late last year, the company was awarded was USD \$2.2 billion contract to supply 724 Light Armored Vehicles for a foreign military sale (though Yamashita declined to specify to which country the vehicles would eventually be shipped).

## LARGEST DEFENCE SYSTEMS INTEGRATOR

In fact General Dynamics is extremely well represented here in Canada. The land system division's sister company **General Dynamics Canada**, which also employs close to 2,000 people, bills itself as the country's largest and most established defence systems integrator. The company is active on a variety of fronts, notably as a sub-contractor to Sikorsky to select, purchase, integrate and install missions systems on the 28 CH-148 Cyclone ship-borne helicopters, which DND will start receiving by year end. The company was recently awarded a contract to provide long-term support for the CF's Land Command Support Systems and hopes to be active in DND's Joint Unmanned

Target Acquisition Systems UAV program.

The presence of major vehicle production companies such as GDLS, has spawned a range of sub-contractors to supply and support them such as **General Kinetics** a maker of specialty shocks and suspension systems for military vehicles. And, another key player is Ottawa-based **DEW Engineering**. The company's 400 employees are presently working on a range of contracts such as the Militarized Commercial off the Shelf (MilCots) program, the Medium Support Vehicle System (MSVS) truck shelter program and hopefully much more says **Bill Brewer**, the company's **Vice-President (Defence)**.

About half of DEW Engineering's employees are based at its Miramichi, New Brunswick facility, where much of its armour improvement work is done. For example late last year, the company won an impressive \$39.5 million contract to supply GDLS with ceramic composite hull armour kits to be used on Strykers for the US army.

According to Brewer, DEW Engineering is not resting on its laurels. "DEW is well positioned to participate on a variety of upcoming DND programs," said Brewer. "These range from the Close Combat Vehicle (CCV), Tactical Armored Patrol Vehicle (TAPV) and MTV initiatives to the Leopard Tank repair and overhaul. The number of jobs that will accrue to Ottawa will depend on the overall

scope of DEW's work as well as the portion that can be handled at our Miramichi facility."

## AEROSPACE SECTOR LOOKS GOOD

Ontario's strength in vehicle manufacturing does however have a price attached: to balance things out a bit, governments have tended to favor aerospace investments in Quebec, its sister province. Ontario isn't totally out of the game. Far from it. **Richard Aboulafia**, a forecaster with the **Teal Group**, expects delivery of commercial and business jets to increase by approximately 50 percent between now and 2018, and Ontario is in a strong position to profit from that trend.

According to the **Ontario Aerospace Council**, prospects for its members look good, particularly in the defence sector. "Many (Ontario companies) have significant positions in key programs, such as the **Lockheed Martin** F-35 Lightning II Joint Strike Fighter," noted **Rod Jones**, the council's **Executive Director**. "The positive impact of new programs can be seen in companies like **Centra Industries**, which manufactures structural wing and landing gear components for major commercial and military programs."

**Messier-Dowty** also continues to benefit from strong military sales, due to increasingly ramped up work contracts on the **Bell-Boeing** V-22 program and Toronto-based **Vector Aerospace** also reports strong growth in the maintenance, repair and overhaul market.

## L-3 WESCAM HAS GEAR ON GRIFFONS IN AFGHANISTAN

One way that Ontario companies have managed to stay in the game is by specializing in niche markets, such as air-based information, surveillance and reconnaissance (ISR) systems. One such player is L-3 Wescam, which through the INGRESS (Interoperable Griffon Reconnaissance Escort Surveillance System) program, installs surveillance and targeting turrets and video data links in the CH-146 Griffon helicopters.

These helicopters play a crucial role in supplying aerial firepower, reconnaissance and search and rescue services in support of Canadian forces in Afghanistan, as well as in backing up the country's recently purchased Chinook CH-47D helicopters. L-3 Wescam also supplies MX-20 turrets for the CP-140 Aurora fixed wing maritime patrol aircraft

Another increasingly important supply chain niche is filled by a company with a large Ontario footprint. **Raytheon's ELCAN** operation in Midland, Ontario supplies optics and



GD Land Systems – Canada sells its military vehicles to foreign militaries as well

sights for a variety of weapons including the C7 carried by Canadian soldiers in Afghanistan. And Raytheon's Waterloo operation builds radar systems for countries around the world. The company also supplies maritime radar systems, missile and smart projectile systems, such as the TOW guided missile and the Excalibur 155 caliber round, the CF-18's radar and electronic warfare kits, all the way down to rifle and machine gun scopes.

### NEPTEC URGES GOVERNMENT TO BUY CANADIAN



Iain Christie, president of high tech company, Neptec says government should have a "buy Canadian" policy

Although the Ontario defence industry's main focus is on land and air capabilities, one company **Neptec Design Group** also markets some space based applications. The company's TriDAR advanced docking system, which helps orbiting space ships get closer and attach to each other, so they can move personnel and equipment back and forth amongst the craft, was recently re-tested on the STS-131 Shuttle Discovery mission. The system uses 3-D imaging and lasers to facilitate the process.

However, despite the fact that Neptec's main facilities are in Ottawa, its **President Iain Christie** too, admits to having more of a national rather than a provincial focus. "I think primarily in terms of the Canadian not Ontarian defence industry," says Christie. "It's a bit normal. We export a lot, and on the international stage we are always identified based on what country we come from."

Neptec has recently been working to leverage its space work into other areas such as counter-IED work and helicopter operations. Last year the company demonstrated its Obscure Penetrating Autosynchronous LIDAR (OPAL) sensor, which it integrates into CAE's Augmented Visionics System (AVS). These systems are designed to enable helicopter pilots to operate safely in the most extreme conditions.

That said, despite getting funding and

developing many capabilities here in Canada, Christie, in comments echoed by many industry players, complains that many were initially sold in the US market. "The Canadian government should provide better support to Canadian companies," he says. "While they help to finance and support research and development of new technologies, they should also be the first to go out and buy them," says Christie. "But too often, we have to first develop other markets first, before we can gain acceptance here at home."

However, despite the Ontario defence sector's considerable successes, its future remains open to question. Brian MacDonald, an analyst with the **Conference of Defence Associations** puts an optimistic spin on things.

"While it is true that the recent treasury board decision to ask for 5 percent across the board cuts in defence spending does create some uncertainty, when you balance that against overall and supplementary spending increases that were announced in the recent federal budget and its previous 20 year procurement plan, things don't look nearly so bad," said MacDonald. "They are certainly much better than they were ten years ago." ■

---

*Peter Diekmeyer is CDR's Quebec Bureau Chief.*

---