In a reversal of the usual roles of corporate subservience, this Canadian war industry has subsidiaries in the US. In terms of military revenues, CAE is Canada’s top war industry. It leads the world in computer simulation and modeling technologies used for military flight training.

CAE’s flight simulators are, in effect, the world’s most realistic war games. Besides training pilots, bombardiers and other crew in warfighting skills, they also provide “mission rehearsals” to prepare warriors psychologically. By repeatedly simulated attacks, warriors can more easily conduct real bombing sorties when ordered.

CAE products are also used to design and evaluate major weapons systems, such as Boeing’s “Ballistic Missile Defence” weapons.

This Montreal-based company ranked within the world’s top-100 war industries every year between 2000 and 2009. (Only one other Canadian firm, DY4 Systems, ever even made it on to this list.) With military revenues reaching US$851 million in 2010, CAE now holds 72nd place, down from its highest position ever, 61st place, in 2001. CAE contracts with the US government totalled US$571 million between 2000 and 2009. Of these, 99.9% were military related.

CAE has a global network of 24 aviation training centers which use more than 115 full-flight simulators. It trains 50,000+ crew members annually, including pilots, weapons specialists and technicians. CAE flight simulators are used for the RQ-1 “Predator” drone as well as for many varieties of military helicopters (including the AH-1, AH-64, CH-46, CH-47, CH-53, MH-47, MH-60, UH-1 and UH-60) and warplanes (such as the A-10, AV-8, C-130, E-3, EA-6B, EC-130, F-15, F-16, F/A-18 and Lynx.)

Israel’s Ministry of Defense says the CAE flight simulator that they use to train UH-60 and CH-53 helicopter crews, is among “the most advanced trainers of its kind.” It provides “pre-mission preparedness training including mid-air refueling, dust landings, collaboration with naval vessels, payload hoists and low altitude flights.” Israeli pilots used UH-60s and CH-53s to attack Lebanon (2006) and Gaza (2008-2009). In 2010, UH-60s dropped commandos onto a civilian ship bringing aid to Gaza. Nine passengers were killed and dozens were injured.

CAE continues to expand its longstanding partnership with Israel Aircraft Industries (IAI) to develop training solutions. For example, in 2009, CAE and IAI finished developing a comprehensive mission system to train sensor operators and mission commanders how to operate Unmanned Aerial Vehicles. (See image above.)

IAI used CAE’s “STRIVE” simulation framework to build the CORAL system, “a comprehensive suite of simulation software tools,” which military commanders use to generate and evaluate complex battlefield scenarios involving numerous warplanes, weapons and other assets.

In August 2011, CAE “signed a strategic teaming agreement” to become “the preferred simulation and mission training solution provider” for Aeronautics Defense Systems (ADS), an Israeli manufacturer of Unmanned Aerial Vehicles (UAV). ADS also conducts “all-inclusive operational missions for the Israeli Defense Forces.” (See Bank Hapoalim, pp.10-11.)

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