



Canada's ISSP Plans

Major Bruno Turmel, Project Director, ISSP and Lieutenant Colonel Jacques Levesque, Project Manager, ISSP outline progress as the programme moves toward issuing a Request For Proposals for early to mid 2010

Canada's Soldier Modernisation Programme, the Integrated Soldier System Project (ISSP) has received funding after Treasury Board approval in July 2008 and the focus is now very much taking the project forward for fielding over the time-frame of 2012-2018.

Moving to the nuts and bolts for the procurement process for ISSP, Lt.Col. Levesque continued, "The RFP is to be issued in early to mid 2010. It is a very aggressive time line. Our concept is of a performance based, best value competitive contract for the industry project integrator for our first contract. [We want] progressive builds within each of the three cycles during the life of the project, bringing into service what is available now it avoids maturing technologies. As we are fielding the first version, we will also be working on the definition of and doing the system engineering for the second version. The first system integrator will be contracted for cycle 1 and 2. We will rebid the project for cycle 3."

Canada's efforts in soldier modernisation really began with the Integrated Protective Clothing and Equipment Technology demonstrated initiated in 1995 but subsequently cancelled, due to high systems cost and failure to meet some of the requirements. R&D to focus the programme with an underlying human factors emphasis became the mantra for Canadian soldier system modernisation.

Maj. Turmel, the ISSP Project Director sees value in the early R&D process, in terms of lessons learned, not least, "From there we gained in experience and looked more to the 'Why' rather than the 'What'."

The human factors based approach has been axiomatic of a range of subsequent Technology Demonstration activities and other research and development work to address the underlying capabilities that might be addressed for the soldier. This work continues with increased focus through the recent introduction of an R&D road mapping timeline initiative to guide and co-ordinate this work.

Maj. Turmel said, "From the Road Map we are looking to identify when new capabilities will be available." He added that in the next 10-15 years this will be used to support the procurement of close to C\$2 billion in project funding in support of soldier modernisation.

Much of the three-cycle ISSP project will fall within the coverage of the Roadmap's 'Influence Zone', which will be over the next three to 15 years. Other programmes affected include the Future Combat Uniform, Small Arms Replacement Project (SARP) II and ISSP's successor: Soldier System 2020. However, while the second and third cycles of ISSP are covered, the Technology Freeze Point of ISSP Cycle 1 and Sniper Systems programme has already occurred. The Technology Road Map is being guided by the Canadian Forces and supported by Canadian industry, the Defence Research and Development Canada and other government Departments and academia.

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Pre-dating ISSP is the key soldier project now in service; The Clothe Soldier Project (CTS). This project, with additional capabilities fielded in small quantities in Afghanistan, has been identified as Clothe the Soldier Plus and it is this baseline that has defined as Level 0 Soldier System for ISSP. The CTS project produced significant improvements in two key areas: Survivability with a new helmet, ballistic protection, clothing and personal equipment and the new Canadian Disruptive Pattern (CADPAT) camouflage and Sustainability/Mobility with new load carriage equipment.

CTS + complements this work by addressing C4I and Lethality, which have served to produce significant increases in operational tempo in Afghanistan. New equipment includes AN/PVS-14 night vision goggles, thermal binoculars and weapon sights and Personal Role Radios. For lethality, troops have received close combat non-lethal systems and a Midlife Small Arms optimisation programme, designed to improve performance in complex terrain.

Maj Turmel said, "The Clothe the Soldier Project is successfully in theatre in Afghanistan. This will push forward into the ISSP and other projects. All these projects then push forward to the Soldier System 2020."

The current systems are not without their issues, common to all countries deployed in Afghanistan today. The new equipment requires a minimum of 17 batteries – 15AA and two CR123 plus a few more as back up. Maj. Turmel also said, "We still have a weight problem." Loads in theatre are reaching as high as 37Kg in temperatures above 40 degrees.

The value of the complete three cycle ISSP programme is put at C\$310 million with each cycle providing for two Task Forces each in operational deployment, pre-rotational certification and training phases.

The reason for the three cycles is maturity of technology with cycle three completing the target equipment/capability set. Major Turmel said, "We know that not all capabilities that we are looking for are mature within the marketplace. Our aim is to have a fully mature and fielded system by the end of Cycle Three." Our end state is that we will not only have a more capable soldier but we will also have the networked rifle section that will be a force multiplier in the battlespace."

Three variants are being acquired: Assaulter, Commander and Supporter. Maj Turmel said, "When we look at the Commander system, he will have the same capability as the Assaulter but we will give him better C4I at higher levels." The Commander's additional C4I equipment may well include a tablet sized device for Platoon commanders and above which in addition to situational awareness (SA), will provide planning and briefing functionality. Section commanders are likely to receive a Personal Display sized devices for SA. The Supporter variant will likely use a Clothe the Soldier + baseline, with C4I systems for limited voice and data radio, GPS and BCID support. Should increased capabilities with weight and volume reductions become available in the future in terms of survivability, these would also be incorporated in the soldier system suite.

Lt. Col. Levesque, ISSP's Project Manager, addressed what he sees as the fundamental requirement for the system, "There is simply no way that I can field something that doesn't have field soldier acceptance." ■

Soldier Systems Technology Roadmap

March 19 2009: Kick-off at Army Outlook Day (Ottawa)

May 25-26 2009: Visioning workshop (Ottawa)

July 2009: Power/Energy (Vancouver)

September 2009: Lethality/Weapons (Toronto)

November 2009: Survivability/Clothing (Quebec)

Jan/Feb 2010: C4I/Sensors (Calgary)

March 2010: Integration and joint projects (Ottawa)

May 2010: Final Workshop (Ottawa)

June 2010: TRM Final Report

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