

Leopard 2 - Tank Variants Summary

As of: 21 Feb 11



Leopard 2A4

- Developed in mid-1980's. Is the base model from which all other Leopard 2 tank are derived
- Weight - 56 tonnes
- Width - 3.7m
- 120mm L44 main gun
- Hydraulic turret drive
- Commander has day-only hunter/Killer sight (PERI 17A1)

2A4 Crew Commander's Station



PERI 17A1



Leopard 2A4M

- Developed in 2009 (only in service with Canada)
- Weight – 62.5 tonnes
- Width – 4.05m (including Add-on Armour)
- 120mm L44 main gun
- Electric turret drive (digital)
- Mine protection enhancements (including driver's swing seat)
- Improved side add-on-armor
- Commander has same PERI 17A1 sight as on Leopard 2A4
- Crew Commander's control boxes integrated into digital display (CSCU)

Integrated Commander's System Control Unit (CSCU)



Leopard 2A6M

- Developed in 2006
- Weight - 63 tonnes
- Width – 4.24m (3.75m without slat armour)
- 120mm L55 main gun (1.3m longer than L44)
- Electric turret drive
- Mine protection enhancements (including driver swing seat)
- Slat armour – side protection
- Commander has day/night hunter killer sight (PERI 17A2) integrated into monitor display

Commander PERI 17A2 Monitor



Driver's swing Seat

- Part of mine protection
- Driver seat is suspended from the ceiling with no hard connection to the floor

Conversion Trg

- Leopard 2A4 will form basis of trg
- Once qualified on any Leopard 2 variant, conversion trg to any other variant is estimated to be 2 – 3 days with no live fire

PERI 17A2



Proposed Distribution

Location	2A4M	2A6M	2A4	Total	ARV
Fenced	4	-	-	4	1
Ops Stock	-	-	-	-	-
Reference	1	1	1	3	-
Borden	1	1	1	3	1
Gagetown*	5 (2)	7 (2)	20 (9)	32	4
Edmonton	9	11	20	40	4
Total	20	20	42	82	10

*Numbers in brackets denote tanks allocated to the Armour School – total 13

Leopard 2 – Training and Simulation



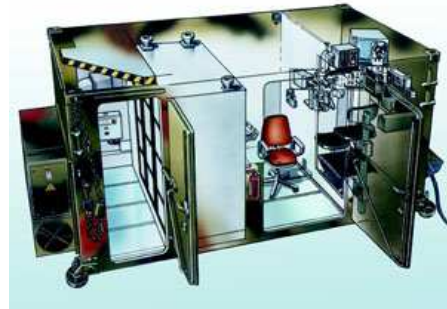
Turret Crew Procedures Trainer (TCPT)

- Complete functioning mock-up of Leopard 2A4 turret interior
- **2x TCPT will be fielded in Fall 2011**
- 360o traverse (24 ft safety diameter)
- Enables entire crew to practice complete engagement procedure (not linked to any synthetic environment)
- System uses 120mm dummy ammunition and gun will go through complete recoil cycle
- Instructor interface enables faults to be input into the system to train crews to fight the tank in degraded modes
- Additional seating allows other student crews to observe training



Turret Operator Trainer (TOT)

- Functioning Leo 2A4 turret on a turret stand which allows for 360o traverse (35 ft safety diameter which may be reduced by limiting degree of traverse)
- **4x TT will be fielded in Fall 2011**
- Enables crew to conduct dry training without using an actual tank (Fire control system is functional but system will not replicate recoil cycle nor will the instructor be able to inject faults that allow crew to train in degraded modes)



Leopard Gunnery Systems Trainer (LGST)

- High fidelity Leopard 2A4 gunnery simulator to train gunner and crew commander target engagement techniques (replacement for in-service Leopard Crew Gunnery Trainer –LCGT)
- **11x LGST will be fielded in Aug 12**
- Enables crew to train the full spectrum of threats and mission scenarios in numerous weather and climactic conditions
- Instructor is able to closely monitor training, input system faults and collect data for After Action Review (AAR)

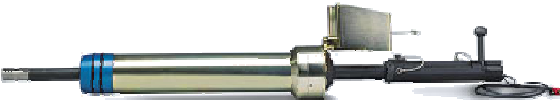


Land Vehicle – Crew Training System (LV-CTS)

- Simulation facility will allow combined arms tactical training up to combat team level. Similar to US Army Simnet or Combined Arms Tactical Trainer (CATT).
- **Fielding to begin not before 2015**
- Facility will include high fidelity simulators for LAV III, Leo 2A6M and CCV with a suite of medium and low fidelity simulators for other vehicle platforms such as TAPV
- Completely separate from Tank Project. There are currently no plans to integrate TCPT, TT or LGST in the LV-CTS Facility. LV-CTS will field its own Leo 2A6M crew simulators.
- LV-CTS facilities will be built in each of the four major training base including a smaller facility in Shilo.

Sub-Calibre Training Device (SCTD)

- Training system which is inserted into the barrel and enables crew to train certain live-fire engagements with significant cost savings over using 120mm trg ammunition though it is limited to engagements at a max range of about 1700m
- Can be used during all phases of training including collective training
- Project will field 11x SCTD in Aug 12



Driver Station Mock-up

- Enables students to learn components and basic procedures. Instructor interface enables instructor to introduce faults and train students on trouble shooting techniques.
- The system is not linked to any simulation or motion based platform
- The Project will field 2x driver station mock-ups in Aug 2012



Note: Not included in this summary, the Tank Project will also field one bare Leo 2A4 hull (no turret or powerpack) to the Armour School for use as a static training aide on driver training

Proposed Distribution

Location	TCPT	TT	LGST	SCTD	Driver Mock-Up
Edmonton	1	1	4	5	1
Gagetown	1	2	5	5	1
Petawawa	-	-	1	-	-
Valcartier	-	-	1	-	-
Borden	-	1	-	1	-
Total	2	4	11	11	2