



Subsidiary of LOM PRAHA

## Aero Vodochody Family

Aircraft Simulators



# L-39 & L-159 Simulators

## Desk Top Trainer (DTT)

### System description

This real-time PC-based part task trainer was designed as a training aid for familiarization with cockpit and avionics, basic crew station and weapons operation. The main instrument panel, controls and displays are graphically depicted on the computer monitor. The trainer includes a high-fidelity replica of aircraft stick and throttle grips for the most effective training.

### DTT training tasks

- Basic familiarization with the cockpit, instruments and control elements
- Selected pre-flight, thru-flight and post-flight preparation
- Selected ground checks as per pilots check list
- Engine start-up/shut-down
- Simulation of selected failures and emergencies



## Cockpit Procedure Trainer (CPT)

### System description

The CPT provides new generation, low-cost training for L-39/159 pilots at squadron locations. It can be used as a more comfortable version of the DTT or a more economical version of the UTD. The trainer enables safe flight training and weapon operation systems practice, including training in normal and emergency procedures, instrument flight, and employment of tactics and self-defence.

### CPT training tasks

- Basic familiarization with the cockpit, instruments and control elements
- Pre-flight, thru-flight and post-flight preparation
- Ground checks as per pilots check list
- Engine start-up/shut-down
- Instrument flights
- Simulation of failures and emergencies



## Unit Training Device (UTD)

### System description

The UTD provides new generation, low-cost training for L-39/159 pilots at squadron locations. The trainer enables safe flight training and weapon operation systems practice, including training in normal and emergency procedures, instrument flight, and employment of tactics and self-defence. The cockpit controls and indicators exactly match those of real aircraft and provide the necessary cues for effective training. The simulator is designed to operate in a standard office environment and is easily transportable.

### UTD training tasks

- Normal and emergency training
- Instrument training – out-the-window visual
- Air-to-ground weapons employment
- Air-to-air weapons employment



## Full Mission Simulator (FMS)

### System description

The Full Mission Simulator allows reproduction of any kind of training exercises taught on actual L-39/159 aircraft. It has a full-spec L-39/159 front cockpit mounted under a dome display with multi-channel high-resolution displays. The simulator provides low-cost and safe simulation of weapon use. It is suitable for all training phases, from basic training to tactical training in complex scenarios and complex aircraft handling.

### FMS training tasks

- Familiarization with the cockpit, instruments and control elements
- All ground checks as per pilots checklist, including control of engine, on-board systems and other equipment (both normal and emergency)
- Taxi, take-off and landing (both VFR and IFR)
- Control of aircraft in flight within the scope of pilot's manual (both VFR and IFR)
- Navigation flights with use of navigation equipment of the aircraft
- Communication with air traffic control sites
- Practising and testing all emergency procedures and the procedures which are impossible to practise in the real aircraft
- Weapon employment



# TSC Configurations

The purpose of the Tactical Simulation Centre (TSC) is to provide the Air Force (AF) with a universal platform for simulated tactics training of pilots, commanders and ground staff (mainly GCI and FAC).  
The cockpit configurations include among others L-39 and two versions of the L-159 aircraft.

- The TSC allows training up to eight pilots, two GCI operators and one FAC operator under the supervision of an instructor; either all together, or in various separate groups.
- Modular, open and highly customizable architecture allows tailoring the system in accordance with current and future needs of the air force.
- All main controls and displays are simulated via touch screen.
- The cockpit is equipped with a fully functional replica of the HOTAS.



## L-39NG Ground Based Training System

VR Group actively participates in development of the new generation L-39 aircraft simulation system for ground based training. Just like the real aircraft, the simulation system brings high-quality yet cost-effective training tools, which meet all the requirements of the fighter pilots training.

