Tactical missiles can strike and intercept targets on land, in the air and at sea.

NATO needs to maintain a capability edge over potential adversaries with new and upgraded missile systems.

Concept definition is the first step towards a new missile system. Mission requirements will determine the size and performance of a system. Both are strongly related to the type and size of the propulsion sub-system.

Currently, to perform conceptual design, military users, procurement agencies and defense contractors in NATO nations use individual proprietary models and different data bases. This leads to non-consistent results and is hindering collaboration.

Watch the video!
The students learn how to select a surface or air-launched mission trajectory and define the size and shape of a missile body. They learn how to define the appropriate propulsion system choosing between:
- a Solid Propellant Rocket motor, which is still the most common choice today.
- a Throttleable Ducted Rocket, an advanced air-breathing system for missions demanding long range and sustained high speed.
- or potential future candidates for tactical missile propulsion like a rocket motor with gelled fuel, a hybrid rocket motor or a Solid Fuel Ramjet.

The model provides consistency and interoperability in defense planning studies and can eliminate barriers for collaboration. It allows the user to create basic design of a tactical missile with a choice of different propulsion subsystems. In addition, the code offers an option to apply Thrust Vector Control and has an easy to use Graphical User Interface.

Locations and times:
- 04 – 06 June 2019
  NATO School Oberammergau
  Oberammergau, DEU
- 27 – 29 August 2019
  NATO Joint Warfare Center
  Stavanger, NOR
- 10 – 12 September 2019
  German Aerospace Center (DLR)
  Washington D.C., USA
- 17 – 19 September 2019
  Lancaster University Center
  Lancaster, CA, USA

If you are interested in attending the course or would like to request any further information, please contact Dr. Norman Hopfe via eMail AVT-236@mbda-systems.de or visit the NATO STO Webpage: