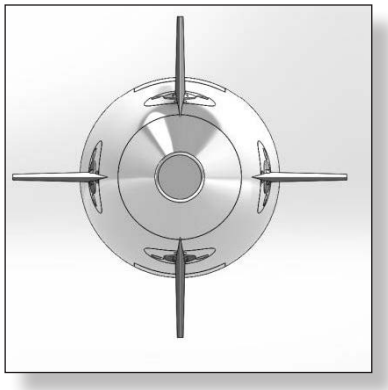
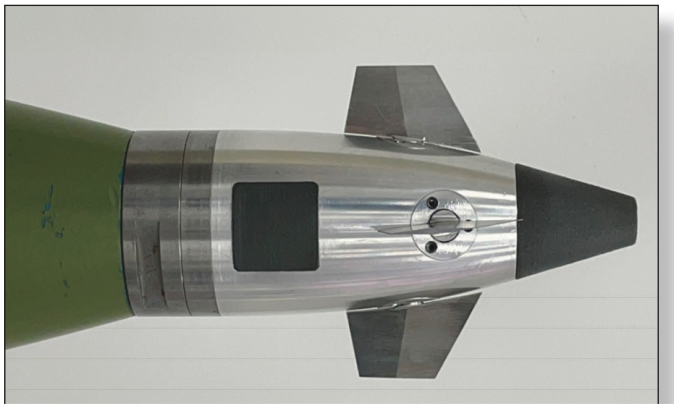
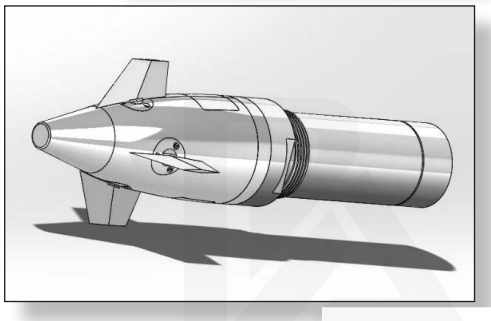
155 mm, COURSE CORRECTION FUZE

Artillery fuzes

The CCF enables 2D correction of the projectile trajectory, i.e. reduces the hit dispersion in both range and deflection, facilitating a CEP of 20m at any range.

Reduction of range of the projectile due to replacement of its conventional fuze with the proposed CCF is not more than 10%.

- Ballistic Computer – as part of a more complex digital computing platform which encompasses various sensors with processing capability in order to calculate the elements of fire and the details of the requested projectile trajectory with the best attainable degree of precision and accuracy, knowing the meteorological and ballistic data.
- Mission Parameter Setter Unit / Mission Programmer unit – the physical device intended to convey the data of the reference trajectory and target parameters from the Ballistic Computer to the weapon or its Course Correction Fuze.
- CCF device – a device mounted on the projectile instead of the conventional fuze, which turns it into a much more precise weapon. It contains an on-board computer, actuators, GNSS receiver, inertial navigation system, sensors as well as movable aerodynamic control surfaces. By implementing automatic guidance, the device is able to modify the flight path by reading its own current position, reached due to the influence of the environment, and all for the purpose of hitting the predefined or indicated target.

TECHNICAL DATA:

- System description — Fuze for 155 mm artillery rounds
- Functionality — Course correction; proximity or impact or variable time delay fuze
- Positioning — INS + GNSS
- Actuators and control surfaces — controllable canards, actuated by motors
- Maximum acceleration and flight speed — 20,000 Gs (5ms), 3M
- Range — 90-95% of standard projectile range
- Precision — <20 m