

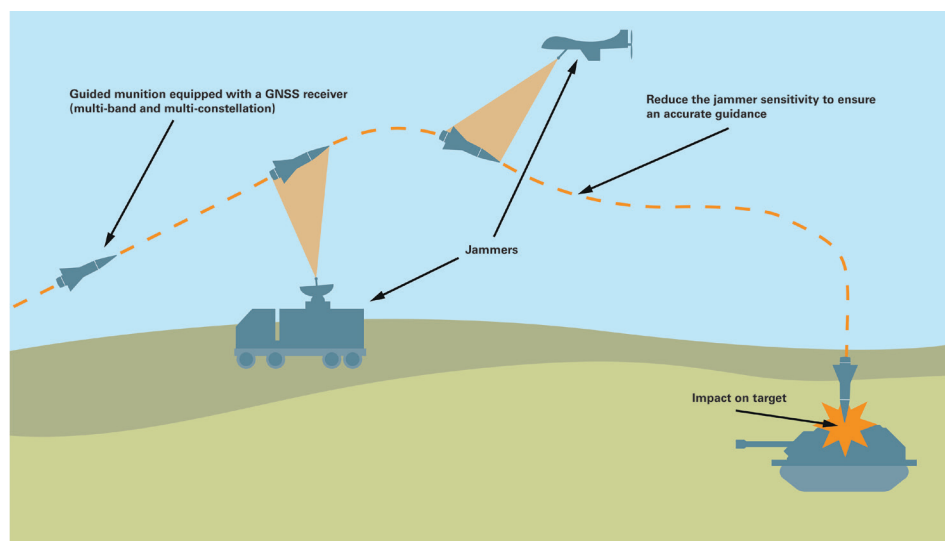
Combination of two distinct and autonomous components

1. Circular antenna sub-arrays
 - Switching of antennas within each annular sub-array according to the roll position in order to reject ground-based jamming and spoofing signals
 - Frequency independent solution of spatial filtering
 - Suitable for civilian and military signals
2. Software Defined Radio receiver (SDR):
 - 2 to 4 entries
 - Dual-band GNSS reception (L1/L5 or E1/E5)
 - Identification of spoofing signals
 - Rejection of jamming and spoofing signals through conventional spatial filtering

Duration of the project: 12 months

Objectives of the project:

- Outdoor testing of robust GNSS reception on spinning bench (30 Hz)
- Laboratory testing of rejection capacities through conventional spatial filtering (SDR) and switching with the projectile roll position
- Preparing industrialisation phase



Technical features

- Adaptation of CRPA antennas to 155 mm projectile (or smaller caliber)
- Novel solution combining two independent components:
 - Annular antenna sub-arrays for switching according to the roll position
 - Software defined GNSS radio receiver with capacity to identify and reject jamming signals through spatial filtering

Applications

- Software defined GNSS radio receiver:
 - Civilian and military vehicles
 - Infantry soldiers
 - Secured time
- Switched annular sub-arrays:
 - Guided munitions
 - Cylindrical/conical platforms
 - High dynamic platforms

References

AID funding
Partners: FEMTO ST, ISL,
Gorgy Time



GORGY TIME

