

AIR-TO-SURFACE

GNPP Region develops thermobaric variant

The GNPP Region Joint Stock Company – part of the Tactical Missiles Corporation (Takticheskoye raketnoye vooruzheniye) – has developed a thermobaric version of its KAB-500Kr guided bomb, writes **Miroslav Gyürösi**.

The weapon was displayed at the recent MAKS 2007 exhibition and is now being marketed. The new KAB-500-OD is same size as the original high-explosive KAB-500Kr and is guided by the same pattern of television seeker. It weighs 370 kg and contains a thermobaric warhead section weighing 250 kg.

Intended for use against ground targets like fire positions and troop formations, it can be dropped from aircraft flying at speeds of between 550 km/h and 1,100 km/h and at altitudes ranging from 1,600 ft to 16,000 ft. It has a circular error probable of 4 m to 7 m and detonation is initiated by a contact fuze.

Miroslav Gyürösi: 1290487



> The new KAB-500-OD guided bomb is 3,050 mm long, 350 mm in diameter and has a tail span of 750 mm. The same size as the high-explosive KAB-500Kr, it carries a thermobaric warhead.

STRATEGIC & SUB-STRATEGIC

RS-24s set to receive penetration aids, MIRVs

Improved penetration aids and multiple independently targetable re-entry vehicles (MIRVs) are to enter service on Russian ballistic missiles, writes *David C Isby*.

These payloads will be tested and placed in service by 2010, according to statements by Colonel-General Nikolai Solovstov, commander-in-chief of the Strategic Missile Forces.

He linked these improvements with the RS-24 intercontinental ballistic missile (ICBM) tested on 29 May. This is a version of the current Topol-M (SS-27) ICBM equipped with MIRVs rather than the normal single-warhead payload.

Gen Solovstov stated that the RS-24 test programme would require “no more than five” additional launches. He also suggested that the new penetration aids could be retrofitted to the single-warhead Topol-M.

SURFACE-TO-AIR

SRTZ-2TM protection system offers anti-radiation missile defence

The SRTZ-2TM (stantsiya radiotekhnicheskoy zashchiti) self-protection system, offered as an optional part of Tetraedr's S-125-2TM Pechora-2TM upgrade of the S-125M Neva-M (SA-3 'Goa') surface-to-air missile system, is intended to protect the battery's SNR-125-2TM tracking and guidance radar from attacks by anti-radiation missiles (ARMs), writes **Miroslav Gyürösi**.

It is intended to deal not only with basic ARMs, which rely solely on passive-radar homing, but also with missiles that incorporate an integrated inertial/GPS guidance system allowing the attack to continue if the target radar shuts down or switches to a blink operating mode.

The SRTZ-2TM is housed in a shelter mounted on a MAZ-6317 truck chassis. It has a crew of two.

Powered by a built-in 20 kW diesel-powered electrical generator, it is self-contained and able to be deployed or prepared to move in no more than five minutes.

The main parts of the SRTZ-2TM are:

- a receiving antenna installed under a plastic cover in the side wall of the shelter;
- a subsystem able to analyse the signal being radiated by the radar to be protected, then generate a suitable MOS (maskiruyushe-otvlekayuschiy/cover-up and decoying) signal;
- an automatic frequency-tuning subsystem;
- a waveguide assembly used to direct the output of a jamming transmitter to an amplitude and phase-control subsystem, then to the system's antennas;
- a subsystem that pressurises the waveguide system with air from a compressor;
- a unit that displays the relative positions of the SNR-125-2TM and SRTZ-2TM and controls the decoy signals; and a recording

system able to monitor and store the system's response to an attack.

The SRTZ-2TM station is intended to actively mask the SNR-125-2TM guidance radar by creating a 'phantom' radiation source to lure the incoming ARMs. This false target is positioned far enough away from the SNR-125-2TM radar to ensure that the latter is outside the destructive range of the ARM's warhead.

Two antennas emit the coherent radiation needed to create the false target. One is mounted on the roof of the SRTZ-2TM shelter; the other is at the end of a 5 m-long horizontally orientated telescopic mounting.

When the vehicle is in storage or on the move, this mounting is stowed in the side of the shelter. It is extended when the system is being prepared for action. Both antennas offer full 360° azimuth coverage at elevation angles of 15–80°.

The basic components of the SRTZ-2TM have been tested in what Tetraedr described as “real” conditions. The predicted protection efficiency – the chance that the SNR-125-2TM radar will survive an attack – is estimated as 95 per cent for an attack made using one AGM-88 High Speed Anti-Radiation Missile (HARM), 93 per cent for a two-missile salvo attack, or 90 per cent for a four-missile attack.

The survival probability for the SRTZ-2TM would be 93, 92 and 90 per cent for the same types of attack.

The architecture of the SRTZ-2TM was devised to allow future upgrades to cope with new types of ARM, modernised versions of existing ARMs, or future missiles that combine traditional passive radar homing with imaging infrared or active millimetre-wave seekers.

Tetraedr: 1290478



> A single vehicle-mounted SRTZ-2TM decoy system can protect a SAM site from attack by anti-radiation missiles.