T38 STILET

Air Defense Missile System

Scientific Industrial Unitary Enterprise
TETRAEDR

T38 STILET ADMS

The *T38 STILET* Air Defense Missile System (ADMS) is designed to defend Army units, industrial and military installations from all types of aerial attack assets flying at low and medium altitudes and possessing the RCS of 0.03 m^2 and above. The *T38 STILET* ADMS provides acquisition and identification of targets on the move and at halt, as well as engaging the target with one or two missiles from a short halt or from a stationary position. The total independence and mobility of the system is achieved by installing the control equipment and the missiles on the same cross-country wheeled chassis.

COMPOSITION

The *T38 STILET ADMS* comprises combat and technical support assets:

Combat assets composition:
- *T381* Combat Vehicle *(CV)*;
- *9M33M2(3) / T382* Surface-to-Air Guided Missiles *(SAM).*

Technical support assets composition:
- *T383* Transportation and Loading Vehicle *(TLV)*;
- *T384* Alignment Vehicle *(AV)*;
- *T385* Maintenance Vehicle *(MV);*
- The *T386* automatic mobile check-up and testing station *(AKIPS)*;
- The *T387* ground equipment set *(GES)*;
- The *T388* automotive equipment maintenance vehicle *(AE MV)*.

COMBAT ASSETS

T381
COMBAT VEHICLE

9M33M2(3) / T382
SURFACE-TO-AIR GUIDED MISSILES

TECHNICAL SUPPORT ASSETS COMPOSITION

T383
TRANSPORTATION AND LOADING VEHICLE

T384
ALIGNMENT VEHICLE

T385
MAINTENANCE VEHICLE

T386
AUTOMATIC MOBILE CHECK-UP AND TESTING STATION

T387
GROUND EQUIPMENT SET

T388
AUTOMOTIVE EQUIPMENT MAINTENANCE VEHICLE

COMBAT VEHICLE

The *T381* combat vehicle *(CV)* is the key asset of the ADMS.

The *CV* is mounted on the *MZKT-69222* self-propelled chassis with a powerful diesel engine, navigation, map-positioning, life-support, communication and power-supply equipment.

The *T38 STILET* ADMS can be transported with an airplane of the *IL-76* type and by railroad within *02-T* clearance limit.

The T381 CV equipment includes:

- Radars:
  - ° Target Acquisition Radar;
  - ° Target Tracking Radar;
  - ° two-channel Missile Sighting Radar;
  - ° two-chanel Command-Transmit Radar.
- Digital Master Computer;
- Combat Crew's Automated Workstations;
- Automatic Launch System and Launch Device;
- Functional Check and Combat Crew Training Equipment;
- Electro-Optical System;
- Electric Power Supply System;
- Air Conditioning and Heating System;
- *MZKT-69222* self-propelled wheeled chassis.

The CV crew comprises four men.

Combat Crew Workstations

T381 Combat Vehicle with 9M33M2(3) SAM – 6 pcs.

T381 Combat Vehicle with 9M33M2(3) SAM – 3 pcs. and T382 SAM – 4 pcs.

T381 Combat Vehicle with T382 SAM – 8 pcs.

MAIN CHARACTERISTICS OF THE 9M33M2(3) SAM

missile length / body diameter	3158 mm / 209.6 mm
rudders / wings span	348 mm / 650 mm
launch weight	126.3 kg
maximum flight time	24...27 s
HE fragmentation warhead mass	14.27 kg

MAIN CHARACTERISTICS OF THE T382 SAM

The *T382* solid-propellant SAM is designed for destruction of aerial attack assets at the ranges of up to 20 km. Throughout its service life, the missile is stored in the transportation-and-launch container *(TLC)*.

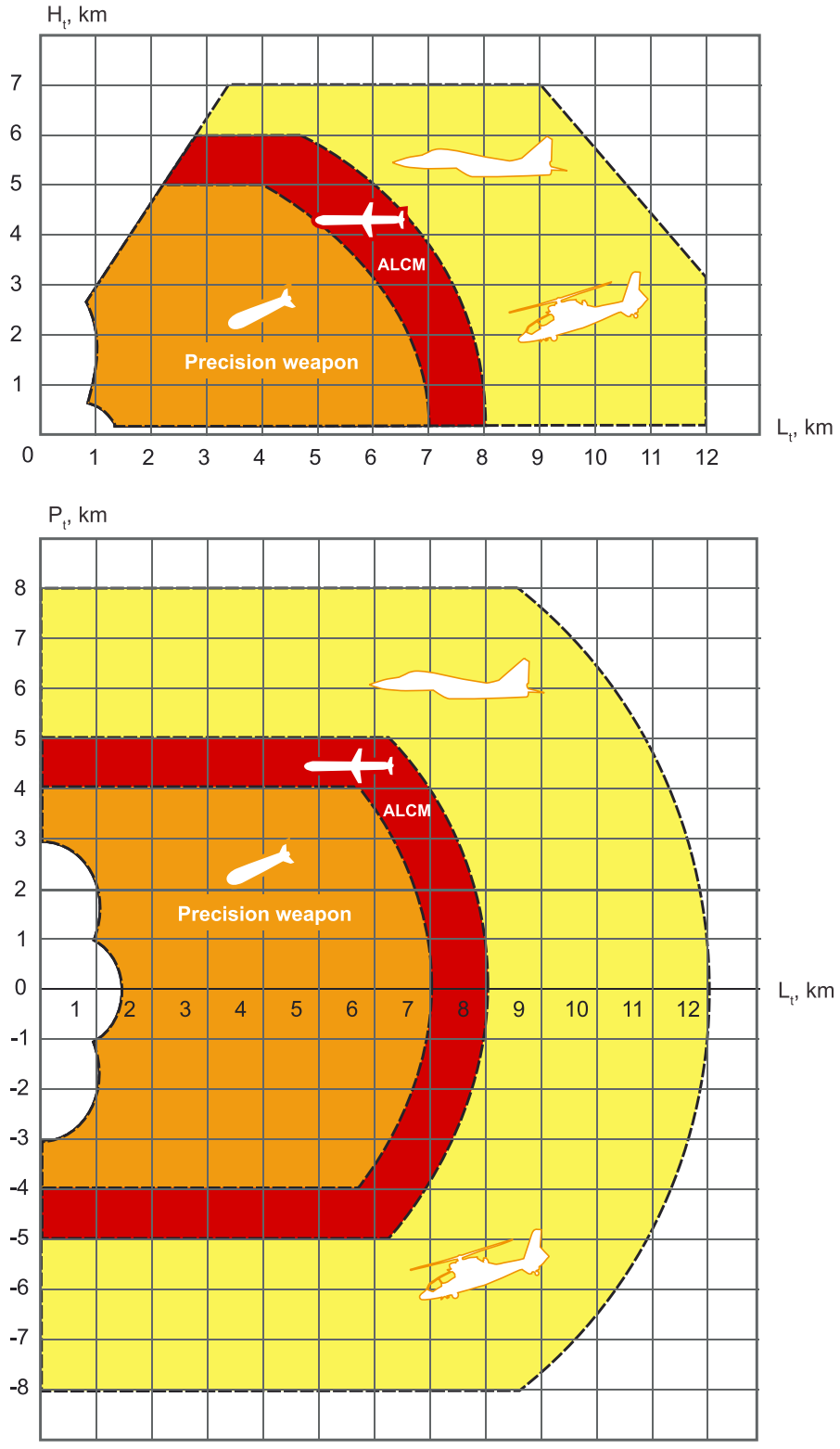
The missile is also armed with an active-type radio proximity fuse.

guidance system	radio command
SAM maximum speed	2.5 M
maximum acceleration	40 g
mass of the WH	23 kg
Maximum slant range of target destruction	20 km
Altitude of target destruction	10 km
Maximum speed of targets destructed	900 m/s

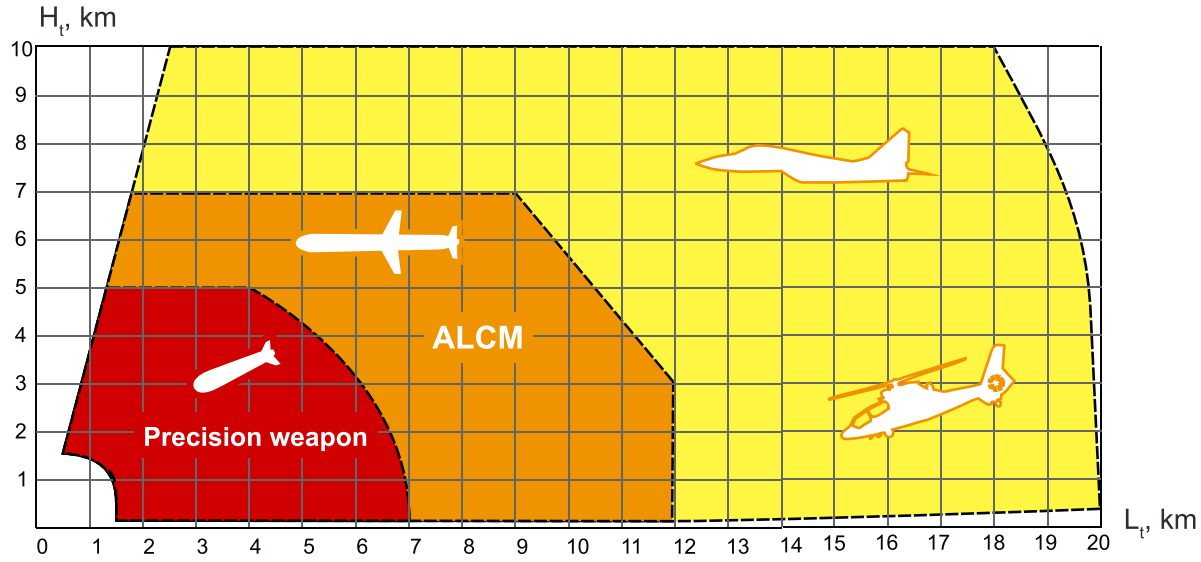
MAIN COMBAT CHARACTERISTICS OF THE T38 STILET ADMS

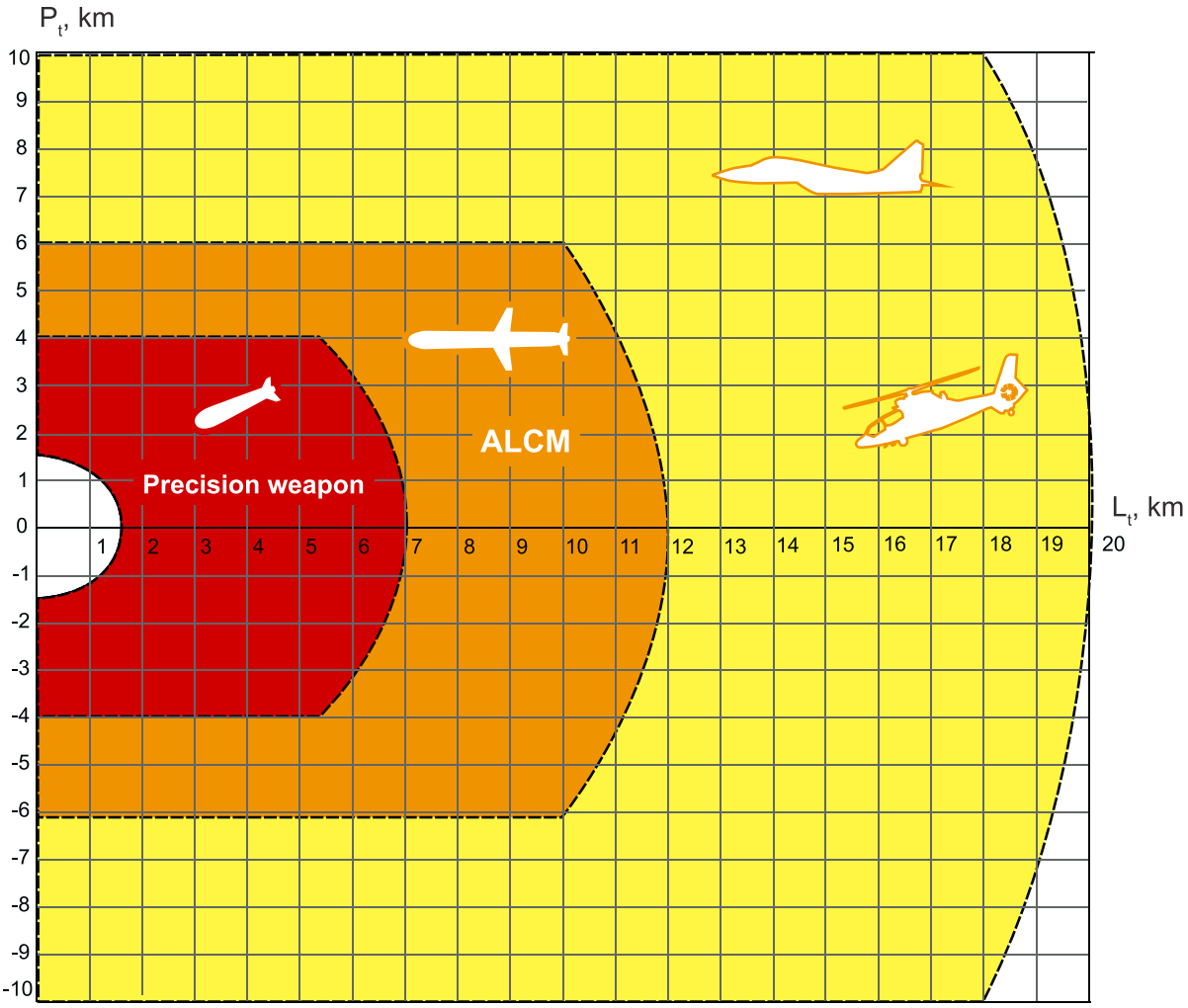
Characteristics	9M33M2(3) SAM	T382 SAM
Maximum slant range of target destruction, km	12	20
Altitude of target destruction, km	0.025 – 7	0.025 – 10
Maximum cross range, km	8	10
Maximum speed of targets destructed, m/s	700	900
Probability of target kill with one SAM	0.85	0.9
Minimal RCS of targets detected, m^2	0.02	
Target acquisition range, km	45	
Emplacement/displacement time, min	5	
Total service life of the ADMS, years	10	20

CROSS-SECTIONS OF THE T38 STILET ADMS KILL ZONE 9M33M2(3) SAM FIRING, KDC GUIDANCE



CROSS-SECTIONS OF THE T38 STILET ADMS KILL ZONE T382 SAM FIRING, KDC GUIDANCE





T383 TRANSPORTATION AND LOADING VEHICLE

The *T383 TLV* is designed to provide loading (unloading) of missiles to/from the *TLCs* of the *T381 CV*, as well as their temporary storage and transportation.

The TLV can perform the following operations:

- re-loading the missiles from the *TLV* to the *CV* and back;
- re-loading missiles from a truck to the *CV* and the *TLV* and back;
- re-loading missiles to the Ground Equipment Kit bogey and back;
- lifting missiles from the ground to the *CV* and *TLV* and back;
- refueling the *CV* with fuel stored in the *TLV* additional tanks;
- removing the *Launch Device* from the *CV;*
- replacing defective missiles on the *CV*, with the *TLV* fully loaded.

T383 Transportation and Loading Vehicle

MAIN CHARACTERISTICS OF THE TLV

Quantity of missiles transported	up to 24 pcs
Total volume of the additional fuel tanks	2×500 L
Time of the CV loading (unloading)	5...8 min
Lifting capacity of the crane	850 kg

T384 ALIGNMENT VEHICLE

The *T384 AV* is designed for alignment of the *Combat Vehicle* antenna systems, checkups and tuning-in of certain systems of the *Combat Vehicle T381*.

The Alignment vehicle comprises:

- a telescopic mast installed on a 6x6 chassis;
- alignment instruments;
- electric equipment;
- cable facility;
- a single *SPTA* kit.

T384 Alignment Vehicle

T385 MAINTENANCE VEHICLE

The *T385 MV* is intended for carrying out maintenance works and current repairs of the combat vehicle equipment. The *MV* can ensure maintenance of four combat vehicles in the field or in the joint repair shop.

T385 Maintenance Vehicle

T386 AUTOMATED CHECKUP AND TESTING MOBILE STATION

The *T386* automated checkup and testing mobile station (*AKIPS*) is designed to provide comprehensive automated checkups of the missiles' on-board equipment.

The *T386 AKIPS* comprises:

- the missile checkup equipment;
- a SPTA kit;
- ancillary equipment and instruments.

T388 AUTOMOTIVE EQUIPMENT MAINTENANCE VEHICLE

The *T388* automotive equipment maintenance vehicle is intended for repair of motor vehicles, components and units of *MZKT-69222* chassis, and electric power supply system of *T381 CV*.

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