

S-300PMU1

Air Defence Missile System



Mission

The S-300PMU1 air defence missile system is designed to counter mass raids of air attack weapons, including modern and prospective aircraft, low-flying targets, strategic cruise missiles, aeroballistic, tactical and theatre ballistic missiles within a vast variety of their operational altitudes and speeds, under severe ECM conditions.

The S-300PMU1 multi-channel mobile air defence missile system is a long-range SAM asset. It is capable to operate both autonomously or as part of AD grouping, when controlled by the 83M6E, Baikal-1E or Senezh-M1E command and control systems.

With the use of dedicated interface units, compatible ground-based interrogator and communications means, the S-300PMU1 ADM system can be integrated into any national air defence system.

The S-300PMU1 ADMS and the 83M6E CCS can be upgraded to the Favorit ADMS level in customer countries.

Composition

- air defence missile system
- 48N6E SAMs (as well as 5V55R and 5V55K SAMs) - four in each launcher
- maintenance assets
- auxiliary assets

Typical composition of the ADMS system includes combat, maintenance and auxiliary assets.

The combat assets include:

- one multi-channel 30N6E1 (30N6E) illumination and guidance radar providing automatic data exchange with the 83M6E, Baikal-1E or Senezh-M1E CCS, (30N6E IGR ensures this capability only in relation to the Senezh-M1E CCS);
- up to 12 self-propelled missile launchers (or 5P85SE or 5P85TE missile launchers on SP chassis or semi-trailers accordingly) - four SAMs on each;
- 1T12-2M-2 survey vehicle.

The maintenance assets include:

- 82Ts6E missile operation and storage assets (5T58E transporter vehicle, 22T6E loading vehicle and other means);
- 48N6E2.GVM SAM's weight-size mock-up;



- sets of auxiliary means and operating manuals;
- external power sources for IGR and missile launchers.

The auxiliary assets can include:

- 96L6E all-altitude/76N6 low-altitude target acquisition radars;
- 40V6M mobile antenna tower;
- 48N6EUD combat training missile;
- ADMS maintenance and repair assets.

The S-300PMU1 can be supplemented with the ALTEK-300 simulator, designed to train the 83M6E and S-300PMU1 system crews.



Basic specifications

Target detection range, km	300*
Number of simultaneously detected targets	up to 300*
Number of simultaneously tracked targets	up to 100*
Number of simultaneously tracked and engaged targets	up to 6
Engagement range, km:	
aerodynamic targets (min - max)	5 – 150
ballistic targets (min - max)	5 – 40
Min/max target altitude, km	0.01/27
Max target speed, m/s	2,800
Number of simultaneously guided missiles	12
Reaction time, sec	5 – 7*
Reaction time (in autonomous target acquisition mode with targets designated by 96L6 or 76N6 radars), sec	up to 22
Deployment time from march, min	5

* - when controlled by the 83M6E CCS

FAVORIT

Long-Range Air Defence System



Mission

The Favorit air defence system is designed to ensure effective defence of important military and state installations, and task forces against any attack of aviation, strategic, cruise, air ballistic, theatre and tactical ballistic missiles and other air strike weapons in complex tactical environment and under severe ECM conditions.

The Favorit multi-channel mobile air defence system is a long-range SAM system made up of a group of assets including the 83M6E2 command and control system and the S-300PMU2 SAM systems with the 48N6E2 and 48N6E surface-to-air missiles. It can also launch the 5V55R and 5V55K SAMs.

With the use of dedicated interface units,

compatible ground-based interrogator and communications means, Favorit can be integrated into any national air defence system and operate jointly with the country's own command and control and information systems, as well as with the vintage S-75, S-125 and S-200 SAM systems.

The S-300PMU1 ADMS and 83M6E CCS can be upgraded to the Favorit ADS level in customer countries.

Composition

The Favorit ADMS includes one 83M6E2 CCS and up to six S-300PMU2 ADM systems.

- The 83M6E2 CCS incorporates:
- 54K6E2 command and control post;
 - 64N6E2 target acquisition radar;
 - 1T12-2M-2 survey vehicle;
 - maintenance assets;
 - assigned facilities.

The S-300PMU2 typical structure includes combat, maintenance assets and assigned facilities.

- The combat assets include:
- 30N6E2 multi-role illumination and guidance radar;
 - up to 12 self-propelled 5P85SE missile launchers (or 5P85TE missile launchers on semi-trailers) - four SAMs on each;
 - 48N6E2, 48N6E (5V55R, 5V55K) surface-to-air missiles;

Basic specifications

Target detection range, km	300
Number of simultaneously detected targets	up to 300
Number of simultaneously tracked targets	up to 100
Engagement range, km, min – max:	
aerodynamic targets	3 – 200
ballistic targets	5 – 40
Target altitude, km, min – max	0.01 – 27
Max target speed, m/s	2,800
Number of targets engaged simultaneously	up to 36
Number of SAMs guided simultaneously	up to 72
Reaction time, sec	7 – 11
Deployment time from march, min	5



- 1T12-2M-2 survey vehicle.

The maintenance assets include:

- 82Ts6E2 missile maintenance and storage assets (5T58E2 transporter vehicles, 22T6E2 loader vehicles and other assets);
- 48N6E2.GVM weight-size mock-up and 48N6E2UD combat training missile;
- a set of auxiliary means for S-300PMU2 ADM system, and operating manuals;
- external power sources for IGR and missile launchers.

The assigned facilities include:

- 96L6E all-altitude or 76N6 low-altitude

- target acquisition radars;
- 40V6M mobile antenna tower;
- maintenance and repair assets for the ADM system.

The ALTEK-300 simulator system, designed to train the 83M6E2 and the S-300PMU2 systems' crews can be included into a delivery package of the Favorit ADS.

