

AIRCRAFT DESTRUCTION MEANS

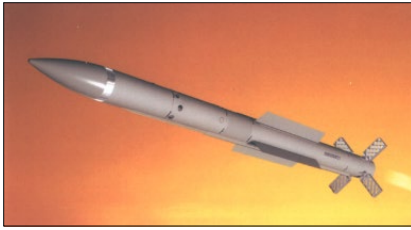
Basic characteristics of airborne weapons

air-to-air missiles

RVV-AE	with active radar guidance system
R-27ER	with semi active radar guidance system
R-27ET	with IR guidance system
R-73	with IR guidance system with cooling

air-to-surface missiles

Kh-31A	high-speed tactical missile
Kh-31P	high-speed tactical missile
CAB-500KR	controlled air bomb
CAB-500L	controlled air bomb
CAB-1500KR	controlled air bomb
CAB-1500L	controlled air bomb
Kh-29T	short-range missile
Kh-25ML	short-range general-purpose missile
Kh-29L	short-range missile
S-13, S-25	unguided aircraft rockets

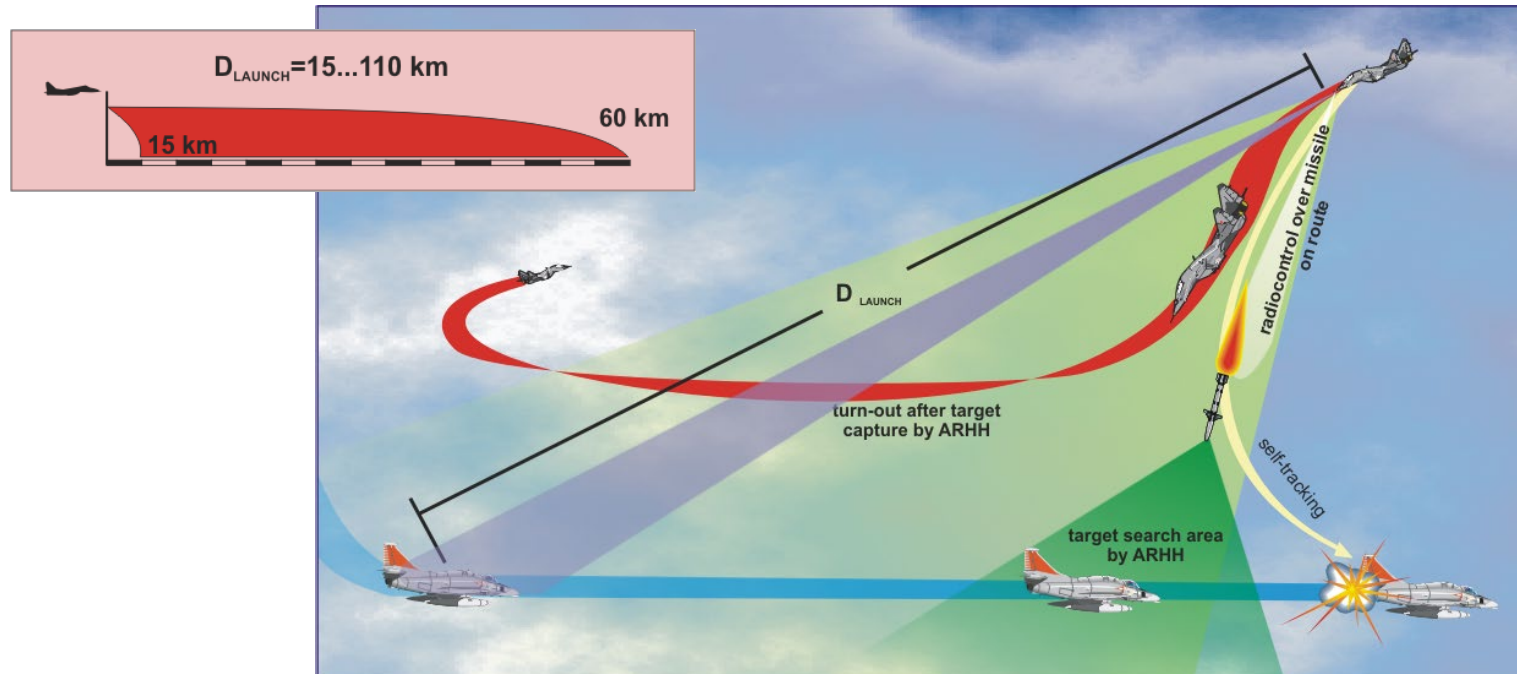


RVV-AE medium-range missile

The missile is designed to engage fighters (incl. agile fighters), attack aircraft, bombers, air-planes and helicopters of military transport aviation in air combat at any time of day and night, under VFR and IFR conditions, from any directions against an earth or sea background in hostile EW and maneuver environment
The RVV-AE is fitted with an active radar homing head.

Basic characteristics

Max launch range, km	60
Launch weight, kg	175
Overall dimensions, m	
length	3,6
caliber	0,2





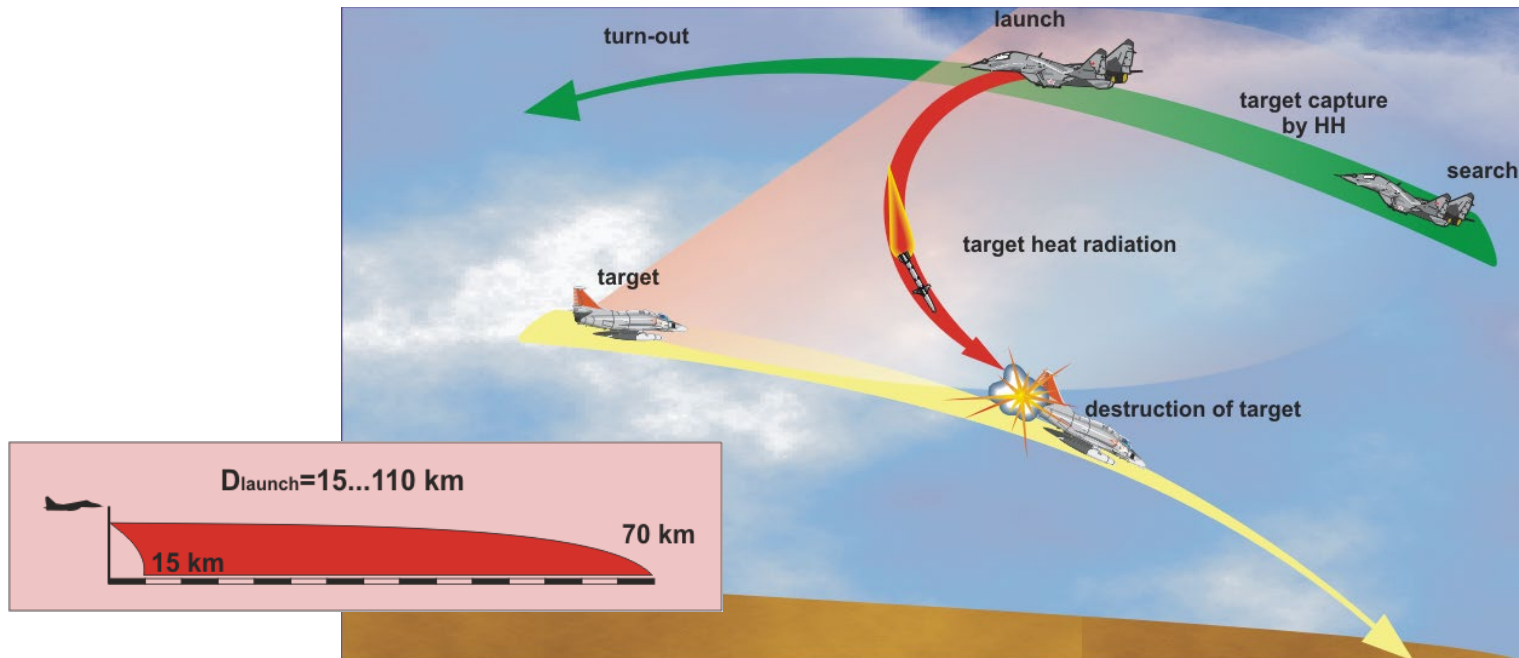
R-27ET medium-range missile

The missile is designed to defeat all types of air targets, both single and group, maneuverable and regular, manned and pilotless air attack assets, including drones and cruise missiles, in long-range and close air combat, in any weather, from any direction, against an earth or sea.

The R-27ET missile is fitted with an infrared homing head.

Basic characteristics

Max launch range, km	70
Launch weight, kg	350
Overall dimensions, m	
length	4,7
caliber	0,23; 0,26
	(across engine)



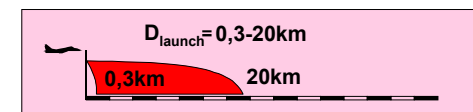
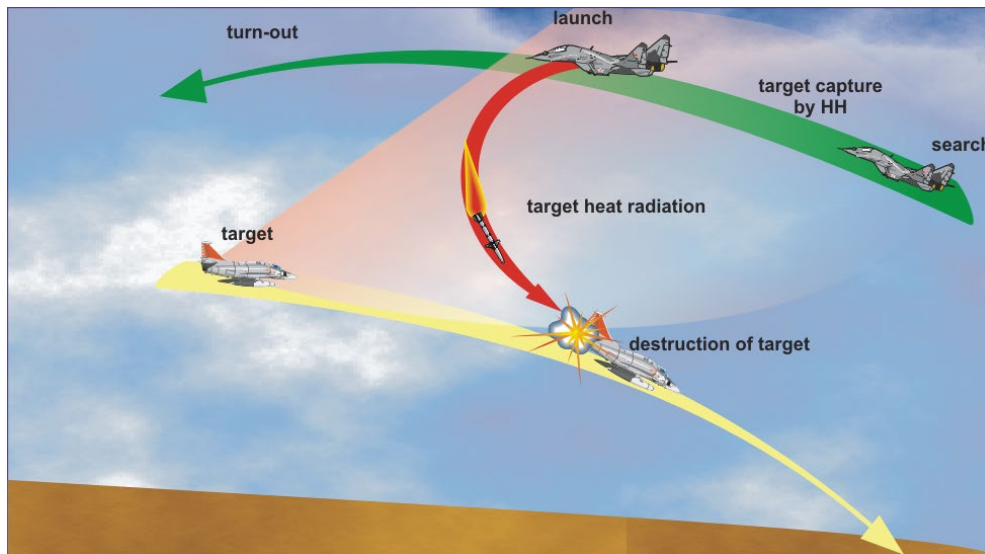
R-73 short-range missile



Is intended for firing against the following targets: highly maneuverable aircraft, helicopters, cruise missiles, etc. It provides defeat of targets at the altitude up to 20 km at all target aspect ratio, at day and night time, under standard and adverse weather conditions, under natural and specially set jamming, against the ground and water surfaces. According to its characteristics of maneuverability, it is superior to the existing analogous ones and does not make any limits for the initial conditions of launch

Basic characteristics

Length, mm	2900
Diameter, mm	230
Launch weight, kg	105
Warhead weight, kg	7,3
Warhead, type	Bar/rod
Guidance system	Infra-red with cooling
Launch range, km	
max	0,3
min	20



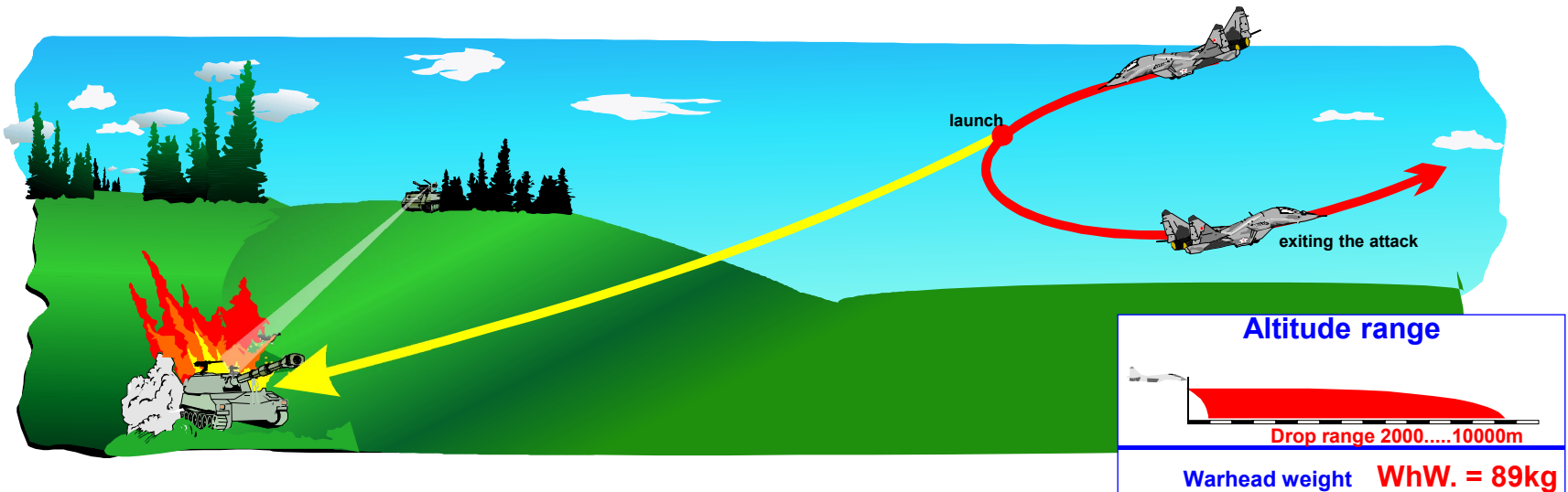


Kh-25ML short-range missile

Basic characteristics

Max launch range, km	10
Launch weight, kg	295
Overall dimensions, m	
length	3,57
caliber	0,275

The missile is designed to engage pinpoint mobile and stationary ground and waterborne targets: radars and air defense missiles systems, open and sheltered aircraft, light bridges and ferries, as well as small displacement ships, trains, etc. The missile is fitted with a semiactive laser homing head.





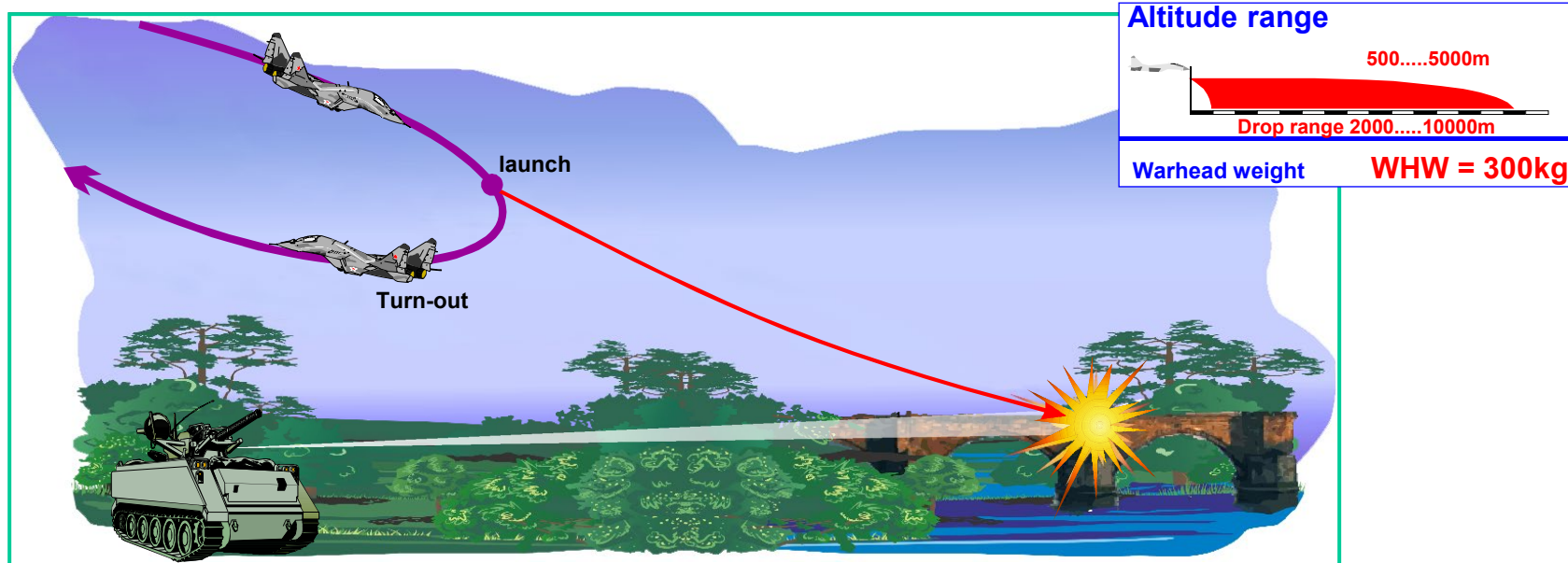
Kh-29L short-range missile

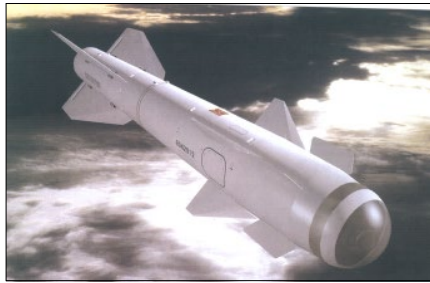
Basic characteristics

Precise launch range, km	10
Launch weight, kg	657
Overall dimensions, m	
length	3,875
caliber	0,38

The missile is designed to engage visible and hardened ground and waterborne targets (reinforced concrete shelters, depots, industrial facilities, bridges, runways and surface ships with a displacement of up to 5,000 t).

The missile is fitted with semi active laser homing head





Kh-29T short-range missile

Basic characteristics

Max launch range, km

10

Launch weight, kg

670

Overall dimensions, m:

length

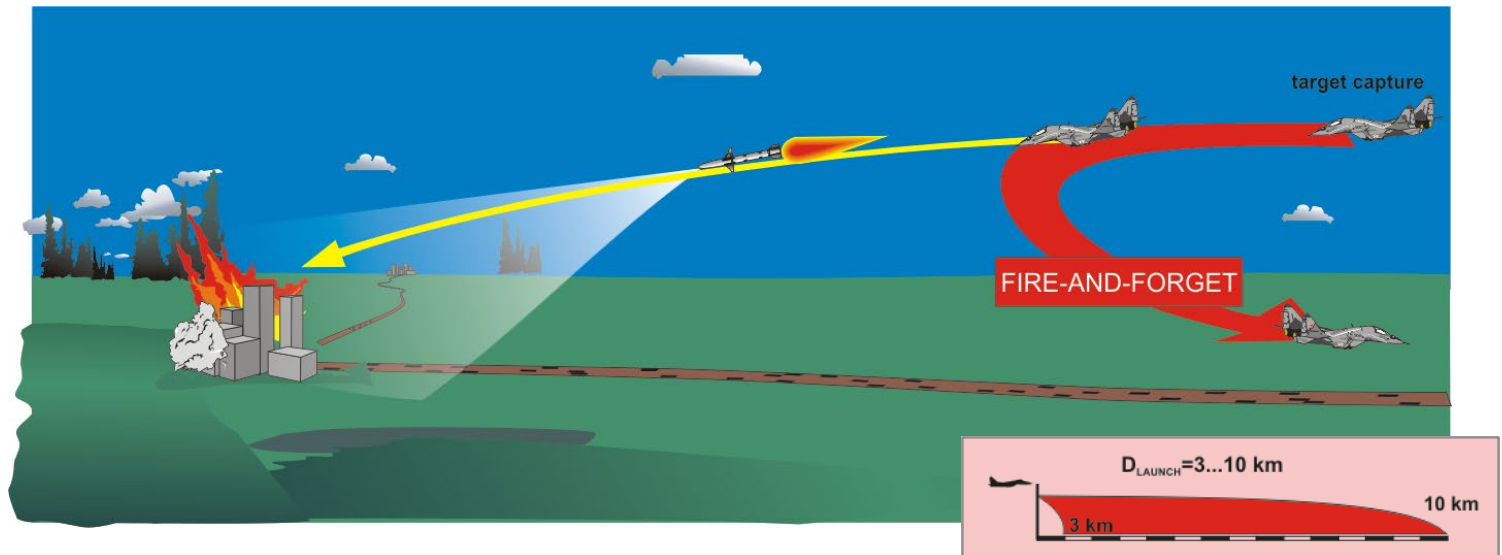
3,87

caliber

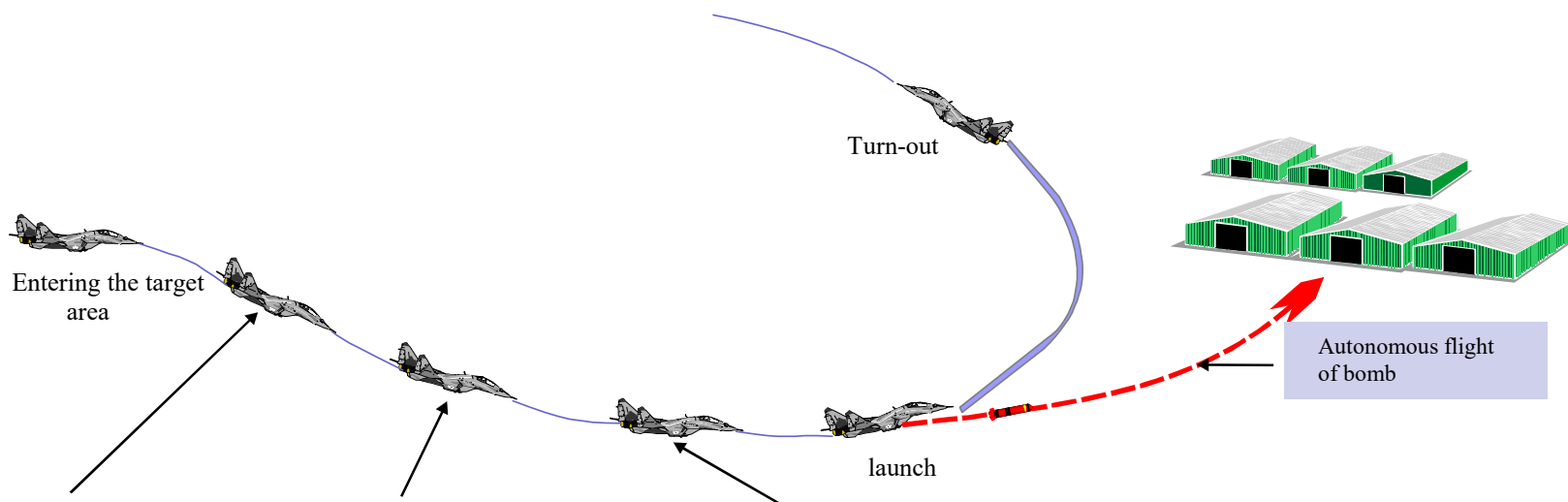
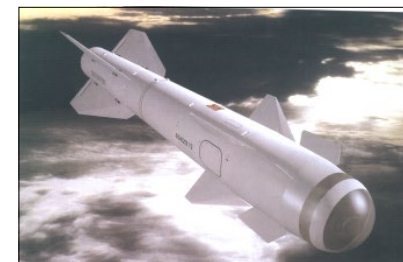
0,38

The missile is designed to engage visible and hardened ground and waterborne targets (reinforced concrete shelters, depots, industrial facilities, bridges, runways and surface ships with a displacement of up to 5,000 t).

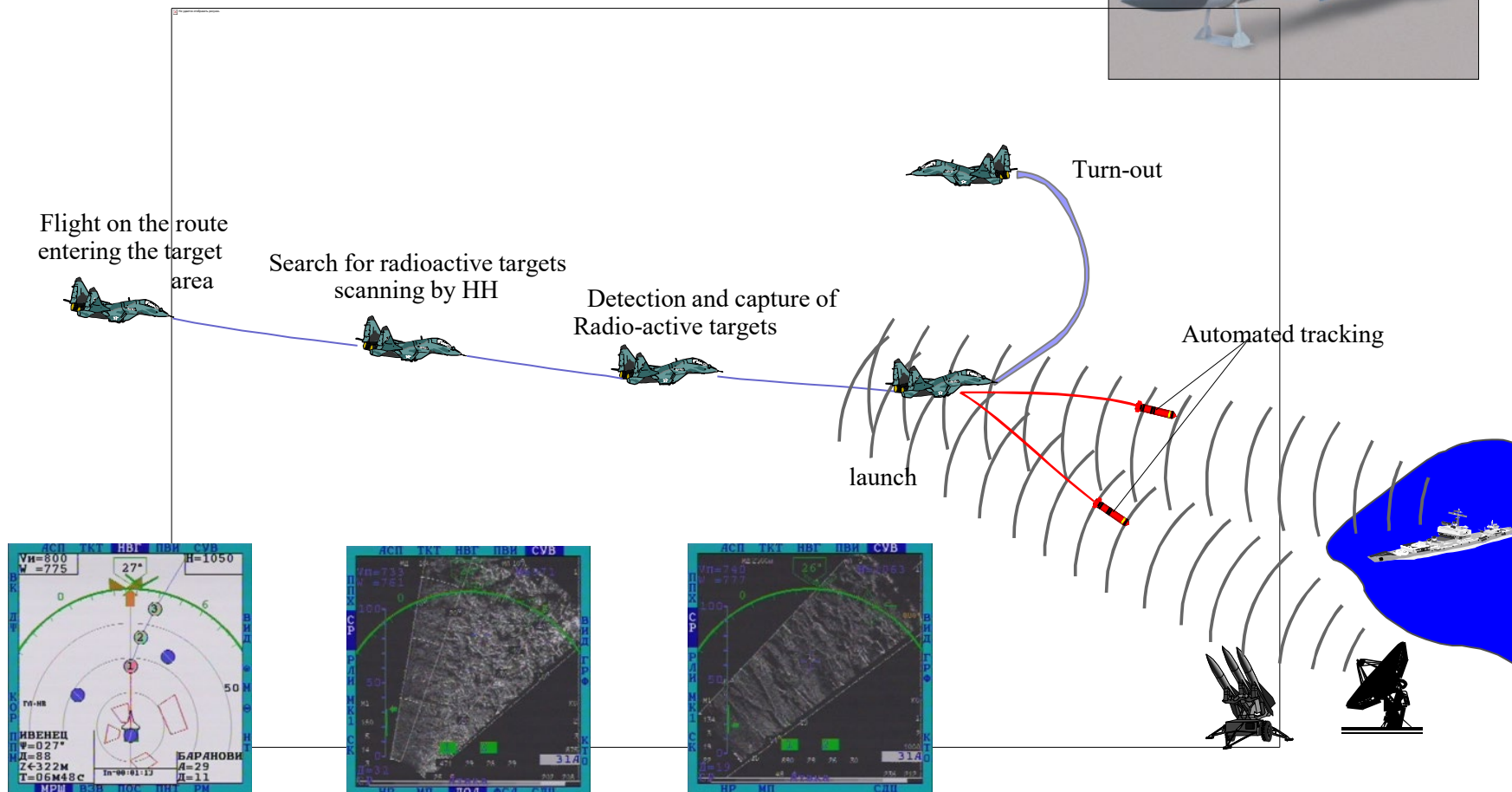
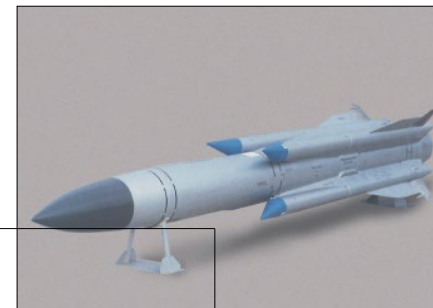
The Kh-29T missile is fitted with a passive TV homing head.

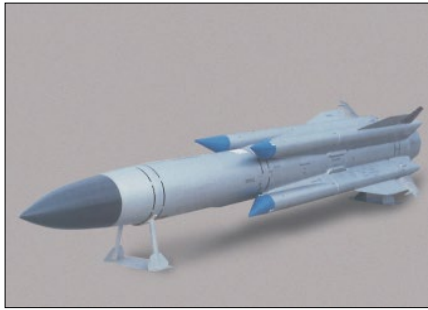


Use of the Kh-29T missile (attack imitation)



Operation of the Kh-31A missile





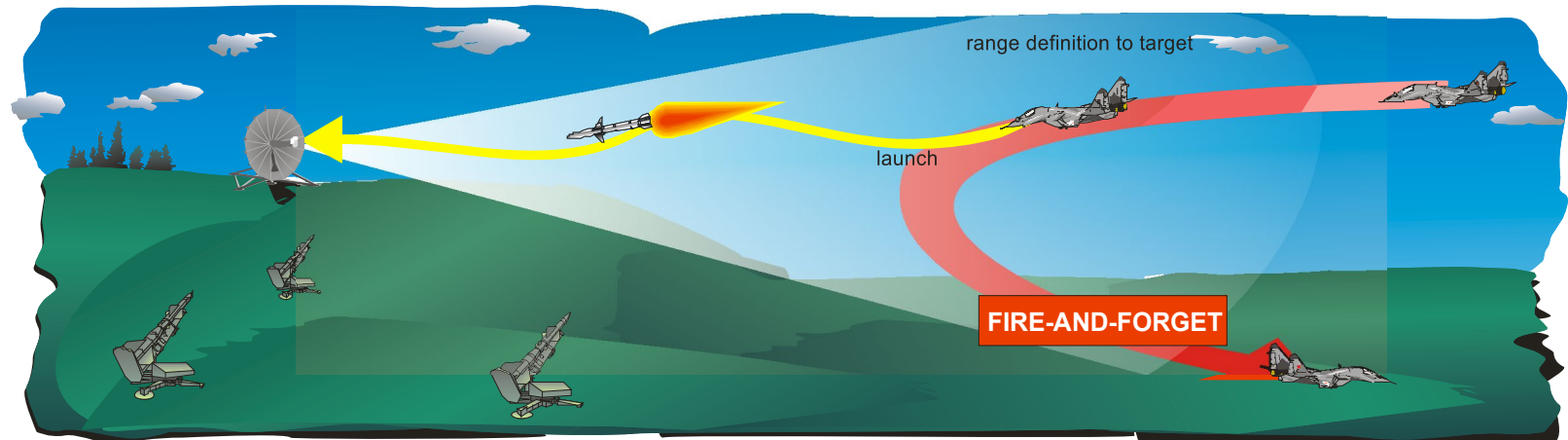
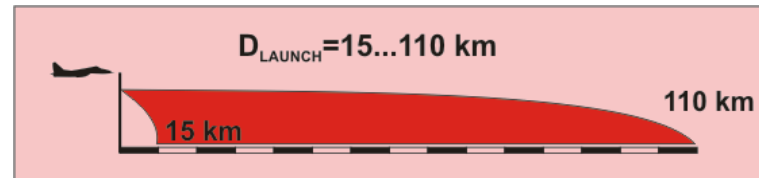
Kh-31P high-speed tactical missile

The missile is designed to engage illuminating radars of long- and medium-range air defense missile systems as well as command centers, at standoff ranges.

The Kh-31P missile is fitted with a passive radar homing head.

Basic characteristics

Max launch range, km	110
Launch weight, kg	600
Overall dimensions, m:	
length	4,7
caliber	0,36





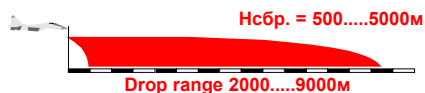
CAB-500L controlled air bomb with laser homing head

The CAB-500L controlled air bomb is designed to engage a wide array of ground and waterborne targets, incl. hardened, low contrast and concealed, if their location relative to surrounding landmarks is known. The bomb operates on the drop-and-forget principle. Its warhead pierces the reinforced concrete barrier of up to 1,5 m width and penetrates into ground up to 10 m.

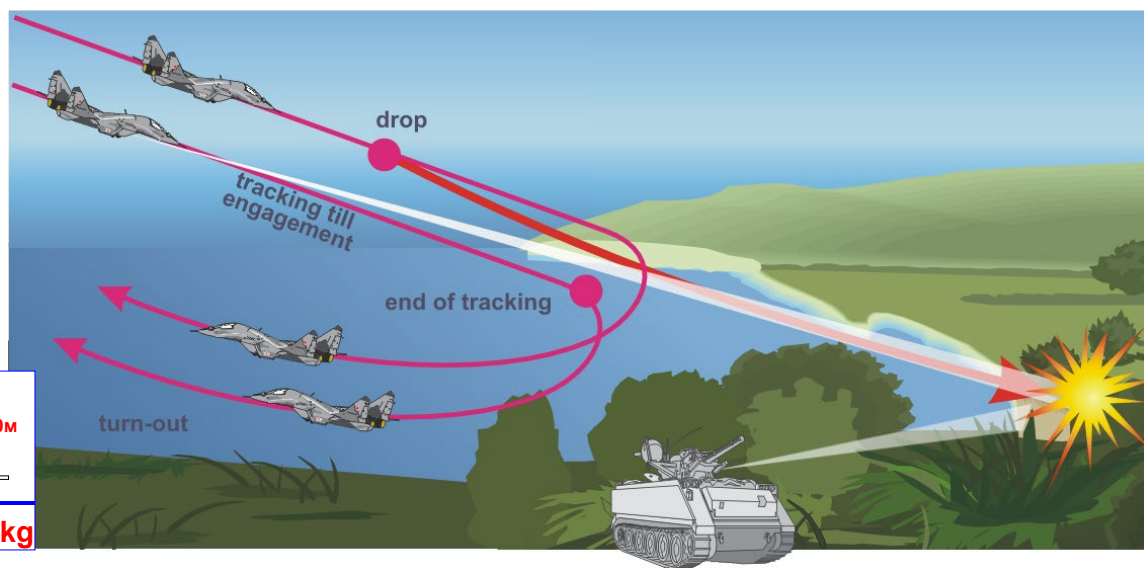
Basic characteristics

Max firing range, km	9,0
Bomb weight, kg	534
Warhead	HE fuel-air high-explosive
Overall dimensions, mm	
length	3050
width	400

Altitude range



Warhead weight WhW. = 300kg



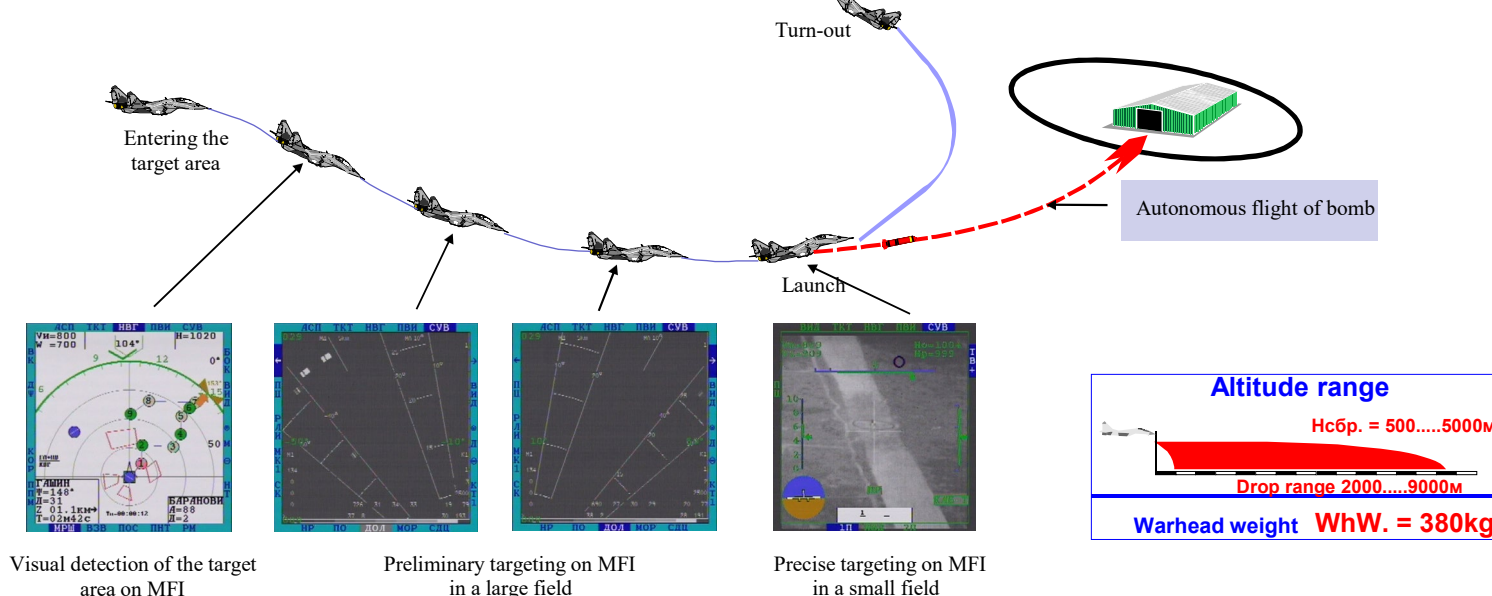


CAB-500KR controlled air bomb with a TV correlation homing head

The CAB-500KR controlled air bomb is designed to engage a wide array of ground and waterborne targets, incl. hardened, low contrast and concealed, if their location relative to surrounding landmarks is known. The bomb operates on the drop-and-forget principle. Its warhead pierces the reinforced concrete barrier of up to 1,5 m width and penetrates into ground up to 10 m.

Basic characteristics

Max firing range, km	9,0
Bomb weight, kg	525
Warhead	HE concrete-piercing
Dimensions, m:	
length	3050
width	350
	350





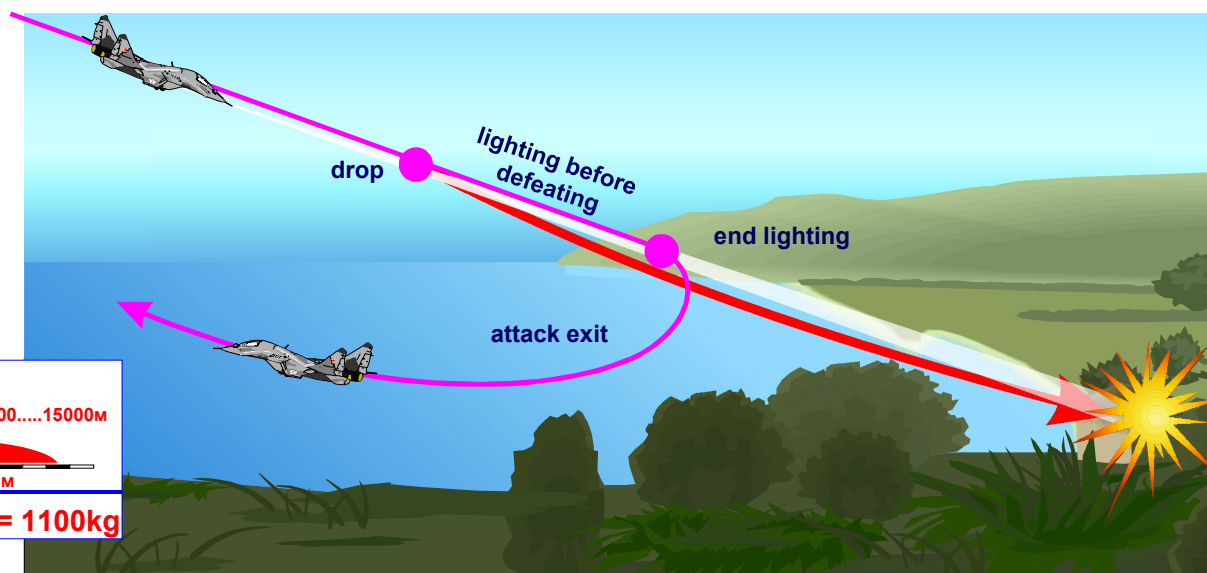
CAB-1500L controlled air bomb with laser homing head

This bomb is intended to engage ground and surface stationary targets, including hardened and buried objects such as fortified constructions, command posts, tunnel entries, runways, bridges, etc.

The bomb is equipped with laser semi-active guidance system and high-explosive and penetrating warheads.

Basic Characteristics

Size, kg	1500
Drop range, km	up to 20



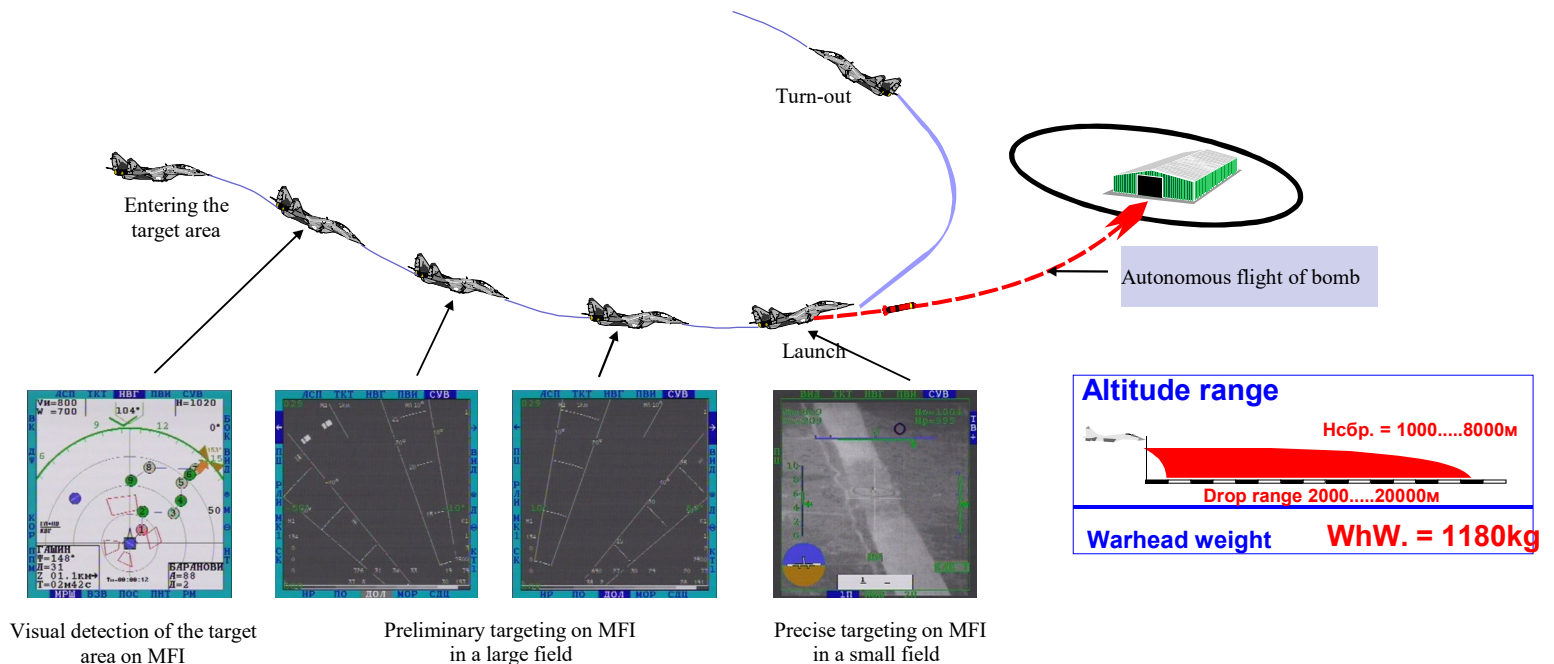
CAB-1500KR controlled air bomb with a TV correlation homing head



Basic Characteristics

Size, kg	1500
Weight of warhead	1180
Guidance system	TV correlation homing head
Warhead	HE

This bomb is intended to engage ground targets such as military industrial facilities, reinforced concrete shelters, fuel-oil depots and port terminals, as well as water-borne targets.



Unguided aircraft rockets

S-13 (T, D, OF)

Basic characteristics

S-13

Caliber, mm	122
Warhead type	penetrating; HE fragmentation
Powered flight time, sec	1,8-2,4
Firing range, km	1,1-4
Rocket length, mm	2634
Weight of fuzed rocket	60

S-13T

Caliber, mm	122
Warhead type	penetrating; HE fragmentation
Powered flight time, sec	1,8-2,4
Firing range, km	1,1-4
Rocket length, mm	2990
Weight of fuzed rocket	75,0

S-13OF

Caliber, mm	122
Warhead type	HE fragmentation
Powered flight time, sec	1,8-2,4
Firing range, km	1,1-4
Rocket length, mm	2975
Weight of fuzed rocket	69



S-13D

Caliber, mm	122
Warhead type	HE
Powered flight time, sec	1,8-2,4
Firing range, km	1,1-4
Rocket length, mm	3100
Weight of fuzed rocket	54

Unguided aircraft rockets

S-25(O, OFM, L)

Basic characteristics

S-25 O

Caliber, mm	420
Warhead weight, kg	150
Warhead type	fragmentation
Rocket length, mm	3735
Firing range, m	4000
Max speed, m/s	550

S-25 OFM

Caliber, mm	340
Warhead weight, kg	147
Warhead type	HE fragmentation
Rocket length, mm	3480
Firing range, m	4000
Max speed, m/s	530

S-25 L

Caliber, mm	340
Warhead weight, kg	150
Warhead type	HE fragmentation
Rocket length, mm	3480
Firing range, m	up to 7000
Max speed, m/s	530

