



3M9M

Name: 3M9M

Type: Medium-range, radio
command guidance +
SARH, surface-to-air-missile for KUB

Developed: Russia

Length, m: 5.8

Body diameter, m: 0.335

TNT equivalent, kg: 59

Guidance: Semi-active radar

Weight, kg: 600

G limit: 16

Range, km: 16

Maximum Mach number: 2.8



48H6E2

Name: 48H6E2

Type: Long-range, radio command guidance + TVM, surface-to-air-missile for S-300PS

Developed: Russia

Guidance: Semi-active radar

TNT equivalent, kg: 100

Weight, kg: 1900

G limit: 27

Length, m: 7.0

Body diameter, m: 0.519

Range, km: 90

Maximum Mach number: 6.6



5V55

Name: 5V55

Type: Long-range, radio command guidance + TVM, surface-to-air-missile for S-300PS

Developed: Russia

TNT equivalent, kg: 100

Guidance: Semi-active radar

Weight, kg: 1480

G limit: 27

Length, m: 7.0

Body diameter, m: 0.508

Range, km: 45

Maximum Mach number: 6.25



9A4172

Name: 9A4172 "Vikhr" (AT-16)
Type: Medium-range, anti-tank,
laser-guided,
air-to-surface missile
Developed: Shipunov OKB, Russia
Guidance: semi-active laser
G limit: 20
Weight, kg: 45
Maximum Mach number: 1.8
Length, m: 2.80
Body diameter, m: 0.1308
Range, km: 10



9M113

Name: 9M113 Konkurs (AT-5 Spandrel)

Type: Short-range, laser-guided, anti-tank

guided missile

Developed: Russia

TNT equivalent, kg: 32

Guidance: Laser

Weight, kg: 40

G limit: 16

Length, m: 1.3

Body diameter, m: 0.15

Range, km: 4

Maximum Mach number: 0.6



9M114

Name: 9M114 Shturm-V(AT-6)
Type: Short-range, radio command-guided, air-to-surface missile
Developed: Kolomna NPO, Russia
TNT equivalent, kg: 7.4
Guidance: radio-command
Weight, kg: 40
G limit: 20
Length, m: 1.83
Body diameter, m: 0.130
Range, km: 8
Maximum Mach number: 1.8



9M117

Name: 9M117 Bastion (AT-10 Stabber)

Type: Short-range, laser-guided, anti-tank guided missile

Developed: Russia

TNT equivalent, kg: 32

Guidance: Laser

Weight, kg: 40

G limit: 16

Length, m: 1.1

Body diameter, m: 0.1

Range, km: 4

Maximum Mach number: 0.6



9M133

Name: 9M133 "Kornet" (AT-14 "Spriggan")

Type: Short-range, laser-guided, air-to-surface missile

Developed: KBP Instrument Design Bureau, Tula, Russia

TNT equivalent, kg: 10

Guidance: laser-guided

Weight, kg: 27 (29 with launch tube)

Range, km: 5.5

The 9M133 missile together with its 9P163-1 tripod launcher and 1PN79-1 thermal sight forms the 9K123 missile system, the 9K123 can be carried and operated by a two infantry crew. In addition to an infantry portable version the 9K133 the system has been integrated into a variety of other vehicles and weapons systems as either an upgrade package or new weapon system. The 9K133 has been fitted into a BMP-3 to form the 9P163M-1 tank destroyer and is similar in function to the Khrizantema missile system. The



9M14

Name: 9M14 "Malyutka" (AT-3 "Sagger")

Type: Short-range, wire-guided, air-to-surface missile

Developed: Kolomna NPO, Russia

TNT equivalent, kg: 2.5

Guidance: wire-guided

Weight, kg: 11.30

G limit: 16

Length, m: 0.86

Body diameter, m: 0.125

Range, km: 3

Maximum Mach number: 0.34



9M22U

Name: 9M22U solid propellant rocket

Type: rocket for MLRS BM-21 Grad

Developed: Russia

TNT equivalent, kg: 15.6

Weight, kg: 70

Speed, km/h: 1620

Range, km: 20.5

Length, m: 5.1

Body diameter, m: 0.122



9M31

Name: 9M31

Type: Short-range, optical guidance,
surface-
to-air-missile for Strela-1

Developed: Russia

TNT equivalent, kg: 2.6

Guidance: Infrared seeker

Weight, kg: 32

G limit: 20

Length, m: 1.8

Body diameter, m: 0.12

Range, km: 4.2

Maximum Mach number: 1.8



9M311

Name: 9M311

Type: Short-range, radio command guidance,
surface-to-air-missile for Tunguska

Developed: Russia

TNT equivalent, kg: 9

Guidance: Semi-active radar

Weight, kg: 57

G limit: 18

Length, m: 2.56

Body diameter, m: 0.175

Range, km: 8

Maximum Mach number: 2.82



9M33

Name: 9M33
Type: Short-range, radio command guidance, surface-to-air-missile for OSA
Developed: Russia
TNT equivalent, kg: 20
Guidance: Semi-active radar
Weight, kg: 126.3
G limit: 18
Length, m: 3.1
Body diameter, m: 0.21
Range, km: 7
Maximum Mach number: 2.4



9M330

Name: 9M330

Type: Short-range, radio command guidance, surface-to-air-missile for TOR

Developed: Russia

TNT equivalent, kg: 14.5

Guidance: Semi-active radar

Weight, kg: 165

G limit: 20

Length, m: 3.5

Body diameter, m: 0.22

Range, km: 12

Maximum Mach number: 2.7



9M333

Name: 9M333

Type: Short-range, infrared
guidance, surface-
to-air-missile for Strela-10

Developed: Russia

TNT equivalent, kg: 4

Guidance: Infrared seeker

Weight, kg: 42

G limit: 16

Length, m: 2.2

Body diameter, m: 0.12

Range, km: 5

Maximum Mach number: 2



9M38M1

Name: 9M38M1

Type: Medium-range, SARH, surface-to-air-missile for BUK

Developed: Russia

TNT equivalent, kg: 70

Guidance: Semi-active radar

Weight, kg: 685

G limit: 16

Length, m: 5.55

Body diameter, m: 0.4

Range, km: 3-32

Maximum Mach number: 3



9M39 Igla

Name: Igla
Type: Short-range, infrared-guided, surface-to-air-missile, man-portable
Developed: Russia
TNT equivalent, kg: 1.2
Guidance: Infrared seeker
Weight, kg: 10.8
G limit: 20
Length, m: 1.55
Body diameter, m: 0.072
Range, km: 4.5
Maximum Mach number: 2.8

9M55K

Name: 9M55K solid propellant rocket

Type: Smerch-launched rocket

Developed: Russia

TNT equivalent, kg: 55.8

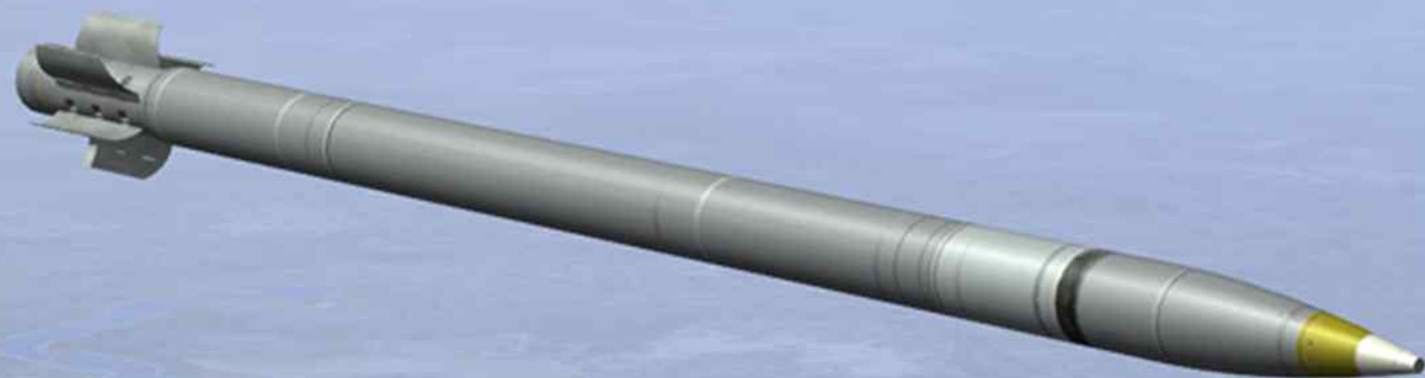
Weight, kg: 800

Speed, km/h: 2988

Range, km: 70

Length, m: 5.5

Body diameter, m: 0.3





AGM-114C

Name: AGM-114C

Type: Short-range, laser-guided, air-to-surface

Body diameter, m: 0.178

Developed: USA

TNT equivalent, kg: 8

Guidance: semi-active laser

Weight, kg: 45.7

G limit: 20

missile

Length, m: 1.63

Body diameter, m: 0.178

Range, km: 9

Maximum Mach number: 1.8



AGM-119A

Name: AGM-119A

Type: Medium-range, infrared
guided, air-to-
surface missile

Developed: Norway

TNT equivalent, kg: 140

Guidance: inertial and passive
infrared

Weight, kg: 370

G limit: 16

Length, m: 3.18

Body diameter, m: 0.280

Range, km: 55

Maximum Mach number: 2.1



AGM-154

Type: Tactical cruise missile
Developed: USA
Name: AGM-154
Weight, kg: 484
Length, m: 4.26
Body diameter, m: 0.53 X 0.6
TNT equivalent, kg: 42



AGM-45

Name: AGM-45

Type: Medium-range, anti-radar,
air-to-surface
missile

Developed: USA

TNT equivalent, kg: 66

Guidance: passive radar

Weight, kg: 177

G limit: 16

Length, m: 3.05

Body diameter, m: 0.203

Range, km: 12

Maximum Mach number: 2



AGM-62

Name: AGM-62

Type: TV-guided bomb

Guidance: TV-command

TNT equivalent, kg: 424

Weight, kg: 1088

Developed: USA

Length, m: 4.05

Body diameter, m: 0.457



AGM-65D

Name: AGM-65D

Type: Medium-range, infrared, air-to-surface missile

Developed: USA

TNT equivalent, kg: 57

Guidance: imaging infrared

Weight, kg: 220

G limit: 16

Length, m: 2.49

Body diameter, m: 0.305

Range, km: 27 effective 8-16

Maximum Mach number: 0.85



AGM-65E

Name: AGM-65E

Type: Medium-range, laser-guided,
air-to-
surface missile

Developed: USA

TNT equivalent, kg: 136

Guidance: semi-active laser

Weight, kg: 293

G limit: 16

Length, m: 2.49

Body diameter, m: 0.305

Range, km: 20

Maximum Mach number: 0.85



AGM-65G

Name: AGM-65G

Type: precision-guided, stand-off air-to-ground missile

Developed: USA

Warhead: 136 kg, penetrator fragmentation

Guidance: imaging infrared

Weight, kg: 304

Length, m: 2.49

Body diameter, m: 0.305

Max range, km: 27, effective 5-12

The AGM-65G is an improved "IIR Maverick" for the USAF. It is based on the AGM-65D, but uses the heavy warhead and fuze of the AGM-65E/F because it is especially designed for use against hardened tactical targets. The AGM-65G also has a new digital autopilot and improved tracking and target selection options. The new autopilot allows the operator to select a lower trajectory to prevent break of lock in clouds. The AGM-65G entered operational service with the USAF in 1989.

AGM-65H

Name: AGM-65H

Type: precision-guided, stand-off air-to-ground missile

Developed: USA

Warhead: 56 kg, shaped charge

Guidance: electro-optical television guidance system

Weight, kg: 304

Length, m: 2.49

Body diameter, m: 0.305

Max range, km: 27, effective 5-12

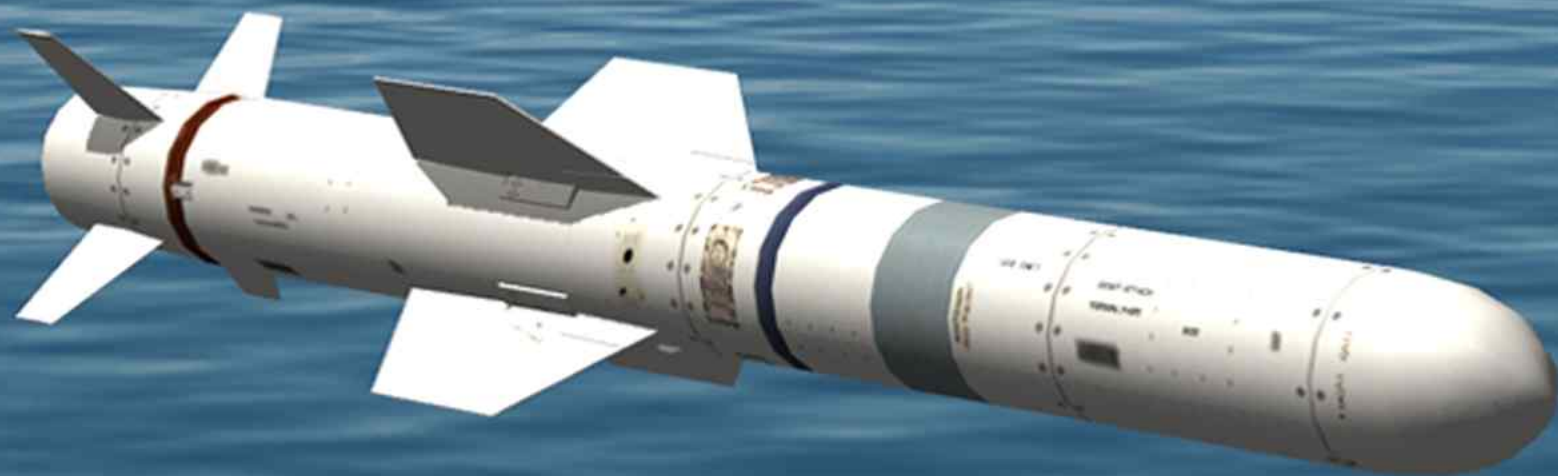
The designation AGM-65H was assigned to AGM-65B/D missiles upgraded with the new CCD TV seeker. It was originally planned to convert many old AGM-65Bs and -65Ds to AGM-65H standard, but these plans were apparently cancelled in favour of the AGM-65K. Same 125 lbs warhead as in AGM-65A. The CATM-65H is the captive-carry training version of the AGM-65H.





AGM-65K

Name: AGM-65K
Type: Short-range, TV-guided,
air-to-surface
missile
Developed: USA
TNT equivalent, kg: 57
Guidance: TV
Weight, kg: 210
G limit: 16
Length, m: 2.49
Body diameter, m: 0.305
Range, km: 27 effective 5-10
Maximum Mach number: 0.85



AGM-84A

Name: AGM-84A

Type: Long-range, radar-guided,
air-to-surface
missile

Developed: USA

TNT equivalent, kg: 222

Weight, kg: 661.5 (sea-launched)

Length, m: 4.50

Guidance: inertial with active radar

Body diameter, m: 0.343

Weight, kg: 515 (air-launched)

G limit: 14

Range, km: 120



AGM-84D

Name: AGM-84D

Developed: USA

Guidance: Autopilot

Length, m: 3.8

Body diameter, m: 0.343

G limit: 14

Maximum Mach number: 0.9

Range, km: 95

Weight, kg: 661.5

TNT equivalent, kg: 225



AGM-86

Name: AGM-86 ALCM

Type: Long-range, inertial-guided, cruise missile

Developed: USA

TNT equivalent: 200 kT nuclear

Guidance: inertial with Tercom

Weight, kg: 1458

G limit: 16

Length, m: 6.32

Body diameter, m: 0.693

Range, km: 2500

Maximum Mach number: 0.85



AGM-88

Name: AGM-88

Type: antiradiation, air-to-surface missile

Developed: USA

Weight, kg: 361

Guidance: passive radar

G limit: 16

Maximum Mach number: 3.0

Length, m: 4.17

Body diameter, m: 0.254

TNT equivalent, kg: 66

Range, km: 148



AIM-120B

Name: AIM-120B AMRAAM

Type: Medium-range, radar-guided, air-to-air missile

Developed: USA

TNT equivalent, kg: 22

Guidance: inertial and active radar

Weight, kg: 150

G limit: 22

Maximum Mach number: 4

Length, m: 3.65

Body diameter, m: 0.178

Range, km: 55

The AIM-120B missile was the result of the two Enhancement Program. The B-model incorporates a new digital processor, erasable programmable read only memory, and five major electronic unit hardware chassis upgrades.



AIM-120C

Name: AIM-120C AMRAAM

Type: Medium-range, radar-guided, air-to-air missile

Developed: USA

TNT equivalent, kg: 22

Guidance: inertial and active radar

Weight, kg: 150

G limit: 22

Maximum Mach number: 4

Length, m: 3.65

Body diameter, m: 0.178

Range, km: 55

The AIM-120C will include a redesigned warhead and improvements to the rocket motor, fuzing logic, guidance algorithms, and ECCM logic.

Modified for internal carriage on the F-22, the AIM-120C will have "clipped wings" to reduce its box size from 17.4 to 12.5 inches.



AIM-54C

Name: AIM-54C

Type: Long-range, radar-guided,
air-to-air
active radar
missile

Developed: USA

TNT equivalent, kg: 60.0

Guidance: semi-active, update,
inertial and

Weight, kg: 463

Range, km: 150

Body diameter, m: 0.380

Length, m: 3.96

Maximum Mach number: 3

G limit: 16



AIM-7M

Name: AIM-7M

Type: Medium-range, radar-guided,
air-to-air
missile

Developed: USA

TNT equivalent, kg: 39

Guidance: semi-active radar

Weight, kg: 230

G limit: 20

Length, m: 3.66

Body diameter, m: 0.203

Range, km: 45

Maximum Mach number: 3



AIM-9M

Name: AIM-9M

Type: Short-range, infrared, air-to-air missile

Weight, kg: 85.5

Guidance: infrared

G limit: 22

Maximum Mach number: 2.5

Developed: USA

Length, m: 2.83

Body diameter, m: 0.127

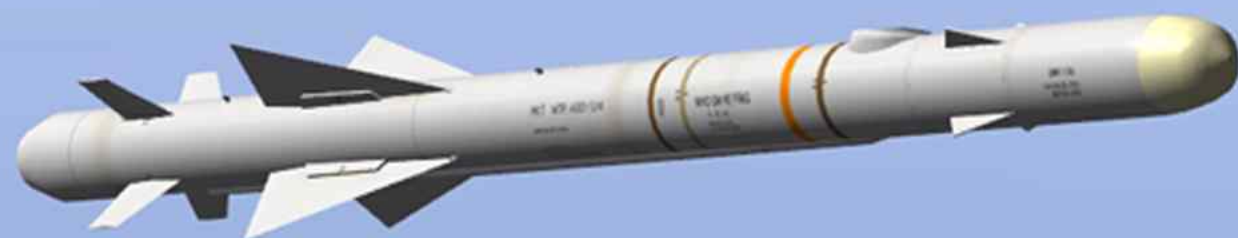
TNT equivalent, kg: 11

Range Max, km: 18



AIM-9P

Name: AIM-9P Sidewinder
Type: Short-range, infrared, rear-aspect air-to-air missile
Developed: USA
TNT equivalent, kg: 11
Guidance: infrared
Weight, kg: 85.5
G limit: 22
Length, m: 2.83
Body diameter, m: 0.127
Range Max, km: 11
Maximum Mach number: 2.0



ALARM

Name: ALARM

Type: Medium-range, anti-radar,
air-to-surface
missile

Developed: UK

Weight, kg: 268

Length, m: 4.30

Body diameter, m: 0.224

TNT equivalent, kg: 66

G limit: 16

Range, km: 45

Primary Function: Suppression of
Enemy Air
Defence

Contractor: BAE Systems

Diameter: 23 cm

Warhead: Proximity fuzed
high-explosive
seeker

Power Plant: Bayern Chemie two
stage solid
propellant rocket motors

Wing Span: 73 cm

Range: 1.9 - 46.3km

Unit Cost: undisclosed

Guidance: Passive radar

Maximum Mach number: 2.1



AS 34

Name: AS 34 "Kormoran"
Type: Medium-range, radar-guided, air-to-surface missile
Developed: Germany and France
TNT equivalent, kg: 165
Guidance: inertial and active radar
Weight, kg: 600
G limit: 16
Body diameter, m: 0.345
Length, m: 4.40
Range, km: 30
Maximum Mach number: 0.85



BGM-109B

TNT equivalent, kg: 454
Name: BGM-109B
Type: Long-range anti-ship cruise missile
Developed: USA
Weight, kg: 1225
Guidance: Autopilot
G limit: 17
Length, m: 6.2
Maximum Mach number: 0.7
Body diameter, m: 0.83

Range, km: 460



BGM-71D

Name: BGM-71D Tow
Type: Short-range, wire-guided, anti-tank missile
Developed: USA
TNT equivalent, kg: 4
Guidance: wire-guided
Weight, kg: 19
G limit: 16
Length, m: 1.45
Body diameter, m: 0.150
Range, km: 4
Maximum Mach number: 0.6



BL755

Name: BL755

Type: Cluster Bomb

Developed: UK

Weight, kg: 500

Length, m: 2.5

Body diameter, m: 0.4

TNT equivalent, kg: 240



BetAB-500

Body diameter, m: 0.35
Type: Penetration bomb with retarded system
Developed: Russia
Name: BetAB-500
Weight, kg: 478
Length, m: 2.2
TNT equivalent, kg: 75.8

AIRPLANES

HELICOPTERS

SHIPS

VEHICLES

WEAPONS

AIR DEFENSE

BUILDINGS



BetAB-500shp

Body diameter, m: 0.325
Type: Penetration bomb with retarded system
Developed: Russia
Name: BetAB-500shp
Weight, kg: 380
Length, m: 2.51
TNT equivalent, kg: 77



CBU-103

Name: CBU-103 Wind Corrected
Munition Dispenser
Dispenser: SUU-65
Type: Combined Effects Munitions
Developed: USA
Weight, kg: 430
Length, m: 2.34
Body diameter, m: 0.406

The Wind Corrected Munitions Dispenser (WCMD) is an expensive tail kit that turns existing unguided cluster munitions dispensers into all-weather precision guided weapons. It corrects for launch transients, ballistic errors, and winds aloft even released from high altitude or weather condition. The WCMD use inertial guidance only (no GPS).

CBU-103 is the same CBU-87 with inertial guidance kit.



CBU-105

Name: CBU-105 Wind Corrected
Munition Dispenser
Dispenser: SUU-66
Type: Sensor Fused Weapon
Developed: USA
Weight, kg: 415
Length, m: 2.34
Body diameter, m: 0.406

The Wind Corrected Munitions Dispenser (WCMD) is an expensive tail kit that turns existing unguided cluster munitions dispensers into all-weather precision guided weapons. It corrects for launch transients, ballistic errors, and winds aloft even released from high altitude or weather condition. The WCMD use inertial guidance only (no GPS).

CBU-105 is the same CBU-97 with inertial guidance kit.



CBU-87

Name: CBU-87

Dispenser: SUU-65

Type: Combined Effects Munitions

Developed: USA

Weight, kg: 430

Length, m: 2.34

Body diameter, m: 0.406

The CBU-87 Combined Effects Munitions (CEM) weighs 950 lbs and is an all-purpose cluster bomb. The SW-65 Tactical Munitions Dispenser contains 202 BLU-97/B Combined Effects Bomblets (CEB) and they are effective against unarmored targets. The general bomblet footprint coverage is 200 by 400 meters.



CBU-97

Name: CBU-97
Dispenser: SUU-66
Type: Sensor Fused Weapon
Developed: USA
Weight, kg: 415
Length, m: 2.34
Body diameter, m: 0.406
TNT equivalent, kg: 42

The CBU-97 is a 1,000-pound class weapon containing sensor-fused sub-munitions for specifically attacking armor. This Sensor Fused Weapon (SFW) contains 10 BLU-108/B sub-munitions.

A BLU-108/B unit carries four independent Skeet anti-tank submunitions. After release from the dispenser, each BLU-108/B descends under a parachute to a pre-set altitude. Then a small rocket sends the BLU-108/B upwards and into a rapid spin, so that the Skeet warheads are released outwards. Each Skeet falls independently, scanning the ground



FAB-100

Name: FAB-100 (M62)

Type: General purpose bomb

Developed: Russia

Weight, kg: 99.8

Length, m: 1.69

Body diameter, m: 0.216

TNT equivalent, kg: 44.9



FAB-1500

Name: FAB-1500

Type: General purpose bomb

Developed: Russia

Weight, kg: 1500

Length, m: 2.8

Body diameter, m: 0.622

TNT equivalent, kg: 1100



FAB-250

Name: FAB-250

Type: General purpose bomb

Developed: Russia

Weight, kg: 249

Length, m: 2.16

Body diameter, m: 0.32

TNT equivalent, kg: 120



FAB-500

Name: FAB-500

Type: General purpose bomb

Developed: Russia

Weight, kg: 506

Body diameter, m: 0.447

Length, m: 2.41

TNT equivalent, kg: 240



FIM-92C

Name: FIM-92C

Type: Short-range, infrared, surface-to-air missile

Developed: USA

Weight, kg: 16

Guidance: infrared

G limit: 18

Maximum Mach number: 2.2

Length, m: 1.52

Body diameter, m: 0.070

TNT equivalent, kg: 3

Range, km: 3



GBU-10

Name: GBU-10

Type: Laser-guided bomb

Developed: USA

Guidance: Laser-command

TNT equivalent, kg: 428

Weight, kg: 900

Length, m: 4.32

Body diameter, m: 0.46



GBU-12

Name: GBU-12

Type: Laser-guided bomb

Developed: USA

Guidance: Laser-command

TNT equivalent, kg: 89

Weight, kg: 225

Length, m: 3.33

Body diameter, m: 0.273



GBU-16

Name: GBU-16

Type: Laser-guided bomb

Developed: USA

Guidance: Laser-command

TNT equivalent, kg: 202

Weight, kg: 454

Length, m: 3.68

Body diameter, m: 0.35



GBU-27

Name: GBU-27

Type: Laser-guided penetration bomb

Developed: USA

Guidance: Laser-command

TNT equivalent, kg: 240

Weight, kg: 984

Length, m: 4.24

Body diameter, m: 0.37



GBU-31

Name: GBU-31

Type: Inertially Aided Munitions

Developed: USA

Guidance: Global Positioning System (GPS) guided and Inertial-guided system (INS) guided

TNT equivalent, kg: 428

Weight, kg: 900

Length, m: 3.8

Wingspan, m: 0.63

The Joint Direct Attack Munition (JDAM) is a guidance kit that converts unguided bombs, or "dumb bombs" into all-weather "smart" munitions. JDAM-equipped bombs are guided by an integrated inertial guidance system coupled to a Global Positioning System (GPS) receiver, giving them a published range of up to 15 nautical miles (28 km). The guidance system was developed by the United States Air Force and United States Navy, hence the "joint" in JDAM. The JDAM was meant to improve upon laser-guided bomb and imaging



GBU-38

Name: GBU-38

Type: Inertially Aided Munitions

Developed: USA

Guidance: Global Positioning System (GPS) guided and Inertial-guided system (INS) guided

Explosive Weight, kg: 87

Weight, kg: 252

Length, m: 2.35

Glide Range, km: 15

Impact Accuracy: Within 33 feet

The Joint Direct Attack Munition (JDAM) is a guidance kit that converts unguided bombs, or "dumb bombs" into all-weather "smart" munitions. JDAM-equipped bombs are guided by an integrated inertial guidance system coupled to a Global Positioning System (GPS) receiver, giving them a published range of up to 15 nautical miles (28 km). The guidance system was developed by the United States Air Force and United States Navy, hence the "joint" in JDAM. The JDAM was meant to improve upon



Hydra 70

Name: Hydra 70

Type: 70 mm unguided aircraft rockets

Developed: USA

Weight, kg: 6.2

Speed, km/h: 4388

Range, km: 8.8

Length, m: 1.06

Body diameter, m: 0.070

TNT equivalent, kg: 2.4



KAB-1500L-Pr

Name: KAB-1500L-Pr
Type: Laser-guided bomb
Developed: GNPP (State Research
Production
Association), Russia
Length, m: 4.6
Body diameter, m: 0.58
TNT equivalent, kg: 1100
Guidance: Laser-command
Weight, kg: 1500



KAB-500Kr

Name: KAB-500Kr
Type: TV-guided bomb
Developed: GNPP (State Research
Production
Association), Russia
Length, m: 3.05
Body diameter, m: 0.35
TNT equivalent, kg: 195
Guidance: TV-command
Weight, kg: 560



KAB-500L

Name: KAB-500L
Type: Laser-guided bomb
Developed: GNPP (State Research
Production
Association), Russia
Body diameter, m: 0.4
Length, m: 3.05
TNT equivalent, kg: 195
Guidance: Laser-command
Weight, kg: 534



KMG-2F/2B

Type: Aircraft submunition dispenser

Developed: Russia

Name: KMG-2F/2B

Weight, kg: 525

Length, m: 3.7

Body diameter, m: 0.46

TNT equivalent, kg: 240



Kh-22

Name: Kh-22 (AS-4 'Kitchen')

Type: Long-range, radar-guided, air-to-surface missile

Developed: OKB-155, Russia

TNT equivalent: 350 kT nuclear or 1000 kg

Guidance: inertial with active or passive radar

Weight, kg: 6800

G limit: 16

Length, m: 11.67

Body diameter, m: 1.00

Range, km: 400

Maximum Mach number: 4.6



Kh-25ML

Name: Kh-25ML (AS-10 'Karen')
Type: Short-range, laser-guided, air-to-surface missile
Developed: Zvezda-Strela, Russia
TNT equivalent, kg: 90
Guidance: semi-active laser
Weight, kg: 300
G limit: 20
Length, m: 3.71
Body diameter, m: 0.275
Range, km: 20
Maximum Mach number: 0.72



Kh-25MPU

Name: Kh-25MPU (AS-12 'Kegler')

Type: Medium-range, anti-radar,
air-to-surface
missile

Developed: Zvezda-Strela, Russia

TNT equivalent, kg: 90

Guidance: inertial and passive radar

Weight, kg: 320

G limit: 20

Length, m: 4.19

Body diameter, m: 0.275

Range, km: 25

Maximum Mach number: 0.76



Kh-25MR

Name: Kh-25MR (AS-10 'Karen')
Type: Short-range, radio command, air-to-surface missile
Developed: Zvezda-Strela, Russia
TNT equivalent, kg: 90
Guidance: radio-command
Weight, kg: 300
G limit: 20
Length, m: 3.69
Body diameter, m: 0.275
Range, km: 10
Maximum Mach number: 0.72



Kh-29L

Name: Kh-29L (AS-14 'Kedge')
Type: Medium-range, laser-guided, air-to-surface missile
Developed: Spetztekhnika Vympel NPO, Russia
TNT equivalent, kg: 317
Guidance: semi-active laser
Weight, kg: 657
G limit: 24
Length, m: 3.87
Body diameter, m: 0.380
Range, km: 10
Maximum Mach number: 2.5



Kh-29T

Name: Kh-29T (AS-14 'Kedge')
Type: Medium-range, TV-guided, air-to-surface missile
Developed: Spetztekhnika Vympel NPO, Russia
TNT equivalent, kg: 317
Guidance: TV-command
Weight, kg: 670
G limit: 24
Length, m: 3.87
Body diameter, m: 0.380
Range, km: 12
Maximum Mach number: 2.5



Kh-31A

Name: Kh-31A (AS-17 'Krypton')

Type: Medium-range, radar-guided,
air-to-
surface missile

Developed: Zvezda-Strela, Russia

TNT equivalent, kg: 90

Guidance: inertial with active radar

Weight, kg: 600

G limit: 20

Length, m: 4.70

Body diameter, m: 0.360

Range, km: 50

Maximum Mach number: 3.04



Kh-31P

Name: Kh-31P (AS-17 'Krypton')

Type: Medium-range, radar-guided,
air-to-
surface missile

Developed: Zvezda-Strela, Russia

TNT equivalent, kg: 90

Guidance: inertial with passive radar

Weight, kg: 600

G limit: 16

Length, m: 4.70

Body diameter, m: 0.360

Range, km: 150

Maximum Mach number: 3.04



Kh-35

Name: Kh-35 (AS-20 'Kayak')

Type: Long-range, radar-guided,
air-to-surface
missile

Developed: Zvezda-Strela, Russia

TNT equivalent, kg: 145

Guidance: inertial with active radar

Weight, kg: 480

G limit: 20

Length, m: 3.75

Body diameter, m: 0.420

Maximum Mach number: 0.9158,



Kh-41

Name: Kh-41 (3M80 "Sunburn")
Type: Long-range, inertial- and radar-guided, air-to-surface missile
Developed: Raduga NPO, Russia
TNT equivalent, kg: 320
Guidance: inertial with active/passive radar
Weight, kg: 4.500
G limit: 17
Length, m: 9.74
Body diameter, m: 0.760
Range, km: 250
Maximum Mach number: 2.5



Kh-58U

Name: Kh-58 (AS-11 'Kilter')
Type: Medium-range, anti-radar,
air-to-surface
missile
Developed: Raduga NPO, Russia
TNT equivalent, kg: 150
Guidance: inertial and passive radar
Weight, kg: 640
G limit: 16
Length, m: 4.80
Body diameter, m: 0.380
Range, km: 70
Maximum Mach number: 4



Kh-59M

Name: Kh-59M (AS-18 'Kazoo')

Type: Long-range, TV
command-guided, air-to-
surface missile

Developed: Raduga NPO, Russia

TNT equivalent, kg: 320

Guidance: inertial and TV-command

Weight, kg: 930

G limit: 16

Length, m: 5.37

Body diameter, m: 0.38

Range, km: 115

Maximum Mach number: 0.85



Kh-65

Name: Kh-65 (AS-15B 'Kent')
Type: Long-range, inertial-guided, nuclear cruise missile
Developed: Raduga NPO, Russia
TNT equivalent, kT: 200
Guidance: inertial and terrain comparison
Weight, kg: 1700
G limit: 16
Length, m: 6.04
Body diameter, m: 0.770
Range, km: 3.000
Maximum Mach number: 0.77



M26

Name: M26

Type: MLRS-launched rocket

Developed: USA

Weight, kg: 306

Speed, km/h: 2124

Range, km: 31.8

Length, m: 3.9

Body diameter, m: 0.24

TNT equivalent, kg: 60



MICA-EM

Name: MICA-EM

Type: Medium-range radar-guided
air-to-air
missile

Developed: France and UK

TNT equivalent, kg: 12

Guidance: active radar

Weight, kg: 110

G limit: 18

Length, m: 3.1

Body diameter, m: 0.165

Range, km: 50

Maximum Mach number: 2.5



MICA-IR

Name: MICA
Type: Medium-range infrared
air-to-air missile
Developed: France and UK
Weight, kg: 110
Guidance: infrared
G limit: 18
Maximum Mach number: 2.5
Length, m: 3.1
Body diameter, m: 0.165
Range, km: 50
TNT equivalent, kg: 12



MIM-104

Name: MIM-104

Type: Long-range, radio command guidance + TVM, surface-to-air-missile for Patriot

Developed: USA

TNT equivalent, kg: 73

Guidance: Semi-active radar

Weight, kg: 912

G limit: 30

Length, m: 5.3

Body diameter, m: 0.41

Range, km: 90

Maximum Mach number: 5



MIM-115 Roland

Name: MIM-115 Roland
Type: Short-range, radio command guidance, surface-to-air-missile for Roland
Developed: France
TNT equivalent, kg: 9.2
Guidance: Semi-active radar
Weight, kg: 75
G limit: 14
Length, m: 2.4
Body diameter, m: 0.15
Range, km: 6
Maximum Mach number: 1.6



MIM-23B

Name: MIM-23B

Type: Medium-range, SARH, surface-to-air-missile for HAWK

Developed: USA

TNT equivalent, kg: 70

Guidance: Semi-active radar

Weight, kg: 630

G limit: 16

Length, m: 5

Body diameter, m: 0.37

Range, km: 16

Maximum Mach number: 2.7



MIM-72G

Name: Forward Area Air-Defense System M48

Type: Short-range, infrared-guided, surface-to-air-missile

Developed: USA

Diameter (missile): 0.127 m

Length (missile): 2.91 m

Wingspan: 0.64 m

Launch Weight: 84 kg

Min effective range: 400 m

Max speed: Mach 2.5

Warhead: 12.6 kg M250
blast-fragmentation

Max altitude: 3000 m

Max range: 8500 m



Mk 82

Name: Mk 82

Type: General purpose bomb

Developed: USA

Weight, kg: 241

Length, m: 2.21

Body diameter, m: 0.273

TNT equivalent, kg: 89



Mk 84

Name: Mk 84

Type: General purpose bomb

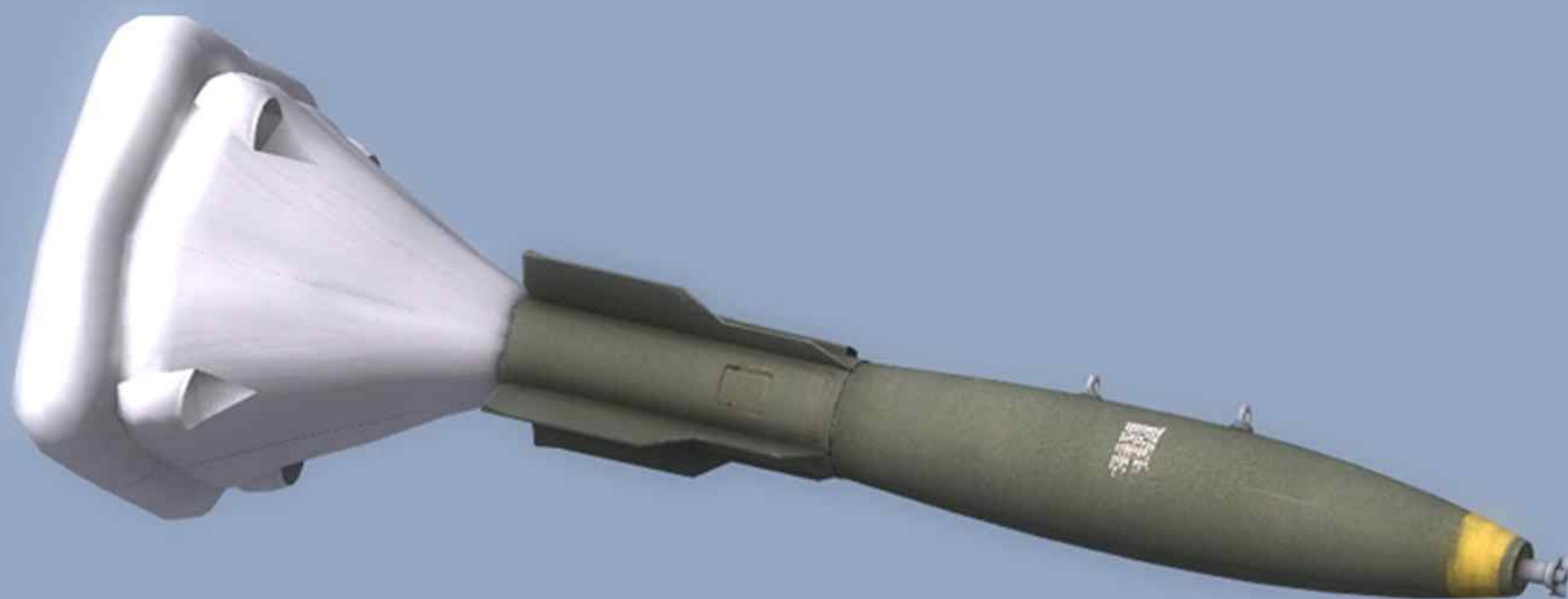
Developed: USA

Weight, kg: 894

Length, m: 3.84

Body diameter, m: 0.46

TNT equivalent, kg: 428



Mk-82AIR

Name: Mk-82AIR

Type: General purpose bomb

Developed: USA

Weight, kg: 241

Length, m: 2.21

Explosive Weight, kg: 87

This version of the Mk-82 adds the BSU-49/B high drag tail assembly, also called the "ballute". This allows the bomb to rapidly slow down after release. By slowing down, pilot can release such a retarded weapon at low altitude and not be caught in the blast effect of the weapon. Pilot can choose to release the Mk-82AIR in either retarded or "slick" (no ballute deployed) modes.



P-500

Name: P-500 (SS-N-12) "Sandbox"

Type: Long-range anti-ship cruise missile

Developed: Russia

Weight, kg: 4800

Guidance: Autopilot

G limit: 17

Maximum Mach number: 2.5

Length, m: 11.7

Body diameter, m: 0.95

TNT equivalent, kg: 1000

Range, km: 550



P-700

Developed: Russia

Name: P-700 (SS-N-19)

Type: Long-range anti-ship cruise missile

Weight, kg: 7000

Guidance: Autopilot

G limit: 16

Maximum Mach number: 2.5

Length, m: 10.0

Body diameter, m: 0.85

TNT equivalent, kg: 750

Range, km: 550



R-24R

Name: R-24R (AA-7 'Apex')

Type: Medium-range, radar-guided, air-to-air missile

Developed: Vympel OKB, Russia

TNT equivalent, kg: 30

Guidance: command and semi-active radar

Weight, kg: 235

G limit: 18

Length, m: 4.46

Body diameter, m: 0.2

Range, km: 20

Maximum Mach number: 3



R-24T

Name: R-24T (AA-7 'Apex')
Type: Medium-range, infrared, air-to-air missile
Developed: Vympel OKB, Russia
TNT equivalent, kg: 30
Guidance: command and infrared
Weight, kg: 215
G limit: 18
Length, m: 4.16
Body diameter, m: 0.2
Range, km: 20
Maximum Mach number: 3



R-27ER

Name: R-27ER (AA-10 'Alamo')

Type: Medium-range, radar-guided, air-to-air missile

Developed: Spetztekhnika Vympel NPO, Russia

TNT equivalent, kg: 39

Guidance: inertial, command and semi-active radar

Weight, kg: 350

Length, m: 4.70

Body diameter, m: 0.26

Range, km: 70

Maximum Mach number: 3

G limit: 18



R-27ET

Name: R-27ET (AA-10 'Alamo')

Type: Long-range, infrared,
air-to-air missile

Weight, kg: 343

Guidance: inertial, command and
infrared

G limit: 18

Maximum Mach number: 3

Developed: Spetsstekhnika Vympel
NPO, Russia

Length, m: 4.50

Body diameter, m: 0.26

TNT equivalent, kg: 39

Range, km: 70



R-27R

Name: R-27R (AA-10 'Alamo')
Type: Medium-range, radar-guided, air-to-air missile
Developed: Spetztekhnika Vympel NPO, Russia
TNT equivalent, kg: 39
Guidance: inertial, command and semi-active radar
Weight, kg: 253
Length, m: 4.00
Body diameter, m: 0.23
Range, km: 50
Maximum Mach number: 3
G limit: 18



R-27T

Name: R-27T (AA-10 'Alamo')
Type: Medium-range, infrared, air-to-air missile
Developed: Spetztekhnika Vympel NPO, Russia
TNT equivalent, kg: 39
Guidance: inertial, command and infrared
Weight, kg: 254
G limit: 18
Length, m: 3.70
Body diameter, m: 0.23
Range, km: 40
Maximum Mach number: 3



R-33

Name: R-33 (AA-9 'Amos')

Type: Long-range, radar-guided, air-to-air missile

Developed: Spetztekhnika Vympel NPO, Russia

TNT equivalent, kg: 47

Guidance: inertial, command updates and semi-active radar

Weight, kg: 490

Length, m: 4.15

Body diameter, m: 0.38

Range, km: 100

Maximum Mach number: 3.5

G limit: 16



R-40R

Name: R-40R (AA-6 'Acrid')

Type: Medium-range, radar-guided, air-to-air missile

Developed: Russia

TNT equivalent, kg: 70

Guidance: command, inertial and semi-active radar

Weight, kg: 475

Length, m: 6.2

Body diameter, m: 0.355

Range, km: 30

Maximum Mach number: 3

G limit: 18



R-40T

Name: R-40T (AA-6 'Acrid')
Type: Medium-range, infrared, air-to-air missile
Developed: Russia
TNT equivalent, kg: 70
Guidance: command, inertial and infrared
Weight, kg: 475
G limit: 18
Length, m: 6.2
Body diameter, m: 0.355
Range, km: 30
Maximum Mach number: 3



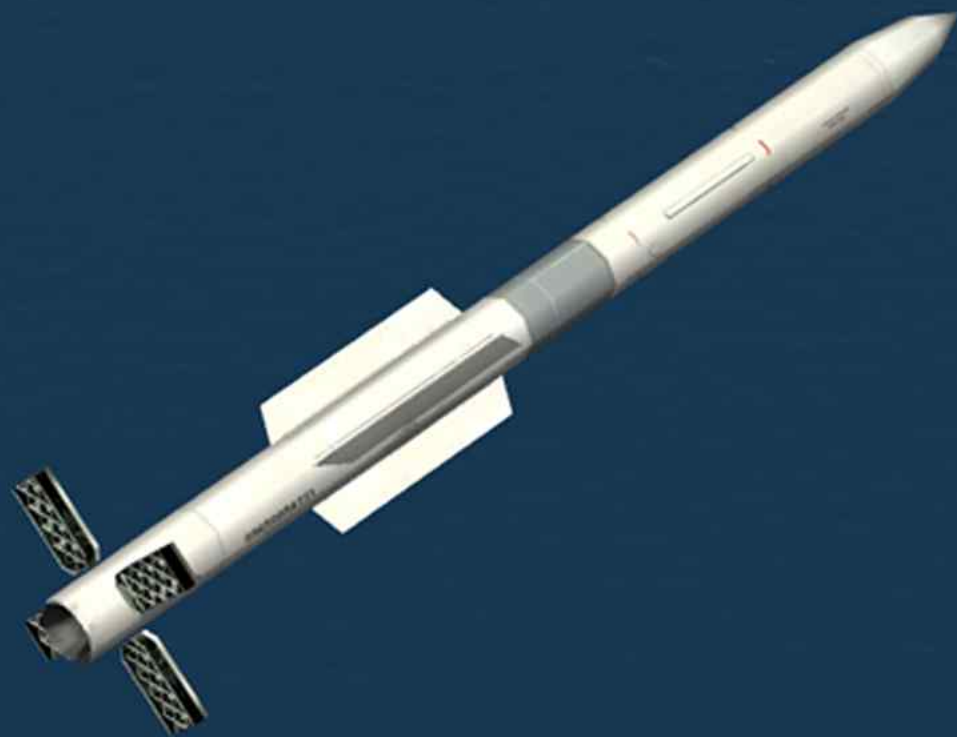
R-60

Name: R-60 (AA-8 'Aphid')
Type: Short-range, infrared, air-to-air missile
Developed: Molniya OKB, Russia
Weight, kg: 65
Guidance: infrared
G limit: 18
Maximum Mach number: 2
Length, m: 2.08
Body diameter, m: 0.13
TNT equivalent, kg: 6.0
Range, km: 5.0



R-73

Name: R-73 (AA-11 'Archer')
Type: Medium-range, infrared, air-to-air missile
Developed: Molniya OKB, Russia
TNT equivalent, kg: 7.4
Guidance: inertial and infrared
Weight, kg: 110
G limit: 30
Length, m: 2.90
Body diameter, m: 0.17
Range, km: 15
Maximum Mach number: 2.5



R-77

Name: R-77 (AA-12 'Adder')
Type: Medium-range, radar-guided, air-to-air missile
Developed: Spetztekhnika Vympel NPO, Russia
TNT equivalent, kg: 30
Guidance: inertial, command and active radar
Weight, kg: 175
G limit: 30
Length, m: 3.60
Body diameter, m: 0.200
Range, km: 50
Maximum Mach number: 3



R550 Magic 2

Name: R550 Magic 2

Type: Short-range, infrared, air-to-air missile

Developed: France

Weight, kg: 90

Guidance: Infrared seeker

G limit: 18

Maximum Mach number: 2

Length, m: 2.75

Body diameter, m: 0.157

TNT equivalent, kg: 13

Range, km: 5



RBK-250

Name: RBK-250

Type: Multipurpose cluster bomb

Developed: Russia

Weight, kg: 275

Length, m: 2.12

Body diameter, m: 0.325

TNT equivalent, kg: 94



RBK-500AO

Name: RBK-500AO

Type: Anti-personnel/anti-material
cluster bomb

Developed: Russia

Weight, kg: 504

Length, m: 2.5

Body diameter, m: 0.45

Filling, bomblet: 108



Rockeye

Name: Rockeye Mk-20

Type: Multipurpose cluster bomb

Developed: USA

Weight, kg: 222

Length, m: 2.34

Body diameter, m: 0.335

TNT equivalent, kg: 50



S-13

Name: S-13

Type: 122 mm unguided aircraft rockets

Developed: Spetztekhnika Vympel NPO, Russia

Weight, kg: 68

Speed, km/h: 2700

Range, km: 2.5

Length, m: 1.80

Body diameter, m: 0.122

TNT equivalent, kg: 32.5



S-24

Name: S-24

Type: 240 mm unguided aircraft rockets

Developed: Spetztekhnika Vympel NPO, Russia

Weight, kg: 235

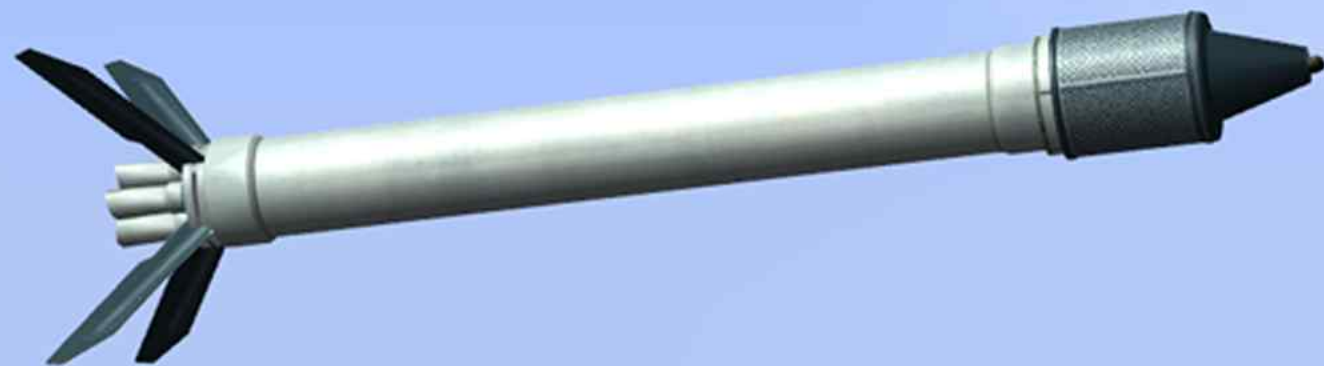
Speed, km/h: 2520

Range, km: 2

Length, m: 2.33

Body diameter, m: 0.24

TNT equivalent, kg: 123



S-25

Name: S-25

Type: 340 mm unguided aircraft rocket

Developed: Russia

Weight, kg: 480

Speed, km/h: 2520

Range, km: 3

Length, m: 3.31

Body diameter, m: 0.34

TNT equivalent, kg: 190



S-25L

Name: S-25L

Type: 340 mm laser guided aircraft rocket

Developed: Russia

Weight, kg: 480

Speed, km/h: 2520

Range, km: 3

Length, m: 3.31

Body diameter, m: 0.34

TNT equivalent, kg: 190



S-5

Name: S-5
Type: 57 mm unguided aircraft
rockets
Developed: Spetztekhnika Vympel
NPO, Russia
Weight, kg: 3.86
Speed, km/h: 2422.8
Range, km: 3
Length, m: 0.88
Body diameter, m: 0.052
TNT equivalent, kg: 1.05



S-8KOM

Name: S-8KOM

Type: 80 mm unguided aircraft rocket

Developed: Spetztekhnika Vympel NPO, Russia

Weight, kg: 11.3

Length, m: 1.57

Caliber, mm: 80

Warhead weight, kg: 3.6

Warhead type: shaped-charge fragmentation

Speed, m/s: 610

Firing range, m: 1300 - 4000

Armor penetration, mm: 400

This rocket is intended to engage modern tanks, lightly armored and soft-skinned combat materiel. Owing to the fragmentation effect, the rocket also inflicts damage on manpower.



S-80FP2

Name: S-80FP2

Type: 80 mm unguided aircraft rocket

Developed: RUSSIAN FEDERAL STATE UNITARY ENTERPRISE "SPLAV STATE RESEARCH and PRODUCTION ASSOCIATION", Russia

Weight, kg: 16.7

Length, m: 1.476

Caliber, mm: 80

Warhead weight, kg: 9.2

Warhead type: high explosive fragmentation

Firing range, m: 1300 - 4000

This rocket is designed to engage personnel, soft and lightly armored targets.



S-80M

Name: S-80M

Type: 80 mm unguided aircraft rocket

Developed: Spetztekhnika Vympel NPO, Russia

Weight, kg: 12.1

Length, m: 1.632

Caliber, mm: 80

Warhead weight, kg: 4.3

Warhead type: illuminating compound

Firing range, m: 6000 - 7000

Illumination duration, s: 35

This rocket is intended for terrain illumination at night. It is an auxiliary purpose rocket.



S-8TsM

Name: S-8TsM

Type: 80 mm unguided aircraft rocket

Developed: Spetztekhnika Vympel NPO, Russia

Weight, kg: 11.1

Length, m: 1.605

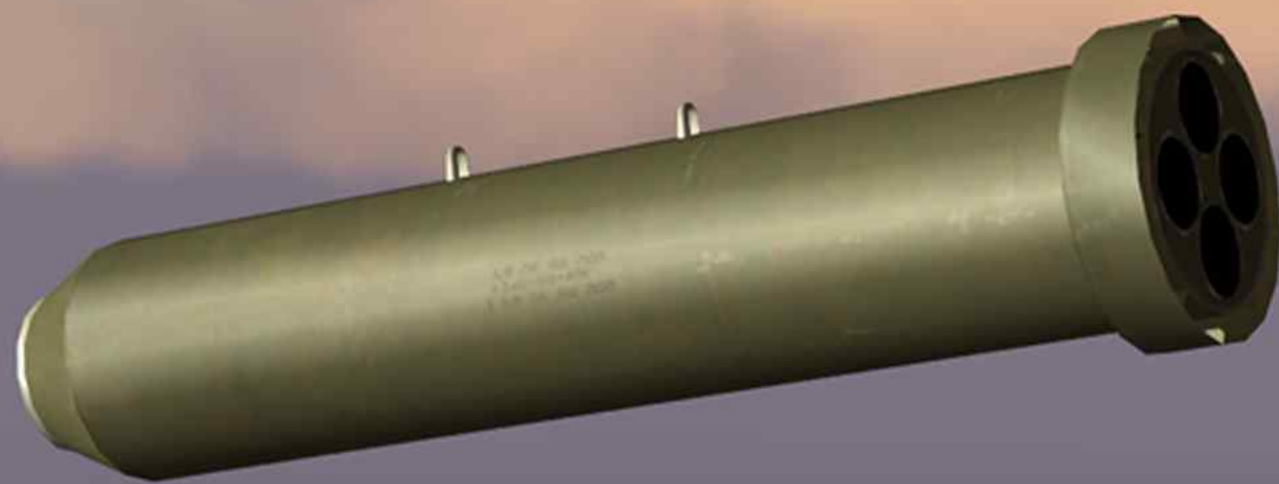
Caliber, mm: 80

Warhead weight, kg: 3.6

Warhead type: marker

Firing range, m: 1300 - 3000

This rocket is intended to mark ground targets, routes of movement and landing areas in daytime.



SAB-100

Name: SAB-250

Type: Illumination bomb

Developed: Russia

Release altitude: 1000...3000 m

Contain 8 illumination flares. Each flare burn during 2 minutes.



SM-2

Name: SM-2 (RIM-66)
Type: Long-range, radio command guidance + SARH, naval surface-to-air-missile
Developed: USA
TNT equivalent, kg: 98
Guidance: Semi-active radar
Weight, kg: 615
G limit: 16
Length, m: 4.4
Body diameter, m: 0.34
Range, km: 35
Maximum Mach number: 2.7



SPPU-22

Name: SPPU-22
Type: Flexible cannon pod
Developed: Russia
Weight, kg: 320
Gun type: GSh-23L
Number of barrels: 2
Barrel deflection angle, deg: 0-30
Caliber: 23mm
Deflection method: manual or laser lock
Firing rate, rounds/minute: 2800-3000
Muzzle velocity, m/s: 690-890
Range, km: 3
Ammunition storage, rounds: 260



Sea Eagle

Name: Sea Eagle

Type: Long-range, radar-guided, antiship

Developed: UK

TNT equivalent, kg: 230

Guidance: inertial and active radar

Weight, kg: 600

G limit: 20

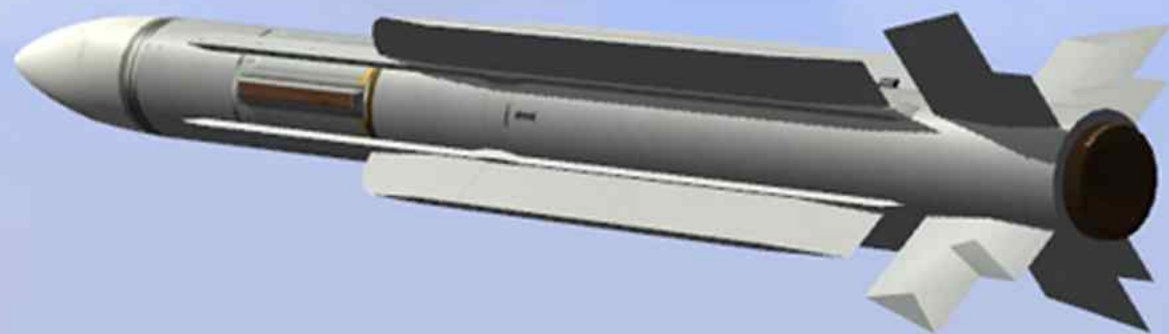
missile

Length, m: 4.14

Body diameter, m: 0.400

Range, km: 110

Maximum Mach number: 0.85



Super 530D

Name: Super 530D

Type: Medium-range, radar-guided,
air-to-air
missile

Developed: France

TNT equivalent, kg: 30

Guidance: Semi-active radar

Weight, kg: 245

G limit: 18

Length, m: 3.54

Body diameter, m: 0.263

Range, km: 25

Maximum Mach number: 5



Zuni

Name: Zuni

Type: 127 mm unguided aircraft rockets

Developed: USA

Weight, kg: 56.3

Speed, km/h: 2520

Range, km: 4

Length, m: 2.93

Body diameter, m: 0.127

TNT equivalent, kg: 26