M-1990

Type: 30mm gatling gun  Tactical AA range: 3,000m
Rate of fire: 2,400-3,400 rds/min  Azimuth: unlimited
Elevation: -5 to 85 degrees  Fire control: radar, speed ring
Ammunition: HEI-T (30x210mm)  Self destruct time: 7 to 10 secs  Self destruct range: 3,600-4,500m
Other: manufactured in North Korea, 4 wheeled carriage (towed), 4 barrels, externally driven by electric motor
M-1992

Type: twin 30mm SP automatic cannon  
Tactical AA range: 3,000m  
Rate of fire: 800 rds/min per barrel  
Azimuth: unlimited  
Elevation: -5 to 85 degrees  
Fire control: radar, optical speed ring  
Ammunition: HEI-T (30x210mm)  
Self destruct time: 7 to 10 secs  
Self destruct range: 3,600-4,500m  
Other: manufactured in North Korea, gas operated, ZSU-23-4 variant chassis, max road speed 50 km/hr
M-1939

Type: 37mm automatic cannon  Tactical AA range: 2,500 m  Rate of fire: 160-180 rds./min  Ammunition: HEI-T (37x252mm)  Self destruct time: 8 to 12 secs  Self destruct range: 3,700 to 4,700 m  Other: manufactured in Russia and China (Type-55), 4 wheeled carriage (towed), 1 barrel, 5 round clip, recoil operation

Equipment Recognition  6-63
Type-65

Type: Twin 37mm AA gun  Tactical AA range: 3,500m
Rate of fire: 150-180 rds/min per barrel  Azimuth: unlimited
Elevation: -10 to 85 degrees  Fire control: optical mech computing sight
Ammunition: HEI-T (37x252mm)  Self destruct time: 9 to 12 secs  Self destruct range: 4,000 to 4,750m
Other: manufactured in China, recoil operated, 4 wheeled carriage (towed)

Equipment Recognition 6-64
Type-74

Type: 37mm twin automatic cannon  Tactical AA range: 3,500m  Rate of fire: 220-240 rds/min per barrel  Azimuth: unlimited  Elevation: -5 to 87 degrees  Fire control: optical mech computing sight, radar  Ammunition: HEI-T (37x252mm)  Self destruct time: 9 to 12 secs  Self destruct range: 4,000 to 4,700m  Other: manufactured in China, recoil operated, 4 wheeled carriage (towed)
SP AA GUN

Type: 37mm twin SP AA gun  Tactical AA range: 2,500m  Rate of fire: 150-180 rds/min per barrel
Azimuth: unlimited  Elevation: -5 to 85 degrees  Fire control: optical mech computing sight  Ammunition: HEI-T (37x252mm)  Self destruct time: 9 to 12 secs  Self destruct range: 4,000 to 4,700m  Other: manufactured in North Korea, recoil operated, 5 round clip, armored personnel carrier (tracked) carriage

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Equipment Recognition  6-66
Type: 57mm automatic AA gun  Tactical AA range: 4000m w/o radar, 6000 m w/radar  Rate of fire: 105-120 rds/min  Azimuth: unlimited  Elevation: -4 to 87 degrees  Fire control: optical mechanical computing sight, radar  Ammunition: HE-T (57X348mm)  Self destruct time: 13 to 17 secs  Self destruct range: 6,000 to 7200 m  Other: manufactured in a 4 wheeled towed carriage, Chinese variant is the Type 59
TWIN 57MM SELF PROPELLED AA GUN

Type: 57mm automatic AA gun  
Tactical AA range: 4000m  
Rate of fire: 150-180 rds/min/barrel  
Azimuth: unlimited  
Elevation: 0 to 87 degrees  
Fire control: optical mechanical computing sight  
Ammunition: HEI-T (57X348mm)  
Self destruct time: 13 to 17 secs  
Self destruct range: 6,000 to 7,200 m  
Other: mounted on a modified YW 531 APC, DPRK produced

Equipment Recognition 6-68
TWIN 57MM AA GUN

Type: 57mm automatic AA gun  Tactical AA range: 4000m w/o radar, 6000m w/radar  Rate of fire: 105-120 rds/min/barrel  Azimuth: unlimited  Elevation: -4 to 87 degrees

Fire control: optical mechanical computing sight, radar  Ammunition: HE-T (57X348mm)  Self destruct time: 13 to 17 secs  Self destruct range: 6,000 to 7,200 m

Other: mounted on a 4 wheeled towed carriage DPRK produced
KS-12

Type: 85mm single shot AA gun  Tactical AA range: 4,000m w/o radar, 10,200m w/radar  Rate of fire: 15-20 rds/min  Azimuth: 720 degrees  Elevation: -3 to 82 degrees  Fire control: optical telescope, radar  Ammunition: HE-T, APC-T (85X---mm)  Self destruct time: 1 to 33 secs  Self destruct range: 800 to 10,200 m  Other: mounted on a 4 wheeled towed carriage, Chinese variant is Type 72

Equipment Recognition 6-70
KS-19

**Type:** 100mm single shot AA gun  
**Tactical AA range:** 4,000m w/o radar, 12,600m w/radar  
**Rate of fire:** 15 rds/min  
**Azimuth:** unlimited  
**Elevation:** -3 to 85 degrees  
**Fire control:** optical telescope, radar  
**Ammunition:** HE-T, APC-T (100X---mm)  
**Self destruct time:** 1 to 33 secs  
**Self destruct range:** 800 to 12,600 m  
**Other:** mounted on a 4 wheeled towed carriage, Chinese variant is Type 59
SA-2 B/C/D/E/F GUIDLINE

Description: The SA-2 is a somewhat mobile medium to high level guided SAM system. Max Speed: 4.0 B/C/D, 4.5 E/F Mach Max Effective Altitude: 27 B/C/F, 40 D/E km Max Effective Range: 35 B/F, 44 C, 50 D/E km Warhead: HE 200 kg (295 kg SA-2E) Fuze: contact, proximity, or command Kill Radius: 65m.

Equipment Recognition 6-72
HQ-2B/F/J/P (SA-2 CHINA)

Description: The HQ-2B/J is a Chinese reversed engineering version of the SA-2. **Max Speed:** 3.5–4 Mach **Max Effective Altitude:** 27 km **Max Effective Range:** 35 2B, 50 2J km **Warhead:** HE 188 kg **Fuze:** contact, proximity, or command **Kill Radius:** Unk
SA-3 GOA

Description: The SA-3 B/C is a somewhat mobile low to medium level guided SAM system. **Max Speed:** 3.5 Mach  
**Max Effective Altitude:** 22 km  
**Max Effective Range:** 25 km  
**Warhead:** HE 60 kg  
**Fuze:** proximity doppler radar  
**Kill Radius:** 12.5 m.
SA-5 GAMMON

Description: The SA-5 is a long range, medium to high altitude strategic semi active guided SAM system. Max Speed: 4 Mach Max Effective Altitude: 30.5 km Max Effective Range: 300 km Warhead: HE 215 kg Fuze: proximity & command Kill Radius: Unk.
HN-5/5A (SA-7 CHINA)

Description: The HN-5 is the Chinese version of the SA-7 man portable short range passive infra red homing SAM. 
Max Speed: 1.5 Mach Max Effective Altitude: 2.5 km 
Max Effective Range: 4.5 km Warhead: Unk Fuze: Unk 
Kill Radius: Unk.

Equipment Recognition 6-76
SA-7B

Description: The SA-7B is a short range man portable, shoulder launched, fire and forget IR SAM. Max Speed: 1.7-1.95 Mach Max Effective Altitude: 4.5 km Max Effective Range: 5.6 km Warhead: HE 1.8 kg Fuze: contact & graze Kill Radius: Unk.
SA-14

Description: The SA-14 is a short range man portable, shoulder launched, fire and forget IR SAM. Max Speed: 2+ Mach
Max Effective Altitude: 6+ km Max Effective Range: 7+ km Warhead: HE Fuze: contact & graze Kill Radius: Unk.

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Equipment Recognition 6-78
SA-16

Description: The SA-16 is an improvement over the SA-14. It has a bigger warhead, more speed, and more maneuverability. Max Speed: 2+ Mach Max Effective Altitude: 6+ km Max Effective Range: 7+ km Warhead: HE 2 kg Fuze: contact & graze Kill Radius: Unk.
STINGER

Description: The Stinger is a man portable, shoulder fired, passive IR homing, short range SAM. **Max Speed:** 2.2 Mach  
**Max Effective Altitude:** 3.5 km **Max Effective Range:** 4 km  
**Warhead:** HE 3 kg **Fuze:** contact  
**Kill Radius:** Unk.

Equipment Recognition 6-80