

The Swedish ak 5 upgrade program

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Agenda

- ▶ Current Swedish small arms
- ▶ Ongoing Swedish programs
- ▶ The ak 5 upgrade program

Current Swedish small arms

5.56 mm Ak 5



12.7 mm Barrett



12.7 mm HMG
M2HB QCB



7.62 mm PSG 90



5.56 mm Minimi



40 mm AGL Mk 19



9 mm Glock 17



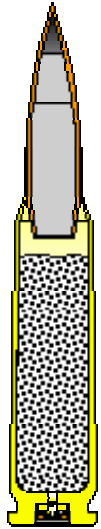
40 mm GL M203



Some ongoing programs



- ▶ Red-dot sight
- ▶ Ammo (Green, APHC, Dim Tracer).
- ▶ Ak 5 upgrade.
- ▶ Barrett M107.
- ▶ Foreign weapons training kit.
- ▶ NLW.
- ▶ Ksp 58 upgrade.
- ▶ FN M3M HMG.
- ▶ Short range ammo.
- ▶ Future grenade launchers.
- ▶ FX simunition kits.



Development of the ak 5



FN CAL 1966



FN FNC 1976



FN FNC 1981



Ak 5 1983

Ak 5 = M16A2

The ak 5 and M16A2 are technology vice equal:

- ▶ 1/7" NATO twist barrel.
- ▶ Magazine.
- ▶ Iron sights.
- ▶ No rails.



The FNC was the the original 1/7" rifle from the 1977-79 NATO-trials!



The M16A2 was the first 1/7" rifle adopted!

The existing ak 5 family



Ak 5



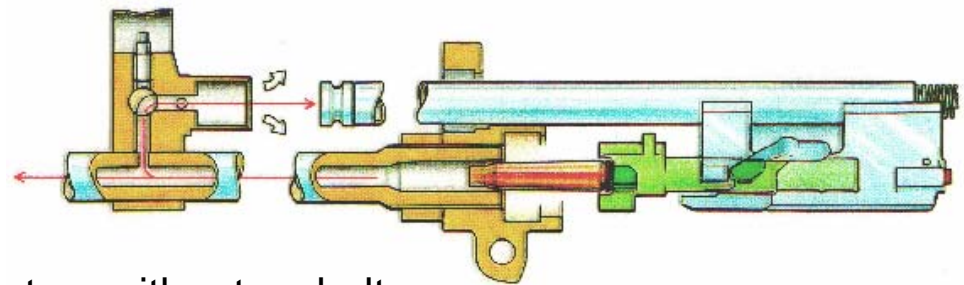
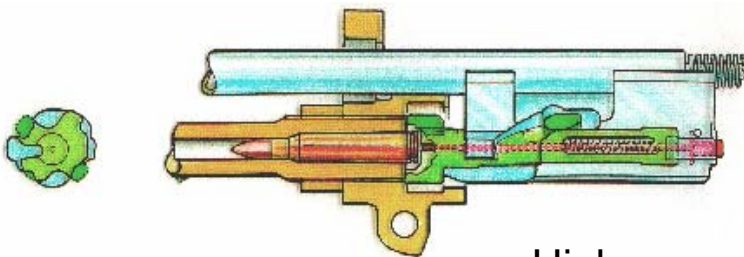
Ak 5B (with British 4X SUSAT sight)

The ak 5 is designed by Fabrique National of Belgium, and produced under license by FFV Ordnance (now Saab Bofors Dynamics) located in Eskilstuna, Sweden.

Data	ak 5	ak 5B
Weight unloaded (kg)	3.9	4.8
Length (mm)	1010 (750)	1010 (750)
Barrel length (mm)	450	450
Muzzle velocity (m/s)	930	930
Deliveries	1986-1999	1989

What to do?

- ▶ No cold war = still many brand new weapons in depots.
- ▶ The existing ak 5 is well known for its high reliability and robust design, but is not suitable for integration in the upcoming Swedish future soldier program.
- ▶ The users requested:
 - ▾ Rails.
 - ▾ Better ergonomics.



High pressure gas system with rotary bolt

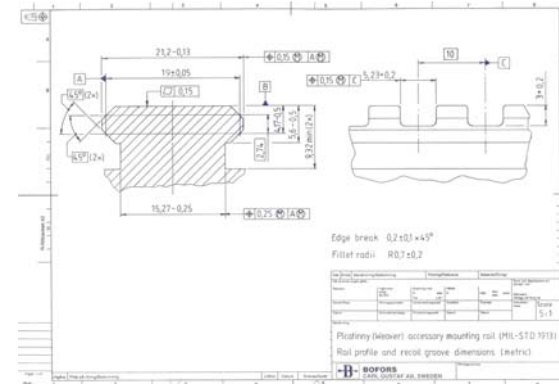
Two alternatives

- ▶ Choice of buying a new weapon or modifying the existing.
- ▶ We choose to modify because of:
 - ▾ Lower risk.
 - ▾ Cheaper.
 - ▾ Quicker.
- ▶ The original manufacturer – Saab Bofors Dynamics – was chosen as the contractor.



Introduced changes on ak 5CF

- ▶ **Generally**
 - ▶ Increased reliability: MRBS >2000.
 - ▶ Black in stead of green.
- ▶ **Upper receiver**
 - ▶ MIL-STD 1913 rail on the upper part of the receiver.
 - ▶ New flash hider with better flash suppression.
 - ▶ Only one gas position.
 - ▶ New permanent bayonet lug for the ak 4 (G3) bayonet.
 - ▶ New hand guard with rail at 6 o'clock.
- ▶ **Lower receiver**
 - ▶ New adjustable butt stock.
 - ▶ New ambidextrous selector lever.
 - ▶ New pistol grip.
 - ▶ Automatic bolt catch.
- ▶ **Accessories**
 - ▶ New transparent plastic magazine.
 - ▶ Removable forward grip.
 - ▶ New tactical sling.
- ▶ **Removed**
 - ▶ Ordinary iron sights
 - ▶ Existing bolt catch



Summary:

- ▶ Rails.
- ▶ Ergonomics.
- ▶ Reliability.



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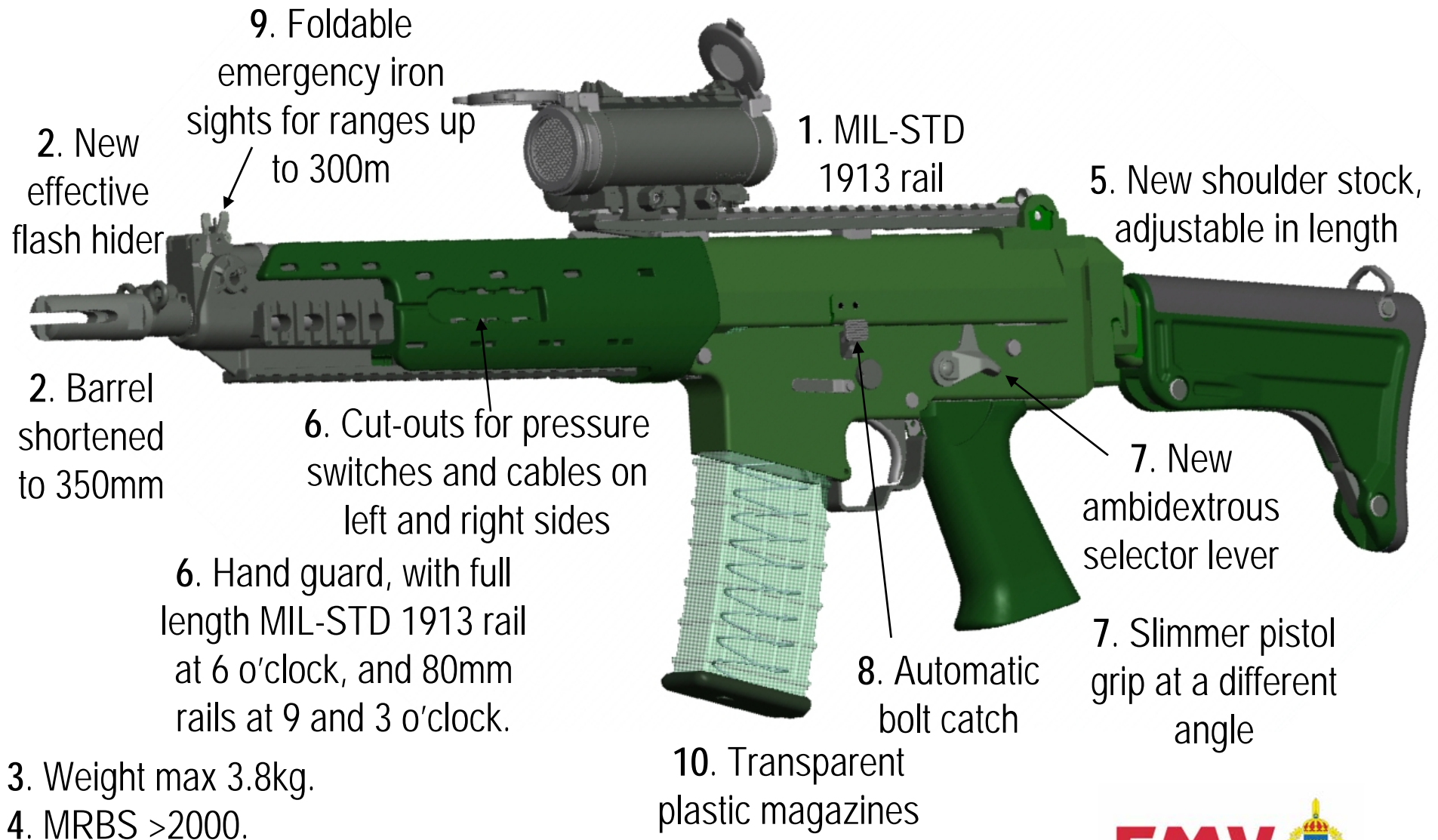


User feedback

- ▶ 300 ak 5CF's in troop trials 2003-2005.
- ▶ More than one million rounds fired!
- ▶ MRBS was 3500!
- ▶ Some weapons fired more than 12,000 round without any broken parts!
- ▶ Users were enthusiastic, but:
 - ▾ Weapon is too heavy!
 - ▾ Weapon is too long!



User priorities on ak 5C



Mil-Std 1913 makes modularity possible!



US SOPMOD M4 Block 1 accessory kit

Program schedule

- ▶ Industry contract in October 2005.
- ▶ Modification of 27,500 weapons in 2006-2009.
- ▶ First deliveries in June 2006.
- ▶ Ak 5C will be the primary weapon for Swedish Soldiers in the EU Nordic Battle Group.



Swedish red dot sight for small arms



- ▶ Manufacturer: Aimpoint AB
- ▶ Type: Red dot sight
- ▶ Magnification: None
- ▶ Battery life: >10 years
- ▶ Rail: Mil-Std 1913
- ▶ Deliveries: 2003-2006
- ▶ Will be used on all rifles and machine guns.

Possible accessories for the Red dot sight

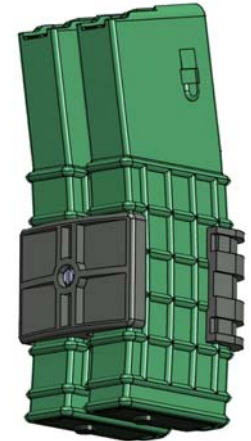
- ▶ 3X magnification?
- ▶ Off Axis Viewing Device?
- ▶ I²?
- ▶ Video?



Other accessories for ak 5C



- ▶ Transparent plastic magazine.
- ▶ Magazine clip.
- ▶ Front grip.
- ▶ Tactical sling.
- ▶ Laser pointer (visual and IR).
- ▶ Illuminator (visual and IR).
- ▶ Modification of M203 Grenade Launcher.
- ▶ Bayonet.
- ▶ Safety BFA.
- ▶ Modification of "Miles-type" laser force-on-force simulator.
- ▶ FX conversion kit.
- ▶ Telescopic sight.
- ▶ Bipod.



Ksp 58 upgrade

- ▶ The ksp 58 (MAG/GPMG/M240) was a development initiated by Sweden in the 1950's.
- ▶ In use in Sweden since 1958.
- ▶ Test with 25 modified weapons in 2005-2006.
- ▶ Deliveries from 2008.



Summary

- ▶ Sweden will upgrade at least 27,500 new ak 5 rifles.
- ▶ They will thereby remain modern for an additional 15 years.
- ▶ The Swedish soldier will therefore be equipped with a modern weapon at a moderate cost to the taxpayer.





Questions?

