

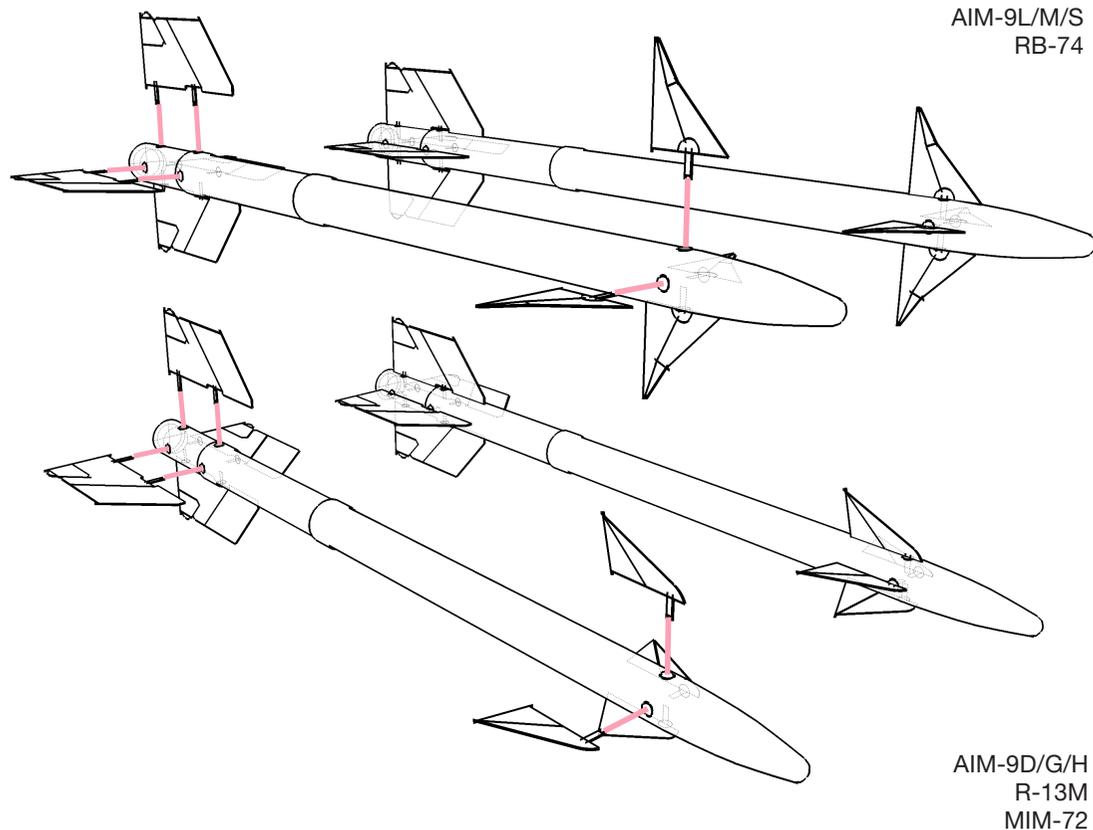
Assembly scheme

This is a set for an experienced modeller. We provide you with really small parts, so try not to swallow it, this is carpet crawlers' business after all.

The construction of the missile is pretty basic - have your end result looking as on photo above and you're there. We trust you can handle it. Just remember to keep fin attachment pins on the proper side of the blade while cutting out photoetched parts. Those pins should make your job fitting fins to body much easier.

Missile body has two additional slots for attaching to pylon/launcher, a template to get those slots aligned on launcher is provided on the edge of photoetched fret.

As for painting and markings - AIM-9s give plenty to choose from. Use your reference photos for desired scheme and exact colors. Actually, always use your reference photos!



Brief history and description of missile

(If you are interested in early Sidewinder story and technology, you face two options: 1. google (ok, I'll make it easier: start at <http://www.designation-systems.net/dusrm/m-9.html>), 2. buy our (upcoming) AIM-9B/R-3S set.

Having a basic configuration of AIM-9 proven, its strengths and shortcomings explored, it was time to move on.

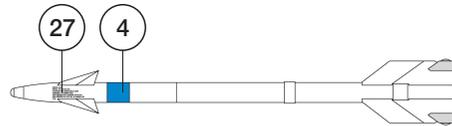
US Navy began developing AAAM-N-7 Sidewinder 1 into two versions - semi-active-radar-homing (AIM-9C from 1963) and IR guided AIM-9D. Improvements included new solid-fuel rocket motor (Hercules Mk36) for significantly increased range (18km) and a larger Mk48 continuous-rod warhead.

SARH AIM-9C saw only limited use with F8U Crusaders, many of 1000 built were later converted into AGM-122 Sidearm anti-radiation missile.

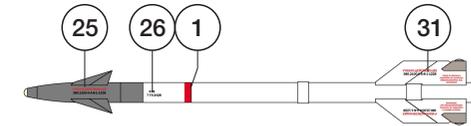
AIM-9D, conversely, went on as a basis for future development of missile. Its smaller IR seeker housed in more pointed nose featured a new nitrogen-cooled PbS seeker, with field-of-view still not an impressive 2.5deg, but cooling meant greatly improved sensitivity and higher tracking rate translated into greater launch envelope and maneuverability. Not many AIM-9-Ds were built, but soon AIM-9G variant replaced it, offering expanded acquisition modes. AIM-9H brought better reliability thanks to replacing vacuum tubes for solid-state semiconductors. Seeker tracking rate was still improved, and -H Sidewinders were credited with highest kill-rate of all AIM-9 variants used in Vietnam.

AIM-9L was a result of joint USN and USAF program to produce vastly improved Sidewinder. It had new long-span pointed double-delta canards, modified rocket motor, new guidance and control section. A completely new Argon-cooled InSb (Indium Antimonite) seeker was the key to get all-aspect capability. New warhead and fuze complete the picture. Production started in 1978. AIM-9M is essentially -L variant equipped with reduced-smoke rocket motor and improved guidance section with better countermeasures resistance. AIM-9P is export version of L/M Sidewinders with some simpler/cheaper sections.

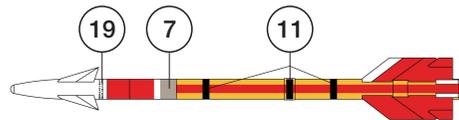
Colors and markings



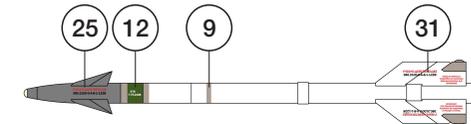
Inert AIM-9D in overall white.



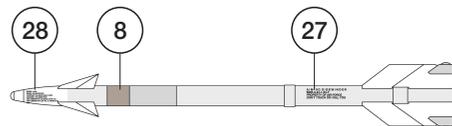
Default R-13M. Seeker section and fins in dark oxidized metal (or ~FS37038 dark grey substitute). Aft sections - white.



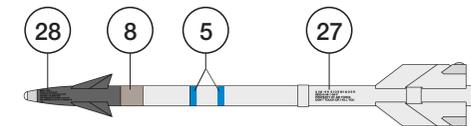
Sidewinder 1-C during NAVY evaluation of XF5V-1 (better known as F-104) at China Lake, 1960. Note 4 telemetry antennas at the back.



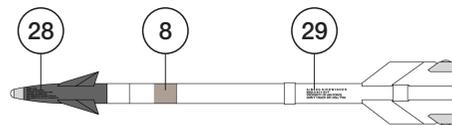
R-13M used on J-35 Draken by Svenska Flygvapnet.



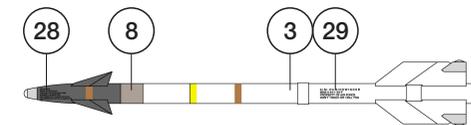
AIM-9D with white nose section, fins and wings. Aft sections gray (FS16473) with darker warhead (FS16270).



Inert AIM-9G. Seeker section and fins in dark oxidized metal (i.e. ~FS37038 grey), warhead and motor - gray (FS36473).



AIM-9H in scheme somewhat resembling R-13M, Fuze section white.



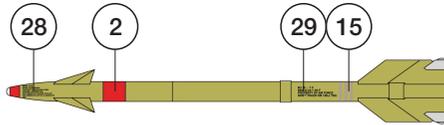
Standard AIM-9H - white fuselage, with dark oxidized guidance section and fins.

Meanwhile in USSR...

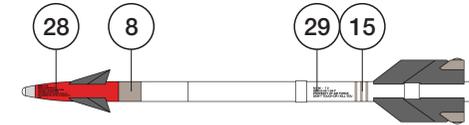
...in early 1970s new generation of R-3 was introduced - R-13M (K-13M, изделие 380), roughly corresponding to AIM-9D/G/H. New seeker allowed intercept at greater target deflection. New engine and generator increased range. Launch could be accomplished at 3.5-4g. It was widely used on MiG-21, MiG-23 and Su-17, although new generation of more aerodynamically advanced missiles (think: R-60) were just around the corner.

For more maneuverable targets R-13M1 (изделие 380M) was developed, this time general arrangement was very similar to AIM-9J. Larger front fins gave it better control in tight turns. Unfortunately unreliable warhead was cause of its short operative live.

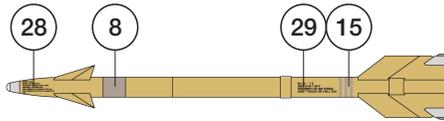
Colors and markings



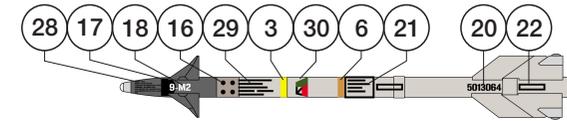
MIM-72A Chaparral in ~FS33481 pale yellow.



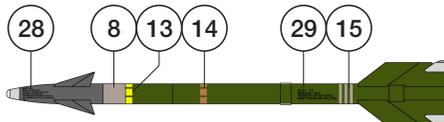
Taiwanese MIM-72H. Red (FS31105) seeker section, white mid- and aft-sections, oxidized metal (dark grey ~FS37038) fins and wings.



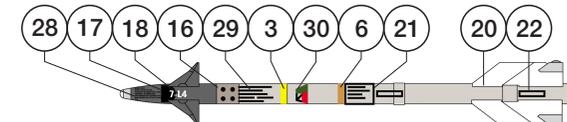
MIM-72A Chaparral in metallic bronze/gold.



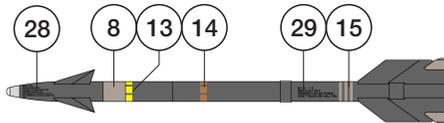
AIM-9M in standard dark oxidized metal (dark grey ~FS37038 should do) front and fins and FS36375 aft-sections and wings.



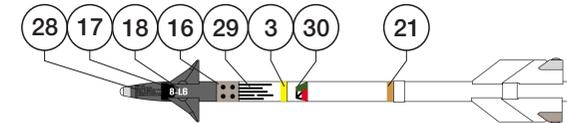
MIM-72A/C Chaparral. Front dark oxide metal fins, seeker section dark oxidized metal (i.e. grey ~FS37038), mid- and aft-sections dark green (FS34079).



AIM-9L in standard dark oxidized metal (dark grey ~FS37038) front and fins, white wings and FS36375 aft-sections.



Black MIM-72E/F Chaparral. In 1/144 dark grey (i.e. ~FS37038) might bring better results than using pure black.



AIM-9L in standard dark oxidized metal (dark grey ~FS37038) front and fins, and white.

Color broadcast

AIM-9L/M/S: guidance section and fins are dark oxidized metal (you can try gunmetal, but very dark grey such as FS37038, or rubber might be just as good), with milky seeker head in stainless steel rim. There is a black D-shaped hatch for access to actuators at the base of the fins. Next is the fuze with circumferential windows (usually grey, but sometimes blue), warhead (FS36375 grey) rocket motor (FS36375 grey) and wings (FS36375 with metallic rollerons). Warhead, motor and wings can also be white, indicating late 70s/early 80s missile.

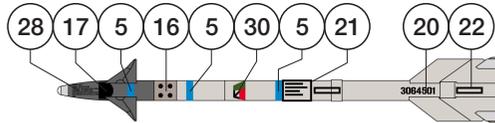
The same general scheme applies to AIM-9D/G/H. Differences are - grey most likely will be FS36473 aircraft grey, and higher probability of white fuselage. There are many variations however, additionally - black-and-white reference photos don't help much judging FS595 colors.

Blue bands on missile indicate inert section, yellow - live HE warhead, brown - live engine.

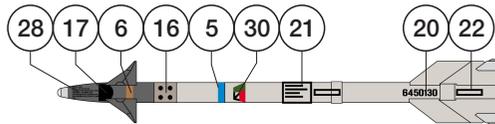
This whole law and order goes down the drain when it comes to ATM-9 training rounds. Generally - grey/white is replaced by blue (dark Blue Angels blue, bright Mediterranean blue or muted Prussian blue) in various proportions. Guidance section can remain in dark oxidized metal, or receive white or blue coat. Same goes for fins and wings. Sometimes missile was carried with fins or wings only.

Russian R-13M are more straightforward. Guidance section and fins are just the same as on AIM-9. Fuze is dark grey (green on Swedish R-13M). Next are warhead, engine sections and wings - all in white, except metallic rollerons. Stencils come in black and red. Red band around warhead indicates live missile.

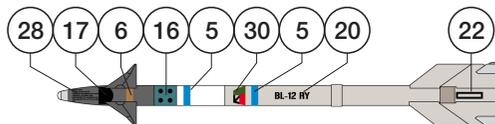
Colors and markings



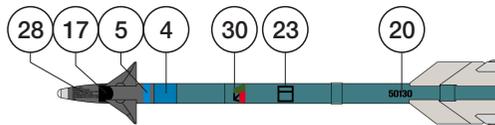
Inert AIM-9M in standard dark oxidized metal (dark grey ~FS37038) front and fins and FS36375 aft-sections and wings.



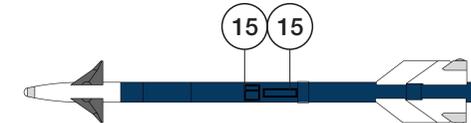
Training AIM-9M with live seeker, but inert warhead, in dark oxidized metal (dark grey ~FS37038) front and fins and FS36375 aft-sections and wings.



AIM-9M as above with white warhead and blue fuze section.



Training AIM-9L (ATM-9L) with dark oxidized metal (dark grey ~FS37038) front and fins, FS36375 wings, and blue (~FS15187) fuze and blue (~FS15183) aft.



Training AIM-9L (ATM-9L) with dark oxidized metal fins (dark grey ~FS37038), white seeker and wings, blue (~FS15050) fuselage.



Training AIM-9L (ATM-9L) with dark oxidized metal fins (dark grey ~FS37038), white wings, blue (~FS15187) nose and warhead and blue (~FS15183) dummy motor.



Training AIM-9L (ATM-9L) with dark oxidized metal fins (dark grey ~FS37038), white wings, blue (~FS15050) nose and warhead and blue (~FS15187) dummy motor.



Training AIM-9L (ATM-9L) with dark oxidized metal front and fins (dark grey ~FS37038), white wings and blue (~FS15187) fuselage.

Belgian AF use(d) drill AIM-9 in red (warhead/motor/wings) with standard oxidized metal guidance section. It is sometimes carried without fins.

In Sweden „AIM-9P" description was replaced by RB-74 (still, could have been "Klippan" or "Malm"...). The good thing about Swedes is they paint their Sidewinders green, which is a bit of a change.

MIM-72 Chaparrals in US Army service follow the established scheme, but being land-based, lighter colors are replaced with greens or blacks. Middle east MIM-72s can be seen in colors more appropriate to sandy backdrop - sand, or bronze/gold.

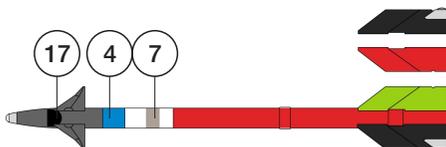
Test articles don't follow any established pattern, therefore the only source of reliable (more or less...) info are the photographs of your exact specimen.

Note

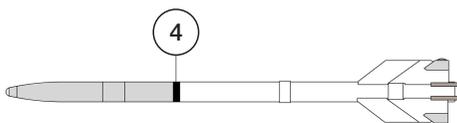
Missile bodies are produced using CNC lathe. Lathe blade has a certain, finite edge radius. Working toward tip of the missile, where radius of body decreases, we arrive at a point when the blade is unable to reach the very tip of round-nosed missile. This leaves a tiny mark.

We guess it is not a big deal for an advanced modeller to sand this scar smooth with few swipes of 1000-grit sandpaper. Worse things happen on daily basis on our workbenches. In return for this slight inconvenience we are able to machine a recessed exhaust nozzle, which we believe will be more appreciated.

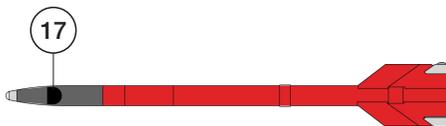
Colors and markings



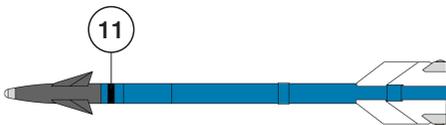
AIM-9L tested on F-8 at China Lake in early 1970s. Standard dark oxidized metal (dark grey ~FS37038) front and fins, blue fuze, white warhead, red fuselage and red-black-fluorescent green wings.



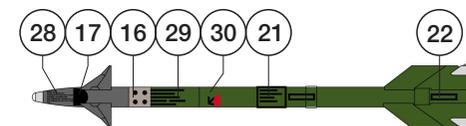
AIM-9L tested on F-8 at China Lake ca 1972. Silver front, white aft. Fins not installed. 4 telemetry antennas at the back.



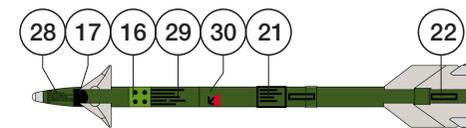
Training AIM-9L of Belgian AF. Dark oxidized metal (dark grey ~FS37038) seeker, red (FS11302) aft-sections and wings. Fin-less option.



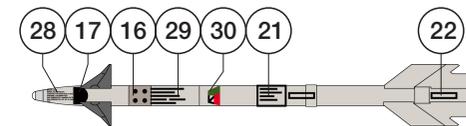
Training AIM-9H (ATM-9H) with dark oxidized metal front and fins (dark grey ~FS37038), white wings and blue (~FS15187) fuselage.



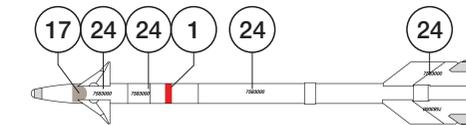
RB-74 of Svenska Flygvapnet. Dark oxidized metal front and fins, green (FS14062) aft parts.



RB-74 with gray (FS36375) fins and wings, green (FS14062) fuselage.



RB-74 with dark oxidized metal fins (dark grey ~FS37038), and FS36375 gray wings and fuselage. No rollerons on wings.



PL-5 - Chinese Sidewinder-a-like. Quite white.