SO114426 1/144 AIM-7 Sparrow / Sky Flash



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-7s were usually white or (later) gray. It translates to many but not very colorful options. Use your reference photos for desired scheme and exact colors. Actually, always use your reference photos!



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Brief history and description of missile

The AIM-7 Sparrow family roots can be traced back to 1940's While working on a project of an beam-riding aerial rocket based on he HVAR components, Douglas engineers found that the size of the HVAR was inadequate for the needed electronics. New, larger body was developed, and AAM-2 Sparrow I was born. Test missiles (XAAM-N-1) were launched from F6F-5K Hellcat drone at the Point Mugu missile test site. There were fears about rocket exhaust damaging the wings of the carrier aircraft so it was decided to use an un-piloted drone for safety. First succesful intercept took place in 1952, Sparrow I found itself carried onboard Skyknights, F7U Cutlasses and F3H-2M Demons. In operation it proved troublesome, due to nature of beam-riding homing system which precluded any maneuvres while intercept but it did pave the way for further development.

The Sparrow II, or XAAM-N-2a, later the AAM-N-3, was an attempt to develop a fully active radar-homing system. It was developed in conjunction with the F5D Skylancer and Canadian Avro Arrow supersonic interceptors. It was too much expected much too early — electronics needed roughly fifteen more years to enable practical application of active radar homing within such small airframe.

The modern Sparrow stems from the AAM-N-6 Sparrow III, which is a semi-active system that tracks based on reflected radar from either ground or airborne control, such as the launch aircraft. This system is far easier to fit within the confines of the rocket body. Raytheon had started development of the semi-active system concurrently with the Sparrow I; it was in US Naval inventory by 1958 and had a production of 7500 rounds. The missile was also selected for the infamous F-110, which later became the F-4 Phantom II. Additional improvements, such as a new solid rocket motor, gave the Sparrow III a 22 mile range. By then, new designations were developed, with the Sparrow I and II becoming the AIM-7A and AIM-7B, and the Sparrow III with its subsequent improvements became the AIM-7C, D, and E, respectively. Over 25,000 AIM-7E's were made.



White late 70s AIM-7. White painted missiles began to vanish at the beginning of 1980s.



White AIM-7, earlier variant. Note aero surfaces painted white. Also note the radome may differ slightly from the rest of missile body.



Inert AIM-7



Display/drill training AIM-7M.



Regular AIM-7 in grey Aero surfaces are dark metallic grey.



Grey became the dominant color of all US missiles in the 1980s.



This one breaks the pattern. Blue color resembles FS25230. And it is made in Japan.



Colors and markings

Shelf

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Vietnam saw the first combat use of the AIM-7E in widespread use. Unfortunately, a combination of several factors led to the missile having less than favourable results, with only a 10% kill ratio. Some of this can be attributed to the same lack of ACM pilot training that affected all engagement kill ratios, but also the tropical environment and both mechanical and electronic issues arose. The worst of these issues was a premature detonation of the warhead, leaving the enemy aircraft unscathed. An improved version of the -7E, dubbed the "dogfight Sparrow," was developed optimized for closer ranges; however, it only improved the kill percentage slightly. Regardless of its shortcomings, the Sparrow's first combat kill came on 7 June 1965 when USN F-4B Phantoms shot down two MiG-17's.

An attempt to rectify some of the shortcomings of the Sparrow led to the development of the AIM-7F, which became available in 1976. It had a new dual-stage rocket motor, solid-state electronics, and a more powerful warhead. The introduction of the F led to further improvements in overseas-licensed versions such as the BAe Skyflash in Great Britain and the Italian Alenia Aspide.

The AIM-7M entered service in 1982 and featured several of the improvements found on the Skyflash, such as the new inverse monopulse seeker, and a few other improvements including an active radar fuse, digital controls, improved ECM resistance, and better low-altitude performance. Its baptism of fire came in Desert Storm with a 40% kill probability. Additional improvements brought about the AIM-7P which is externally the same as the AIM-7M. M's were upgraded, but for the most part — simply replaced by P. Sparrows replacement took the form of AIM-120 AMRAAM.

Colors?

Not much fun here. Sparrows are dragging way behind Sidewinders. Grey and white is the predominant theme. Blue bands traditionally indicate training or inert round. Yellow band warns of live warhead and brown band denotes rocket motor ready to roll. Seek for variations in radome color to add a bit of life to overall white units.



AIM-7 as it appeared at the side of XF8U-3 Crusader.



Inert AIM-7 with front section white and motor section grey.



20

Rb 71 – Sky Flash built under license and sold in flat packages for self assembly.

8 (22)

B 4532 b

23



Rb 71. This one is very disappointing.

8 18 9 4 17

Sky Flash

Colors and markings

Shelf Oddity