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AIM-120B/C
AGM-88C

Advanced MediumRange Air-to-Air Missile
High Speed Anti-Radiation Missile

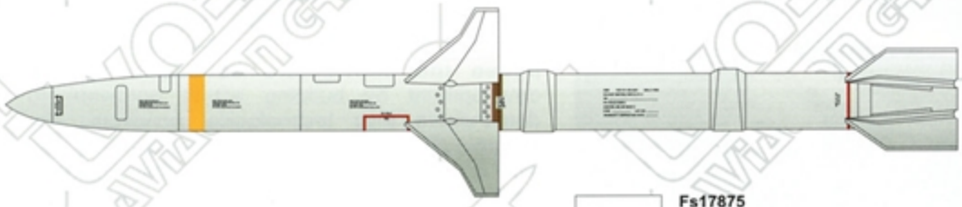
WHAT's OUT THERE?
1/48th Hasegawa Weapons Set C (AGM-88)
1/48th Hasegawa Various Kits (AIM-120B/C)

Fins are an anodized,dark metal color

AIM-120B AMRAAM

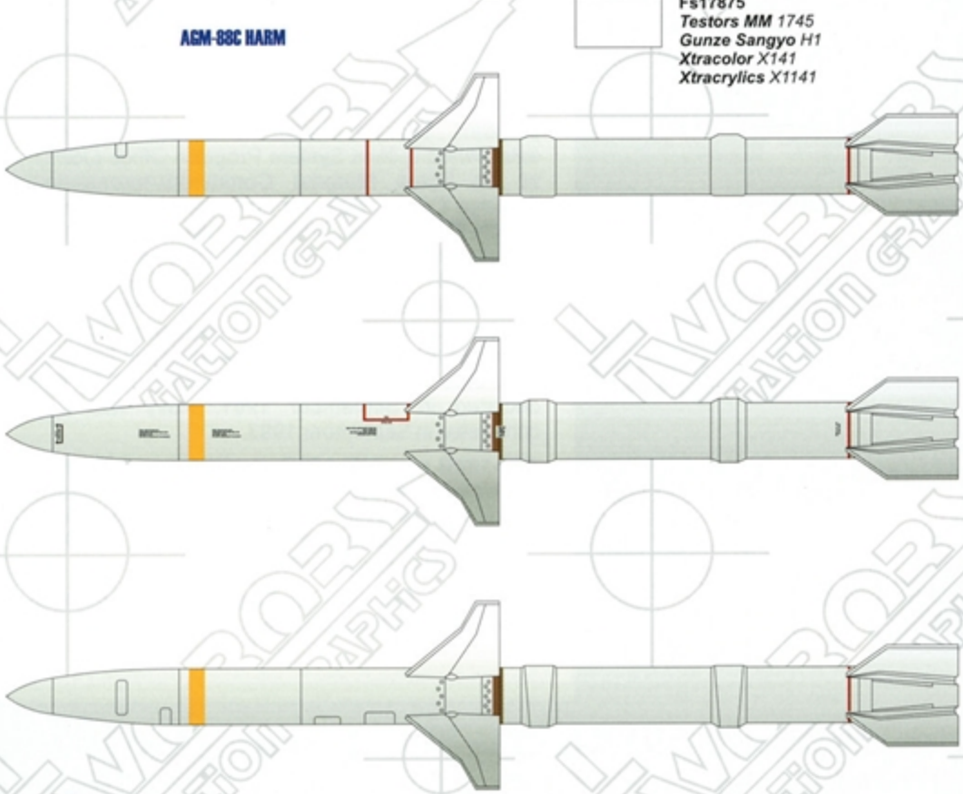
Fs36375
Testors MM 1728
Gunze Sangyo H308
Xtracolor X136
Xtracrylics X1136

AIM-120C markings are identical with the exception of the data plate.



AGM-88C HARM

Fs17875
Testors MM 1745
Gunze Sangyo H1
Xtracolor X141
Xtracrylics X1141



AGM-88 HARM

The AGM-88 HARM (high-speed antiradiation missile) is a supersonic air-to-surface tactical missile designed to seek and destroy enemy radar-equipped air defense systems. The AGM-88 can detect, attack and destroy a target with minimum aircrew input. Guidance is provided through reception of signals emitted from a ground-based threat radar. It has the capability of discriminating a single target from a number of emitters in the environment. The proportional guidance system that homes in on enemy radar emissions has a fixed antenna and seeker head in the missile nose. A smokeless, solid-propellant, dual-thrust rocket motor propels the missile. The Navy and Marine Corps F/A-18 and EA-6B have the capability to employ the AGM-88. With the retirement of the F-4, the F-16C is the only aircraft in the current Air Force inventory to use the AGM-88. The B version has an improved guidance section which incorporates an improved tactical software and electronically reprogrammable memory.

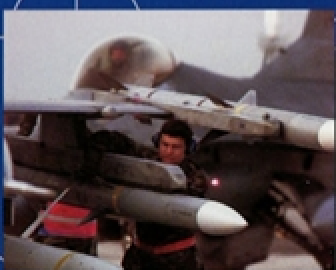
The AGM-88 missile was approved for full production by the Defense Systems Acquisition Review Council in March 1983. The Air Force equipped the F-4G Wild Weasel with the AGM-88 to increase the F-4G's lethality in electronic combat. The missile worked with the APR-47 radar attack and warning system on the aircraft. The missile is operationally deployed throughout the Air Force and in full production as a joint US Air Force-US Navy project. HARM continues to prove its value against continuously emitting threat radar. Over 80 missiles were fired from USN/USMC aircraft both during and post Desert Fox.

The AGM-88A/B HARM is an evolution of anti-radiation missile weapon systems, SHRIKE and STANDARD ARM. HARM incorporates the more desirable features of each while providing additional capabilities that enhance operational effectiveness. Although generally similar in appearance and mission to the AGM-45 Shrike, produced more than 25 years prior to the AGM-88, the AGM-88 HARM is several feet longer than an AGM-45, has a slightly-enlarged diameter a foot back from the nose, and has a slightly greater diameter overall. The AGM-45 also has an RF window/slot on the side, not present on the AGM-88.

The system consists of the guided missile, LAU-118(V)1/A launcher, launch aircraft, and HARM peculiar avionics. The weapon system has the capability of detecting, acquiring, displaying, and selecting a radiating threat and launching a missile or missiles. The HARM Missile receives target parameters from the launch aircraft prior to launch. The HARM Missile uses these parameters and relevant attitude data to process incoming RF energy to acquire and guide the HARM Missile to the desired target. The HARM missile has a terminal homing capability that provides a launch and leave capability for the launch aircraft. Additional unique features include the high speed, low smoke, rocket motor and seeker sensitivity that enable the missile to easily attack sidelobes and backlobes of an emitter.

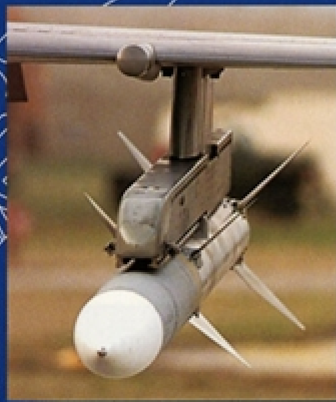
New systems and/or improvements to existing systems are required to ensure successful accomplishment of the lethal SEAD mission. An upgrade to Harm Targeting System (HTS) was fielded in 1999. Eventual augmentation or replacement of the HTS with an improved emitter targeting and passive identification system will provide expanded frequency coverage, more precise target location information and unambiguous emitter identification capability. Multi-ship targeting will provide great improvements in targeting accuracy and timeliness. It will require data link capability for real-time targeting of both reactive and preemptive target sets.

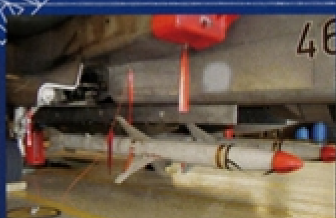






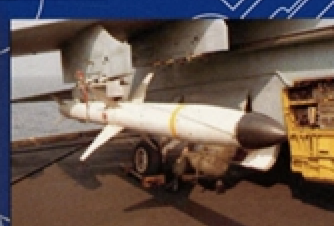









AIM-120B/C AMRAAM

AMRAAM is a supersonic, air launched, aerial intercept, guided missile employing active radar target tracking, proportional navigation guidance, and active Radio Frequency (RF) target detection. It employs active, semi-active, and inertial navigational methods of guidance to provide an autonomous launch and leave capability against single and multiple targets in all environments.

The AMRAAM weighs 340 pounds and uses an advanced solid-fuel rocket motor to achieve a speed of Mach 4 and a range in excess of 30 miles. In long-range engagements AMRAAM heads for the target using inertial guidance and receives updated target information via data link from the launch aircraft. It transitions to a self-guiding terminal mode when the target is within range of its own monopulse radar set. The AIM-120 also has a "home-on-jam" guidance mode to counter electronic jamming. With its sophisticated avionics, high closing speed, and excellent end-game maneuverability, chances of escape from AMRAAM are minimal. Upon intercept an active-radar proximity fuze detonates the 40-pound high-explosive warhead to destroy the target. At closer ranges AMRAAM guides itself all the way using its own radar, freeing the launch aircraft to engage other targets.

The AIM-120 grew out of a joint agreement, no longer in effect, among the United States and several NATO nations to develop air-to-air missiles and to share the production technology. The AMRAAM program was established as a result of Joint Service Operational Requirement for an Advanced Air-to-Air Tactical Missile needed in the post-1985 time frame. The AMRAAM program began with a 1975 study which recommended that future aerial threats be engaged at 3-40 miles of range.

The AMRAAM program completed its conceptual phase in February 1979 when the U.S. Air Force selected two of five competing contractors, Hughes Aircraft Co. and Raytheon Co., to continue into the validation phase. During the 33-month validation phase the contractors continued missile development by building actual hardware to demonstrate their technological concepts. The program phase concluded in December 1981 after both contractors demonstrated that their flight-test missiles could satisfy Air Force and Navy requirements. The Air Force competitively selected Hughes Aircraft Co.'s Missile System Group, Canoga Park, Calif., as the full-scale developer.

AMRAAM is managed as a joint Air Force and Navy program. The Air Force, as executive service, established a Joint System Program Office (JSPO) at Air Force Material Command/Aeronautical Systems Center, Eglin Air Force Base, Fort Walton Beach, Florida. The JSPO is headed by the Air Force Deputy for AMRAAM (Code ASC/YA) and the Navy AMRAAM Program Manager, Air (PMA268). AMRAAM is currently in the Production, Fielding/Deployment and Operational Support Phase of the Weapon System Acquisition Process. Air Force Initial Operating Capability (IOC) was declared in September 1991. Navy IOC was completed in September 1993.

AIM-120B and **AIM-120C** versions are currently in production, the latter with smaller control surfaces to permit increased internal carriage capability in the F-22. AIM-120B deliveries began in FY 94, and AIM-120C deliveries began in FY 96.

Information Courtesy of Federation of American Scientists (http://www.fas.org)

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